Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
1	**Socket Preservation Following Extraction A Review Article**	K Vandana Shenoy., Preethi R., Udhaya Soundharya Mangai., Laavanya., Dr. K.mohamed Afradh	International Journal of Innovative Science and Research Technology	**SDG 3**	Extraction socket preservation (ESP) is widely performed after tooth extraction for future implant placement. For successful outcome of implants after extractions, clinicians should be acquainted with the principles and indications of ESP. It is recommended that ESP be actively implemented in cases of esthetic areas, severe bone defects, and delayed implant placement. Dental implant placement is recommended at least 4 months after ESP.
2	**Awareness about Tooth Extraction among General Public: A Survey**	Satish Kumar., P Varsha., T Mathi Bharathi., K Vandana Shenoy., Dr. K.mohamed Afradh	International Journal of Innovative Science and Research Technology	**SDG 3**	Tooth extraction is a dental procedure that involves removal of tooth from the alveolar socket with the help of local anesthesia to numb pain by a dentist. The purpose of this survey is to evaluate the basic knowledge of general public regarding dental extraction. An online based questionnaire study consisting of 15 questions regarding dental extraction was carried out to assess among 250 general people across Chennai, Tamilnadu through Google forms. The results of this study shows the lack of awareness and knowledge about dental extraction among general public though they were aware of few basics involved. The carelessness and misconceptions of their dental health observed among the people clearly shows the need of creating awareness among them.
3	**Deep Learning Neural Networks for Online Monitoring of the Combustion Process From Flame Colour in Thermal Power Plants**	Tamilselvi C., Kesavan Sujatha., Sivanand R., Balasubramanian Rengammal Sankari., Latha Balasubramanian., Selvanathan Krishnaveni	Convergence of Deep Learning and Internet of Things	**SDG 7**	The combustion quality determination in power station boilers is of great importance to avoid air pollution. Complete combustion minimizes the exit of NOx, SOx, CO, and CO2 emissions, also ensuring the consistency in load generation in thermal power plants. This chapter proposes a novel hybrid algorithm, called black widow optimization algorithm with mayfly optimization algorithm (BWO-MA), for solving global optimization problems. In this chapter, an effort is made to develop BWO-MA with artificial neural networks (ANN)-based diagnostic model for onset detection of incomplete combustion. Comparison has been done with existing machine learning methods with the proposed BWO-MA-based ANN architecture to accommodate the greater performance. The comprehensive analysis showed that the proposed achieved splendid state-of-the-art performance.
4	**Review on Hemorrhage and Its Management During Minor Oral Surgery**	Mohammed Afradh., S Lubnaz., Maneesha V Nair., Vanthana Shenoy., Laavanya	International Journal of Research Publication and Reviews	**SDG 3**	Hemostasis is the physiological process where in bleeding is stopped at the site of an injury while maintaining normal blood flow elsewhere in the circulation. Hemostatic plug formation is the first step in this process. Blood is maintained in its fluid state by endothelium, but in case of a damaged vessel, components of the subendothelial matrix are exposed to the blood. Many components activate the two main processes of hemostasis to initiate blood clot formation, composed primarily of fibrin and platelets. This process is activated in seconds of injury but must remain localized to the site of injury. Hemorrhage can be a deterrent during surgical procedures and controlling it could be a challenging proposition. Causes for intraoperative hemorrhage may vary considerably and may be dependent on various factors from anatomical to physiological to iatrogenic.
5	**EPIDEMIOLOGICAL STUDY ON PATTERN OF DYSLIPIDAEMIA AMONG TYPE II DIABETIC PATIENTS IN A TERTIARY CARE HOSPITAL IN CHENNAI - A CROSS-SECTIONAL STUDY**	Archana Devi M., Ravin Devasir Sathyaseelan., Arun Kumaran Paneerselvam., Mounika Jetti., Noor Mohamed Rasik B	International journal of academic medicine and pharmacy	**SDG 3**	Diabetes mellitus is a significant risk factor for cardiovascular disease and atherosclerosis as it is a common secondary cause of hyperlipidaemia when glycaemic control is poor. The Prevalence of dyslipidaemia in type 2 diabetes is double concerning the general population. Therefore, early detection and treatment of dyslipidaemia can avoid the risk of cardiovascular disorder in diabetic patients. The present study aimed to find out the pattern of dyslipidaemia in type 2 diabetic patients in tertiary care hospitals in Chennai.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
6	**LOSSLESS IMAGE COMPRESSION USING DIFFERENT ENCODING ALGORITHM FOR VARIOUS MEDICAL IMAGES**	T Sujatha., Kirshnamoorthy Selvam	ICTACT journal on image and video processing	**SDG 3**	This paper introduces a new method of compressing digital images by using the Difference Transform applied in medical imaging. The Difference Transform algorithm performs the decorrelation process of image data, and in this way improves the encoding process, achieving a file with a smaller size than the original. The proposed method proves to be competitive and in many cases better than the standards used for medical images such as TIFF or PNG. In addition, the Difference Transform can replace other transforms like Cosine or Wavelet.
7	**Ferric Sulfate in Dentistry – A Review**	R Mithun Desikan., Joyson Moses., Sharanya L	International Journal of Research Publication and Reviews	**SDG 3**	Ferric sulfate (FS) has been commonly used as a local hemostatic agent for more than three decades in dentistry. Even though the hemostatic mechanism of FS is questioned, it seems that agglutination of blood proteins occurs due to the reaction of blood with ferric and sulfate ions in acidic pH. FS has gained widespread importance as a pulpotomy medicament in contemporary dentistry; nevertheless, it has several applications in different fields of dentistry which was paid little attention. Hence, the purpose of this paper is to review the various applications of FS in dentistry, along with restorative dentistry and endodontics.
8	**Maxillofacial Osteoradionecrosis: Review**	K Senthil Kumar., Adithya Nair Nv., G Gayathri., C S C Sathish Kumar	International Journal of Research Publication and Reviews	**SDG 3**	Osteoradionecrosis is one of the most serious oral complications of head and neck cancer treatment. It is a severe delayed radiation-induced injury, characterized by bone tissue necrosis and failure to heal for at least 3 months. In most cases osteoradionecrosis gradually progresses, becoming more extensive and painful that leads to infection and pathological fracture. The present paper provides a literature review and update on the risk factors underlying osteoradionecrosis, its clinical and diagnostic particulars, prevention and most widely accepted treatment options including the latest treatment modalities. Lastly, a new early management protocol is proposed based on the current clinical criteria relating to osteonecrosis secondary to treatment with bisphosphonates, together with the adoption of new therapies supported by increased levels of evidence.
9	**Mobile Applications for Pediatric Dentistry-A Review**	K Senthil Kumar., Adithya Nair Nv., G Gayathri., C S C Sathish Kumar	International Journal of Research Publication and Reviews	**SDG 3**	The rise in the use of smartphone users has gone up in great numbers in the past decade. There almost nothing that is left out that can't be assessed through a smart phone and also the pandemic creating social distancing between the dentist and the patient, smartphone has been an excellent tool for tele-dentistry. This article provides an overview to some of the apps which are available in playstore which could be used by pediatric dentists and also could be recommended to their patients and parents.
10	**Mobile Applications for Pediatric Dentistry-A Review**	Sk Shahil Rahman., Joyson Moses	International Journal of Research Publication and Reviews	**SDG 9**	The rise in the use of smartphone users has gone up in great numbers in the past decade. There almost nothing that is left out that can't be assessed through a smart phone and also the pandemic creating social distancing between the dentist and the patient, smartphone has been an excellent tool for tele-dentistry. This article provides an overview to some of the apps which are available in playstore which could be used by pediatric dentists and also could be recommended to their patients and parents.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
11	**Corrigendum to â€œAlveolar Rhabdomyosarcoma of Spine in an adult masquerading as Pott's spineâ€ [J. Orthop. Rep. 1(3) (2022) 100053]**	Madhan Jeyaraman., Naveen Jeyaraman	Journal of Orthopaedic Reports	**SDG 3**	Spinal rhabdomyosarcoma (RMS) is a rare yet highly malignant tumor in adults. Literature on this entity is lacking and no mature treatment guideline is currently available. The treatment arsenals include surgery, radiotherapy and chemotherapy, being used singly or jointly. However, the prognosis is dismal, with a mean overall survival period of 10 months. Thus, any case of this disease with encouraging outcomes shall be shared. A case of a middle-aged female patient with spinal RMS was presented in the current report. The patient suffered from back pain but was neurologically intact. The patient underwent a total en-bloc spondylectomy of the T11-L2 vertebrae and spinal reconstruction with 3D-printed prosthetic vertebrae. Afterwards, the patient received a rigid schedule of stereotactic body radiotherapy (SBRT) and chemotherapy.
12	**"Non-traumatic simultaneous bilateral neck of femur fracture in a 9-year old child: A case report and review of literature"**	Nishant D Goyal., Nikhil Valsangkar., Shekhar Shrivastav., Madhan Jeyaraman	Journal of Orthopaedic Reports	**SDG 3**	Bilateral, simultaneous, non-traumatic, pathological femur neck fractures due to renal osteodystrophy (RO) in chronic renal failure cases are uncommon but are increasingly being reported in the literature. Seizure episodes due to uremic encephalopathy could lead to such fractures.
13	**Alveolar Rhabdomyosarcoma of Spine in an adult masquerading as Pottâ€™s spine**	Madhan Jeyaraman., Naveen Jeyaraman	Journal of Orthopaedic Reports	**SDG 3**	Spinal rhabdomyosarcoma (RMS) is a rare yet highly malignant tumor in adults. Literature on this entity is lacking and no mature treatment guideline is currently available. The treatment arsenals include surgery, radiotherapy and chemotherapy, being used singly or jointly. However, the prognosis is dismal, with a mean overall survival period of 10 months. Thus, any case of this disease with encouraging outcomes shall be shared. A case of a middle-aged female patient with spinal RMS was presented in the current report. The patient suffered from back pain but was neurologically intact. The patient underwent a total en-bloc spondylectomy of the T11-L2 vertebrae and spinal reconstruction with 3D-printed prosthetic vertebrae. Afterwards, the patient received a rigid schedule of stereotactic body radiotherapy (SBRT) and chemotherapy. To date, the patient has survived for 40 months, with the preservation of neurological function and sustained mitigation of local pain after the operation. The patient suffered subcutaneous colonization of tumor cells and pulmonary metastasis 10 months postoperatively, but obtained a long locoregional control of 19 months. In conclusion, total en-bloc lesion resection is indicated for the treatment of isolated, primary spinal RMS in adults. Some authors reported that the usage of new surgical tools and instruments has facilitated surgery, which was previously invasive and technically challenging. Advanced radiotherapy techniques, such as SBRT, which were proven effective for local lesion control, should be implemented early after the operation. Chemotherapy remains the mainstay of treatment, but further research and evidence for the efficacy of regimens specifically for adults are required.
14	**"Assessing the Total Testing Process in the Clinical Biochemistry Laboratory at Tertiary Care Hospital, Chengalpattu District- A Cross sectional Study"**	Preethi S., Ravi Prasad D., Ramya S., V V Anantharaman., Kaveri P	Journal Of Coastal Life Medicine	**SDG 3**	In the current healthcare industry, laboratory services have been cited as one of the key processes promoting safe patient care. The diagnostic decision-making process, however, is hampered by errors that occur in the overall testing processes. This study's goal was to evaluate testing errors across the board in the Clinical Biochemistry Laboratory of the Tertiary Care Hospital Laboratory, Chengalpattu.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
15	**"Clinical Considerations on Biofunctional Prosthetic System- A review on New Era of Complete Denture Fabrication"**	M A Eswaran., R Kavitha., V Dev Anand	International Journal of Recent Advances in Multidisciplinary Topics	**SDG 9**	Traditional complete denture prosthesis imparts several problems such as poor retention, insufficient stability, denture sores, with severe pain, and discomfort, resulting in mastication, speech, nutritional and functional defects over a period of time. In order to overcome this difficulty, Biofunctional prosthetic system (BPS) is designed to enhance satisfaction, comfort, function and aesthetic to the patient. Furthermore, BPS also required fewer visits for the patients as it follows a simple, standardized system for fabricating complete dentures thus minimizing the appointment time, with better aesthetic outcome. Literature studies, clinical trials and case reports focusing on advantages of biofunctional prosthetic system in comparison to conventional complete dentures were published frequently. In accordance with this, the present review was carried out to briefly elaborate various aspects of BPS in prosthetic set-up based on the available literature with special emphasis on clinical consideration associated with its rehabilitation practice. Based on several observations, we conclude BPS as a superior technique in complete denture fabrication owing to its enhanced esthetics, form, function and comfort from a patient's perspective than the conventional one and increased patients Oral Health Quality of Life. (OHQoL). Nonetheless, further extensive research, clinical trials and long-term follow up studies on treatment outcomes are required to establish the superiority of BPS technique in prosthetic full mouth rehabilitation.
16	**"Nanotechnology- A Review on Application of Nanotechnology in Orthodontics"**	R Kavitha., N Sarassri., R V Silambarasan., Karthikeyan., R Vinoth Kumar., P Rajakumar	International Journal of Recent Advances in Multidisciplinary Topics	**SDG 9**	Nanotechnology is manipulating matter at nanometer level. This concept can be applied to the field of medicine and dentistry with the terms Nanomedicine and Nanodentistry being used respectively. Nanotechnology holds promise in many areas like advanced diagnostics, targeted drug delivery and biosensors. It has several applications in dentistry as well, from diagnosis of pathological conditions to local anesthesia, orthodontic tooth movement and periodontics. Biomaterials science has also greatly benefited by this technology. This review provides an early glimpse on the impact and future implication of nanotechnology in orthodontics.
17	**"Continuous Fixed-Bed Column Studies of Textile Effluent Treatment using Multi-Walled Carbon Nanotubes Originated from Rosmarinus officinalis Oil"**	K Gopal., S Valliammai., R. Nithya., L. Ramapriya., D. Kavitha	Journal of Environmental Nanotechnology	**SDG 6**	A continuous adsorption study in a fixed-bed column was carried out using Multi-walled Carbon Nanotubes (MWNTs) derived from Rosmarinus officinalis oil as an adsorbent for removing the textile dye and Acid blue 40 from an aqueous solution. MWNTs were prepared from Rosmarinus officinalis oil as a precursor using Fe/Mo catalyst supported on silica at 650 ºC under N2 atmosphere by spray pyrolysis process characterized by Scanning Electron Microscopy, Transmission Electron Microscopy and Raman spectroscopy. The effects of adsorbent bed height (2–6 cm), initial dye concentration (20-60 mg/L) and flow rate (10–30 mL/min) on the column performance were analyzed. The breakthrough curve was analyzed using the mathematical models of Thomas, Yoon-Nelson and bed depth service time. The Thomas model at different conditions defined the behaviors of the breakthrough curves. The bed depth service time model showed good agreement with the experimental data. The high values of correlation coefficients (R2 : 0.9875) obtained indicate the validity of the bed depth service time model for the present column system.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
18	**"Role of Orthodontics in Obstructive Sleep Apnea- A Literature Review"**	P X Anila Xavie., K Zainap Shariffa., Edward Chi Chen Ma., S Vaishnavi., Vivekanandan	International Journal of Recent Advancesin Multidisciplinary Topics	**SDG 3**	Dental sleep medicine is the field of dental practice that deals with the management of sleep-related breathing disorders, which includes obstructive sleep apnea (OSA) in adults and children. Depending on the developmental age of the patient and the cause of the apnea dental treatment options may vary. For adult patients, treatment modalities may include oral appliance therapy (OAT), orthognathic surgery and surgical or miniscrew supported palatal expansion. While for children, treatment may include non-surgical maxillary expansion and orthodontic functional appliances. Many physicians and dentists are unaware of the role dentistry, particularly orthodontics, may play in the interdisciplinary management of these disorders. This review article is an attempt to compile evidence-based relevant information on the role of orthodontists/sleep dentists in the screening, diagnosis, and management of sleep apnea. Oral sleep appliance mechanisms of action, selective efficacy, and the medical physiological outcomes are discussed. The purpose of this review is to provide a comprehensive understanding of how orthodontists and sleep physicians can work in tandem to maximize the benefits and minimize the side effects while treating patients with OSA.
19	**"AN EXPERIMENTAL EVALUATION OF CLUSTERING AND CLASSIFICATION OF HIGH-SPEED DIMENSIONAL DATA STREAM IN DYNAMIC FEATURE SELECTION"**	G Senthil Velan., K Somasundaram., V N Rajavarman	Journal of Management Information and Decision Sciences	**SDG 9**	There are many methods to alter the data flow theoretically and operationally. When new and extra features are introduced to the stream, or when the significance and relevance of a feature changes as the stream proceeds, a feature-level shift happens. This kind of shift has not garnered as much attention as conceptual alterations. Several clustering techniques (including density, drawing, and grid methods) utilize some kind of distance as a similarity metric, which is problematic with high-dimensional data, since the curse of dimensionality may lead to distance measurement, and any The ideas are extremely tough. calculate. We propose merging them and rephrasing them as feature selection issues, or more specifically dynamic feature selection problems, rather than attempting to answer each of these problems separately. We suggest utilising dynamic feature masks that vary over time to categorize big data streams. n Take action to group similar characteristics that have not been protected. When the perceived significance of characteristics changes, the mask will be changed to reflect the change; before that, smaller features will be unmasked, and comparable features will be disguised as required. In addition, the suggested technique is versatile and may be utilised with all popular density clustering methods, which lack a drift response mechanism and are impacted when dealing with huge volumes. Two texts and two picture sequences are utilised for assessment. The suggested dynamic function mask enhances the efficiency of grouping in all directions and lowers the processing time needed by the basic approach.
20	**"AN EXPERIMENTAL STUDY ON THE ROLE OF SOCIAL MEDIA ON FEMALE BODY IMAGE AMONG COLLEGE STUDENTS"**	Tamilselvi N., B Saranya	Journal of Hunan Universityï¼ˆNatural Sciencesï¼‰	**SDG 10**	“Beauty is in the eye of the beholder,” as the saying goes. The purpose of this paper is to understand and criticize the role of social media in the development and/or encouragement of eating disorders and body image dissatisfaction among college girls. Most of the data gathered in this study was collected from colleges and offices of the city of Chennai, from previous studies on related issues and from media itself. This study was conducted using experimental research methods, mostly through surveys through questionnaire likely to be affected by changing standards of beauty or likely to have significant numbers of interactions related to these changing standards. The findings of this study are that cultural standards of beauty in India are narrowing and conforming to more international standards, and that these changes are causing new physical and psychological problems to be introduced into Indian society.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
21	**"Knowledge, Awareness and Attitude on Covid-19 Vaccines among Students of Various Health Care Professionals in India-A Cross Sectional Survey"**	R V Silambarasan., A Magdline., Jenifer Romeo., Uma Sudhakar	International Journal of Recent Advances in Multidisciplinary Topics	**SDG 3**	Even after the enforcement of the lockdown, the government was unable to control the spread of the COVID-19 infection. Vaccination is the only remaining hope for preventing and controlling COVID-19 infections. The knowledge and attitude of the recipients can influence vaccine acceptance. In this study, we aim to assess the knowledge and attitude toward the COVID-19 vaccine among the general rural population of India.
22	**"Intelligent Packaging Systems: Food Quality and Intelligent Medicine Box Based on Nano-sensors":**	Imran Khan., Shuai Wei., Ramachandran Chelliah., Inamul Hasan Madar., Ghazala Sultan., Eric Banan-mwine Daliri., Caroline Mercy Andrew Swamidoss	Smart Nanomaterials in Biomedical Applications	**SDG 2**	The issue of drug non-compliance has triggered significant hazard to public safety, as well as substantial financial loss. The new omnipresent medicine-based networking system addresses new challenges posed by the Internet of Things (IOT). In addition, an in-home healthcare station (IHHS) is required to encounter the fast-growing routine nursing and on-site diagnosis and prognosis demands. A universal and preventive drug management approach is proposed in this paper based on intelligent and interactive packaging (I2Pack) and iMedBox. The Controlled Delamination Material (CDM) seals smart drug packaging and controls wireless technology. Using the wireless link, wearable biomedical sensors may collect various vital parameters. High-performance architecture facilitates on-site treatment and prediction of these essential parameters. In addition, friendly user interface is stressed to ease surgery for the aged, disabled, and patients. Land trials incorporate and validate an I2Pack and iMedBox prototyping method. In addition across all areas of the life sciences, the trend towards sustainability, improved product safety, and quality standards is significant. Intelligent packaging is also applied in the food and pharmaceutical industry to meet these criteria. These systems will permanently monitor a product's quality status and exchange details with the consumer.
23	**"STOCK MARKET PREDICTION USING MACHINE LEARNING":**	Gautam Kumar Gupta., Palamadai Subramanian Rajakumar., Ramesh Babu Veeraiya	Compliance Engineering Journal	**SDG 8 and SDG 9**	In Stock Market Prediction, the aim is to predict the future value of the financial stocks of a company. The recent trend in stock market prediction technologies is the use of machine learning which makes predictions based on the values of current stock market indices by training on their previous values. Machine learning itself employs different models to make prediction easier and authentic. The paper focuses on the use of Regression and LSTM based Machine learning to predict stock values. Factors considered are open, close, low, high and volume.
24	**"Indications for Use of Preformed Crowns in Pediatric Dentistry":**	P Aishwarya., Joyson Moses., R Sharanya	International Journal of Research Publication and Reviews	**SDG 3 and SDG 4**	5 The purpose of this review is to compare and contrast the various types of preformed crowns that can be used to restore the primary teeth in children. Historically, preformed crowns have been widely available for the past 50 years. The clinical performance of preformed crowns has evolved to meet higher functional, mechanical, and aesthetic demands. Preformed crowns are available in a range of prefabricated sizes and shapes. Preformed crowns can vary depending on their properties, compounds, methods of preparation, and biocompatibility.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
25	**"Supremacy of Power Electronic Technologies and their Applications in Modern Operating Converters in Smart Grid"**	Boddu Tejaswini., Edwin Sheeba Percis	2022 6th International Conference on Electronics, Communication and Aerospace Technology	**SDG 7 and SDG 9**	Smart grid is a recent trend and growing technology to control modern electric power systems which is a more reliable, secure and protective, and advanced electricity supply network. Nonlinear power converters were shown to be incapable of preserving power quality in the manner expected. The breakthroughs in power electronics technology have made it possible for me to conduct my research. All power electronic technologies, including High Voltage Direct Current (HVDC) transmission, Flexible AC Transmission Systems (FACTS), and power quality technologies, are based on the concepts of power electronics. It is already possible to reduce switching current tensions by the application of electronic technology in modular multi-level converters(MMC), which are currently being employed in switching current topologies. The results of our research can be used to improve and optimise grid stability as well as power quality concerns, thus minimising the demand for specialised power electronics technology.
26	**"AN EXPLORATORY ANALYSIS ON THE PRACTICE OF MEDIATION IN MATRIMONIAL DISPUTE CASES IN INDIA"**	Remya Mariam Raju., R Thilagaraj	KDU International Journal of Criminal Justice	**SDG 5 and SDG 16**	Dispute resolution through negotiation has long been a part of the Indian legal tradition, though the Civil Procedure Code, 1908, was only amended in 1999 to include different mechanisms for out-of-court dispute resolution. This amendment brought mediation into focus as a key form of alternate dispute resolution. Data from Bangalore Mediation Centre points to issues in the mediation framework that must be addressed before mediation can be seen as an effective mechanism to resolve matrimonial disputes. These include inadequate training of mediators, judges giving mediation referrals without proper consideration, gendered power imbalances, and prioritising the institution of marriage over individuals' interests. This paper argues for an evidence-based approach to studying matrimonial cases and mediation.
27	**"Cloud Based Electrical Power Management System Using JDBC"**	Narendra Pal Singh Rathore., Jarabala Ranga., Dr. B. Swapna., M Sai Veerraju., Krishna Tomar., Ayan Banik	2022 International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)	**SDG 7 and SDG 9**	Electricity is one of the most important features in life and it is the predominant part of life as most of our life is dependent on this only and electricity play a predominant role in the day-to-day activities. So, maintaining the electricity and the post-production through the unit of power consumption should be clear and neat. This necessitates the need to develop an engaging system that connects to the database and work flawlessly 24/7. The proposed system made the work easier and ensure full attention. The electricity bill management system effortlessly brings down the manpower and it produces a friendly environment between the consumer and admin. The proposed system uses Java for the front end and SQL for the back end. SQL is one of the leading platforms for the database. This doesn't need any mastery and they can be easily adapted within a past time. The proposed system is used to control the power consumption by the user by calculating the number of units. Thus the front end of the proposed system is designed by Java to enhance the feature of the system. As most of the systems are deployed with simple features this provides a higher version of credit to the system.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
28	**"Design of Voice based Virtual Assistant using Internet of Things"**	V P Sriram., D Kamalakkannnan., T Archana., Anandbabu Gopatoti., Dr. B. Swapna., Ajay Singh Yadav	2022 International Conference on Augmented Intelligence and Sustainable Systems (ICAISS)	**SDG 9 and SDG 11**	Virtual assistance is one of the most important features in everyday life. People nowadays rely on the enhanced features of virtual assistance. The proposed system is used for the propulsion of the technology that is been in need. The virtual assistance in the process is costly and needs more manpower to build them. The proposed system embellishes the cost-effective nature and the maintenance of the system will be very efficient the hardware used is made to give a good life balance and they will not get perished as time goes over. The Proposed system recognizes the voice that has been recorded and analyses them for command retrieval. The user can add as many as many voices as they can. The Process of adding the voices are user friendly and the method of making the commands reliable and commendable depend on the performance ratio of the hardware. The most important feature in the proposed system is the hardware construction. In this system Raspberry Pi is used for the construction of the CPU and the voice control unit is designed with voice recognition sensors. The correctness and the effective time being are processed by the microphones connected to the system. The sheerness of the system relies on the microphone only. The microphone plays a major role in the proposed system as such the microphone helps us to recognize the voice and repeat the commands that have been commenced by the user. The Virtual used here is manual assistance through the Linux platform. It is a new venture in the phenomenal wave.
29	**"INTEGRITY OF THE DENTITION AND ITS EFFECT ON SYSTEMIC HEALTH IN CHILDREN – A REVIEW"**	Rangeeth B Nammalwar., Priyaa Rangeeth	Journal of Indian Dental Association Madras	**SDG 3**	A healthy child becomes a healthy adult that depends on various factors and digestion to efficiently absorb nutrients playing a major role. The digestion of food is central to human nutrition, health and wellbeing. The function of the jaws and teeth primarily being to transform the food into a more digestible form by combining it with saliva that contains digestive enzymes which is very important in the digestive process and absorption of nutrients into the blood stream. Recognizing the importance of oral health is the key to the healthy development of children and detection of oral conditions must be made mandatory when encountering malnutrition.
30	**"Complications of Lefort I Osteotomies- A Review on Pre and Post-Operative Implications"**	Pradeep Christopher Jesudas., S Felix Samuel Spurgeon., S Ajay Immanuel Subin., K Senthil Kumar., Dr. K.mohamed Afradh., C S C Satish Kumar	International Journal of Recent Advancesin Multidisciplinary Topics	**SDG 3**	LeFort I osteotomy is routinely performed for reduction of complex midfacial fractures, correction of maxillary- zygomatic deformities, and severe orthodontic malocclusion requiring elective orthognathic surgery thus allowing movement with segmentation expansion effectively. Despite developments in the field of orthognathic surgery, a wide range of intra operative and post-operative complications like hemorrhage, neurosensory deficit, maxillary sinusitis, aseptic necrosis, Malunion, maxillary instability, loss of tooth vitality, ophthalmic problems, and nasal deformity though occurs with lower incidence play a significant role in risk assessment and overall treatment outcomes. The present review was aimed to briefly elaborate various preoperative and post-operative complications of LeFort I osteotomies with special emphasis on their evaluation, management methods and its associated clinical implications. It was observed that overall complication ranges between 6.1% and 9% following LeFort I osteotomies that depends on several factors such as Patient compliance, surgical technique, complexity of fracture, association with vascular structures, and underlying systemic conditions. Consequently, with proper case selection, appropriate treatment planning, careful instrumentation, ideal pre-surgical orthodontic treatment, and adequate care assisted by patient education, psychological support and post-operative medications can effectively reduce complications thus decreasing patient morbidity and increasing the quality of life.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
31	**"OUTCOME OF GUAVA EXTRACT ON AEROSOL TAINTS - A PILOT STUDY"**	Amreen Ara	Thai Moogambigai Journal Of periodontics and Dental Science	**SDG 3**	The microbial flora of oral cavity harbours varied organisms which are inversely responsible for the transmission of infection through aerosol contamination during and after the completion of a dental procedure. The study concentrates on the use of preprocedural guava mouthrinsers to minimalize the aerosol contamination for both the patient and the dentist while doing ultrasonic scaling (USS) for patients with localised chronic periodontitis. The efficiency of the guava mouthrinsers are compared with chlorhexidine and distilled water. The use of the mouthrinsers extracted from guava leaves showed reduced aerosol contamination which is close to the results obtained while using chlorhexidine mouthrinsers.
32	**"A Novel Fish Optimization Algorithm for Offshore Disease Detection in Fishes using a Smartphone App"**	Kesavan Sujatha., Kalpalatha Reddy T., N.p. G. Bhavani	2022 International Conference on Automation, Computing and Renewable Systems (ICACRS)	**SDG 14**	The growth of aquaculture is a source of high income in developing countries like India. Fish liver oil is rich in nutrients and absorption of these nutrients provides high immunity to fight against various harmful diseases that are affecting the human community. Breeding, growing, and gathering fishes together are called as aquaculture. Fundamentally, it also a type of farming carried out on the sea waters which facilitate a hazard free ocean environment. Such a pollution free environment is accountable for serving as source of food and commercial products. Recognizing the infectious fishes is a exigent task on the beds of the ocean which demands sophisticated infrastructure. The increase in spread rate of the contiguous diseases among fishes can be detected at the early stage using the proposed smart phone App. This smart phone App is developed using robust machine learning algorithms associated with Extreme Artificial Neural Networks (EANN) to detect the fish disease at early stage. This paper proposes a novel hybrid algorithm; called the Fish Optimization Algorithm (FOA) with the conventional Back Propagation Algorithm (BPA) called the EANN, for solving the challenges related to global search. In this paper, an effort is made to develop a EANN based diagnostic model for early detection of fish diseases in the sea water. To substantiate the superiority in performance for the proposed EANN architecture, the results are compared with the conventional ANN model trained with BPA and therefore the robust model is used for development of a smart phone App.
33	**"Tubercular Tenosynovitis Mimicking a Large Ganglion Cyst"**	Albert Dââ,¬â„¢souza., Anil Joshi., Madhan Jeyaraman., Gaurav	Journal of orthopaedic case reports	**SDG 3**	Tubercular tenosynovitis of the wrist and hand, although rare, presents a diagnostic dilemma primarily due to its non-specific clinical presentation, insidious course, and the large number of differentials that mimic it. When the diagnosis is late or delayed, significant bone and tendon complications occur. Large progressive swelling around the wrist in TB endemic countries should raise an early suspicion of being of tubercular etiology and should be high on the list of differential diagnoses.
34	**"Slipped Capital Femoral Epiphysis Managed by Ganz Safe Surgical Dislocation of Hip: A Case Report with 2 Years Follow-up"**	R P Packkyarathinam., Madhan Jeyaraman., Naveen Jeyaraman., Arulkumar Nallakumarasamy	Journal of orthopaedic case reports	**SDG 3**	Slipped capital femoral epiphysis (SCFE) is commonly managed by in situ screw fixation. However, higher grades of slips require restoration of normal anatomy of the femoral head without compromising the blood supply.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
35	**"Effects of Kinesiotaping along with abdomen and pelvic floor exercise on diastasis recti abdominis for postpartum women in normal delivery versus LSCS"**	Anu Preethi Poorna Chandran., Vijayalakshmi K., Srilakshmi Moses., Mathipriya K., Nancy Elizabeth D., V Pavithralochani	Biomedicine	**SDG 3**	Diastasis of abdominal muscles is defined as a gap of more than two finger breadths between two rectal abdominal muscle bellies, above or below the umbilicus. According to the literature, female diastasis recti is more common in women who have recently given birth although it also occurs in the male population. Lower back pain is the most prevalent reason for postpartum women to restrict their everyday activities. Women's mobility, discomfort, and typical activities are all concerns for postpartum women, all of which change a person's quality of life. During pregnancy, diastasis of the rectus abdominal muscles is very common to occur. It is linked to instability of lumbar pelvic region and pelvic floor improper function. Recently, the use of Kinesio taping is gaining popularity as a technique to reduce the separation and increase stability. The review of studies revealed that Kinesio taping is highly effective for diastasis recti and in improving the stability of lumbo-pelvic spine which was evaluated by an active straight leg raise test. There are just a few studies accessible that show the need for further research.
36	**"Empirical Analysis of the Effect of Resampling on Supervised Learning Algorithms in Predicting the Types of Lung Cancer on Multiclass Imbalanced Microarray Gene Expression Data"**	S Aruna., Lellapalli Venkata Nandakishore	EAI/Springer Innovations in Communication and Computing	**SDG 3**	Supervised learning algorithms need a sufficient number of labelled samples for training the model. The predictive power of the classifiers is affected if the class distribution is imbalanced, i.e. number of samples of each class is not equal. The class which has more number of samples is called as majority class, and the class which has less number of samples is called as minority class. Resampling is one of the pre-processing techniques that can be used to alter the number of samples of majority and minority classes. This study analyses the impact of resampling on supervised learning algorithms in identifying the types of lung cancer. The publicly available lung cancer microarray data set is used for the study. The lung cancer data set consists of 203 records of 12,600 genomic expression values belonging to five cancer types. The fractional proportion of each class type is 0.68, 0.08, 0.02, 0.10 and 0.09, respectively. The supervised learning algorithms, namely, support vector machines, Naive Bayes, k-nearest neighbour, decision tree classifier and multilayer perceptron, are used to predict the lung cancer types before and after resampling the lung cancer data set. The comparison of the results showed that the predictive power of the supervised learning algorithms has improved considerably after resampling the data set. The TOPSIS ranking of the resampling algorithms with respect to the classifiers showed that SVM-SMOTE is the best choice for resampling unbalanced multiclass data set.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
37	**"Evaluation of TGF-Î²1 in gingival crevicular fluid and clinical parameters of smoker and nonsmoker patients treated with low-level laser therapy as an adjunct to scaling and root planing"**	T A Lalitha., Archana Balakrishnan., Uma Sudhakar	Lasers in Dental Science	**SDG 3**	Objective Periodontitis is an infectious oral disease characterized by periodontal pocket, clinical attachment loss and alveolar bone loss. Smoking has a negative impact on the outcome of periodontal treatment, and low-level laser therapy (LLLT) as an adjunct to scaling and root planing (SRP) has shown to enhance wound healing by biostimulatory action on various cells, increasing angiogenesis and release of growth factors. Transforming growth factor beta 1 (TGF-β1) possesses both proinflammatory and anti-inflammatory characteristics and plays a role in tissue remodeling and tissue regeneration. This study was undertaken to evaluate the effect of LLLT as an adjunct to SRP on healing by evaluating clinical parameters—gingival index (GI), plaque index (PI), probing depth (PD), clinical attachment level (CAL) and TGF-β1 in the Gingival Crevicular Fluid (GCF) of nonsmokers and smokers with periodontitis. Materials and methods A total of 30 patients with periodontitis were selected and further sub divided into Group I (15 patients)—smokers with periodontitis and Group II (15 patients)—nonsmokers with periodontitis. The GCF was collected to analyze TGF-β1 levels on day 1, day 7 and day 30. Clinical parameters such as GI, PI, PD and CAL were assessed on day 1 and day 30. Result The TGF-β1 levels decreased post treatment in both the groups with a good reduction seen in nonsmokers when compared to smokers. All the clinical parameters (GI, PI, PD and CAL) reduced from day 1 to day 30 with statistical significance ($p = 0.001$) in both the groups. There was a statistically significant reduction in the TGF-β1 levels in both the groups at all time intervals. Conclusion In the present study the TGF-β1 was present in all the three GCF samples that were collected on day 1 and on day 7 and day 30 post SRP and LLLT. A higher level of TGF-β1 was noticed on day 1 (before treatment) that gradually reduced after SRP and LLLT in both smokers and nonsmokers. In addition to the regular wound healing, the addition of LLLT increases neovascularization and enhances healing after SRP, which may prove beneficial in smokers.
38	**"Artificial Intelligence in Logistics and Supply Chain"**	Jayaprakash Jeyaraju	Artificial Intelligent Techniques for Wireless Communication and Networking	**SDG 9 and SDG 12**	Artificial Intelligence plays a pivotal role in global logistics and supply chain management. It creates opportunities of cost reduction in demand forecasting, purchase requirement planning, production planning, inventory, packaging, transportation, warehousing, distribution planning, customer services, information services, finance, and marketing/sales and provides competitive advantages over the other competitors. Artificial Intelligence displays huge possibility in the area of making better decisions and in the enhancement of efficiency through its exceptional abilities.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
39	**"Intrusion Detection of Imbalanced Network Traffic"**	Anushiya A., Nivetha A., Manoj Kumar R	International Journal of Research Publication and Reviews	**SDG 16**	In imbalanced network traffic, malicious cyber-attacks can often hide in large amounts of normal data. It exhibits a high degree of stealth and obfuscation in cyberspace, making it difficult for Network Intrusion Detection System(NIDS) to ensure the accuracy and timeliness of detection. This paper researches machine learning and deep learning for intrusion detection in imbalanced network traffic. It proposes a novel Difficult Set Sampling Technique(DSSTE) algorithm to tackle the class imbalance problem. First, use the Edited Nearest Neighbor(ENN) algorithm to divide the imbalanced training set into the difficult set and the easy set. Next, use the KMeans algorithm to compress the majority samples in the difficult set to reduce the majority. Zoom in and out the minority samples' continuous attributes in the difficult set synthesize new samples to increase the minority number. Finally, the easy set, the compressed set of majority in the difficult, and the minority in the difficult set are combined with its augmentation samples to make up a new training set. The algorithm reduces the imbalance of the original training set and provides targeted data augment for the minority class that needs to learn. It enables the classifier to learn the differences in the training stage better and improve classification performance. To verify the proposed method, we conduct experiments on the classic intrusion dataset NSL-KDD and the newer and comprehensive intrusion dataset CSE-CIC-IDS2018. We use classical classification models: random forest(RF), Support Vector Machine(SVM), XGBoost, Long and Short-term Memory(LSTM), AlexNet, Mini-VGGNet. We compare the other 24 methods; the experimental results demonstrate that our proposed DSSTE algorithm outperforms the other methods
40	**"A Study to Analyze Use of Social Media by Private and Public Sector Banks in India"**	Arti Chandani., Rajiv Divekar., B Neeraja., Mita Mehta., Rizwana Atiq	Springer Proceedings in Business and Economics	**SDG 9 and SDG 17**	he banking system plays an important role in the modern Indian economy. Banking system had undergone a massive change or rather transformation post-1991 when banks have started seeing the face of competition from private and international players all around the world. Social media boon has also impacted banking sector, and use of social media for banking sector is increasing since past few years'. Present research focuses on how Indian Banks are using and can use social media as part of their strategy. This research has four major social media services as scope of the study for Indian Banks. These social media platforms are Facebook, Twitter, LinkedIn, and YouTube. Data for this research was collected through the official Web site of the banks. Kietzmann honeycomb model was used to analyze the collected data in terms of social media platform used by these private and public sector banks. This study focuses on Indian Banks which includes private and public sector banks together. Findings show that private sector banks are comparatively more active as compared to public sector banks. Researchers have shown interesting analysis in the paper which will be useful to Indian Banks.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
41	**An Intelligent System for Monitoring Various Parameters in Irrigation System using IoT** **- Good Health and Well-being, as it focuses on diagnosing dermatitis using machine learning methods to improve healthcare outcomes.** **- Industry, Innovation, and Infrastructure, as it deals with advanced machine learning techniques and their applications, contributing to technological innovation.**	Thiagarajan Godhavari., M Anto Bennet., R Ramasamy., Vasim Babu., Hiran Kumar Singh., V Rajmohan., R Nanmaran	SSRG International Journal of Electrical and Electronics Engineering	**SDG 2**	In the traditional irrigation process, a huge amount of water consumption is required which leads to water wastage. To reduce the wasting of water for this tedious task, an intelligent irrigation system is urgently needed. The era of machine learning (ML) and the Internet of Things (IoT) brings it is a great advantage of building an intelligent system that performs this task automatically with minimal human effort. In this study, an IoT enabled ML-trained recommendation system is proposed for efficient water usage with the nominal intervention of farmers. IoT devices are deployed in the crop field to precisely collect the ground and environmental details. The gathered data are forwarded and stored in a cloud-based server, which applies ML approaches to analyze data and suggest irrigation to the farmer. To make the system robust and adaptive, an inbuilt feedback mechanism is added to this recommendation system.
42	**YOLO Architecture-based Object Detection for Optimizing Performance in Video Streams**	M Maheswari., Maria Susai Josephine., V Jeyabalaraja	International Journal of Engineering Trends and Technology	**SDG 9**	Nowadays, capturing images with greater quality has become so simple because of the rapid growth in the quality of devices capturing the same. Image capturing is now being accomplished less expensively with the use of modern technologies. Videos are a series of pictures with regular intervals of time. Video offers extra data about the object when the situations change with respect to time intervals. Handling objects in the videos manually is very difficult, requiring the process's automation. In recent years, many developed techniques and training deep neural networks have been used to improve accuracy in object detection, which is computationally intensive. In certain situations, most of the areas in a video frame are background, and the salient objects enclose a little part of the area in the video frame. There is a strong temporal correlation between consecutive frames in a video. Based on these examinations, this work proposes a Convolutional Neural Network (CNN), which reduces the computational needs for video object detection tasks. CNN uses an enhanced YOLO platform for classifying and detecting objects by creating new CNN architecture. The proposed model renders an accuracy of 96.7% in classifying the objects.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
43	**Multilayer Perceptron Mode and IoT to Assess the Economic Impact and Human Health in Rural Areas – Alcoholism**	Jayaprakash A R., Nalini T., Sassykova L R., Kanimozhi N., Geetha S., Bhaskar K., Gomathi K., Sendilvelan S	Internet of Things and Data Mining for Modern Engineering and Healthcare Applications	**SDG 3**	Internet of Things and Data Mining for Modern Engineering and Healthcare Applications aims to focus on the Internet of Things (IoT) and Data Mining for Modern Engineering and Healthcare Applications. It also focuses on recent technological advancements in Microwave Engineering, Communication and applicability of newly developed solid-state technologies in bio-medical engineering and healthcare. Emerging technologies and cutting-edge research in Microwave Engineering and related technologies have also been considered. Features: This book features Internet of Things (IoT) and Data Mining for Modern Engineering and Healthcare Applications and the recent technological advancements in Microwave Engineering, Communication and applicability of newly developed Solid State Technologies in Bio-medical Engineering and Smart Health-Care Technologies. Showcases the novel techniques in Internet of Things (IoT) integrated Microwave Antenna Design and various aspects of Microwave Communication. Highlights the role of Internet of Things (IoT) various aspects of Communication, Networking, Data Mining, Computational Biology, Bioinformatics, Bio-Statistics and Machine Learning. Reviews the role of Internet of Things (IoT) in Solid State Technologies, VLSI and applicability of modern Electronic Devices in Bio-informatics and Health-Care. In this book, role of Internet of Things (IoT) in Power System Engineering, Optics, RF and Microwave Energy Harvesting and Smart Biosensing Technologies are also highlighted. This book is primarily aimed at undergraduates, graduates, researchers and professionals working in data mining and studying internet of things. Engineers will also find this book useful.
44	**Natural Products as the Modulators of Oxidative Stress: An Herbal Approach in the Management of Prostate Cancer**	Vinod K Nelson., Chitikela P Pullaiah., Mohammed Saleem T S., Shubhadeep Roychoudhury., Sasikala Chinnappan., Beere Vishnusai., Ravishankar Ram Mani., Geetha Birudala	Advances in Experimental Medicine and Biology	**SDG 3**	Prostate cancer is the most commonly diagnosed and frequently occurred cancer in the males globally. The current treatment strategies available to treat prostate cancer are not much effective and express various adverse effects. Hence, there is an urgent need to identify novel treatment that can improve patient outcome. From times immemorial, natural products are highly recognized for novel drug development for various diseases including cancer. Cancer cells generally maintain higher basal levels of reactive oxygen species (ROS) when compared to normal cells due to its high metabolic rate. However, initiation of excess intracellular ROS production can not be tolerated by the cancer cells and induce several cell death signals which are in contrast to normal cells. Therefore, small molecules of natural origin that induce ROS can potentially kill cancer cells in specific and provide a better opportunity to develop a novel drug therapy. In this review, we elaborated various classes of medicinal compounds and their mechanism of killing prostate cancer cells through direct or indirect ROS generation. This can generate a novel thought to develop promising drug candidate to treat prostate cancer patients.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
45	**Clinical Effectiveness of Aloe Vera in the Treatment of Oral Mucosal Diseases – A Double Blinded Randomized Clinical Trial**	Dr. Pazhanivel Kandasamy., Ganesan A	International Journal of Chemical and Biochemical Sciences	**SDG 3**	Aloe vera is well known for its medicinal properties which lead to its application in treating various diseases. Its use in treating oral lesions has not been much documented in literature. Aim: Although, systematic reviews on aloe vera and its extracts have been done earlier, but in relation to oral diseases this is the first systematic review. The aim of the present systematic review was to compile evidence based studies on the effectiveness of Aloe vera in treatment of various oral diseases. Materials and methods: Computerized literature searches were performed to identify all published articles in the subject. The following databases were used: PUBMED [MEDLINE], SCOPUS, COCHRANE DATABASE, EMBASE and SCIENCE DIRECT using specific keywords. The search was limited to articles published in English or with an English Abstract. All articles (or abstracts if available as abstracts) were read in full. Data were extracted in a predefined fashion. Assessment was done using Jadad score. Results: Fifteen studies satisfied the inclusion criteria. Population of sample study ranged from 20 patients to 110 patients with clinically diagnosed oral mucosal lesions. Out of 15 studies, five were on patients with oral lichen planus, two on patients with oral submucous fibrosis, other studies were carried on patients with burning mouth syndrome, radiation induced mucositis, candida associated denture stomatitis, xerostomic patients and four were on minor recurrent apthous stomatitis. Most studies showed statistically significant result demonstrating the effectiveness of Aloe vera in treatment of oral diseases. Conclusion: Although there are promising results but in future, more controlled clinical trials are required to prove the effectiveness of Aloe vera for management of oral diseases.
46	**Statistical Analysis with Machine and Neural Learning-Based Model on Cardiovascular Diseases and Stroke Prediction**	Lakkala Jayasree., Usha Damodaran	International Journal on Recent and Innovation Trends in Computing and Communication	**SDG 3**	Several risk factors, such as hypertension, hyperlipidemia, and an irregular heart rhythm, make an early diagnosis of cardiovascular disease challenging. Reducing cardiac risk calls for precise diagnosis and therapy. Clinical practice in the healthcare business is likely to evolve in tandem as a result of advancements in machine learning. Therefore, scientists and doctors need to acknowledge machine learning's significance. The fundamental purpose of this research is to a reliable analyzing Risk Factors for Cardiovascular Disease method that makes use of machine learning. Classifying well-known cardiovascular datasets But, on the other hand, is a job for state-of-the-art machine learning techniques and neural network algorithms. Several statistical and visualization indicators were used to assess the efficacy of the suggested approaches and to determine the optimal machine-learning and neural-network approach. Using these modeling methods acquired high and accurate accuracy on stroke and heart disease prediction.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
47	**ARTP: Anomaly-based real-time prevention of Distributed Denial of Service attacks on the web using a machine learning approach**	Pilli Krishna Kishore., S Ramamoorthy., V N Rajavarman	International Journal of Intelligent Networks	**SDG 9**	Distributed Denial of Service (DDoS) attack is one of the most destructive internet network attacks, denying legitimate users access to resources and networks by maliciously blocking available computing resources. Intruders send a large number of packets to the network in order to create a crowding effect. Unlike a Denial of Service (DoS) attack, where a single compromised source generates all of the traffic, a Distributed Denial of Service (DDoS) attack generates traffic from multiple compromised nodes spread across multiple geographies. To address the challenges posed by the Distributed Denial of Service (DDoS) attack, several researchers proposed a variety of solutions for early detection and prevention of the attack. Effective solutions for the prevention and early detection of Distributed Denial of Service (DDoS) attacks, on the other hand, have yet to be developed, and the problem remains a prominent research focus area. This paper tries to present a novel and optimal solution for detecting Distributed Denial of Service (DDoS) attacks on internet networks more quickly and accurately. The proposed model is an anomaly-based real-time prevention model for web networks. The model is based on machine learning principles and can effectively counter new types of Distributed Denial of Service (DDoS) attacks. To demonstrate the efficiency, accuracy, model robustness, and relative of the proposed model, a simulation study was run on an LLDOS session log, and the results indicated that the model performed better than benchmark models found in the literature.
48	**Diagnosis of Tuberculosis Using Deep Learning Models**	P Abirami., Nirmala Sugirtha Rajini Selvaraj., Rajavarman Veeramalai Natarajan	Mathematical Statistician and Engineering Applications	**SDG 3**	Pulmonary Tuberculosis (TB) one of the transmissible diseases, which is one of the top ten causes of death worldwide. The need to strengthen the treatment and screening in TB affected countries. In this paper, a systematic review is carried on deep learning-based computer-aided diagnostic (CAD) systems that are used to analyze chest X-rays for diagnosing pulmonary tuberculosis (TB). Deep learning has recently become one of the most successful techniques, particularly in the analysis of medical images. In Deep learning Convolutional Neural Networks (CNNs) are widely used for TB detection. A CNN model is commonly comprised of convolutional layers, sub-sampling / pooling layers, and fully connected layers. This paper also presents a comprehensive survey on the CNN models for the detection of TB. The progression of computer-aided diagnostic (CAD) systems has sped up the early diagnosis of TB.
49	**Dermatitis Diagnosis – Modeling and Analysis using Machine Learning**	Raja Marappan., Nirmala Sugirtha Rajini Selvaraj., Leena Nesamani Sellabaskaran., P Abirami., Anuradha Kaliyaperumal., Soundharyadevi R	2022 2nd International Conference on Innovative Sustainable Computational Technologies (CISCT)	**SDG 9**	Recently, millions of people of all ages globally and animals have been affected by skin diseases, and the factors varying in the skin disorder are its severity and the identified symptoms. This painless or painful disease affecting some people, such as skin cancer, eczema, psoriasis, acne, and seborrhea dermatitis, can be temporary or permanent. These skin diseases result in early embryonic death, infertility, negative mental functioning, and low milk production. It's difficult to detect these kinds of diseases since the features affecting the skin are hair, tone, pattern, and texture. Some soft computing techniques are developed in the literature to detect these kinds of diseases, but there is a lack of accuracy in the proposed methods. This research applies the machine learning (ML) strategy, support vector machine (SVM), and image processing operations that work on the skin images dataset to detect all skin diseases in the early stages. The proposed model's accuracy, sensitivity, and specificity performance measures are 97.2%, 95.5%, and 96.1%, respectively, and obtained better performance measures than the existing methods.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
50	**Bayesian Reasoning and Gaussian Processes for Machine Learning Applications**	Hemachandran K., Shubham Tayal., Preetha Mary George., Parveen Singla., Utku Kose	Bayesian Reasoning and Gaussian Processes for Machine Learning Applications	**SDG 9**	This book introduces Bayesian reasoning and Gaussian processes into machine learning applications. Bayesian methods are applied in many areas, such as game development, decision making, and drug discovery. It is very effective for machine learning algorithms in handling missing data and extracting information from small datasets. Bayesian Reasoning and Gaussian Processes for Machine Learning Applications uses a statistical background to understand continuous distributions and how learning can be viewed from a probabilistic framework. The chapters progress into such machine learning topics as belief network and Bayesian reinforcement learning, which is followed by Gaussian process introduction, classification, regression, covariance, and performance analysis of Gaussian processes with other models.
51	**A Review on the Different Regression Analysis in Supervised Learning**	Krishnan Sudhaman., Mahesh Akuthota., Sandip Kumar Chaurasiya	Bayesian Reasoning and Gaussian Processes for Machine Learning Applications	**SDG 4**	Electricity load forecasting is an important tool which can be utilized to enable effective control of commercial building electricity loads. Accurate forecasts of commercial building electricity loads can bring significant environmental and economic benefits by reducing electricity use and peak demand and the corresponding GHG emissions. This paper presents a review of different electricity load forecasting models with a particular focus on regression models, discussing different applications, most commonly used regression variables and methods to improve the performance and accuracy of the models. A comparison between the models is then presented for forecasting day ahead hourly electricity loads using real building and Campus data obtained from the Kensington Campus and Tyree Energy Technologies Building (TETB) at the University of New South Wales (UNSW). The results reveal that Artificial Neural Networks with Bayesian Regulation Backpropagation have the best overall root mean squared and mean absolute percentage error performance and almost all the models performed better predicting the overall Campus load than the single building load. The models were also tested on forecasting daily peak electricity demand. For each model, the obtained error for daily peak demand forecasts was higher than the average day ahead hourly forecasts. The regression models which were the main focus of the study performed fairly well in comparison to other more advanced machine learning models.
52	**Ethnic-Guided Soft Tissue Cephalometric Analysis on Lambani Indian Inhabitants for Forensic Facial Reconstruction**	R Ramya., K Nitya., G S Madhushankari., Keerthi Narayan. V., Praveen S Basandi., Vasumathi Deenadyalan	Cureus	**SDG 16**	Forensic craniofacial reconstruction is a combination of both scientific technique and artistic skill that assist facial soft tissue approximation on the skull to obtain an image of an individual that varies in the different ethnic groups depending on genetic and environmental factors such as soft tissue norms.
53	**IMPACT OF EXERCISE VS COGNITIVE THERAPY IN ATHLETES WITH CHRONIC FATIGUE SYNDROME**	S M Divya Mary., N Koushik Kumar., Nelson Arputharaj John., T Neelamalar	International Journal of Medical and Exercise Science	**SDG 3**	Cognitive function disturbance is a frequently described symptom of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS). In this study, the effects of a structured exercise programme (SEP) upon cognitive function in ME/CFS patients was examined. Methods: Out of the 53 ME/CFS patients initiating SEP 34 (64%) completed the 16 week programme. Cognitive function was assessed using a computerized battery test consisting of a Simple Reaction Time (SRT) (repeated three times) and Choice Reaction Time (CRT) measurements, a Visual Attention Test (VAT) and a Delayed Matching to Sample (DMS) assessment. Results: Statistically significant improvement was noted in the third attempt to SRT in reaction time for correct answers, $p = 0.045$, $r = 0.24$. Moreover, significant improvement was noted in VAT reaction time, number of correct answers and errors committed, $p = 0.02$, omega = 0.03, $p = 0.007$, $r = 0.34$ and $p = 0.004$, $r = 0.35$, respectively. Non-significant changes were noted in other cognitive tests. Conclusions: A substantial number of participants were unwilling or unable to complete the exercise programme. ME/CFS patients able to complete the SEP showed improved visual attention both in terms of reaction time and correctness of responses and processing speed of simple visual stimuli.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
54	**CELEBRITY IMAGE CLASSIFICATION**	Dheeraj Sangisetty., Usha Damodaran	International Journal of Engineering Applied Sciences and Technology	**SDG 9**	Image classification is a supervised learning problem: define a set of target classes (objects to identify in images), and train a model to recognize them using labelled example photos. The main motto of the project is to build a website where user can drag and drop an image of the celebrity and the website will provide the details of the celebrity. Project is restricted to only 5 classes which means to provide only any 5 celebrities whose details will be extracted in drag and drop by user.
55	**Paediatric lumbar disc herniation presenting as pseudo flexion deformity of the hip and knee: A case report**	Rajni Ranjan., Madhan Jeyaraman., Satvik N Pai., Sathish Muthu	Journal of Orthopaedic Reports	**SDG 3**	Lumbar disc herniation (LDH) in paediatric age group is rare and respond differently to treatment measures compared to adult LDH. We present such a case with an atypical and confusing presentation. Case Report A 13-year-old boy presented with radiating low back pain for two weeks, and a pseudo flexion deformity of the hip and knee. The bowstring sign was positive, the sensory loss was present over the S1 dermatome, and an ankle jerk was absent. MRI showed disc herniation and annulus fibrosis tear at the L5-S1 level. Right interlaminar discectomy of L5-S1 provided a complete resolution of symptoms, and excellent functional outcome at two years follow up. Conclusion A disc herniation should be considered as a differential diagnosis in children presenting with back pain. Pseudo flexion deformity of hip and knee could be an indicator of S1 nerve root compression. Paediatric LDH responds poorly to conservative management, but a good functional outcome can be achieved with prompt surgical management.
56	**Chronic Kidney Disease prediction using Random Forest Algorithm in Machine Learning**	Ajith Kumar., C Hari Haran., D Manu Vignesh	International Journal of Innovative Science and Research Technology	**SDG 3**	Chronic kidney disease (CKD) is a dangerous ailment that can last a person's entire life and is caused by either kidney malignancy or decreased kidney functioning. It is feasible to halt or slow the progression of this chronic disease to an end-stage wherein dialysis or surgical intervention is the only method to preserve a patient's life. Earlier detection and appropriate therapy can increase the likelihood of this happening. Throughout this research, the potential of several different machine learning approaches for providing an early diagnosis of CKD has been investigated. There has been a significant amount of research conducted on this topic. Nevertheless, we are bolstering our approach by making use of predictive modeling. Therefore, in our approach, we investigate the link that exists between data factors as well as the characteristics of the target class. We are capable of constructing a collection of prediction models with the help of machine learning and predictive analytics, thanks to the better measures of attributes that can be introduced using predictive modeling. This study starts with 25 variables in addition to the class property, but by the end, it has narrowed the list down to 30% of those parameters as the best subset to identify CKD. Twelve different machine learning-based classifiers have been tested in a supervised learning environment. Within the confines of a supervised learning environment, a total of 12 different machine learning-based classifiers have indeed been examined, with the greatest performance indicators being an accuracy of 0.983, a precision of 0.98, a recall of 0.98, and an F1-score of 0.98 for the XgBoost classifier.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
57	**Coral Case Dust: A Seashore Waste Material Used as a Restricted Concrete Alternative**	Dasarathy A K., M Tamil Selvi., Mr.ponkumar Ilango S	International Journal of Oceans and Oceanography	**SDG 14 and SDG 9**	The vast scale of manufacturing usage of Portland concrete and the procurement of accumulates through mining and excavating significantly impact environmental deterioration. Squander, such as coral case, is seen as a soft material and a poor substitute for concrete. Coral case dust (CCD) is a pozzolanic material that exhibits pozzolanic characteristics in cement and mortar. The compressive strength of a CCD mix containing 10% concrete is 40.54 N/mm2 , which is higher than apparent compressive strength of the solid, which is 30.00 N/mm2 .The article discusses the design of CCD. Cement mix and exploratory research were conducted on this material, including mechanical strength tests and the strength of CCD. Concrete is 14.33 percent higher than standard cement concrete for M30 grade concrete on seventh day. Aside from that, it was discovered that the multi-day strength of a similar assessment concrete was 27.12 percent higher than strength of ordinary cement. The 7-day and multi-day strength of CCD. Concrete for M35 assessment concrete was 11 percent and 19 percent, respectively, according to findings. According to these results, CCD, like fly ash and rice husk debris, may be utilised as a mineral supplement. According to findings obtained utilizing various factors, including mix design and compressive strength, a CCD of 10% in M30 concrete is the optimal choice for successful partial replacement concrete. Seashells that have been left on the beach may be successfully reused.
58	**DIABETES PREDICTION USING MACHINE LEARNING**	T Sandeep., Y Mani Gopal., T Surya Mahendra	International Research Journal of Modernization in Engineering Technology and Science	**SDG 3**	Globally, diabetes affects 537 million people, making it the deadliest and the most common non-communicable disease. Many factors can cause a person to get affected by diabetes, like excessive body weight, abnormal cholesterol level, family history, physical inactivity, bad food habit etc. Increased urination is one of the most common symptoms of this disease. People with diabetes for a long time can get several complications like heart disorder, kidney disease, nerve damage, diabetic retinopathy etc. But its risk can be reduced if it is predicted early. In this paper, an automatic diabetes prediction system has been developed using a private dataset of female patients in Bangladesh and various machine learning techniques. The authors used the Pima Indian diabetes dataset and collected additional samples from 203 individuals from a local textile factory in Bangladesh. Feature selection algorithm mutual information has been applied in this work. A semi-supervised model with extreme gradient boosting has been utilized to predict the insulin features of the private dataset. SMOTE and ADASYN approaches have been employed to manage the class imbalance problem. The authors used machine learning classification methods, that is, decision tree, SVM, Random Forest, Logistic Regression, KNN, and various ensemble techniques, to determine which algorithm produces the best prediction results. After training on and testing all the classification models, the proposed system provided the best result in the XGBoost classifier with the ADASYN approach with 81% accuracy, 0.81 F1 coefficient and AUC of 0.84. Furthermore, the domain adaptation method has been implemented to demonstrate the versatility of the proposed system. The explainable AI approach with LIME and SHAP frameworks is implemented to understand how the model predicts the final results. Finally, a website framework and an Android smartphone application have been developed to input various features and predict diabetes instantaneously.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
59	**EDUCATIONAL CHALLENGES AND OPPORTUNITIES OF THE CORONAVIRUS (COVID-19) PANDEMIC-LEARNING MANAGEMENT SYSTEM: A REVIEW**	Muralidharan Bhuvaneswari., Nandakumar Keerthana., S Sinduja	Education Trends in a Post-Pandemic Future in the Fields of Engineering, Science, Arts, Humanities, Commerce, Economics, Social Sciences, Law and Management - Challenges and Opportunities	**SDG 4**	The higher educational institutions and universities were forced to be shut down due to the COVID-19 pandemic and came up with an alternative to resume the teaching-learning process via a digital mode of education. Due to many shortcomings in the digital mode of education, it is now necessary to reopen educational institutions. As students are important stakeholders, the views and suggestions are necessary before actually taking a decision on reopening the educational institutions. With objectives on reopening of educational institutions, modification in the course curriculum due to many problems faced by students during online teaching-learning process, health and safety protocols to be followed,etc, 21 questions are designed. Likert scale is used in data collections and analysed using various statistical tools.The students have different views on the reopening of the institutions during the COVID-19 pandemic. The practical or project-based course curriculum irrespective of offline or online mode of teaching is suggested by most of the students. On the health and safety protocols, the percentage of students giving priorities for creation of disinfection room, hand sanitization station entry and common places and regular health checkup are 74.82%, 80.69% and 74.48%, respectively. On the issue of the health and safety rule implementation, 92.4 % of students committed to pledge to adhere to the health and safety protocols, but 72.9% of students expressed that it would be difficult to enforce health and safety measures to the students inside the institution.
60	**CHALLENGES FACED BY THE INDIAN EDUCATION SYSTEM OVER PANDEMIC SITUATION**	P Abirami., Nirmala Sugirtha Rajini Selvaraj	Education Trends in a Post-Pandemic Future in the Fields of Engineering, Science, Arts, Humanities, Commerce, Economics, Social Sciences, Law and Management - Challenges and Opportunities	**SDG 4**	Fear of spread of the COVID-19, disciplinary lockdown, and delay in getting back to the normal routine of education centers is affecting the academic performance of the students, as they are facing difficulties to cope up with the new mode of learning. The purpose of this study was to look out for the challenges faced in learning during the lockdown and if they were raising the mental stress in students. A self-structured questionnaire including 10 questions formed through Google forms and validated using online Delphi method was forwarded to the students from different colleges and universities of Haryana and Punjab regions of North India. Out of a total of 844 student participants, 631 (74.8%) students were facing difficulty in studies. Whereas 744 (88.2%) students felt that they may encounter the loss of studies during the lockdown. The study found that most of the students are facing difficulties in the study during the lockdown which is increasing the mental stress.
61	**Credit Card Fraud Detection and P** **revention using Face Authentication**	Dhanmiga S., Ragapriya M., Sowmyaa M S., Vijayakumar A	International Journal of Research Publication and Reviews	**SDG 16**	Internet banking is now becoming the most commonly used form of banking transactions. Confidentiality can be compromised in the process of electronic purchases. We therefore introduced a new approach to prevent theft during online transactions in order to protect information through a two-step mechanism of authentication. The primary step of authentication is OTP verification. If the OTP has been checked, the face should be recognized. The details are collected and the authorization for both true and fraudulent transactions is submitted to the bank. The new credit card scanning device has beneficial characteristics such as certain health, user-friendliness, etc. The purpose of the application is to reduce credit card fraud by knowledge of the Face System. Customers get the most accessible and highly efficient electronic banking program.
62	**Bioremediation Technology: A Cumulative Study on Microbial Bioremediation of Heavy Metals, Aromatic Hydrocarbons, Acrylamide, and Polyacrylamide**	Bhupendra Nath Tiwary., Reena Das., Vaishali Paul	Industrial Microbiology and Biotechnology	**SDG 15**	With increased urbanization and industrialization, modern life has led to an anthropogenic impact on the biosphere. Heavy metals pollution and pollutants from black liquor (BL) have caused severe effects on environment and living organisms. Bacterial biofilm has potential to remediate heavy metals and remove BL from the environment. Hence, this study was planned to investigate the potential of microbial biofilms for the bioremediation of heavy metals and BL polluted environments.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
63	**Energy Aware Metaheuristics Unequal Clustering Protocol for WSN**	Deena Sivakumar., S Suganthi Devi., T.nalini	2022 Second International Conference on Artificial Intelligence and Smart Energy (ICAIS)	**SDG 7**	Wireless sensor networks have gained significant interest from every field owing to their high applicability. Maximization of network lifetime and resolving hot spot problems are considered as the major challenges involved in the design of WSN. This article develops an energy aware oppositional group search optimizer based unequal clustering protocol (EAOGSO-UCP) for WSN. The main aim of the EAOGSO-UCP approach is for organizing the network into a collection of unequal clusters by properly electing the CHs and unequal cluster sizes. The EAOGSO-UCP technique involves the design of oppositional group search optimizer(OGSO) technique that is stimulated from the searching characteristics of the animals in the real world environment. Besides, the OGSO algorithm is derived by the integration of the oppositional based learning (OBL) technique as to the GSO approach for effective population initialization. The design of OGSO algorithm for unequal clustering shows the novelty of the study. Moreover, a fitness function is derived involving three input variables as energy, distance to BS (DBS), and node degree (ND). For ensuring the energy efficient performance of the EAOGSO-UCP approach, a comprehensive simulation analysis is carried out and the comparative results reported the promising performance over the other existing techniques.
64	**A Patient-Centered Secured Approach to E-Health**	Adlin Sheeba., B Uma Maheswari., Dahlia Sam., V Nisha Jenipher., S Rajarajeswari	2022 International Conference on Computer Communication and Informatics (ICCCI)	**SDG 3**	Electronic health records (EHRs) have largely supplanted paper-based systems in order to improve the accuracy, reliability, and accessibility of patient data. Furthermore, EHR security is a major concern that puts patient privacy at risk. User privacy and data security are issues with the majority of third-party hosting solutions. As a result, access control regulations must be restricted and effective procedures for cloud-based EHR data must be developed. Under the suggested system, only authorised individuals will be allowed to update or examine some of the patient's data, ensuring the data's confidentiality. Each EHR record is encrypted by the controlling authority. The requesting user may receive dynamically changing permissions based on authentication and context factors. This paper is to provide security and patient-centric approach to e-health solutions. The patient can have control over their medical records. The potential of data theft grows when users' data is outsourced, and attackers can compromise data. So, the authority verifies the request with the database and then generates the secret key. Then with the key provided, files are shared with the authorized user.
65	**Adaptive Feedback Cancelation in Hearing Aids Using Least Squares Delay-Based Fuzzy Interactive Controller**	G Jayanthi., Latha Parthiban	Studies in Fuzziness and Soft Computing	**SDG 3**	Wireless sensor networks have gained significant interest from every field owing to their high applicability. Maximization of network lifetime and resolving hot spot problems are considered as the major challenges involved in the design of WSN. This article develops an energy aware oppositional group search optimizer based unequal clustering protocol (EAOGSO-UCP) for WSN. The main aim of the EAOGSO-UCP approach is for organizing the network into a collection of unequal clusters by properly electing the CHs and unequal cluster sizes. The EAOGSO-UCP technique involves the design of oppositional group search optimizer(OGSO) technique that is stimulated from the searching characteristics of the animals in the real world environment. Besides, the OGSO algorithm is derived by the integration of the oppositional based learning (OBL) technique as to the GSO approach for effective population initialization. The design of OGSO algorithm for unequal clustering shows the novelty of the study. Moreover, a fitness function is derived involving three input variables as energy, distance to BS (DBS), and node degree (ND). For ensuring the energy efficient performance of the EAOGSO-UCP approach, a comprehensive simulation analysis is carried out and the comparative results reported the promising performance over the other existing techniques.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
66	**Molecular docking analysis of metformin analogues with GSK-3β**	Selvaraj Jayaraman., Ponnu Lakshmi Rajagopal., Vidhya Rekha Umapathy., Sandhya Paidi., Ramajayam Govindan., Chella Perumal Palanisamy., Vishnu Priya Veeraraghavan., Fathima J H	Bioinformation	**SDG 3**	We report the molecular docking analysis of four analogues of metformin [1-Carbamimidoyl-1,2-dimethylguanidine hydrochloride, Metformin hydrochloride, N1,N1-Dimethyl-N5-methylbiguanide hydrochloride, and N1,N1,N5,N5-Tetrakis (methyl-biguanide hydrochloride] with GSK3.
67	**Molecular docking analysis of flavonoids with aldose reductase**	Ramajayam Govindan., Kasthuri Kannayiram., Vidhya Rekha Umapathy., Chamundeswari Yaragorla., J H Fathima., Chella Perumal Palanisamy., Vishnu Priya Veeraraghavan., Selvaraj Jayaraman., Ponnulakshmi Rajagopal	Bioinformation	**SDG 3**	Diabetes mellitus is a group of metabolic disorders that has risen to become the third most common cause in humans in recent years. The development of new bioactive substances from natural sources is a relatively new area. Flavonoids are believed to have a variety of beneficial properties in nature, including anti-inflammatory, antimicrobial, anticancer, antioxidant, neuroprotective, and anti-HIV properties. 15 naturally occurring flavonoids docked with the selected target aldose reductase. We report the optimal binding of Acumitin, Agathisflavone, Agehoustin B, and alpha-Toxicarol with aldose reductase for further consideration in drug discovery for T2DM.
68	**Universal Real-Time Strategy Game in Unreal Engine**	Sudharsan S	International Journal for Research in Applied Science & Engineering Technology	**SDG 9**	In the rapid growing field of game development and game design, the RTS genre of games continues to attract substantial number of gamers. RTS genre games not only provide entertainment for gamers but also the ability to yest and grow their real time application of tactical and logical decision-making skills. RTS games are lately very popular but a brief number of games are available with similar concepts. This reputation in the story line of the available games makes the long-term game play less desirable. The project intents to develop a spin-off RTS game with major emphasis on level design, gameplay mechanics, user interface development and resource management.
69	**In Custody: An Onward Journey to Utopia with Black-hole Pessimism**	I Deborah Priscilla	Language in India	**SDG 9**	This paper seeks to focus on Deven, the protagonist of the novel “In Custody” by Anita Desai. It talks primarily of his black hole pessimism combined with his constant walk towards his Utopia while disregarding current circumstances. His journey toward his goal is mired in disappointments and when you think things cannot get worse, it actually does.
70	**Identity Empowerment as Feminist Assertion in Manju Kapur's Home**	D. Deepa	Language in India	**SDG 5**	The last decade of the twentieth century saw the sudden emergence of women's writing in English mythology. A group of Indian female novelists in their compilation, mix of ideas and multiculturalism, multilingualism and multiculturalism have contributed to a particular context. Although gynocritics think that most women in most countries speak the same language of peace, other Indian female novelists such as Gita Hariharan, Shashi Deshpande, Arundhati Roy, Meena Alexander and Manu Kapur have sincerely and honestly tried to deal with physical, psychological and emotional stress - women's syndrome.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
71	**Current Style and Developments in Indian English Fiction Writing**	S Magdelene Percy	Language in India	**SDG 4**	There are many new trends and developments in the humanities and literature. Indian English Literature is not the exception to this. There are many new literary movements in Indian English Fiction. We have a gallery of writers who are writing, translating and transcribing into English. Creativity, translation, transcription, Dalit Literature, Diasporic writing, postcolonial writing, postmodern and feministic writings are emerging speedily in Indian English Fiction. Today, we can find a lot of technocrats, management professionals especially from abroad making bestsellers in India. The credits can be given both to marketing skills and creative writing skills.The social networking Medias are also helping in marketing. Many authors like Chetan Bhagat, Shobha De, Anita Desai, Kiran Desai have Facebook fan pages and the writers are also active in Twitter and Blog. This helps them to know more about the wants of the audience and helps indirect interaction. Even books are available on e-reading. Many authors publish excerpts of their books online for encouraging sales. Today, the habit of reading is decreasing. So the writers have got to keep up more to the tastes of audience and their fast paced lives. The audience needs maximum entertainment in minimum time and effort. However, the Indian English popular fiction portrays the tastes of Indian writers and hence can be analyzed as a cultural study material
72	**"Reviving the History Through Literature - Empire: The Story of the Cholas Told Like Never Before"**	N Saranya	Language in India	**SDG 4**	History is the study of past events about a particular country, people, or region. The truthiness in history will not be accurate in all circumstances. The history of a particular period in a country should be analyzed by reading the literature written by native people and also to some extent by the literature of colonizers. Every literary works have traces of history in it, intentionally or unintentionally. History plays a major role in constructing the identity of anything. For instance, the culture of particular people of a particular country is known to others through the history and literature that reproduced them. Literature is a medium through which history is understood with interest and pleasure. Reading history in historical text would be boring and it also does not make the readers remember the events in chronological orders. The study is made to analyse and give brief account on the importance of literature through the novel Empire by Devi Yesodharan.
73	**"The Vortex of Violence and the Aftermath in Anuradha Roy's Sleeping on Jupiter"**	Sowmiya S	Language in India	**SDG 16**	This paper aims at a critical view about violence and sexual abuse which results as PostTraumatic Stress Disorder. Nomi's connect is dark, she searches for her mother in the sea, she finds the sea with reference to blood, that talks of her inner trauma and rage. Badal wanders near the sea whenever he feels sad or happy; he feels he shares everything with sea. This paper focuses how Nomi undergoes sexual abuse and violence in her past and how that incident cause trauma, which is reflected later. A note of violence and sexual abuse faced by other characters were also discussed in this paper. Does she fight with the demon in her mind? Or is the demon still retained in her?

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
74	**"Cultural Issues in Chetan Bhagat's 2 States: The Story of My Marriage"**	P G Viswapriya	Language in India	**SDG 10**	The main aim of the paper is to provide a comprehensive survey of the growth, development and achievements of modern Indian fiction in English and to view the literature in critical perspective. Chetan is the mediator who reflects the core social and political problems and his writings have excelled in the global literary field to achieve much academic attention. Due to the spread of the western culture, the ideal Indian value system has broken considerably. In India, people do not adhere to the conventional ways of living. The western values appeal to them a lot and they are inspired by values and norms which are suitable to other civilizations but not to Indian civilization. It is observed in the contemporary Indian society that the degradation of social and moral values has been common way of life. Therefore, Chetan Bhagat has rightly portrayed change in his novel'2 States'
75	**"An Overview of Contemporary Indian Novels in English"**	R Priyanka	Language in India	**SDG 4**	This paper centers on the evolving trends in Indian writing in English with respect to modern writers. As for its seven decades of evolution, Indian writing in English crossed many milestones and has fulfilled the expectations of world standards. The study of eminent works of Indian English fiction sums up the various trends and expectations of the readers which further has gained momentum to follow the Western trends and more particularly adheres to global issues in all genres of literature. The various issues concerning modern Indian society and the influence of an average Indian's lifestyle can be interpreted through analyzing the themes of contemporary Indian English fiction. Due to technological advancements global trends are reaching the rural mases rapidly and it is reflected in literature. The paper explores this new sense of identity of Indian English Writers by analyzing their works.
76	**"Political Violence, Religion and Gender Identity in Arundhati Roy's The Ministry of Utmost Happiness"**	G Abirami	Language in India	**SDG 16**	Arundhati Rao is an acute observer of the very fabric of Indian society. He is an activist and social reformer for the marginal, downtrodden and a revolutionary spark for the 21st century litterateurs. The Ministry of Utmost Happiness is the second novel of Booker Prize-winning author Arundhati Roy which is published in 2017 after twenty years of the publication of his debut novel The God of Small Things. The novel recounts some of the egregious events of Contemporary Indian history such as land reform, 2002 Godhra train burning and Kashmir insurgency as well. It illustrates the sufferings, pain and the right of the LGBT community in contemporary India. The novel also incorporates many social and political events occurred in India and other parts of the world against the backdrop of its story. The paper argues upon the political and gender issues with the reference of The Ministry of Utmost Happiness by Arundhati Rao.
77	**"Anita Desai as a Feminist Writer with Reference to the Novel Cry, The Peacock"**	Devika L	Language in India	**SDG 5**	Anita Desai is one of the most famous modern Indian novelists in English literature. Among the all Indian novelists she is one of the greatest, reputed, and successful writer. She is quite aware about the human psychology. She has obtained distinction in investigating the human psychology and the feelings of her characters. She adds a modern dimension and astonishing preference to the modern Indian fiction and has an important place due to her imaginative thematic interests and allotment in her fiction with feminine sensibility. She examines the deep psychology of her characters in her novels, particularly women characters. She is a keen observer of the society and the position of women in the contemporary society draws her special attention for writing issues of women in her novels. They are the explorations of the family problems, which perhaps is the chief cause behind the extravagant behavior of the women in the family. Cry, the Peacock, a novel that describes the female psyche through Maya, the female protagonist. The research scholar in this paper attempts to study feminism present in the novel Cry, the Peacock.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
78	**"Non-Violent Resistance Against Socio-Cultural Norms - A Study on the Short Story 'The Remains of the Feast' by Githa Hariharan"**	Dharshini C	Language in India	**SDG 16**	This research paper focuses upon the 'feminist discourse' in Githa Hariharan's short story The Remains of the Feast which was published in 1993 and yet, continues to arouse the reader's interest even today. This short story remains as an important one, for in academia, we generally deal with notions of western liberal feminism. In this paper we consider how Hariharan, an Indian author has chosen as her focal character, Rukmini, who is a 90 year old Indian widowed woman in a South Indian Brahminical family. The tale is told by her greatgranddaughter Ratna, who is studying to become a doctor. This is a brilliant and unconventional tale of how the dying Rukmini, triumphantly tries to assert her identity, though she is hedged in by the oppressive norms of patriarchy in traditional Indian society: functioning as it does along the lines of gender, caste and creed. Her sister in arms is her much younger grand-daughter, Ratna. This research paper dwells upon how Feminism is often a construct of Patriarchy. It also offers a critique of social, economic, cultural norms which restricts the freedom of women.
79	**"Concept of 'Indian Dharma' as Revealed in Aravind Adiga's Novel The White Tiger"**	Gowsi Sanchanaa J	Language in India	**SDG 16**	Aravind Adiga is a twenty-first century Indian writer. "The White Tiger" explores the depravity, morality, and corruption in Indian society. He exposes anti-Indian modernity, wickedness, and complexity, which has a direct impact on national progress, and he also employs what pervadesthe modern state. It also narratesthe story of Socio-economic inequality during the time when financial limits dominated India. An attempt to identify prevailing moral rules in India through 'The Concept of Dharma' shows how the character seemed different, when others were symbolised by the power of East Asian culture, and finally found his own identity in the society.
80	**"Familial Relationship in Sudha Murty's Grandma's Bag of Stories"**	Suman Raj K	Language in India	**SDG 10**	The stories of Sudha Murty are resplendent with the essence of human relationships. The theme of love and human relationships is the recurring idea in many of her writings. Sudha Murty in her novels probes the submergence of love and communication between family relationships. This makes the characters quest one's identity and acquires a stage of maturity and equability. Here , the discussion and analysis are about the relationships between Grandparents and Grandchildren.
81	**"A Study on the Concept of Identity in Jhumpa Lahiri's Novel: The Namesake":**	Blessy R	Language in India	**SDG 4**	All diasporas are unhappy but every diaspora is unhappy in its own way. Immigrants, expatriates and diasporic authors deal with identity and alienation in their novels scrupulously. The struggle to place their loyalty between the land they were born in and the land they live in is definitely distressing. The characters portrayed also strive to live in the quest for identity battling some serious issues, which is termed as psychological pain, including mental trauma pain and depression. Jhumpa Lahiri's novel The Namesake depicts the issue of her own cultural location in West Bengal, India. It explores the problem of one being rooted, uprooted and rerooted. The characters are perplexed which is a result of flux and agony. It explores the various reasons affecting the series of incidents in the novel. This article is an attempt to crucially look

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
82	**"Celebration of Culture and Myth in Salman Rushdie's Novel Midnight's Children"**	M Jayaselvi	Language in India	**SDG 4, SDG 10 and SDG 16**	Salman Rushdie is one among the most prominent Indian contemporary writers. He is an illustrious winner of both the Booker Prize and James Tait Black Memorial Prize. The theme of this novel vividly portrays the British's colonisation over India. The novel starts with the events from the midnight of Independence as the children born in that particular night are having some special powers. The Protagonist of this novel, Saleem Sinai is born on August 15th 1947, when India got its independence from the British. Saleem Sinai's birth, life struggles and his death are analysed in this study. Salman Rushdie has chronologically entwined characters from the India's culture with the characters of western culture. Here, we see the importance Salman Rushdie gives to the Culture and Myth as he portrays the colonisation of people in India and its transition
83	**"The Clash of Class in Inheritance Of Loss by Kiran Desai"**	K Naveena	Language in India	**SDG 10**	One of the most popular novels of Kiran Desai is The Inheritance of Loss (2006). The story is set in Kalimpong, which is situated at the foot of Mount Kanchenjunga in the North Eastern part of post -Independence India [Jetir 2014]. The novel takes a look at the problems faced by immigrants on a personal as well as global level. It expands over India, United Kingdom and the United States of America. This novel explains the tussle between Indian traditional way of life and the richness of the west . The book has won many prestigious awards like the Man Booker Prize and the National Book Critics Circle Fiction Award in 2006 and 2007 respectively. This novel explains the major issues in contemporary society that are related to rapid growth which sometimes rushes people into economic problems and race issues. Kiran Desai's The Inheritance of Loss is a perfect example of class discrimination in the early twentyfirst century. The study of this novel has different meaning and explanation.
84	**"Smart Phone-based Microscopic Image Acquisition and Quantifying System for Detecting Dengue"**	Ramakrishna M M., Vedanandam Karthikeyan	2022 International Conference on Advanced Computing Technologies and Applications (ICACTA)	**SDG 3**	Mobile phones with high end configurations are now a found day-to-day use everywhere even in the rural side. At the same time, Healthcare sectors are extending their technological support to reach the villages to get benefits in spite of their geographical distance and connectivity with the urban facilities. It is necessary to rectify the problems in healthcare field particularly on the short resource areas by finding modern techniques. For microscopic imaging applications, researchers have created various unique devices that enable the high resolution picture taking, communication, and processing abilities of mobile phones. We believe that contemporary mobile phones with cameras larger than 8 Mega Pixels are capable of obtaining high-resolution images at a wide ways of amplifications useful for single-cell imaging. Automated focus of the camera, as well as color gain requirements, result in decreased image resolutions, lowering color capture accuracy. As a result, we devised a strategy for reducing such roadblocks to precise image quantification. These microscopic images taken from mobile phone can be very reliable and simple to get the quantitative microscopic images for various kinds of medical and scientific applications.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
85	**"Predicting The Stages Of Covid-19 Affected Patients Using CNN With CT Scan"**	B Deepa., M Shashwenth., Kiruthiga Devi Murugavel., R Parthasarathy	2022 International Conference on Advanced Computing Technologies and Applications (ICACTA)	**SDG 3**	Battling the progressing Covid sickness 2019 (COVID-19) pandemic requests precise, quick, and point-of-care testing with quick outcomes to anticipate stages for isolation and therapy. The preliminary test to detect COVID-19 is a Swab test and also a Blood test, but these tests will take more than 2 days to receive the results and there is also a risk of transmission of the virus while collecting the samples. To predict the stages of COVID-19's effects on the human lungs accurately for further treatment for further diagnosis on a radiological image, medical experts need a high level of precision. We utilize image processing techniques and convolutional networks to analyze CT images of COVID-19 affected human lungs in this paper for the detection of pulmonary abnormalities in the early stage, Chest X-Ray is not exact. So, we are using Computed Tomography (CT) imaging especially for identifying the stages of lung anomalies. We present and discuss the scoring systems which cause the severity in lungs of COVID-19 patients every day. This will be accurate for predicting the stages of COVID-19 for early treatment and also to protect the uninfected population.
86	**"Morphotypes of the apical constriction of maxillary molars: a micro-computed tomographic evaluation"**	Jeffrey Wen-wei Chang., Kuzhanchinathan Manigandan., Lakshman Samaranayake., Chellapandian Nandhakumar., Pazhamalai Adhityavasun., Johny Diji., A R Pradeep Kumar	Restorative dentistry & endodontics	**SDG 3**	The aim of this study was to evaluate and compare the apical constriction (AC) and apical canal morphology of maxillary first and second molars, using micro-computed tomography (micro-CT).
87	**"AIR TRAFFIC CONTROL USING MACHINE LEARNING AND ARTIFICIAL NEURAL NETWORK"**	V Sangeetha., Stephan Kevin Andrews., Rajavarman Veeramalai Natarajan	Journal of Positive School Psychology	**SDG 9 and SDG 11**	Air Traffic Control (ATC) is important for human health because flight accidents occur in air space often and it leads to death. Air traffic can control or avoid through predict the parameters of airline system. In this paper, Machine Learning (ML) and Artificial Intelligence (AI) methods proposed to predict and control the air traffic. The proposed methods machine learning and artificial intelligence are predicting the air traffic from air traffic dataset. Air traffic can predict through different statistical methods such as logistic regression (LR), decision tree (DT) and naïve bayes. These algorithms are performing less due to prediction of air traffic based on accuracy and time. These algorithms give huge difference in prediction such as accuracy level and speed. To solve the above problem, air traffic data fed to the pre-trained for prediction of air traffic. The proposed method machine learning and artificial intelligence gives high accuracy prediction compared to other statistical algorithms. Machine learning and artificial intelligence methods gives high accuracy of about 96% compared to conventional methods.
88	**"Location-Based Garbage Management System for Smart City"**	S Shobana., Bharath Kishan K., Hemanth K., Vikram V	International Journal of Research in Engineering and Science	**SDG 11**	To make the human habitation more comfortable Smart cities are integrating the mobile and web applications. One among those solutions is to provide efficient and effective garbage management system which is an environmentally friendly. As of now collecting garbage includes routine garbage trucks collecting garbage once in a week. So that it is not only doesn't cover every zone of the city but is a completely inefficient use of government resources. This paper proposes mobile or web based system for the govt. in an exceedingly efficient thanks to utilize on the market resources to with efficiency manage the overwhelming amounts of garbage collected every day, whereas conjointly providing a much better answer for the inconvenience of disposal for the citizens. This will be done by a network of wise bins that integrates cloud-based techniques to observe and analyze data collected to produce sibylline routes generated through admin for garbage trucks. Associate mobile or web app is developed for the lads and also the citizens, that primarily provides the generated routes for the personnel and finds the nearest accessible good bin for citizens.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
89	**"Security Challenges in Internet of Things":** **This publication pertains to SDG 9 (Industry, Innovation, and Infrastructure) and SDG 16**	S Srinidhi., Aiyshwariya Devi Ravichandran	Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises	**SDG 3**	As the Industrial Internet of Things (IIoT) is one of the emerging trends and paradigm shifts to revolutionize the traditional industries with the fourth wave of evolution or transform it into Industry 4.0. This all is merely possible with the sensor-enabled technologies, e.g., wireless sensor networks (WSNs) in various landscapes, where security provisioning is one of the significant challenges for miniaturized power hungry networks. Due to the increasing demand for the commercial Internet of things (IoT) devices, smart devices are also extensively adopted in industrial applications. If these devices are compromising the date/information, then there will be a considerable loss and critical issues, unlike information compromising level by the commercial IoT devices. So emerging industrial processes and smart IoT based methods in medical industries with state-of-the-art blockchain security techniques have motivated the role of secure industrial IoT. Also, frequent changes in android technology have increased the security of the blockchain-based IIoT system management. It is very vital to develop a novel blockchain-enabled cyber-security framework and algorithm for industrial IoT by adopting random initial and master key generation mechanisms over long-range low-power wireless networks for fast encrypted data processing and transmission. So, this paper has three remarkable contributions. First, a blockchain-driven secure, efficient, reliable, and sustainable algorithm is proposed. It can be said that the proposed solution manages keys randomly by introducing the chain of blocks with less power drain, a small number of cores, will slightly more communication and computation bits. Second, an analytic hierarchy process (AHP) based intelligent decision-making approach for the secure, concurrent, interoperable, sustainable, and reliable blockchain-driven IIoT system. AHP based solution helps the industry experts to select the more relevant and critical parameters such as (reliability in-line with a packet loss ratio), (convergence in mapping with delay), and (interoperability in association with throughput) for improving the yield of the product in the industry. Third, sustainable technology-oriented services are supporting to propose the novel cloud-enabled framework for the IIoT platform for regular monitoring of the products in the industry. Moreover, experimental results reveal that proposed approach is a potential candidate for the
90	**IoT-Based Design and Execution of Soil Nutrients Monitoring**	Swapna B., S Manivannan., M Kamalahasan	Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises	**SDG 2**	A sensor centers on using detectors beneath the surface of the soil. The applications require the sending of sensors beneath the ground surface. Henceforth, the sensors turn out to be a piece of the detected condition and may convey more exact detecting. Sensors like NPK (nitrogen, phosphorus, and potassium), soil moisture, and humidity are underground and impart through soil. Most of the applications for sensors are shrewd farming, natural observing of the soil, etc. In this chapter, moisture substance, NPK level of the soil in land is estimated utilizing the sensors, which send it to the centralized server through internet of things for checking. The authors introduce propelled channel models to portray the underground remote channel to consider the qualities of the expansion of electromagnetic waves in the soil. From this detection of soil, one can increase crop production as per the wealth and nutrient levels of soil.
91	**AI-Based Motorized Appearance Acknowledgment Scheme for an Attendance Marking System**	M Kamalahasan., S Gayathri., Dr. B. Swapna., S Srinidhi., H Hemasundari., S Sowmiya., S Shavan Kumar	Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises	**SDG 4**	Staff attendance exists as the greatest historical overwhelming chore in each institution. Existing presence scheme is typically grounded in RFID, IRIS, impression, and uniform notepad. Those schemes necessitate corporeal communication. One and all must wait until the preceding worker goes through the queue. The authors develop an appearance acknowledgement-based staff presence scheme by means of AI. With the help of deep learning and datasets, the scheme senses the position and recognizes which appearance goes to which ID and marks attendance in the datasheet. Then it is exported as an Excel sheet. All resemblance and datasets are protected.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
92	**A Secure and Effective Image Retrieval Based on Robust Features**	Dr. B. Swapna., Arulmozhi P., Kamalahasan M., Anuradha V., Meenaakumari M., H Hemasundari., Aathilakshmi T	Handbook of Research on Technologies and Systems for E-Collaboration During Global Crises	**SDG 16**	A robust, flexible and effective image retrieval system using weighted combination of image retrieval features, is proposed. The proposed method properties such as, shape and spatial features are quite simple to derive and effective, and can be extracted in real time. The system is comprehensive because it incorporates Gabor filters of different grid sizes and flexible because the feature weights can be adjusted to achieve retrieval refinement according to userâ€™s need and robust because the systemâ€™s algorithm is applicable to retrieval in all kinds of image database. In CBIR systems the common method of improving retrieval performance is by weighting the feature vectors. In this paper a new and reliable method of improving retrieval performance, and which complement feature weighting is proposed. Based on results obtained from this paper, we hereby state that the key to a breakthrough in current research in semantic image retrieval lies in the use of Gabor texture feature. Its benefits of Fourier as well as local analysis of images enable analysis of gradual changes of texture and texture variations which are essential properties of real-world scenes.
93	**Malware analysis and detection using reverse Engineering**	B Rashmitha., J Alwina Beauty Angelin., E R Ramesh	International Journal of Computer Science and Information Technology Research	**SDG 16**	The exponential growth of the internet and new technology lead today's world in a hectic situation both positive as well as the negative module. Cybercriminals gamble in the dark net using numerous techniques. This leads to cybercrime. Cyber threats like Malware attempt to infiltrate the computer or mobile device offline or internet, chat(online), and anyone can be a potential target. Malware is also known as malicious software is often used by cybercriminals to achieve their goal by tracking internet activity, capturing sensitive information, or blocking computer access. Reverse engineering is one of the best ways to prevent and is a powerful tool to keep the fight against cyber attacks. Most people in the cyber world see it as a black hat—It is said as being used to steal data and intellectual property. But when it is in the hands of cybersecurity experts, reverse engineering dons the white hat of the hero. Looking at the program from the outside in –often by a third party that had no hand in writing the code. It allows those who practice it to understand how a given program or system works when no source code is available. Reverse engineering accomplishing several tasks related to cybersecurity: finding system vulnerabilities, researching malware &analyzing the complexity of restoring core software algorithms that can further protect against theft. It is hard to hack certain software.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
94	**VOICE DETECTOR FOR SECURITY PURPOSE IN WEB APPLICATION**	Tapadipta Roy., Rohinth Rex A., Sakaniesh Ram K., Shobarani A., Trisha Ghosh	International Journal of Novel Research and Development	**SDG 16**	Nowadays, the smart home automation system has a significant role in makes daily work easier and efficient. Keeping room keys is an obstacle. Therefore many research has been proposed however the lack of a security system makes the automation systems less trustworthy and unreliable, as well as limited control distances. This paper purposes speech recognition to control the door and only registered people can access it.The proposed system uses microcontroller NodeMCU ESP8266 with a wifi connection to control actuators. The android application has features tracking history control menu, real-time monitoring menu, registration menu, and speech recognition control. The system security consists of a login system, biometric authentication, and specific speech command. The system also uses restful API technology and a java programming language for conducting data transactions either android or microcontroller with a database server.The results show a stable response time of 2 seconds for the microcontroller to control the smart home locally and distantly in one city. The system also proves the registration menu, tracking history control and real-time monitoring perform well with 100% success. The 3 levels of security system also have 100% success with each level must have a value true before doing control of the smart home. This level of security proves the application system is not easy to hack by anyone, very reliable and trustworthy.
95	**ADVANCED ENCRYPTION TECHNIQUE TO ENHANCE MEDICAL IMAGE SECURITY IN INTERNET OF MEDICAL THINGS**	E Kokul., I Mohammed Jaffir., E R Ramesh	International Research Journal of Modernization in Engineering Technology and Science	**SDG 3**	The importance of image security in the field of medical imaging is challenging. Several research works have been conducted to secure medical healthcare images. Encryption, not risking loss of data, is the right solution for image confidentiality. Due to data size limitations, redundancy, and capacity, traditional encryption techniques cannot be applied directly to e-health data, especially when patient data are transferred over the open channels. Therefore, patients may lose the privacy of data contents since images are different from the text because of their two particular factors of loss of data and confidentiality. Researchers have identified such security threats and have proposed several image encryption techniques to mitigate the security problem. However, the study has found that the existing proposed techniques still face application-specific several security problems. Therefore, this paper presents an efficient, lightweight encryption algorithm to develop a secure image encryption technique for the healthcare industry. The proposed lightweight encryption technique employs two permutation techniques to secure medical images. The proposed technique is analyzed, evaluated, and then compared to conventionally encrypted ones in security and execution time. Numerous test images have been used to determine the performance of the proposed algorithm. Several experiments show that the proposed algorithm for image cryptosystems provides better efficiency than conventional techniques.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
96	**The Plight of Women in Arundhati Roy's Novel 'The God of Small Things'**	Vinothini R	Language in India	**SDG 5**	All around the world violence against women occurs daily. In India also women are subjected to oppression and humiliation in several ways day by day. Indian women are mainly oppressed because the country is built around a patriarchal mind set. Patriarchy is a social system in which each and everything in the family is controlled and decided by the males. They have the roles of political leadership, moral authority and property ownership. The patriarchal idea is that a woman's only duty is to serve her father, brothers and her husband. Arunhati Roy's The God of Small Things is a novel which is set in a patriarchal society. Breaking laws, forbidden relationships, the changing social order, oppression of women etc. are its main themes. This novel shows how differently men and women are treated according to the unwritten social norms. Women who stand against men and society are considered as the other and they will be punished accordingly. The present article analyses how Roy portrays an unpleasantly difficult situation of Indian women against the setting of Ayemenam, a southern Indian state of Kerala where the chain of relationships are very complex which traps the female characters subjecting them to repeated suppression.
97	**Enhance Language Development Learning Natural Language Possibilities (NLP) influence Neuro-linguistic Programming (NLP) of Humans for**	Garima Diwan., S Sangeethapriya., P.sasirekha., Pankaj Minj., Gulista Jawed	Journal of Psychology English	**SDG 4**	The present study discusses Neuro Linguistic Programming (NLP) in terms of enhancement of communication skills of the language learners. Communication skills are in high demand because multinational companies require a candidate with good communication skills. So, It is the need of hour for teaching fraternity to improve the communication skills of the language learners by identifying new strategies and techniques. NLP is now gaining momentum in enhancing the communication skills of the learners. NLP is defined as an art of communication and contributes positively in language learning. It is also an important and unavoidable part of the learning process to achieve the needs of the learner. NLP is found to help the students to develop their communication skills with confidence and viewed as contributing tool to the development of human communication and behaviour. Besides, it increases the communication skills of the employees, motivation, success. Many authors also cited that NLP offers the desired result. Hence the present article felt the need of analytical discussion on NLP in terms of the enhancement of communication of the language learners.
98	**Loan Eligibility Prediction using Machine Learning based on Personal Information**	Meenaakumari M., P. Jayasuriya., Nasa Dhanraj., Mohit Tiwari	2022 5th International Conference on Contemporary Computing and Informatics (IC3I)	**SDG 1**	Banks serves the basic necessities of everyone next to hospitals and schools. People reach out to banks for various purposes. But one of the most common services offered by banks is loans. However, many common people are not completely aware of the banking procedures and eligibility criteria for loans. This study aims to develop a Machine Learning (ML) model which is capable of predicting whether the person is eligible for a health loan or not by analyzing some basic values entered by the user. For this process, a dataset consisting of all necessary parameters for a loan application is collected from Kaggle. The collected dataset is then preprocessed by two methods namely the null value elimination method and encoding. Simultaneously, three ML models were developed using three different algorithms. They are the Random Forest (RF), Naive Bayes (NB), and Linear Regression (LR). The preprocessed data will next be used to train the models. Following that, a comparison of a few parameters will be used to assess the models' effectiveness. The results of the analysis prove that the RF algorithm is the best in terms of both accuracy and error. The accuracy of the RF algorithm is 91% and it also predicts loan eligibility with lesser error values. The LR model has the lowest accuracy values and the highest error value making it the least efficient algorithm that can be used in loan prediction.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
99	**RBD-AIIoT: Rice Blasts Detection Combining AI & IoT**	Vidhya M., Dahlia Samb., Vidhya A	2022 International Conference on Knowledge Engineering and Communication Systems (ICKES)	**SDG 2**	Rice blast disease is the most common disease in rice-growing areas in the world, and it is the most serious in India. Rice is threatened by a number of illnesses. For precise disease prevention and control, it is critical to establish rapid and accurate identification of rice plant illnesses. Many rice explosion organization methods necessitate the expertise of experienced agriculturalists. Keeping a watch on the farm for signs and symptoms of contamination takes a lot of time and work. To detect rice plant illnesses, current techniques investigation use snap shots or non-photo hyper spectral statistics, which necessitate human strategies to obtain the snap photos or data for evaluation. Rice blast detection is based on a non-photograph IoT sensor-based IoT infrastructure for soil cultivation. Unlike image-based fully plant disease detection systems, our agricultural sensors generate quasi information that can be routinely taught and analyzed by the AI mechanism in real time. This research proposes RBD-AIIoT method for detecting rice plant ailments that combines AI and IoT tools. RBD-AIIoT provides agriculture sensors generate non-image facts that AI can robotically analyses and study, unlike photo-based solutions for plant disease forecasting and also this proposed system sense Temperature, Humanity, Soil, Rain and Pressure of the environment to detect the rice blasts.
100	**RBD-AIIoT: Rice Blasts Detection Combining AI & IoT**	N S Kamalam., Dr.mary Thomas	Journal of Positive School Psychology	**SDG 2**	Rice blast disease is the most common disease in rice-growing areas in the world, and it is the most serious in India. Rice is threatened by a number of illnesses. For precise disease prevention and control, it is critical to establish rapid and accurate identification of rice plant illnesses. Many rice explosion organization methods necessitate the expertise of experienced agriculturalists. Keeping a watch on the farm for signs and symptoms of contamination takes a lot of time and work. To detect rice plant illnesses, current techniques investigation use snap shots or non-photo hyper spectral statistics, which necessitate human strategies to obtain the snap photos or data for evaluation. Rice blast detection is based on a non-photograph IoT sensor-based IoT infrastructure for soil cultivation. Unlike image-based fully plant disease detection systems, our agricultural sensors generate quasi information that can be routinely taught and analyzed by the AI mechanism in real time. This research proposes RBD-AIIoT method for detecting rice plant ailments that combines AI and IoT tools. RBD-AIIoT provides agriculture sensors generate non-image facts that AI can robotically analyses and study, unlike photo-based solutions for plant disease forecasting and also this proposed system sense Temperature, Humanity, Soil, Rain and Pressure of the environment to detect the rice blasts.
101	**Optimization of Nano Materials Using Response Surface Methodology**	P Vasanthi., S Senthil Selvan., Vijaya Bhoopathy., D Chandan Kumar	Lecture Notes in Mechanical Engineering	**SDG 9**	In the contemporary research work, the Response Surface Methodology (RSM) is used to simultaneously maximize compressive strength and minimize the absorption of water in the cement mortar (nano materials blended). Three important process parameters including nano silica (0–3wt%), w/c ratio (0.48–0.52wt%), and Plasticizers (0–1wt%) were augmented to acquire the best values of response using the numerical box-behnken design with desirability analysis. The nano silica was replaced by cement in 0%, 1%, 2%, and 3% and water–cement ratios of 0.48, 0.50, and 0.52 with the addition of 1% of polycarboxylate admixture in the cement mortar separately. The research work aims to increase the mechanical properties of cement mortar using nano silica and mineral admixtures. The compression test was carried out using ASTM standard mortar cube to investigate their mechanical properties. The optimal results showed that the nano mortar with 2% nano silica, 0.5 water cement ratio (w/c), and 1% plasticizers, attaining high compressive strength and effectively increasing the mechanical properties of cement mortar.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
102	**Use of Rubber Tyre Discarded from Mechanical Vehicle in the Construction Industry**	Vijaya Bhoopathy., S Senthilselvan., P Vasanthi	Lecture Notes in Mechanical Engineering	**SDG 11**	Due to the huge consumption of materials such as cement, sand and coarse aggregate, they are depleting day by day. The fibrous waste product obtained from sugar refining industry is SCBA. SCBA is a utilized pozzolanic material in producing high strength concrete. The world is a facing major waste management problem in the disposal of waste tyre. The bagasse ash has been partially replaced in the ratio of 0, 10, and 20% by weight of cement in concrete. 5% rubber tyre waste has been replaced as coarse aggregate. In order to analyse the compressive strength of cube and split tensile test of cylinder for a period of 7, 14, 28 days. Before testing it involves the determination of material properties such as cement, fine aggregate, coarse aggregate, discarded rubber tyre, and bagasse ash. The results obtained from the comparative study showed that bagasse ash and discarded rubber tyre can be used as a partial alternative for concrete.
103	**Neural Network Analysis for the Prediction of Corrosion in Steel Rebar**	S Mohamed Abbas., R Aruna., S Vivek., G Suresh., C M Meenakshi., T Srinivasan., K Selva Ganapathy	Lecture Notes in Mechanical Engineering	**SDG 9, SDG 1**	The study involves the corrosion prediction characteristics of steel rebar subjected to an accelerated corrosion process. This experimental study is focused on the evaluation of corrosion occurring in the steel rebar under marine environmental conditions. The experimental outcomes predicted the intensity of corrosion activity pronounced in the steel rebar. An ANN model is developed to analyze the corrosion currents of the embedded steel bar. In this simulation process, time intervals are fed as the input data and the corrosion currents are defined as the output data. Best validation performance was observed at 114 epochs. The obtained results were then compared with the experimental outcomes. The test results exhibit that ANN analysis produced the nearest prediction current values to that of experimentally measured values. The experimental results proved to be in good correlation with the modeled ANN results.
104	**Evolution of 5D Printing and Its Vast Applications: A Review**	Rathika Rai., Vidhya T K	THAI MOOGAMBIGAI JOURNAL OF PERIODONTICS AND DENTAL SCIENCE	**SDG 12**	3D printing is one among the foremost successful yet controversial technology which is employed in various fields like aerospace, automobile industry, fashion, and ornamental designing, marine, orthodontics, prosthetics and various implants, agile tooling, and assorted applications. Albeit ample applications have numerous drawbacks. Those drawbacks are subjugated by 4D printing, which have introduced shape memory effect (SME) including one-way SMEs, two-way SMEs, and three-way SMEs. On amelioration of 3D printing, 5D printing has been introduced to develop streamlined products as an outcome. In this paper, the evolution and its vast applications are discussed briefly with its superiority.
105	**Blockchain-Based Internet of Vehicles for Intelligent Transportation System Using Fog Computing**	J Susan Roy., J Jason Roy	Saudi Journal of Oral and Dental Research	**SDG 9**	Blockchain technology provides transparent, distributed highly confidential, and immutable transactional distributed databases and is responsible for storing valid transaction information committed by each peer in a peer-to-peer system network. An intelligent transportation system (ITS) is an advanced integrated system of smart vehicles and diverse vehicular networks to develop an enhanced environment for a range of transport and traffic management services. A blockchain-assisted decentralized system for the Internet of vehicles (IoV) enables secure and efficient data sharing. We proposed a robust, scalable, fast, and decentralized fog computing architecture to accomplish and control the vehicular network efficiently and effectively in terms of vehicular positioning, information transferring and sharing. The fog computing technology and Internet of things (IoT) are necessary to the existence of transportation systems by creating intelligent and better decisions in a smart ecosystem. The fog computing technology extends the data processing from the cloud to the fog nodes (FNs), significantly improving the quality of service by reducing the network traffic that is sent to the cloud server.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
106	**A Novel Integrated Converter for Electric Vehicles (EVs)**	R Nithish Kumar., M Sethuraman., Fayaz Fareeza., R Subash., J Jayarajan	ICONIC RESEARCH AND ENGINEERING JOURNALS	**SDG 7**	A novel integrated converter for electric vehicles (EVs) is proposed in this work. For battery charging operation, the proposed converter system enables a complementary deployment of the utility grid and a solar photovoltaic (PV) system. Since both sources (acting one at a time) utilize the same converter, the developed charging system therefore has a smaller number of components. In addition, an inductor voltage detection (IVD) technique has been incorporated to correct the power factor in continuous conduction mode (CCM), which eliminates the need for a current sensor for power factor correction (PFC). The proposed system operates for all the modes required for an EV e.g., charging, propulsion (PRN) and regenerative braking (RBG). In charging mode (with either grid or solar PV), the proposed system operates as an isolated secondary ended primary inductance converter (SEPIC) converter. In PRN and RBG modes, it operates as a boost converter and a buck converter, respectively. Details of all these modes are described in the paper, along with the design of the components.
107	**Smart Based Solar Powered House System Design**	J Jayarajan., Priyesh Ranjan., T Pavan Kumar., T Teja	International Journal of Novel Research and Development	**)G7,9,11,12,13**	The design of a solar-powered smart home with a wireless sensor network is presented in this study, which addresses smart energy management, smart health care, smart ventilation, and smart people management. The sensor network is stretched throughout the building, including the entrance gate, corridor, living room, and kitchen. For wireless communication, two Internet of things (IoT) design prototypes is used: one using Bluetooth for shortrange offline communication and the other using Global system for mobile communication (GSM) for long-range offline communication. For online control and monitoring, ZigBee and Wi-Fi are employed. The solar panel provides energy to the smart house via an Optimum PowerPoint tracking (MPPT) controller, which ensures maximum efficiency. When the owner is unavailable, internal infrastructure can intervene in some unanticipated situations.
108	**BLDC DRIVES USING WITH HIGHSPEED AND LOW-INDUCTANCE**	R Akaash., Chandru V., Robert P., Margabandu Anand	International Research Journal of Modernization in Engineering Technology and Science	**SDG 16**	Due to the simplicity and high reliability, brushless dc (BLDC)motors are widely used in space application. High reliability levels are the vital aspect for ensuring the long-term stable operation of the BLDC motor system which is used in aerospace applications. The fault tolerant control of BLDC motor is of great importance for its continuous operating capacity even under the faulty situation. This paper proposes fault tolerant topology composed of an additional phase Luganda fault protective circuit for the high-speed low inductance BLDC motor. Based on the analysis of the over current and overvoltage phenomenon after the switch faults, an ovel fault isolation and system reconfiguration method is presented. The method can achieve safe isolation and reconfiguration to avoid the secondary fault caused by direct switch of the redundant switch and the faulty switch after the fault diagnosis process. Both simulation and experimental results confirm the feasibility and effectiveness of the proposed method.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
109	**QUANTUM BASED D FLIP â€“ FLOP AND SR FLIP â€“ FLOP SIMULATION**	Florence Kannaiyan	Journal of Positive School Psychology	**SDG 5, SDG 1**	In recent years, a growing interest in people around the world is quantum computing. Quantum computing (QC) is regarded as the future of computer and game change in all fields depending from the basic circuits, and medical to computer science. Due to the large number of activities and research in the quantum field, the need of the memory organization play a major role in the activities mentioned above. Memory layout is not dependent on anything other than sequential circuits. Basic sequential circuits such as flip - flops and registers play a major role in memory processing. It is easy to set up a sequential circuit on a classical computer, but it is the opposite of quantum computing as the reference is to so-called "qubits" rather than a bit. Due to the lack of quantum hardware, Quantum simulation (QS) is still the most common way to use quantum circuits. This paper shows the D -Flip flop simulation and SR - Flip flop made in a web-based template known as QInspire. The outputs of those flip flops with the comparison of previous works are also discussed in this paper
110	**Anti-candidal Effect of Ocimum sanctum: A Systematic Review on Microbial Studies**	Ponsekar Abraham Anandapandian	Journal of Clinical Prosthodontics and Implantology	**SDG 3**	Candida albicans is the most prevalent candidal species in humans. It is the causative agent and is most commonly associated with more than 90% of serious systemic fungal infections. Even though there are numerous anti-fungal agents, new strains of pathogens develop resistance against these agents. In order to prevent resistance, plant-based drugs can be considered as an alternative therapy. Recent studies show that few herbs consist of active ingredients acting against specific pathogens. The aim of the present study is to understand the anti-candidal effect of Ocimum sanctum (Tulsi) based on in-vitro microbial studies. This systematic review followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses Statement Criteria (PRISMA). Articles were collected from the electronic databases of PubMed and Cochrane till 2021. Anti-microbial studies on O. sanctum and its action against candidal species were included. We excluded clinical trials, reviews, abstract articles, and interventional studies. The selected antimicrobial studies used various phytochemical constituents of Tulsi extract, and the anticandidal properties were measured through the zone of inhibition (ZOI). All studies demonstrated the effective anticandidal property of O. sanctum, suggesting its possible use as an effective and affordable "adjunct" along with standard care for systemic and topical candidal infections. The main components of O. sanctum responsible for anticandidal activity were likely to be eugenol and linalool. However, the mechanism of action of these constituents is unclear. Further research assessing the toxicity, durability, and other assessments followed by clinical trials is necessary to explore the potential of Tulsi in combating oral conditions.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
111	**DESIGN RECOMMENDATIONS FOR BUILDINGS IN CHENNAI USING MAHONEY TABLE**	K Geetha., Bareena Mary Leo	Journal of Positive School Psychology	**SDG 4**	In the current scenario, the necessity of sustainable living environment is the essential need of the hour. The recent expansion of the Chennai metropolitan area as a Greater Chennai Corporation by inclusion of suburban zones makes it as one of the fastest growing cities. In addition to that Chennai city developed more infrastructure development in almost all DUHDV WKDW DOVR LQFOXGHV ³VPDUW FLW\¥ SURMHFW 7KHVH W\SHV RI LQIUDVWUXFWXUH development lead to various climatic issues bringing negative impact on the environment leading to blocking of gifts of nature like air, wind, water. However, we cannot give up development of city since it is economically essential for the development of industries which totally depends on manual labour who are to be accommodated in these building structures. This does not mean that we can compromise with the natural environment. Even in the past, our earlier generations were aware of the benefits from certain climatic features by adopting appropriate building design. This paper gives an intuition into the design recommendations for climatic design approaches for the city of Chennai through Mahoney calculation.
112	**Usage of the â€˜Tools and Techniquesâ€™ in â€˜Online Teaching and Learningâ€™ becomes more productive & effective, when right pedagogy is chosen based on studentsâ€™ Learning abilities and styles**	S K Meena Kumari., K Geetha	Journal of Positive School Psychology	**SDG 4**	The paper is focused on to disclose the factors that actually make the usage of Tools and Techniques in ‘online teaching and learning’ to work for the best possible learning to happen. The authors believe that only the right pedagogy (together with the right content) chosen based on Student’s learning abilities and styles, makes the learning better. Thus it is to say that the student should get the choice of appropriate way to learn and the style that suits him/her better for better learning to happen; and it is the learning process that has to be more important, and the teacher’s involvement in the process should be only to the extent of facilitation, moderation and intervention to correct and clarify, where the students go wrong or land in confusion in learning to understand. While the Tools and Techniques in Online Teaching & Learning are very essential, their quality gets expressed through catalyzing the learning process. Towards this the teacher has to play the appropriate role as mentioned - the facilitator, moderator and intervener - and should not just be a deliverer of knowledge, which is only a role of content deliverer. Such a delivery of knowledge-content through lecture, in most of the cases, is not received, absorbed, assimilated and adopted to attain the knowledge level, which enables analysis, application and evaluation in a contextual canvas, possible. The discussions enabled in the paper, hence, are more directed on how to make the students get emotionally interested, intellectually involved, consistently focused in order to learn and understand to analyze, apply and evaluate, with the knowledge facets being focused upon, using his existing knowledge interacting, so as to make the learning attain fruition.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
113	**Speaking / Oral mode of Testing for Assessment & Evaluation for Quality Learning**	K Kamatchi., Kandhasamy S., Rajesh Kumar N T	INTERNATIONAL JOURNAL OF MEDICAL AND EXERCISE SCIENCE	**SDG 3**	Speaking, as against the other modes of Testing in Assessment and Evaluation is the most appropriate one to judge a student's / learner's knowledge. It may not be complete, but it is a more effective tool to assess and evaluate learning attained by a learner of any age. Speaking is one of the two skills for outward communication, the other being - Writing. But unlike Writing, Speaking is a straightforward possibility to judge a learner's learning outcomes actually attained. The paper focuses on to project the scientific aspects of Speaking which scores over Writing. The paper also highlights to say that in a situation where Writing seems to have better relevance and possibility to assess and evaluate the learners, Speaking, as a skill, corroborates learning having happened to the learner. Writing skill of a learner may not provide fool proof judgment possible, as Writing is possible from memory without understanding also, i.e. rote learning. The paper brings before the reader the required evidential connotations as to why Speaking has its advantages in testing of knowledge over writing, though Writing as a mode of testing has its own niche aspects of testing of knowledge acquired.
114	**Analysis on Synthesized Carbon Aerogels Doped with Resorcinol Formaldehyde by XPS and Fesem Techniques**	L S Shanthi., Dr.mary Thomas	Journal of Positive School Psychology	**SDG 5**	Aerogels are highly porous nanostructures with very low density and have various applications. This research study aims to synthesize carbon aerogels using a sol gel poly-condensation reaction. The primary precursors were resorcinol with formaldehyde in a molar ratio of 1:2 using base catalyst sodium carbonate to produce carbon aerogels. The density obtained for synthesized Resorcinol Formaldehyde (RF) aerogels was 40-50kg/m3 . The carbonization of resorcinol formaldehyde aerogels was carried out using pyrolysis under 800oC with a heating rate of 10oC/min under vacuum conditions after the carbonization porosity of the aerogel was increased. The surface morphology was characterized using Field Emission Scanning Electron Microscopy (FESEM), and elemental analysis was carried out using X-Ray Photoelectron Spectroscopy (XPS). From the final results, it was observed that the carbonization of the resorcinol formaldehyde aerogels by pyrolysis increased the porosity of the carbon aerogels. Thus, it could be predicted that these carbon aerogels can serve as a promising applicant for future water treatment.
115	**Identity and Self-Representation in TaslimaNasrinâ€™s My Girlhood and Bamaâ€™s Karukku**	Dharani Loganathan., George Victo Sudha George., Geetha Soman	Proceedings - 2022 4th International Conference on Advances in Computing, Communication Control and Networking, ICAC3N 2022	**SDG 3**	aslima Nasrin and Bama are fascinated by the dilemmas women face in various facets of their existence. Even though each writer has their unique strategies for tapping the possibilities of the issue, they all share deep concerns and a desire to see women empowered and outspoken. Bama and Nasrin came from extremely different backgrounds and had quite different formative influences in their lives. My Girlhood, by Taslima Nasrin, is about the increasing awareness of gender subordination and female abuse in Bangladesh. My Girlhood is about a young girl's search for her personal space. Taslima Nasrin's search for love and independence leads her to a new understanding of being a woman. Dalits may gain economic power, yet their Dalitness follows them till death. They are not socially regarded as equal human beings by the upper castes. In her autobiography, Bama addresses the issue of Dalit identity at various points in her life. The article's main purpose is to study the diagram of Identity and Self-Representation in Taslima Nasrin's My Girlhood and Bama's Karukku.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
116	**Design and Parameter selection of E- Vehicle**	Kesavan Sujatha., R S Ponmagal., Kaliyamoorthy Senthil Kumar., Rajeswari Hari., A Kalaivani., Kannusamy Sivaprakasam Thivya., Margabandu Anand	Deep Learning for Sustainable Agriculture	**; 2, SDG 13, SI**	Aim is to construct a high-performance electric bike capable of speeds of up to 40 kilometers per hour and a range of 50 kilometers. Many features are included, including a solar-powered charging system, a sensor-based BLDC motor controller, throttle sensors, a mid-drive motor, and more. At motor speeds corresponding to bicycle speeds between 0 and 40 km/h, a controller for an electric bike must deliver power that varies from 0 to the rated peak of the propulsion motor. Pulse-width modulated (PWM) transistors allow for variable power delivery to DC propulsion motors. Changing frequency is required for use with AC motors. The frame, wheels, suspension, chain, and freewheel of an electric bike are all standard fare for bicycles. Electromagnetic motors will eventually replace internal combustion engines.
117	**Automated real-time forecasting of agriculture using chlorophyll content and its impact on climate change**	Arun Ganji., Usha Damodaran	2022 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI)	**SDG 4**	The core theme of this project is to assess the economic impact of climate change on Indian agriculture. Climate change is caused due to the emission of greenhouse gases like carbon dioxide (CO2), methane (CH4), and nitrous oxide from various industrial sources. Neyveli, being the source of heavy megawatt-generating stations, let out flue gases, which contain CO2, carbon monoxide, oxides of sulfur, CH4, and oxides of nitrogen. These harmful gases are responsible for depletion of the ozone layer, which has a significant effect on variation in weather and agricultural output and sometimes even produces acid rainfall. Considering the probable effects of climatic change on agriculture has motivated a vital change in the yield of agricultural products, livestock yields and also changes in the food production pattern and prices. This estimation of chlorophyll content can be done by extracting green colored pixels from the satellite images or images captured by the vision sensors and soil moisture sensor placed in the Indian agricultural area. These images are preprocessed for noise removal using edge detection technique. From the preprocessed images, feature descriptors like histogram of oriented gradients (HoG) are extracted. The HoG values are fused with the information gathered from soil moisture sensor. The extracted features are reduced using principal component analysis (PCA). The feature set is thereafter used as inputs to artificial neural networks using feed-forward structure trained with backpropagation algorithm (BPA). These estimates done using data analytics will lend a helping hand to the farmers to adapt themselves to the year within annual weather shocks. It can be inferred that the estimates, derived from short term, are capable of predicting the short- and medium-term impacts of climate change, which would direct the farmers to adapt rapidly to the changing climatic conditions. These short- and medium-term impacts of climate change are found to reduce the agricultural productivity by 4%–6% and 6%–9%, respectively. Hence it is inferred that the climate change entails significant impact on the revenue of the Indian economy until and unless the farmers can promptly identify and adjust to decreasing rainfalls and increasing atmospheric temperatures. The first challenge lies in analyzing the satellite images of the farmlands using efficient image processing algorithms to extract useful and meaningful information. This data
118	**Knowledge Challenges and Responses in the Internet of Technologies**	Parthiban L., Nirmala Gururaj., Vinod V	Frontiers in Quantum Computing: New Research	**SDG 2, SDG 9**	This enhancement future channel with IOT Internet objects is having much more enthusiasm and a lot of consideration. As an ever increasing number of contraptions (for example Things) associated with the data, the gigantic measure of information traded has arrived at an extraordinary level. As delicate and private data traded connected objects, protection turns into a significant examine. Amidst numerous significant distributions, adaptability, straightforwardness, and unwavering quality are considered as new difficulties that separate Internet of things from the traditional. We interact from this paper for the correspondence count of Internet of Things with problems and situations to the extent of huge scope, temperamental, unavoidable processing condition. We adapt to these new difficulties, the traditional security design will be returned to. Specifically, different confirmation plans will be assessed to guarantee the secrecy and trustworthiness of the traded information.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
119	**Machine Learning and Artifcial Intelligence-Based Tools in Digital Marketing: An Integrated Approach**	Kannan A., B. Justus Rabi., Margabandu Anand	Machine Learning for Business Analytics: Real-Time Data Analysis for Decision-Making	**SDG 3, SDG 9**	Technological growth and advancement have created a lot of opportunities for companies in the field of marketing and digital marketing (DM). The use of analytical tools creates a competitive advantage for companies in the market. By the use of artificial intelligence (AI) and machine learning (ML), it becomes easy to forecast or predict the future and support the management in taking important decisions. All these insights are gained from the available research data and big data, especially in the case of DM. Research has revealed the level of awareness of managers on ML and how they use AI- and ML-based tools to make strategic decisions and support their marketing activities. The findings of this research clearly highlight (i) the perceptions of the management about analysis tools, (ii) the awareness among managers/top management on various terms related to AI and ML, (iii) the tools used by managers (based on AI and ML) and how to adopt ML in DM, (iv) the role of AI- and ML-based analytical tools in decision-making and setting digital marketing strategies.
120	**Stochastic Sequential Development of Supply Chain Management System and Performance Index in Dynamic Environment**	Nallusamy S., Sujatha K	Encyclopedia of Materials: Plastics and Polymers	**SDG 9**	We need the ability to quickly adapt to new supply chain operations in order to keep up with the ever-evolving nature of today's business climate. Supply chain management activities are one area where software agents have been widely implemented and used with great effectiveness. Agents' actions are defined by their intended function, and their utility is evaluated in light of their design goals. Managing intricate supply networks now requires the use of decision-support tools. By quickly identifying and fixing bottlenecks and capitalising on market opportunities, logistics diagnostics helps freight transport businesses thrive for the long haul. The management system takes a logistical approach in order to prioritise value. Values and needs of consumers are always changing, and so are the goods and services that meet their needs. used to create those values are the foundation of the logistic method. The research's ultimate goal is to formulate a systematic means of creating a supply chain management system and performance index.his study employed the research approaches of system analysis, logical-structural procedures, categorization, and grouping. Incorporating big data analytics with the ability to apply autonomous corrective control actions, this article creates a multi-agent-based supply chain management system with an enhanced performance index. The implications of the system on the flexibility of the supply chain are examined.
121	**Characterization of Machining Parameters on Polymer Matrix Composite Using Taquchi Technique**	Kiruthiga Devi Murugavel., K Nithya., Kaviya Dharshini M., R.a. Kalpana	2022 1st International Conference on Computational Science and Technology, ICCST 2022 - Proceedings	**SDG 9**	The objective of this research is to optimize the machining parameters for face milling of EN 31 steel work piece using tungsten carbide tipped tool under minimum coolant flow requirement. Taguchi method of experimental design is applied to optimize the material removal rate. Experimental design consists of L16 orthogonal array involving three factors with four levels and one factor with two levels. Along with speed, feed rate and depth of cut machining parameters Aluminium Oxide (Al2O3) nano-particles with 60 nm are added in the coolant for improving the face milling process. The effect of these parameters on the material removal rate is discussed with detailed analysis. The analysis of mean and variance technique is also used to study the significance of each parameter on the response. From the results it is observed that, the material removal rate was found maximum at A4 B4 C4 D2 with spindle speed of 3500 rpm, feed rate of 2000 mm/min, depth of cut of 1.2 mm and 3% concentration of nanoparticles in coolant.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
122	**Home Automation Monitoring and Controlling with BCI Comparative Analysis**	Kiruthiga Devi Murugavel., U. Surya., Unnamalai. K., Tharani R K	2022 1st International Conference on Computational Science and Technology, ICCST 2022 - Proceedings	**SDG 3**	The electroencephalography (EEG) brain waves are gathered using electroencephalography electrodes and amplification and filtering are applied before they are converted into digital data for machine learning and detailed pre-processing. This is the foundation of the important research area known as the Brain-Computer Interface (BCI). A wavelet-characteristic intelligent home automation system is designed and built with a two-channel analog EEG signal acquisition module. The intended analog EEG module carries out signal amplification, filtering, and acquisition of EEG signals. Despite the fact that the EEG dataset contains large numbers of samples and also more of around 15 classes, the study focuses on 226 samples,split up into seven classes with an average time period of 8 seconds. The parameters of the deep learning classifier model were carefully set, and the results of the training and testing were extremely accurate. Wide bandwidth at 400 HZ, ease of configuration, pre-processing, digital filtering, multi layer recognition, monitoring, and control modeling, high classification accuracy, and low cost are some of the advantages of the developed BCI system.This study made a number of contributions, oneof which was the construction of a current and unique EEG data set using properly labeled recordings at a suitable sample rate of 2 kHz. We used a deep learning algorithm to classify the class of EEG in various statuses of the brain and our activity. The experimental results are supported by a number of classification models, including well-known classifiers like LDA and deep learning models. We also included a comparative study on smart automation home control and monitoring system. The proposed BCI system is used to detect the action and capture user brain signals.
123	**Treatment for Insomnia using Music Genre prediction using Convolutional Recurrent Neural Network**	A Einstein Thiruselvan Bertin., Darpan Bhargava., Durgakumar Mishra Shubhangi	Transalveolar Extraction of the Mandibular Third Molars	**SDG 3**	Chronic health issues like high blood pressure, heart disease, diabetes, kidney disease, obesity, stroke, and depression have been related to sleep deprivation. Healthcare professionals are becoming increasingly aware of the importance of sleep, which affects overall health and wellness as a sign of vitality. The results of research on music therapy and its effectiveness as a strong, economical intervention will be discussed. the capacity of music to promote sleep under conditions of health and sickness. With tailored genres and data, we use transfer learning techniques to train a music genre classification system. The model takes the spectrogram or sonogram of music frames as an input and then assesses the image using a Convolutional Neural Network (CNN) and a Recurrent Neural Network (RNN). The system generates a vector of predicted genres with the highest level of accuracy as its output. This technique will be helpful in analyzing or predicting the character or mood based on musical tastes, which helps alleviate tension, worry, and depression.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
124	**Design of LLC resonant converter with silicon carbide MOSFET switches and nonlinear adaptive sliding controller for brushless DC motor system**	A R Mohamed Rameez., Mrs.z.fathima Taskeen., A R Indrapriya	International Research Journal of Modernization in Engineering Technology and Science	**SDG 6**	The high voltage gain DC-DC converters are increasingly used in many power electronics application systems, due to their benefits of increased voltage output, reduced noise contents, uninterrupted power supply, and ensured system reliability. Most of the existing works are highly concentrated on developing the high voltage DC-DC converter and controller topologies for goal improving the steady state response of brushless DC motor driving system and also obtain the regulated voltage with increased power density and reduced harmonics, the LLC resonant DC-DC converter is implemented with the silicon carbide MOSFET switching devices Problem. Yet, it facing the major problems of increased switching loss, conduction loss, error outputs, time consumption, and reduced efficiency. Also the existing works are mainly concentrating on improving the voltage gain, regulation, and operating performance of the power system with reduced loss of factors by using the different types of converters and controlling techniques. The goal of this work is to obtain the improved voltage gain output with reduced loss factors and harmonic distortions. Method. Because, this type of converter has the ability to generate the high gain DC output voltage fed to the brushless DC motor with reduced harmonics and loss factors. Also, the nonlinear adaptive sliding controller is implemented to generate the controlling pulses for triggering the switching components properly. For this operation, the best gain parameters are selected based on the duty cycle, feedback DC voltage and current, and gain of silicon carbide MOSFET. By using this, the controlling signals are generated and given to the converter, which helps to control the brushless DC motor with steady state error. Practical value. The simulation results of the proposed LLC silicon carbide MOSFET incorporated with nonlinear adaptive sliding controller controlling scheme are validated and compared by using various evaluation indicators.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
125	**Evidence analysis on the utilization of platelet-rich plasma as an adjuvant in the repair of rotator cuff tears**	Sujatha Jamuna Anand., C Kamatchi., Nibedita Dey., Chandrasekaran Tamilselvi., Dahlia Sam., Kesavan Sujatha	Swarm Intelligence and Machine Learning	**SDG 3**	Platelet-rich plasma has been gaining popularity as an agent for biological augmentation either as the sole treatment modality or as an adjunct to surgical repair. There is substantial discrepancy in the results of the published meta-analyses; and the true efficacy and role of using autologous platelet-rich plasma (PRP) at the time of rotator cuff repair is still ambiguous. AIM To performed this systematic overview on the overlapping meta-analyses that analyzed autologous PRP as an adjuvant in the repair of rotator cuff tears and identify the studies which provide the current best evidence on this subject and generate recommendations for the same. METHODS We conducted independent and duplicate electronic database searches in PubMed, Web of Science, Scopus, Embase, Cochrane Database of Systematic Reviews, Reference Citation Analysis and the Database of Abstracts of Reviews of Effects on September 8, 2021 to identify meta-analyses that analyzed the efficacy of PRP as an adjuvant in the repair of rotator cuff tears. Methodological quality assessment was made using Oxford Levels of Evidence, AMSTAR scoring and AMSTAR 2 grades. We then utilized the Jadad decision algorithm to identify the study with the highest quality to represent the current best evidence to generate the recommendation. RESULTS Twenty meta-analyses fulfilling the eligibility criteria were included. The AMSTAR scores of the included studies varied from 6-10 (mean: 7.9). All the included studies had critically low reliability in their summary of results due to their methodological flaws according to AMSTAR 2 grades. Significant heterogeneity was observed in the reporting of VAS, function outcome scores (long-term UCLA score, ASES score, SST score), operative time and long-term re-tear rates. Recent meta-analyses are more supportive of the role of intra-operative administration of PRPs at the bone-tendon interface in improving the overall healing and re-tear rates, functional outcome and pain. The initial size of the tear and type of repair performed do not seem to affect the benefit of PRPs. Among the different preparations used, leucocyte poor (LP)-PRP possibly offers the greatest benefit as a biological augment in these situations. CONCLUSION Based on this systematic overview, we give a level II recommendation that intra-operative use of PRPs at the bone-tendon interface can augment the healing rate, reduce re-tears, enhance functional
126	**Swarm Intelligence-based Framework for Image Segmentation of Knee MRI Images for Detection of Bone Cancer**	Kesavan Sujatha., N P G Bhavani., B Latha., Kaliyamoorthy Senthil Kumar., Thangavel Kavitha., Umapathy Jayalatsumi., A Kalaivani., V Srividhya., Balasubramanian Rengammal Sankari	Swarm Intelligence and Machine Learning	**SDG 3**	Image Analysis in the domain of medical field is playing an important role in diagnosing and treatment of disease and detection of cancers in early stages. As a traditional method for identifying bone features, the microscopic images were used. These images are acquired by using radiation in the range of micrometers, where it needed to be repeated. Hence it is a laborious process which consumes much time. So, this method is insufficient to process low quality images. Hence, an automated and consistent technique is required to carry out the image analysis.
127	**Swarm Intelligence for Diagnosis of Arrhythmia and Cardiac Stenosis**	Sujatha Saravanan., Rajeswari Hari., Sekar Karthikeyan	International Journal of Health Sciences	**SDG 3**	Large fraction of people is affected with diabetes all across the world and early detection plays an instrumental role to improve the survival chances. We propose a preliminary preventive measure, which can be introduced just by performing some clinical laboratory tests, results of which when fed into a machine learning classifier (XGBoost) can predict the possibility of diabetes in the concerned individual with an accuracy of almost 87%. In this paper we have worked with Logistic Regression, K Nearest Neighbors, Classification Tree, Random Forest Classifier, XGBoost Classifier, Adaboost Classifier and LGBM Classifier as the different Analysis of Machine Learning Algorithms for Prediction of Diabetes machine learning algorithms to identify which one among these would have the best accuracy and fine-tuned it with 10 folds cross validation to be used as an initial screening process to identify possible individuals having diabetes.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
128	**In vitro and Insilico cytotoxicity activity of Aconitum Heterophyllum Phyto niosomes and its ethyl acetate root extract: A comparative study**	Siva Jyothi N., Senthil Selvam P., Md Ahmedullah., Yatheendra Kumar G., S S Subramanian., Dr.jibi Paul	International Journal of Health Sciences	**SDG 3**	Bone tumour is actually difficult to be screened and identified as compared with any other connective tissue since the out growth are lumps can be predicted easier. This tissue consists of cell- osteoblasts, osteoclasts and osteocytes. A bone tumor, is a neoplastic development of tissue taking place in bone. Anomalous developments found in the bone can be either benign (benevolent/ noncancerous) or malignant (harmful /destructive). Our purpose is to track the development of tumors at initial stage using image analysis.
129	**Effectiveness of PNF Stretch of Pectoralis Major Muscle on Pulmonary Function in COPD Patients**	Venkatesh N., E Bhavya., Vivekanandan .k	International Journal of Health Sciences	**SDG 3**	COPD is a common and a progressive disorder that is characterised by respiratory symptoms and airflow limitation due to the abnormalities of the airway or alveoli. Proprioceptive neuromuscular facilitation technique can increase the contractive capacity of muscles. The study aimed at assessing the effect of Proprioceptive neuromuscular facilitation stretch of pectoralis major muscle on chest expansion and pulmonary function values in COPD patients. Methods: hold relax PNF of pectoralis major muscle was given for a duration of 6 weeks on the particpants who are met with inclusion and exclusion criteria. Chest expansion was measured at axillary level and xiphisternal level, FEV1, FVC and FEV1/FVC were measured pre and the post intervention. Results: statistical analysis was done using paired t test ($p<0.05$). the results of the study shows that there is increase in the chest expansion at axillary level and xiphisternal level and increase in the FEV1/FVC ratio following 6 weeks of hold relax PNF stretch of pectoralis major in COPD patients. Conclusion: the study concludes that with hold relax PNF stretch there is increase in chest expansion and pulmonary function values.
130	**Knowledge, attitude and practice of community pharmacist towards COVID-19 and uses of zinc and doxycycline in COVID-19**	V Rajalaxmi., G Mohan Kumar., Niranjana R., C V Senthil Nathan	Biomedicine	**SDG 3**	The public must routinely practice precautionary behaviors to control the spread of COVID-19, as no vaccines and antiviral treatments are currently available. This paper examines the public's Knowledge, Attitudes, and Practices (KAP) related to COVID-19 and their relationships and identified the pandemic's vulnerable populations to provide recommendations for behavioral interventions and policies. To Determine the Knowledge, Attitude and Practice of Community Pharmacists towards COVID- 19 and use of Zinc and Doxycycline in COVID-19 and the objective is to understand the knowledge of community pharmacist regarding use of zinc and Doxycycline in COVID-19. This is the cross sectional study conducted among the Community Pharmacists in and around Avadi, Chennai. This study assess the knowledge attitude and perception of community pharmacist regarding Zinc and Doxycycline use in COVID- 19, In comparison of individual KAP of community pharmacist with their work experience there was no significant difference with respect to their work experience all showed a good knowledge, positive attitude and positive perception regarding the use of Zinc and Doxycycline in COVID- 19, the value are 0.3 for knowledge, 0.5 for attitude and 0.3 for perception.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
131	**Efficacy of physiotherapy intervention on craniovertebral and craniohorizontal angle using on protractor mobile app and neck muscle strength in chronic nonspecific neck pain**	Vivekanandan .k., S Geethalakshmi., Dr. N. Harikrishnan N., E Bhavya	International Journal of Health Sciences	**SDG 3**	Introduction and Aim:The chronic nonspecific neck pain is common in all age groups since it is non-specific it may be due to any reasons right from school children to elderly. Factors like muscle strain, worn joints, nerve compression, poor posture, neck pain are found to reduce the cervical angle. The aim of the study is to find the efficacy of physiotherapy intervention on craniovertebral angle, craniohorizontal angle, neck muscle strength and hand grip in subjects with chronic nonspecific neck pain.Materials and Methods:The subjectswith chronic nonspecific neck pain(n=30)were selectedrandomlyfrom the physiotherapy outpatient department of ACS medical college and hospital as per inclusioncriteria and divided into two groups. The pre-test and post-test measurements of craniovertebral and craniohorizontal angles, craniovertebral angleweremeasured using on protractor mobile app. The neck muscle strength was measured using modified dial sphygmomanometer and hand grip was measured using hand held dynamometer. Group A received craniocervical flexion exercise and group B received stretchingand strengtheningfor a period of 12 weeks. Post test was conducted after 12 weeks.Results: The comparisonwithin Group A andGroup B pre-and post-test values in both groups showedhighly significant difference in mean values at $P \leq 0.001$, but group A which has a higher mean value is more effective in craniovertebral angle, craniohorizontal angle,neck muscle strength (Flexor andExtensor)and hand grip.Conclusion: The craniocervical flexion exercise given to chronic nonspecific neck pain patientswasfound to reduce neck painby improving the neck muscle strength, hand grip strengthand by correcting the craniocervical and craniohorizontal angles.
132	**A Study of Prescription Pattern and Prescription Errors in Patients Referred at Multi SpecialityHosptial in Chennai**	A Fathima., E Kandeepan., C B Senthil Kumar., R Radhika	JOURNAL OF ALGEBRAIC STATISTICS	**SDG 5, SDG 8**	The aim of the study was to study of prescription pattern and prescription errors in patient referred at Multispecialty hospital in Chennai. The objective of the study is improve the quality of the prescription using WHO indicators, to evaluate the drug utilization pattern and pharmacoeconomics studies in patients of multispecialty hospital in Chennai. This study was carried out in the out-patients and in-patients of general medicine department of multispecialty hospital in Chennai during the period of January 2021 to March 2021. We conducted a prospective observational study over a period of 3 months (i.e. January-march 2021) in the triage area of our Multispecialty care hospital. The triage area of general medicine department is the place where the patient is first met by a junior doctor. We collected data on all patients received in the triage area between 8 a.m. and 3 p.m. during the study period. In this prospective study, we screened 127 patients who reported in multispecialty hospital. Out of these 127 patients majority of prescribed with antibiotics, analgesics, antacid, proton pump inhibitor, multivitamins and calcium supplements. The prescription patterns of these patients

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
133	**An Empirical Study on Self-Help Groups of Women Entrepreneurs: Determinants of Financial Performance Of micro-Enterprise**	S Nallusamy., S Sundar., S Saravanan	Lecture Notes in Mechanical Engineering	**SDG 9**	Micro enterprises contribute significantly to an economy's balanced growth by creating and providing employment opportunities, thereby contributing to income generation. Financial performance is a subjective indicator of how well-run businesses can leverage their assets to generate future cash inflow Ahmad & Jamil. The purpose of this paper is to investigate the variables that affect the financial performance of micro businesses. To that end, an empirical study was conducted in the Indian context, with a focus on the state of Kerala. A multistage random sampling technique was used to select 180 micro enterprises operating under the Kudumbashree Mission (KM) in three districts. The study examined the factors affecting the profit and sales performance of the group micro enterprises using a panel data regression approach with a pooled OLS model. The findings indicated that sales revenue, enterprise region, and product type all had a significant impact on profitability performance. However, the age of the enterprise, its location (rural/urban), and the product category had no effect on its profitability performance. While the age of the enterprise and the region had a direct positive relationship with sales revenue, the location of the enterprise and the product category had no significant effect on sales revenue.
134	**Experimental Study and Analysis on Surface Integrity by Hardened Steel End Milling**	Sendilvelan Subramanian., Kesavan Sujatha., Geetha Soman., Kanimozhi Natanam., Kanya Nataraj., Rajeswary Hari., Gomathi Kannayiram., Jayalatsumi Umapathy	Lecture Notes in Electrical Engineering	**SDG 3,SDG 1**	The aim of this research work is to analyze the Surface Integrity (SI) of Custom-465 hardened steel over end milling process. End milling process with high cutting speeds becomes an economical practice for manufacturing the parts with high quality and accuracy. High speed end milling is now used for machining of hardened steels for making aerospace and automotive components at higher production rate. The effect of operating parameters such as Cutting Speed (CS), Feed (F) and Depth of Cut (DoC) on SI is more important to control the quality of work piece. In this paper the SI studies includes the measurement of surface roughness (Ra), cutting forces and deformation measurement using coordinate measuring machines was discussed. Then the results were made based on the observations and the surface integrities are studied. From the final results it was found that, the percentage of feed contributes more on Material Removal Rate (MRR) with 61.73% and also the MRR increased with enriched feed.
135	**Multilayer Perceptron Mode and ANN to Assess the Economic Impact and Human Health Due to Alcoholism and Its Effect in Rural Areas**	K Anitha., Shailesh., Dr. L. Ramesh., Murugananth Gopal Raj	Lecture Notes in Electrical Engineering	**SDG 7**	Alcohol consumption when exceeds the limit causes an alarming situation where the person is prone to various diseases like liver cirrhosis, increased blood sugar, blood pressure, mental disorders, impotency, road accidents and violence under the influence of alcohol. Although several report submitted regarding the existence of addiction to alcohol among males in villages of Tamil Nadu, the exact reason for alcohol addiction and its psychological, socio-economic impacts still unknown, which as a challenge for exploration by the data analyst. Various types of alcoholism and problems faced by the drinker have been analysed using statistical data collected in a region of villages near Chennai, and extensively studied by deploying Artificial Neural Networks (ANN). The training and testing can be done using Multilayer perceptron model which uses radial basis function network (RBF). This proposed method facilitates to properly monitor and regulate the alcohol addicts to de-addiction centres. This kind of data mining approach plays a vital role in reforming the lives of the alcohol addicts and save their lives and future which is a huge challenge. Therefore, our aim is to focus on tracking and managing of the alcohol addicts by using intelligent data mining algorithms with related artificial intelligence methods for analysis.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
136	**Residential Feeder Energy Audit Analysis and Recommendation with Aid of Software**	Dr.mary Thomas	Journal of Positive School Psychology	**SDG 7,9,11,12**	Energy conservation plays a crucial role in terms of economic and environmental benefit. Currently, the society depends more on non-renewable energy resources which is to be converted as renewable sources. Hence, renewable sources dependency rate can be reduced by energy conservation methods like energy audit. Energy audit process results in reduction of energy wastage, greenhouse gas emissions and demand for non-renewable energy. In today's scenario, residential energy auditing plays a key role in energy conservation. Consequently, in this chapter we analysed residential feeder through energy audit process which gives an opportunity to find the area of losses and conserve the energy in an efficient manner. As a result of the energy audit process, we suggested three types of recommendations using the ETAP software. On the implementation of the recommendations, the excepted power savings will be recorded and suggested for implementation.
137	**Interpreting Creative Imagination And The Nature Of Inspiration - A Kaleidoscopic View Through The Lens Of Writers, Psychoanalysts, Psychologists, And Poets**	Swarnalatha Dugasani., Nagendra Babu Mennuru., Vinod Kumar Nelson., Geetha Birudala	Bioactives and Pharmacology of Medicinal Plants	**SDG 3**	This paper attempts to decipher the workings of creative imagination and the nature of artistic and poetic inspiration. This deciphering of the creative imagination is fundamental to all human awakening, questionings, and the striving for creative endeavors. It comprehends the nature of the creative imagination in a matrix of varied encounters. To divulge into the personality of the creative individual and the development of creativity is an ongoing in-depth inquiry with many facets to its findings. It makes inspiration and creative imagination a great scientific, literary, psychological, and philosophical enterprise. In his treatise The Making of a Poem, Stephen Spender discusses the experience of being a poet. He reveals that genius works in different ways to achieve its ends. He states the fact that there are many kinds of geniuses like there are many kinds of bits of intelligence. A kind of genius we are attempting to decipher here in this article is one for which we have to delve deeper to look into the confines of a poet's inner being and consciousness. In each case, what matters, in the end, is the revelation of the ineffable vision which sees and pursues and attains the goal of the artistic purpose. The outcome is the artistic endeavor, the poem that feels the inner workings of the mind and heart of man. It brings forth Wordsworth's Daffodils, John Keats, Ode to a Nightingale, Shelley's Ode to the West Wind, and Coleridge's Kubla Khan. The splendid creative workings of the human imagination dazzle the human mind with its spontaneous outpourings of creative genius. It's an introspective journey into the nature of creativity and inspiration.
138	**Bioactives and Pharmacology of PremnaherbaceaRoxb. (Family: Lamiaceae)**	Kesavan Sujatha., N P G Bhavani., Umapathy Jayalatsumi., Thangavel Kavitha., R Krishnakumar., Kaliyamoorthy Senthil Kumar., A Ganesan., A Kalaivani., Rajeswary Hari., Antony Xavier Bronson., S K Shafiya	Lecture Notes in Networks and Systems	**SDG 3**	Premna herbacea Roxb. [Syn.: Pygmaeopremna herbacea (Roxb.) Moldenke]is an herbaceous low-growing perennial plant or an undershrub with its stems growing up to a length of 15 cm or occasionally even up to 30 cm growth can be observed. Stem part of P. herbacea is mostly underground and has rhizome with creeping woody nature. The aerial branching is slender and single dichotomous. Occasionally the plant, especially the fruit, is used as food and rhizomes and roots are employed for medicinal use also. This plant is cultivated in India for medicinal use and as well in Sri Lanka also. This plant is distributed in East Asian countries like India, Sri Lanka, Indonesia, Malaysia, Vietnam, Laos, Cambodia, Thailand, Myanmar, Australia, New Guinea, the Philippines, and Southern China. The roots and rhizomes are used for the treatment of fever, cholera, 270rheumatism, asthma, dropsy, and cough in India (Ken, 2014). Vernacular names include: bharangi, bhuminerale, cerutekku, kantuparanki, ankarakavalli, sirudekku, nilanaval, adavinellikura, ghantubhaarangi, kuranelli, nelaneredu, bhumijambu, khal ba, etc.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
139	**Indigenous Non-invasive Detection of Malnutrition-Induced Anemia from Patient-Sourced Photos Using Smart Phone App**	Sowndharya., Vidhya	International Research Journal of Modernization in Engineering Technology and Science	**SDG 9**	The proposed online-based malnutrition-induced anemia detection smart phone app is built, to remotely measure and monitor the anemia and malnutrition in humans by using a non-invasive method. This painless method enables user-friendly measurements of human blood stream parameters like hemoglobin (Hb), iron, folic acid, and vitamin B12 by embedding intelligent image processing algorithms which will process the photos of the fingernails captured by the camera in the smart phone. This smart phone app extracts the color and shape of the fingernails, will classify the anemic and vitamin B12 deficiencies as onset, medieval, and chronic stage with specific and accurate measurements instantly. On the other dimension, this novel technology will place an end to the challenge involved in the disposal of biomedical waste, thereby offering a contactless measurement system during this pandemic Covid-19 situation.
140	**ANALYISING ADVANCED FORMWORK SYSTEM FOR HIGH RISE BUILDING CONSTRUCTION**	Shobana Saravanan., A Rajaram., T Steffenraj., A Liyandor Moonson	Tierärztliche Praxis	**SDG 3**	High-rise building construction entails a large volume of engineering work, and its complex operation is always highly reliant on innovative construction techniques.[1] High-rise buildings are increasingly difficult to construct as their height increases. Thus, there is the need for advanced technology to complete the construction process easier and faster. Many research says, Formwork technology is a major factor in high rise construction projects that determine project success. Though lots of study has been done on formwork technology, the choice of the right formwork for a project strongly depends on the opinion of employees at working levels with experience. [2]Thus, this paper mainly focuses on finding factors to be consider in choosing the formwork by analyzing the different types of formworks and their technological advancement through the relevant literature, case studies and to present the possibilities of innovation can be made in construction. From the analysis the major factor affecting the selection of formwork is identified and with that comparative study of all the types of formworks is done. Finally, the decision-making model is made to choose the efficient formwork for high rise construction and to check whether it will be feasible for the specific project
141	**A Conceptual Study In Understanding The Impact Of Internet Of Things Towards Supply Chain Management**	Kesavan Sujatha., N P G Bhavani., K Krishnakumar., Umapathy Jayalatsumi., T Kavitha., Kaliyamoorthy Senthil Kumar., V Srividhya., S K Shafiya	Lecture Notes in Networks and Systems	**SDG 3**	Information Technology (IT) is and will be a pillar of Voice Transmission Management (SCM). It plays a key role in supporting the chain in addressing environmental change issues and various risks at all levels. Information technology has had a profound impact on the status and structure of the chain, facilitating the integration of various internal and end-to-end processes and relationships between exporters and customers. The purpose is to improve communication, access and delivery of data through accurate decision making and quality chain management. Preliminary planning, management and chain management. As a positive approach, IoT has played a key role in many aspects of SCM. IoT was created as a global network where devices and devices connect, control and upgrade a wireless, wireless, or wireless network. Supply 4.0 requires two additional values: capacity and environment. Digital skills need to be developed in the organization by regularly recruiting professionals. The main strength is the implementation of dual-speed architecture, which means that as the IT concept is repeated in the university, the cultural environment leads to innovation and innovation begins to emerge. Organizational change and independence are essential for rapid development, experimentation and decision-making. That way, companies can achieve faster, easier and more efficient.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
142	**A Smart Phone App with Geo-Spatial Information for Forecasting COVID-19 from Lung X-ray Images**	Valentina Rani Johnson., Dr.mary Thomas	Journal of Positive School Psychology	**SDG 4, SDG 4**	Presently, the diagnosis of coronavirus-2019 (COVID-19) is a challenging task worldwide as the disease is spreading at a very faster rate when one person with the disease comes into contact with the other. Current information denotes that several people are detected with COVID-19 and the data analyst say that the rate of spread of the disease is increasing exponentially, across many countries in the world. Novelty: This investigation has facilitated the need for diagnosing the disease within a short duration of time by using the X-ray images of the lungs. This scheme deploys artificial intelligence like deep learning algorithms to diagnose COVID-19 among the affected people by maintaining social distancing. Real-time datasets are gathered from the government hospitals for those who are affected by COVID-19 and healthy people. Further investigation can direct the patients themselves to open the smart phone app which will record the respiratory sounds. Followed by this, the features are extracted using Discrete Wavelet Transform (DWT), where a threshold is applied to extract useful coefficients that can be used to train the deep learning neural networks using Fast Recurrent Convolutional Neural Networks (F-RCNN). The respiratory audio signals are captured to detect patients affected by coronavirus by a way of noncontact, nonintrusive approach. The results reported are valued in detection of COVID-19 by using a smart phone app which is available instantly. Objectives: This approach seems to be an indigenous, noninvasive, and cost-effective approach that will relive the patients from trauma of undergoing the swab test and awaiting the laboratory reports, which incurs time delay. Experimental results are obtained from 20,000 samples of patients suffering from COVID-19 and also persons who are normal. This mobile phone app is effective in diagnosing the COVID-19 from the X-ray images of the lungs. Even low-income people can also use this technology. Methods: The effectiveness of the proposed system which uses DWT, thresholding, and deep learning algorithms resulted with a performance whose F-measure is 96–98%. The classification is carried out to classify the COVID-19-positive and COVID-19-negative cases using Fast Recurrent Convolutional Neural Networks (F-RCNN). Expected Outcome: A smart phone app will be developed to detect the COVID-19 by using a noninvasive and easily affordable
143	**English As A Language For Teachers And Students Communication Using Visual Media Image Technology**	Chandralekha., Pradeep Christopher Jesudas., K Senthil Kumar., Mohammed Afradh., C S C Satish Kumar	International Journal of Innovative Science and Research Technology	**SDG 3**	English language teachers around the world have discovered a gap in the teaching and learning of English to ESL students. A definitive point of English Language Teaching is to furnish the understudies with compelling relational abilities and make them fruitful in their life. The modern education system strives to make the students employable and successful in getting the proper placement. Visual Media Image Technology (VMIT) in education is the mode of education that uses image and visualization technology to support, enhance, and optimise information delivery. Any Visual Media Image (VMI) based on English teaching would interest our learners more than any other method and motivate them to learn the language much better. Aside from posting the different showing things (structures), such a prospectus may also propose various open exercises. It has become unavoidable for the students of vernacular backgrounds to build up communicative competence in English. The goal of teaching English is to increase students' English competence, which is required to understand their main subjects and achieve excellent exam scores. Proficiency in English provides students with a doorway through which they can receive knowledge, and increase their job prospects. Students who study English for fourteen years, from kindergarten to the 12th grade quality in English is deficient in English competence, which is critical at the university level.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
144	**Comparing the Anaesthetic Efficacy of 2% Lignocaine in Combination with 0.5% Bupivacaine Versus 0.5% Bupivacaine for Inferior Alveolar Nerve Block in Surgical Removal of Bilateral Impacted Mandibular Third Molar: A Prospective Study**	J Deepitha., D Bhavani., K Lokesh., Balasubramanian Rengammal Sankari	International Journal of Research Publication and Reviews	**SDG 3**	The aim of this study was to assess and compare the anaesthetic efficacy of 2% lignocaine in combination with 0.5% bupivacaine in 1:1 ratio versus 0.5% bupivacaine for inferior alveolar nerve block in surgical removal of bilateral impacted mandibular third molars. Method: 15 patients (18 to 35 years)who meet the inclusive criteria were included in theintergroup comparison study.Based ontheanaesthetic modality used in this study two groups (A and B) were made. The Groups were given classical inferior alveolar nerve block injection for impaction surgery i.e., Group A were injected with a freshly prepared solution of 1 ml of 2% lignocaine hydrochloride (without adrenaline) admixed with 1ml of 0.5% bupivacaine on one side for surgical removal ofimpacted third molar whereas Group B included same 15 patients but this group candidates received 2 ml of 0.5% plain bupivacaine for surgicalremoval of impacted mandibular third molar oncontralateral side. A time interval of 3-4 weeks was given between the two procedures and the following parameters were evaluated the pain on injection, the onset of anaesthesia,the duration of anaesthesia and the hemodynamic parameters were evaluated. Results: The mean time of onset of anaesthesia in group A and B was (1.466 ± 0.516) minutes and (6.533 ± 0.743) minutes respectively and the mean duration of anaesthesia was (254.87 ± 7.539) minutes and (314.93 ± 20.565) minutes in group A and B respectively. Conclusion: An amalgamated solution of 2% lignocaine with 0.5% bupivacaine in 1:1 ratio is a better alternative anaesthetic agent as it provides minimal pain on injection, rapid onset, and longer duration of action with stable haemodynamic behaviour
145	**Knowledge on Basic Life Support and Automated External Defibrillator (AED) Among Medical Professionals**	R Lavanya	World Journal of Pharmaceutical Research	**SDG 3**	The health care professionals are an essential part of the life-saving system. Basic life support includes the crucial components such as Cardio-pulmonary resuscitation (CPR) and defibrillation with automated external defibrillator (AED) which helps to restore the heart's rhythm and breathing. There have been many studies that have shown that health care professionals are lacking knowledge of BLS and AED use. The purpose of this study was to assess BLS and AED knowledge among medical staffs and students in a private college and hospital. Only theoretical knowledge was examined using a questionnaire with 20 multiple choice questions relating to BLS abilities and a sample size of 862 people over the course of four months. The mean score for the study participants was 13.91±3.98. The major findings of this study show there is a statistically significant difference in the mean score with the departments of the respondents. As a result, the majority of them lack proper CPR knowledge, which can be improved through proper CPR training and education.
146	**LoRaWAN based IoT system for fire detection**	Kiran Prasath A., Rishi S B., Manoj Kumar R	International Journal of Research Publication and Reviews	**SDG 16**	Fire detection has been a difficulty of interest to researchers because of because of harm to lives and property among a really short time. One amongst the recent solutions developed to notice is to use Heat detectors equipped with certain degree of values. Heat detector is a sensor which detects temperature change or humidity. With the help of IoT (Internet of things) we can send messages to the designated authority whenever a fire accident occurs with the heat detector. Smoke and heat from fires can dissipate too rapidly or accumulate too slowly for effective detection. In contrast, because flame detectors are optical devices, they can respond to flames in less than a second. This optical quality also limits the flame detector as not all fires have a flame. As with any type of detection method its use must match the environment and the risk within the environment.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
147	**Raspberry Pi Processor-based i-Gloves for Mute Community and Home Automation System**		International Journal of Advances in Engineering and Management	**SDG 2**	Communications plays the major role for sharing our thoughts and make others to understand our point of view. But the major difficulty faced by the deaf and dumb people is speaking and hearing illness. Dumb people use sign language to convey their thoughts but most of the people aren't know about the sign language which make them more difficult in sharing their thoughts. This research helps the deaf and dumb people to convey their thoughts without any difficulties. The aim of the research is to develop a cost efficient system to help the dumb people. In this project the sign language is converted into a text and voice over mechanism. The sign language gesture is analyzed using the flex sensor and then it gets converted into a text and voice. The output is displayed using the speaker. The data processing will be done using the processor. The gesture recognition will follow the principle of Hall Effect. This system helps the deaf and dumb people to get a chance to grow in their respective carrier and extended to home automation system.
148	**Optimization of Vitamin B12 Synthesis Using Propionibacterium sp. Utilizing Dairy Wastes**		International Journal of Advance Research in Nursing	**SDG 3**	Vitamin B12 is an essential vitamin which has been used in medical and food industries for years. Since the production of vitamin B12 by chemical synthesis is too expensive and are labor intensive, time consuming and costly, a number of bacterial strains such as Propionibacterium freudenreichii, Propionibacterium shermani and Pseudomonas denitrificans have been successfully used in commercial production of vitamin B 12 industrially. Identification of vitamin B 12 producing microbial strains and synthesis of vitamin B12 from Industrial wastewater especially dairy waste water was the main aim of this study. Isolation, Identification and characterization of Propionibacterium species were carried out using molecular level methods, specifically polymerase chain reaction (PCR). The aim of this research work was to examine the optimization of vitamin B12 production using RSM methodology to produce high yield from Propionibacterium species. Purification of vitamin B12 was carried out by using HPLC method. More recently advances in biotechnology have led to the development of methods that minimize manipulation which provide results in less time and reduce cost.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
149	**Assess the stress and coping strategies among spouses of myocardial infarction survivors in a selected hospitals with a view to prepare an instructional module**	Dr.jibi Paul., Syeda Khanam P., Prachi Jain., Abinaya T	International Journal of Medical and Exercise Science	**SDG 3**	Acute Myocardial Infarction is one of the leading causes of death worldwide, affecting over 3 million people each year and resulting in over 1 million deaths in the United States. Myocardial Infarction (MI) affects the entire family. Aim: The study aims to assess the stress and coping strategies among the spouses of Myocardial Infarction survivors. Objectives: 1. Assess the stress among spouses of MI survivors. 2. Assess the coping strategies among spouses of MI survivors. 3. Assess the correlation between the stress and coping strategies among spouses of MI survivors. 4. Associate the level of stress among spouses of Myocardial Infarction survivors with their selected demographic variables. 5. Associate the level of coping among spouses of MI survivors with selected demographic variables. Methods: Descriptive non-experimental research design was used. The conceptual framework was based on Roy's Adaptation Model. A total of 100 patients with spouses of Myocardial Infarction survivors were selected by purposive sampling technique. The investigator collected data using interview technique. The stress was measured using Perceived Stress Scale and coping strategies was measured using Brief Cope scale checklist. The data was analyzed using descriptive statistics (frequency distribution, mean and standard deviation) and inferential statistics (chi-square test). Results: The findings revealed that 50(50%) had moderate stress, 47(47%) had severe stress and 3(3%) had mild stress among spouses of myocardial infarction survivors. The overall coping strategies revealed that, 96(96%) had average coping, 3(3%) had good coping and only 1(%) had poor coping among myocardial infarction survivors. The mean score of stress was 31.98±3.45 and the mean score of coping was 73.99±3.98. The calculated Karl Pearson's Correlation value r = -0.395 showed a negative correlation which was found to be statistically significant at p p<0.001 level. Conclusion: It was found that 50% had moderate stress and 96% used emotion focused, coping strategies.
150	**Ochrobactrumanthropi â€“ An Emerging Opportunistic Pathogen in Musculoskeletal Disorders â€“ A Case Report and Review of Literature**	Marisha Ani Das., G Brindha	Journal of Positive School Psychology	**SDG 3**	Ochrobactrum anthropi is an opportunistic and rare human pathogen, which is seen widely in the environment. O. anthropi infections have been reported in both immunocompetent and immunocompromised individuals. There is no proper consensus on the diagnosis and management of O. anthropi related infections.
151	**A Study On Revamping Of Emergency Department At Srm Hospital, Kattankulathur**	Pradeep Christopher Jesudas	International Journal of Cranio-Maxillofacial Surgery & Rehabilitation	**SDG 3**	Most active department in a hospital is the emergency department. Emergency department should be organized most effectively and efficiently. The need of the study is to analyze the current practice and to eliminate waste in the process flow and apply the process improvement tools which would facilitate to put an efficient process in location, human resources, infrastructure and protocols.Statement of problem: - The emergency department plays an important role in the hospital since the patients who comes to the emergency department are most vulnerable. Patient flow to the department is more in emergency when compared to other department.The service provided to the patients should be more effective because most of the patients need critical care and most of the patients will be in their golden hour.
152	**FRAMING GUIDELINES FOR MEP DRAWING COORDINATION IN HIGHRISE APARTMENTS**	Albert D souza., Naveen Chauhan., Ankit Pathak., Madhan Jeyaraman	Journal of orthopaedic reports	**SDG 3**	MEP co-ordination plays a vital role in building construction. The main aim of this paper is to propose effective guidelines for project managers, MEP co-ordinators in MEP co-ordination by understanding the procedures and techniques used in MEP co-ordination. Study and analyze the MEP services in construction, MEP drawing CoOrdination procedures and Techniques. Find the clashes in MEP co-ordination. Create Guidelines to Improve effectiveness Especially in MEP drawing Co-Ordination

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
153	**â€œADAPTING TO DIGITAL TRANSITION PHASE IN EDUCATION A PSYCHOLOGICAL TURMOILâ€• THE ROLE OF EMOTIONAL INTELLIGENCE IN MAINTAINING WORK-LIFE BALANCE OF TEACHERS DURING COVID-19**	Pradeep Christopher Jesudas	International Journal of Craniomaxillofacial Surgery and Rehabilitation	**SDG 3**	The wave of unexpected life changing scenario for the entire world hit in the last few years which has tremendous impacts on lifestyle of people livelihood irrespective of wherever and however we lived earlier. It did hit various industries of world and brought in various changes of working style in organization the work from home concept was introduced to adapt to the pandemic situation and this has impact on education industry especially in Chennai where the usual traditional teaching method was shifted to online digital education which has let in confusion in initial period has to how to go about it and has they slowly got hang on it there was drastic changes that were impacting the user work life balance among teachers work life balance as their usual workload, working hours, portion completion, conduction examination has led to increase in stress and started to affect their mental health and thereby making it harder to maintain the work life balance during covid-19. It’s a general statement that work life balance is a never-ending situation for everyone irrespective of industries you work in and on top of these how covid has added additional pressure on teachers to focus on their life and work which was considered more important in the scenario of covid. This study tries to explore on the impact of work on the life maintenance and how emotional intelligence helps the teachers to cultivate practices that helps them to increase their level of work life balance. It’s a descriptive study with sample of 200 teachers from different schools. And it was seen in the study women teachers are experiencing problems like long working hours, never ending workload issues, less time to spend with family, personal health issues caused due to stress like frustration, hampering of family relationship problems, elderly care and parental care management issues etc has been on high risk influencing them to maintain work-life balance.
154	**Bisphosphonate-Related Osteonecrosis of The Jaws: A Review**	Anusha Sathiamurthy., Rathika Rai., Emeritus Egr Solomon	International Journal of Prosthodontic Rehabilitation	**SDG 3**	The aim was to evaluate the knowledge about bisphosphonate-related osteonecrosis of the jaws (BRONJ). A bibliographic search in Medline, PubMed and the Cochrane Register of controlled clinical trials was performed between 2003 and 2010 by using the terms bisphosphonate and osteonecrosis of the jaw. The amount of publications per year, the type of journal for publication, and the evidence level of the trial were evaluated. Next to this the incidences and the success of treatment strategies for BRONJ were identified. A total of 671 publications were reviewed. Since 2006 more than 100 publications on BRONJ per year (with an upward trend) have been published, mostly in dental journals. The evidence level could be determined for 176 publications and only one grade Ia study was found. The studies showed a wide variety in design, most of them being retrospective. The incidence of BRONJ is strongly dependent on oral or intravenous application and varies between 0.0% and 27.5%. There is no scientific data to sufficiently support any specific treatment protocol for the management of BRONJ. Further clinical studies are needed to evaluate the incidence and treatment strategies at a higher level of evidence. Therefore uniform study protocols would be favourable.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
155	**THE DISTRIBUTION AND PATTERN OF FOVEA PALATINA IN DENTULOUS SUBJECTS**	C B Senthil Kumar	International Journal of Research and Analysis in Commerce and Management	**SDG 8**	The purpose of this study was to look at the distribution and pattern of Fovea Palaltina among dentulous people. Materials & Methods: A clinical investigation was conducted for the presence and variations of fovea palatina in 300 dentulous subjects ranging in age from 18 to 40 years, with 150 males and 150 female patients. The posterior palatal seal area, the posterior extension of the upper denture, and the vibrating line have all been linked to the Fovea palatina, an important anatomical landmark in edentulous people. Results: The findings of this study can be used to compare the location and presence of fovea palatina in dentulous subjects. The square arch form was present in 113 subjects but not in 177. The square tapered arch form was present in 32 subjects but absent in 258. The tapered arch form was present in 105 subjects and absent in 185. The ovoid arch form was present in 33 subjects and absent in 257. Fovea palatine was present bilaterally in 111 subjects and absent in 179. It was present unilaterally in 69 subjects and absent symmetrically in 221 others. It was symmetrical in 29 subjects and non-symmetrical in 261 subjects. It was clinically visible in 142 subjects but not in 148. This was barely visible in 287 subjects and only partially visible in three. The U-shaped palate was present in 251 subjects but not in 39. The V-shaped palate was present in 18 subjects but not in 272. Flat shape palate was present in 25 subjects but not in 265 subjects. In 111 people, fovea palatina was present bilaterally. The fovea palatina was present symmetrically in 29 subjects but was not clearly visible in 142. Conclusion:
156	**Implementation of a Horizontal Supply Chain Model for MSME Vendors-A Case Study**	R S Ponmagal., A Ganesan., A Kalaivani., G Nalinashini., Kesavan Sujatha., Rajeswari Hari	Artificial Intelligence and Machine Learning for EDGE Computing	**SDG 9**	in the Automobile industry. In 2020, India emerged as the fifth-largest automotive market with around 3.5 million units combined sold in the passenger and commercial vehicles' categories. One of the most important challenges presently faced by the Auto sector is in the area of Supply chain. A number of Automotive OEM's rely heavily on the Tier1 and Tier 2 suppliers for their components and Sub Systems. Their contribution is vital for the success of these large companies towards achieving the goals of High Quality, Reliability and reduced costs of products and services.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
157	**Hybrid deep learning neuro-fuzzy networks for industrial parameters estimation**	Jayabharathy Mani., Chandan Bala Rajeshkumar., Manikandan M	International Journal of Clinical Studies and Medical Case Reports	**SDG 9**	The estimation of industrial parameters for an air heating system requires monitoring of parameters such as temperature, current, and voltage. This type of estimation is highly significant because there is always a challenge existing for online, continuous, and accurate monitoring despite the complexities involved in the measurement since air heating systems find a wide range of applications in various process industries such as the ore drying industry, food processing industry, and pharmaceutical industry and are of great importance for developing an indigenous scheme. To alleviate this difficulty, various artificial intelligence techniques such as deep learning neural networks (DNN), fuzzy logic (FL), and hybrid deep learning neuro-fuzzy logic (HDNFL) have been newly deployed for robust estimation of industrial parameters. The major drawback with fuzzy logic is the assignment of membership functions (MFs). The other challenges include the choice of the optimal architecture for the conventional ANN trained with deep learning algorithms. Consequently, an innovative scheme combining the DNN and FL is presented and proposed in this chapter for the estimation of industrial parameters. This technique, which is based on DNN and FL, is called the “hybrid deep learning neuro-fuzzy logic” (HDNFL), which cascades the two methods, namely, the DNN and FL. A couple of artificial intelligence techniques are incorporated to build this kind of intelligent system for monitoring the industrial process parameters. To improvise the performance of the proposed industrial system, a unique algorithm HDNFL is developed for the first time to eliminate the complexity involved in optimization of process parameters for an air heating system. Hence, for this purpose, a network with optimal parameters is used to train the DNN, which includes learning factor, momentum, and choice of the activation function. The finalized DNN architecture will facilitate the tuning of the MFs corresponding to each input in the fuzzy logic scheme. A comparison of these techniques (DNN, fuzzy logic) with the proposed innovative method, “HDNFL,” is also carried out for the air heating system which is one of the important systems in many industries. MATLAB is used for result analysis and inference of the output temperature. The results depict that “HDNFL” is capable of estimating the industrial parameters with utmost accuracy and is therefore suggested to
158	**Hybrid deep learning neuro-fuzzy networks for industrial parameters estimation**	Hari Teja Avirneni., Anugraha John., Sinthu Sarathamani Swaminathan	Current medical issues	**SDG 3**	Over the year, we have studied more than thirty such MSME companies who are in the automotive sector. The expectation from these MSME Companies are efficiency in product costs with no compromising Quality and delivery commitments. This Case study pertains to an important arm of the activity of large OEM enterprise with regard to their needs and challenges for Efficient supply Chain Management. The results of the study from the various studied parameters brought out interesting factors. The confidence that the vendors are treated as Partners in the Development cycle has created a very positive vibe in the relationship. A very transparent system of interaction and Objective evaluation Metrix ensured elimination of perception of bias in the system. Since the suppliers are part of the full cycle involvement right from initiation their understanding of the Requirement definition was high. With early supplier involvement, the developmental cycle time got significantly reduced and the various bottle necks were eliminated in time for smooth delivery of the products.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
159	**Monitoring treatment outcomes among tuberculosis patients: Implications for practice and policy**	Sathish Muthu., Madhan Jeyaraman	Journal of Orthopaedic Reports	**SDG 3**	Factors contributing to poor treatment outcomes of tuberculosis (TB) are likely to vary depending on the local settings of populations. The treatment outcomes are mainly influenced by sociodemographic and socioeconomic factors, nutrition, human immunodeficiency virus (HIV) infection, multidrug-resistant TB (MDR-TB), and strategies for TB management including Directly Observed Treatment Short-course.[1] Patients in the younger age group, those in the other age groups who are supervised by health workers, living nearby to the health centres, having higher income and receiving home visit services from health workers are more likely to have higher treatment success rates.[2] Furthermore, older age, habitation in rural areas, lack of contact person, sputum smear-negative treatment category at the initiation of treatment, smear-positive sputum test result in the 2nd month after initiation of the treatment, retreatment cases, and HIV-positive status may lead to poor treatment success rates.[3] With efforts to end TB in India through the implementation of the National Strategic Plan (2017–2025) under the National TB Elimination Programme in place, facilitating these goals and evaluating the effectiveness of the strategies are needed.[4] Hence, it becomes highly essential to accurately record and report the treatment outcomes of TB patients. Treatment outcomes, as measured by a standardized method, are key indicators of national TB program effectiveness.[5] In addition to monitoring treatment outcomes, improving treatment success rates is important and it mainly depends on identifying vulnerable populations and the risk factors for poor treatment outcomes. This information becomes critical for policymakers in terms of resource planning, prioritization, and distribution. Furthermore, equally important is the role of public and private practitioners and researchers in monitoring the treatment outcomes and generating the required information in facilitating and advocating for effective policy-driven interventions, leading to good treatment outcomes among TB patients, thereby contributing to the national goals.
160	**Isolated intramuscular Cysticercosis with a pseudo Volkmann's sign**	Sivanand R., Vasu Gajendiran., Raffik R., Anmol Sharma., Kumud Pant	Advances in science and technology	**SDG 3**	A 34-year-old male, presented with pain and swelling in the rightforearm and inability to straighten middle and ring fingers of right hand(Fig. 1), for the last 15 days. He gave a history of similar swelling thrice inthe same location with an interval of four months of each episode. Thepatient was on an irregular frequency of medications. Clinically, he had apseudo Volkmann's sign. Plain radiographs revealed soft tissue shadow ofthe proximal 1/3rd of the right forearm (Fig. 2A) and ultrasonography(USG) revealed an isolated Cysticercosis of the proximal 1/3rd of theforearm (Fig. 2B). He was oral Albendazole (400 mg twice daily) andPraziquantel (600 mg thrice daily) for six weeks. At the end of thistherapy, a USG revealed a regression of the lesion, and specs of calcifi-cation were observed at the proximal 1/3rd of the right flexor digitorumprofundus muscle (Fig. 3A). Clinically, there was the disappearance ofpseudo Volkmann's sign (Fig. 3B).Centre for Disease Control and Prevention (CDC) Working Group onParasitic Diseases declared that Cysticercosis is a potentially eradicabledisease.1It has remained a major public health problem due to theingestion of undercooked pork infected with cysticerci or contaminatedvegetables contaminated by Taeniasoliumeggs.2The clinical manifesta-tions depend upon the involved organ (muscle, heart, brain, eye, lung,liver, and subcutaneous tissue). Isolated intramuscular cysticerci is anextremely rare occurrence, and it may present as a mass (pseudotumor orabscess), myalgia, and pseudohypertrophy type.3Our case presentedwith a pseudotumor type of intramuscular Cysticercosis with a pseudoVolkmann's sign.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
161	**Carbon Based Nanomaterials Technology for Tribology Applications - A Review**	Reiffel R	International Journal of Research Publication and Reviews	**SDG 9**	Carbon nanomaterials have piqued the interest of researchers over the last two decades due to their proven wear and friction properties, in addition to tribological application. This review provides a detailed analysis of the latest discoveries in tribology of four common carbon nanoparticles are carbon nano-tubes (CNTs), graphene, nano-diamonds and fullerene. First, the four forms of carbon nanomaterials are described in terms of their applicability in coating for friction and anti-wears. Second, the use of graphene and CNTs as additions to improve tribological behaviours in bulk materials is discussed. Finally, the mechanisms of CNTs, fullerene, fullerene, nano-diamond and graphene, working as additive to lubricate to reduce wear and friction are discussed. Fourth, the advancements in super-lubricity employing carbon nanotubes and graphene are emphasised. Finally, this study finishes with a look ahead at future research on carbon nanoparticles in tribology, their major barriers for practical use, and prospective remedies
162	**Economy in Building Construction Systems of Prefabricated Structures**	Mohan S	International Journal of Research Publication and Reviews	**SDG 9, SDG 1**	Prefabrication means investing in preparation, so that things proceed smoothly. Planning and organization must be intensified, interaction issues for an optimization and Co-operation in a multi-trades context has to be defined Cost studies of Buildings is about the understanding and application of costs to buildings and other structures. One of its aim is to ensure that scarce and limited resources are used to best advantage. It is about ensuring that clients receive the best value for money for the projects that they construct. In this paper I have considered Economy in the Construction system through “Pre Fabricated Structure” Building. Prefabrication is an advanced and up-to-date method of Reinforced Cement Concrete construction. The following are the detailed items dealt with this journal paper.
163	**An Effective Feedback Control Mechanism using SVM**	S Selva Anand., Mookambika Baskaran Amudha	Artificial Intelligence for Renewable Energy systems	**SDG 7, SDG 1**	One of the fundamental issue in today’s Online Social Networks (OSNs) is to give users the ability to control the messages posted on their own private space to avoid that unwanted contentis displayed.Upto now,OSNs provide little support to this requirement.Click here and insert your abstract text. To fill the gap,in this paper,I propose a system allowing a Online social network users to have a direct control on the messages postedon their walls This was achieved through a way of flexible rule based system,which allows an users to customize the filtering criteria to applied to their walls,and a Machine Learning-based soft classifier automatically labeling messages in support of content-based filtering.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
164	**Case study analysis of solar tree for public spaces**	Vijayaprabhu A., Mathivanan Kumaresan	International Journal of Electrical and Electronics Research	**SDG 7, SDG 9**	Energy consumption has risen rapidly in many nations. Renewable energy sources are one option to meet rising energy demand and address rising energy prices and growing populations. Renewable energy sources will allow us to fulfill future energy demands. Solar energy offers a better value for humanity than the alternatives, i.e., solar energy is best suited to countries with limited space to efficiently generate energy and a large population, such as India. The best solar option could be solar trees. The solar tree has many advantages: more design flexibility, does not require more space (land area), and can be installed anywhere, such as public areas, market squares, and highways. A case study is made of a public corporation park in Paruthipattu, Chennai, India. The site area is about 1.8 acres, with around 450 light fixtures of 5 W, 40 W & pump for the full site, which approximately 25.6 kW of electricity daily. Only five solar trees are required on-site to meet such demand, whereas it would require 80 6-foot × 3-foot solar panels using a conventional design. A comparative analysis is made between the solar tree and solar panels on various parameters. In terms of water consumption for cleaning the panels require 3000 L per year, whereas the solar tree needs only 600 L per year. The solar tree installation required less than 20 square feet (sq ft) of land, whereas the ground-mounted solar panels required 4420 sq ft of land. The duration and cost to install the solar tree were also less than for the solar panels.
165	**PMSG Wind Turbine Based Current Fed Three Phase Inverter with Model Predictive Control**	S Balakrishnan., Raja Marappan., Tamilarasi Suresh	2022 8th International Conference on Advanced Computing and Communication Systems	**SDG 9**	Design of an improved Permanent Magnet Synchronous Generator (PMSG) wind turbine power based Current Fed Inverter (CFI) using Model Predictive Controller (MPC) is proposed in this paper. Optimum torque control is proposed in wind energy conversion system, MPC is used to adjust the dynamic response time based on the application need. This model deals with torque control strategy of PMSG in the machine side controller. Impact of normal mode of operation by the copper losses and torque ripples are minimized by maximizing the average torque. Synthetization of adequate stator phase current are obtained naturally. Uncertainty of the steady state errors of the plant and parameter error are rectified in the system model. The designed CFI with MPC was implemented using medium range wind turbine in MATLAB /Simulink. The simulation output shows the better efficiency in over modulation region by the proposed CFI with controller. Constant switching frequency is maintained and efficient required dynamic response (DR) value is attained.
166	**Solving Graph Coloring Problem Using New Greedy and Probabilistic Method**		International Journal of Research Publication and Reviews	**SDG 3**	Nowadays, graph coloring as a combinatorial optimization is used in different engineering domains. The chromatic integer of a connected graph is computed using either deterministic or stochastic methods. This research implements a new probabilistic approach to find the minimal coloring based on the largest degree of a graph. This stochastic method is developed using the greedy design strategy and is tested on different benchmark graph instances. It has been found that the proposed stochastic hybrid design strategy converges to the solution with reduced complexity. The performance measurement of the proposed approach is expected since it provides better performance than the recent well-known techniques.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
167	**Use of Steroids in Orthognathic Surgery- A Review on Clinical Aspects**		International Journal of Innovative Science and Research Technology	**SDG 3**	Corticosteroids are widely used in orthognathic surgeries to control post-operative pain, swelling, inflammation, nausea and vomiting and to provide comfort for patients during the recovery phase. The present article examines several evidence based reports, experimental studies and ratio of dosage risk benefits observations on the use of steroids to reduce post-operative morbidities in orthognathic surgeries. Though, several studies established these steroidal drugs improved the management of post-operative inflammation, pain, swelling and trismus after orthognathic or orthopedic surgeries considerably yet there is a clear lack of evidence and standardized protocol towards its use after surgery. The current regimens are associated with little morbidity and low cost despite more focus were given on the dosage and time of administration pre-operatively thus demanding the need for well-structured multi-centered studies to evaluate the mechanism, outcome and significance of use of steroids post-operatively to enhance the recovery phase and improve the overall quality of life.
168	**Novel Bone Adhesives in Fracture Fixation & its Possible Significance in Midfacial Surgery â€“ A Review**		International journal of innovative science and research technology	**SDG 3**	One of the most frequent medical conditionsrequiring inpatient hospitalization is fractures. In order tomaximize the possibility of the fracture surfaces to join andfuse, surgical treatment of fractures typically begins witha reduction of the fracture, which places the bonefragments in their original location and close proximity toone another. Then, they are either externally cast-stabilized or implanted with screws, plates, and wires,among other implants. Medical and surgical managementtechniques have advanced significantly as a result of theincredible improvement in technology. Recently, the use ofbone adhesives/bone glue in the treatment of fractures hasbeen suggested. The idea behind "bone adhesives" is to fixsimple and comminuted fractures as well as secureorthopedic implants and devices like plates and screws. Inthis article, we will give an overview on existing boneadhesive and its types, conventional internal fixation, itsdisadvantages and how bone adhesives can possiblyovercome the drawbacks of other fixation techniques
169	**Performance of Physics Forceps Vs Traditional Forceps: A Review Article**		International Journal of Innovative Science and Research Technology	**SDG 3**	Non-traumatic dental extraction keeps the bone structure and gingival architecture intact and allows the patient the option of getting dental implants now or in the future.A variety of methods, using physics forceps, have been suggested for removing teeth with the least amount of trauma. Owing to the biomechanical design of physics forceps, a dental implant that is placed straight away has to have the buccal bone plate maintained and the incidence of root fracture decreased. The most recent advancement in dental extraction technology is the Physics Forceps, which offer a quick and painless way to extract teeth. We discovered that the instrument's utility is superior to that of traditional forceps after evaluating all of the aforementioned factors.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
170	**Recent Advancements in Management of Alveolar Osteitis (Dry Socket)**			**SDG 3**	Following dental extractions, dry socket/alveolar osteitis is a very crippling, excruciatingly painful, but rather frequent condition. For all normal extractions, its incidence is roughly 3%, but for impacted mandibular third molars, it can be as high as 30%. In the literature, a number of strategies for managing and preventing this illness have been proposed. Most of these recommendations are empirical and not supported by data. Various conventional methods are used for management of Alveolar osteitis like gels, rinse, and medicated gauze. Use of novel methods can prove to be more effective in treatment of Alveolar osteitis since it provides local delivery of drug with sustained and controlled release, low dose thus leading to reduced side effects with a better patient compliance compared to conventional methods. Rinsing the socket with chlorhexidine (74% or saline; placement of a non-resorbable obtundent dressing (56%); and instruction in home chlorhexidine rinsing (44%). This is one of the most researched topics in dentistry, and it is currently being studied at the Dublin Dental School and Hospital. Over the years, little progress has been made in reaching firm conclusions about how to best manage dry socket. Our recommendations are based on a review of the literature, which we believe is the best available evidence for guiding our clinical practice.
171	**Antibacterial Activity of Protease and Lipase Enzymes Obtained from Proteus mirabilis**	Deepa N., Anuanandhi K., Sankar D., Ashok K., Babu M., Usha R	International Journals of Zoological Investigations	**SDG 3 - Good Health and Well-being**	Proteases and lipases are the major metabolism enzymes. They undergo a number of chemical reactions and are responsible for many aspects of bacterial cell life and pathogenicity. However, unlike the proven ability to target proteins and lipases in other aspects of drug detection, the clinic does not have any protein antibiotics or lipase inhibitors, except for the biosynthetic peptidoglycan and transpeptidase, which is β-lactic acid. In addition, the importance of proteases in bacterial etiology makes it possible to avoid selecting targets for new antiviral drug agents. Therefore, bacterial proteins and lipases have not been studied, and they are among the best pioneers deserving continued effort in the discovery of antibacterial drugs in the 21st century.
172	**Isolation and Characterization of Bacterial Strains Identified from Oreochromis niloticus, Channa striata, Puntius sophore, Channa punctatus and Mystus bleekeri**	Deepa N., Anuanandhi K., Sankar D., Ashok K., Babu M., Usha R	International Journal of Zoological Investigations (IJZI)	**- SDG 3 - Good Health and Well-being**	Gram stain, colony shape, motility, capsule stain, endospore stain, alkaline protease producing strains have been found in Bacillus species producing bacterial strain. Gram stain, CFU, motility, capsule staining, endospore staining were identified. Our results showed biochemical characterizations examined for potent strains of Bacillus fluxes and Bacillus cereus.
173	**The Role of Wireless Sensor Networks in Detecting and Predicting COVID-19 Using ML Algorithms**	Sujatha Kesavan., Bhavani N P G., Kirubakaran D., Janaki N., Kavitha T., Su-qun Cao	IGI Global Publishing Tomorrow's Research Today	**- SDG 3 - Good Health and Well-being**	An embedded system is a specialized computer that is resource constrained to sense and controls its environment. Embedded systems usually consist of hardware and software. The most used hardware materials are processors, peripheral communication devices, actuators, sensors, power supplies, and memory storage. The application-specific algorithms, device drivers, and operating systems are typically used in software section. Normally there is a standard protocol to communicate the particular type of embedded system; for example, nodes in sensor networks are the specialized embedded systems for detecting COVID-19. Sensor nodes with wireless communication capabilities can form wireless sensor networks (WSN).

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
174	**Graph Coloring on Bipartite Graphs**	Balakrishnan Sennaiyan., Tamilarasi Suresh	International Journal of Mathematical, Engineering, Biological and Applied Computing	**- SDG 9 - Industry, Innovation, and Infrastructure**	Recently graph coloring is applied in some real-world applications that involve different types of networks including bipartite graphs. There are two colors are used to color any bipartite graph in which the vertex set is colored with the same integer. This research develops an algorithm for coloring a bipartite graph and the results are tested on sample instances.
175	**Interventional Orthobiologics a ray of hope**	Arulkumar Nallakumarasamy., Madhan Jeyaraman., Manish Khanna	IP International Journal of Orthopaedic Rheumatology	**- SDG 16 - Peace, Justice, and Strong Institutions**	The revivification of regenerative medicine based on known bio-scientific principles addresses the major challenges to human health, specifically in the branch of orthopaedics. 1 Various strategies have been implicated to augment the healing potential of the affected tissue, 2 it includes prolotherapy, viscosupplementation, platelet-rich plasma (PRP), and autologous mesenchymal stem cells (MSCs), culture-based MSCs and the acellular MSCs derived nano molecule called as exosomes (MSCs-Exos). Here we have a short review of the nature of these biologicals and their applications.
176	**SEISMIC ANALYSIS OF A MULTISTORIED RC STRUCTURE WITH AND WITHOUT LEAD PLUG RUBBER BEARING (LPRB)**	Bommena Karthik., Rani Easakkiraj., M S V K V Prasad., K Shanthakumar., K Mohan Das	Journal of Recent Activities in Infrastructure Science (e-ISSN: 2582-3124)	**- SDG 9 - Industry, Innovation, and Infrastructure**	Base isolation has become an effective technique that aids in earthquake hazard mitigation and has been in use for the past decade. By properly separating the structure from the horizontal ground motion components, the base isolation system lowers the likelihood of resonance. Isolators are provided at the base of the structures, and decoupling is accomplished by modifying the system's flexibility and adding adequate damping. Structures with irregular plans are gaining popularity owing to their aesthetic appearance as well as architectural designs. The response of such structures to seismic action will be different from conventional structures. This paper aims to study the effect of base isolators on structures with irregular plans, while simultaneously observing the changes occurring when the height of the structures is increased. Three unique plans are chosen, namely plus, L and T shapes, whose responses are studied on 5, 10 and 15-storeyed structures. All the columns in the base-isolated structures are equipped with lead plug rubber-bearing base isolators which is the chosen isolator for this study. The base isolators are designed for each structure specifically so that the behavioural patterns observed are as accurate as possible. From the obtained results, it is discerned that base-isolated buildings exhibited better performances in comparison with fixed-base buildings, and as the height of the structure increases the effect of the base isolator tends to decrease.
177	**Energy Transition Landscape: Landscape Approach for Pollution-Generating Large-Scale Industries**	Ezhil Prabhu M., Mrs.kumareswari Rajendran	IGI Global Publishing Tomorrow's Research Today	**- SDG 15 - Life on Land**	The research is motivated by the need to develop energy transition landscapes – landscapes that are well adapted to renewable energy and to implement energy conscious landscape planning in large-scale industrial sites. The fossil fuel economy affects climate change, loss of biodiversity, environmental pollution, social inequity, and unhealthy living conditions. These effects, combined with growing concerns about energy security drive the transition to renewable. The aim of the research is to address the environmental degradation that is happening due to the impact of industrialization. As a case industrial scenario, Tamilnadu state has been taken and explained. This research is about sustainable development and not only about renewable energy provision. The integrative concept of "sustainable energy landscapes" is the arena where landscape architecture and other disciplines meet to pursue global sustainability goals.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
178	**An Enhanced Data Integrity for the E-Health Cloud System using a Secure Hashing Cryptographic Algorithm with a Password Based Key Derivation Function2 (KDF2)**	G Dhanalakshmi., George Victo Sudha George	International Journal of Engineering Trends and Technology	**- SDG 9 - Industry, Innovation, and Infrastructure**	Cloud computing has become an integral part of everyone's life since it allows us to share our data with anyone at any time and from any location over the internet through a service provider. Cloud computing provides virtualized platforms that enable users to manage and analyze data without having to do it manually. The term "E-Health" is used by hospital executives to describe the electronic monitoring of health-related data. Various e-Health applications have been developed to use e-Health data to monitor patients' health successfully remotely. Patient-sensitive data must be safeguarded at all costs to prevent data manipulation. In the cloud, protecting E-Health data is a serious problem. They have used numerous security algorithms in the existing system and still have much work to do to enhance security levels. This proposed method to secure data for E-Health applications in cloud environments by securing improved versions of secure hash fixed-based output cryptographic algorithms (SHA-512) with a Password-Based Key Derivation Function (PBKDF2), which helps to secure patient data in e-health cloud environments. These methods identify the most common aggressions faced by end users, such as Man in the Middle, Brute Force and Rainbow attacks. Finally, all the cryptographic hash methods were compared in terms of CPU time, Memory space, and Execution time.
179	**SURFACE TAILORED ALMOND GUM AS AN EFFICIENT ADSORBENT FOR MERCURY ADSORPTION**	Sumithra Shanmugam., Jameer Ahammad Shaik., Subha R., Kavitha D	Journal of East China University of Science and Technology	**- SDG 15 - Life on Land**	A composite material was developed by doping MgSO4/VOSO4 onto almond gum surface and utilized as an adsorbent to remove mercury. The new composite material characterization was performed via SEM, EDX, XRD and FTIR. Batch mode experiments were performed as a function of initial concentration, contact time, pH, adsorbent dosage and temperature. The obtained data were employed to Langmuir, Freundlich, Dubinin-Radushkevich and Temkin isotherm models and the maximum adsorption capacity of the composite material was found as 23.8 mg/g. From the Dubinin-Radushkevich isotherm model the mean free energy (Ea) was found to be 26.73 kJ/mol. The thermodynamic parameters □Go, □Ho and □So were calculated and found that the Hg (II) ions adsorption onto MgSO4/VOSO4 composite was exothermic and spontaneous in nature.
180	**Influence Of Multimedia Celebrities Based Analysis On Smoking Cohort-A Cross Sectional Survey**	Naveenraj Ns., Swetha R., Swathy D., Mukundan P E., Dr.vijila K.v., Arockia Antony Praveen J	Journal of Positive School Psychology	**- SDG 9 - Industry, Innovation, and Infrastructure**	BACKGROUND: Smoking acts shown in movies may increase the use of tobacco in people, which is one of leading causes of cancer in India. The objective of the study is in attempt to establish a relationship between smoking and influence of advertisements and influence of on-screen actors and its effect on tobacco usage among people residing in Chennai.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
181	**Red Mud as a Sustainable Building Material**	Gomathi Nagajothi P., Sethuraman Venganickenpalayam Subramaniam., Thomasmathiyas Felix Kala., T Kavitha	Construction and Building Materials	**- SDG 7 - Affordable and Clean Energy**	Red mud is a highly alkaline solid waste that contains significant amounts of heavy metal ions. This causes serious environmental issues if disposed of unscientifically. Thus, developing an economical and eco-friendly technique for utilization of red mud can solve the disposal problem efficiently. The present study deals with the evaluation of physical, mechanical and chemical properties of red mud treated with ground granulated blast furnace slag to assess its suitability as a construction material for highways. To accelerate the geopolymerization process, additional doses of alkali activator is used. Mineralogical and microstructural analyses have been made to identify the geopolymerization products. An optimization technique is adopted to find out the optimum slag and alkali dose to have the highest strength. The durability of stabilized red mud has been assessed under slaking fluid. Leachate analysis has been carried out on source materials and stabilized materials to examine the levels of major and trace elements. It is observed that the alkali present in red mud can initiate geopolymerization reaction upon the addition of slag. However, additional alkali is needed to accelerate the geopolymerization reaction. Stabilized red mud performed good strength and stability. The alkalinity is reduced after stabilization and the heavy metals are encapsulated by geopolymeric reaction products. Target strengths for different constructions can be achieved with appropriate combinations of slag and alkali.
182	**16S rRNA Sequencing of Lipase Producing Bacterial Strain Isolated from Fish**	Deepa N., Anuanandhi K., SANKAR D., Ashok K., Babu M., Usha R	International Journal of Zoological Investigations (IJZI)	**- SDG 3 - Good Health and Well-being**	The sequencing analysis for 1500 bases of 16S rRNA gene of isolate CP5 of Channa punctatus was compared with the base pairs of reference Proteus sp. and found maximum matching similarity of 76% with that of Proteus mirabilis. Hence, the isolate can be identified as P. mirabilis based upon the available sequential data.
183	**Prediction of parameters of liver tumor using feature extraction and supervised function**	Geetha C., A R Arunachalam	Journal of the International Measurement Confederation (IMEKO).	**- SDG 7 - Affordable and Clean Energy**	Feature extraction is the process of diminishing the various dimensions at the same it is grouping essential parameter under one influential parameter. Liver tumor prediction is challenging in medical field now a days so it need improved detection mechanism in terms of accuracy in identification. Though experienced practitioners can predict about liver tumor based on their experience and with the help of imaging, scan etc but still they need system oriented help to finalize their decision according to symptoms of patients. We have taken LDA (Linear Discriminant Analysis) for feature extraction because it can able to work with more than two classes of classification algorithm and better than classification algorithm using logistic regression. Supervised function of decision tree and Naïve Bayes algorithm is used to predict the disease with the help of identified parameter from LDA analysis. Simulation done with the help of scikit in python and the evaluation steps have been discussed in methodology and implementation section.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
184	**Fog Computing based Automated Collision Detection based on Internet of Things**	A Ranjith., S P Vijayaragavan., Margabandu Anand	IEEE	**- SDG 11 - Sustainable Cities and Communities**	Indian Railways is the biggest railroad system in Asia and the 2nd biggest railway network in the world and it is the only railway network in the world that is controlled by a single administration. As a result of its huge size, it is impossible to manually check the fractures in the tracks. Fog computing is a new dispersed computing device that aims to bring computing closer to its sources of data in order to minimize the latency and expense of transmitting data to a faraway cloud. It is currently in its early stages. Many Web applications might benefit from having this functionality and its associated benefits. Incorporating sensors and actuators into the IoT technology enables objects to be discovered and remotely operated over existing networks, allowing for more simple and direct integration of the physical world into PC-based frameworks. When the Internet of Things is expanded with sensors and actuators, it results in improved system, accuracy, and economic advantage. It is vital to build a sophisticated process in order to avoid railway accidents. The Internet of Things (IoT) and fog computing technologies are used in this study to develop a system for collision prevention on railroad tracks.
185	**Pediatric Autoimmune Neuropsychiatric Disorders Associated With Group A Streptococci: Etiopathology and Diagnostic Challenges**	Andrada Hutanu., Lalitha N Reddy., Janice Mathew., Chaithanya Avanthika., Sharan Jhaveri., Nayanika Tummala	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Pediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS) have attracted a lot of interest and discussion since it was originally characterized in 1998. The role of streptococcal infection in children with abrupt-onset obsessive-compulsive disorder (OCD) and new-onset tics, the natural history of this entity, and the role of symptomatic and disease-modifying therapies, such as antibiotics, immunotherapy, and psychoactive drugs, are still unresolved issues. Alternative therapies for acute-onset OCD have been developed based on this postulated pathophysiology, including antibiotics and immunomodulatory therapy. The literature on PANDAS therapy is varied but there is no clinical consensus on the treatment of choice. While there is no convincing evidence for the autoimmune rationale for PANDAS, given the increased attention to this entity and the apparent growth in usage of this diagnostic category, it is critical to address concerns about the condition's diagnosis, treatment, and pathogenesis. We conducted a multi-language literature search on Medline, Cochrane, Embase, and Google Scholar for a period spanning until October 2021. The following search strings and Medical Subject Heading (MeSH) terms were used: "PANDAS," "Group A Streptococcus," "OCD," and "tics." We explored the literature on PANDAS in terms of its epidemiology, pathophysiology, the role of group A streptococcal infection, associated complications, and prophylactic and treatment modalities. We examined current working definitions of PANDAS, analyzed differential diagnoses, and published pieces of evidence for therapies associated with this entity, with a view to proposing a therapeutic strategy for children with acute symptoms that meet PANDAS criteria, in this review article.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
186	**Detecting Abnormalities of Fetal Cardiac Using Deep Learning in Parallel Computing Environment**	S Magesh., Palamadai Subramanian Rajakumar., Thuraiyur Vanathan Ananthan., J Indumathi	IOS Press Ebooks	**- SDG 3 - Good Health and Well-being**	Deep learning has become a recent explosion in our everyday lives. Being one of the leading machine learning tools among various tools, deep learning contributes a lot to image analysis and the vision of the computer. This tool is considered enormous for image analysis, especially in detecting fetal cardiac abnormalities in a parallel computing environment. Screening congenital cardiac disease (CCD) is challenging in achieving accuracy in terms of diagnoses concerning the manual process. Hence in this proposed work, optimized ultrasound image (USI) based Artificial Neural Network (ANN), a deep learning tool, has proven in exploiting the dissimilitude prognoses of cardiomyopathies and in predicting perinatal mortality of congenital cardiac disease (CCD). Fetal Cardiac parameters are evaluated using the myocardial performance index (MPI), a biomarker of global cardiac function providing statistics on various periods during diastolic and systolic phases. This paper also discusses some potential trends of deep learning application in ultrasound image analysis in detecting and predicting the abnormalities in fetal cardiac function.
187	**Improving QoS in the Downlink of OFDMA Networks**	S Gayathri., Narayanan Srinivasan	International Journals of Human Computations&	**- SDG 3 - Good Health and Well-being**	In wireless cellular networks using Orthogonal Frequency Division Multiple Access scheme, the bandwidth, power, QoS have to be optimized to improve the network throughput. There are several resource allocation algorithms available to optimize the bandwidth, power, QoS and provide fairness among the users of the network. The channel quality information is shared between the various users in the network and the base station for the resource allocation purposes. The resource allocation is optimized as per the average channel quality and the user's bandwidth needs in existing algorithms. They maximize the bandwidth allocated for the users with good channel conditions and attempts to provide reasonable bandwidth to the users with poor channel conditions. In the proposed method, we provide a resource allocation algorithm which will try to allocate resources based upon the QoS requirements. By handling different set of QoS requirements differently, the algorithm tries to optimize the network performance . The algorithm results are collected and compared with the existing solutions to evaluate the algorithm performance under different network traffic and channel conditions. The algorithm improves the performance as well as ensures the fairness among the different types of users.
188	**Influence Of Multimedia Celebrities Based Analysis On Smoking Cohort- A Cross Sectional Survey**	Swathy D., Naveenraj Ns., Swetha R., Mukundan P E., Dr.vijila K.v., Arockia Antony Praveen J	International Journals of Human Computations&	**- SDG 11 - Sustainable Cities and Communities**	In wireless cellular networks using Orthogonal Frequency Division Multiple Access scheme, the bandwidth, power, QoS have to be optimized to improve the network throughput. There are several resource allocation algorithms available to optimize the bandwidth, power, QoS and provide fairness among the users of the network. The channel quality information is shared between the various users in the network and the base station for the resource allocation purposes. The resource allocation is optimized as per the average channel quality and the user's bandwidth needs in existing algorithms. They maximize the bandwidth allocated for the users with good channel conditions and attempts to provide reasonable bandwidth to the users with poor channel conditions. In the proposed method, we provide a resource allocation algorithm which will try to allocate resources based upon the QoS requirements. By handling different set of QoS requirements differently, the algorithm tries to optimize the network performance . The algorithm results are collected and compared with the existing solutions to evaluate the algorithm performance under different network traffic and channel conditions. The algorithm improves the performance as well as ensures the fairness among the different types of users.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
189	**Multi-Objective Fish Swarm Optimization with Fuzzy Association Rule for Botnet Detection System**	Kiruthika Ramanathan., K Selvam	IEEE	**- SDG 3 - Good Health and Well-being**	Botnets have typically been considered as a major security risk for networks. As the distinctions between regular and botnet traffic grow, botnet detection approaches based on traffic analysis frequently produce substantial false positive rates. BOTNET is a term that encompasses the internet's high-level complexity. Since the internet is the most important medium of communication, bot generate internet traffic. Botnet covers a wide range of internet problems, including spam, malware, click fraud, and phishing. Algorithms can withstand a variety of DDoS attacks. A variety of machine learning techniques can detect and mitigate these types of threats using optimization methodologies. This paper has designed and implemented a novel method called "Multi-Objective Fish Swarm optimization with Fuzzy Association Rule for Botnet Detection System". A Cloud wick interface is used to detect the live bots in Virtual Private Server. Real-time server data such as KDD-Cup and NSL-KDD datasets were used. These datasets are a collection of recorded network data used to support the construction of a new intruder detection system. RSD data is the real time network traffic data fetched through the built-in firewall of a dedicated private server. This implementation has been done by using 11 attributes extracted from the real time network. Out of the 11, 7 attributes are discrete and 4 attributes are continuous. The dataset is monitored every 6 minutes to obtain the results. The accuracy percentage for the Multi-Objective Fish Swarm optimization with Fuzzy Association Rule for Botnet Detection System is 99.4%.
190	**Effect of Theraband Strengthening on Hip Abductors, Adductors, Flexors, and Plantar Flexors in Footballers with Medial Tibial Stress Syndrome**	Mayanka Parag Pande., P Sathya., Dr.jibi Paul., Sai Bhavani	Journal of Coastal Life Medicine	**- SDG 3 - Good Health and Well-being**	Background: Medial tibial stress syndrome also known as shin splint is commonly seen in running related injuries and football players. Its prevalence is 12% to 18% in running related injuries. It is essential that strength of hip, calf, abductors and adductor strength helps in preventing these injuries. Materials and methods: The study design is an experimental study. This study aims to study the effect of Theraband strengthening on hip abductors, adductors, flexors, and plantar flexors in footballers with medial tibial stress syndrome. The data was analysed using SPSS version 13 and Graph Pad Instat3.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
191	**Wireless Power Transmission for Electric Vehicle**	M S Kavitha., J Jayaseelan., J S Mohammad Sajid., K Pravin., J Raahul	Univesita Degli Studi Di Padova	**- SDG 3 - Good Health and Well-being**	Wireless Power Transfer (WPT) systems transfer electric energy from a source to a load without any wired connection. WPTs are attractive for many industrial applications because of their advantages compared to the wired counterpart, such as no exposed wires, ease of charging, and fearless transmission of power in adverse environmental conditions. Adoption of WPTs to charge the on-board batteries of an electric vehicle (EV) has got attention from some companies, and efforts are being made for development and improvement of the various associated topologies. WPT is achieved through the affordable inductive coupling between two coils termed as transmitter and receiver coil. In EV charging applications, transmitter coils are buried in the road and receiver coils are placed in the vehicle. Inductive WPT of resonant type is commonly used for medium-high power transfer applications like EV charging because it exhibits a greater efficiency. This thesis refers to a WPT system to charge the on-board batteries of an electric city-car considered as a study case. The electric city-car uses four series connected 12V, 100A·h VRLA batteries and two in-wheel motors fitted in the rear wheels, each of them able to develop a peak power of 4 kW to propel the car. The work done has been carried out mainly in three different stages; at first an overview on the wired EV battery chargers and the charging methodologies was carried out. Afterwards, background of different WPT technologies are discussed; a full set of Figures of Merit (FOM) have been defined and are used to characterize the resonant WPTs to the variations in resistive load and coupling coefficient. In the second stage, the WPT system for the study case has been designed. In the third stage, a prototypal of the WPT system has been developed and tested. Design of the WPT system is started by assessing the parameters of the various sections and by estimating the impact of the parameters of the system on its performance. The design process of the coil-coupling has come after an analysis of different structures for the windings, namely helix and spiral, and different shapes for the magnetic core; further to the preliminary results that have shown the advantages of the spiral structure, a more detailed analysis has then been executed on this structure. The coil design has encompassed the determination of the inductive parameters of the two-coil coupling as a function of the coil distance and
192	**A Quick, Deployable, Online Health Survey in Public Health Research: Emerging Horizons of mHealth during Disasters**	Ravi Muthusamy., V M Padmapriya., Nagaraj Jaganathasamy., Malathi Mathiyazhakan., Kannan Radhakrishnan., Chokkalingam Durairajan., Sabarinathan Ramasamy., Santhakumar Aridoss., VIJI VINOD., Alex Eapen., Elangovan Arumugam	Asian Paci□c Journal of Health Sciences	**- SDG 3 - Good Health and Well-being**	Background: A nationwide lockdown in response to the ongoing coronavirus disease 2019 pandemic has disrupted various health surveys. Limited movements due to restricted public-transports, and the need to maintain social-distancing, make data collection at the field site through conventional methods such as face-to-face interviews challenging. Objectives: The objective of the study was to overcome such issues, we document a complete online survey, using mobile technologies, for public health research, and deployable during disasters. Methods: The survey form was uploaded online, and for the 1st time in India, the participant information page, consent, and assent forms were also deployed online. Informed consent forms from participants were captured electronically as hand-drawn signatures. A structured, electronic-questionnaire was shared to the participants' smartphones, and the collected data were stored in a server using Research Electronic Data Capture, real-time. Results: Within a short span of 10 days, 1985 participants from 31 states and union territories took part in the survey. Among those, 79% had completed the survey, and the rest quit the survey mostly during the "consenting" phase, especially when they were asked to sign the consent/assent forms (16%). About 62.5% of the participant graded the online survey as "much better" followed by 19.5% suggesting "somewhat better," indicating a positive public perception regarding the online survey. Conclusion: The real-time online survey in health research was perceived to be better than the conventional method. In the digital era, employing mHealth technologies in health research will be a cost-effective methodological approach to obtain the expected research outcome, in a resource and time-limited setting.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
193	**Tiktok Dependence: An Illusion of Reality in Indian Young Adults**	Mary Ann S., Nivedha K., Aarthy K C., R Saranya	The International Journal of Indian Psychology	**- SDG 3 - Good Health and Well-being**	Tiktok use have been under-studied especially in evaluating the contraindication of Tiktok dependence. Tiktok is a video sharing platform through which short videos have been virally circulated. In the application, the individuals enact to a song or a movie scene and circulate among their social media networks. Tiktok application have upshot in India compared to other social media application leading to increased number of younger adults shooting videos for various purpose. Even after the ban, the search for an application similar to Tiktok application have been on-going. Yet, the psychological state of individuals dependent on the application haven't been explored in a study. The objective of the paper is to understand the experience of using Tiktok application, reasons for use and the perceived benefits. The current study employed a thematic analysis of the participants accounts of their experiences of using TikTok. The study screened individuals through the video sharing application addiction scale (VSAA) after which 8 participants were recruited in the study. There were two major global themes which emerged from the study data: Personal and Decisional characteristics. The personal characteristics gives rise to individual factors, traits, motivation of use for fulfilling personal needs and general attitude towards the application. The decisional characteristics were based on the individual personal account and attitude which also takes into consideration of the social, emotional and cognitive elements leading to overuse of the application. The 16 personality factors of the 8 participants in the study were analyzed. The scores that showed lower in the personality factor continuum were (2) Reasoning, (3) Emotional stability and (13) Openness to change. The factors where the individuals showed higher scores were (11) Privateness and (12) Apprehension. All participants showed consistent scores in the factors mentioned above leading to coherence with the thematic patterns represented in their data codes. The key findings of the study were (1) relationship between personality traits and motivation of TikTok use, (2) the association of loneliness to sense of self leading to comfort seeking, (3) the need for distraction is seen important in their day-to-day life to avert negative state of mind and (4) the motivation to use is mediated by apprehensive nature of participants and the fear of missing out (FOMO). In conclusion, the study points out to the
194	**Determinants of Out-of-Pocket Health Care Expenditures and Financial Coping Strategies among Beneficiaries of a State-Run Health Insurance Scheme in South India**	Anugraha John., Hari Teja Avirneni., Sinthu Sarathamani Swaminathan., Sivakumar Abhina	MRIMS Journal of Health Science	**- SDG 3 - Good Health and Well-being**	Background: The household spending for health care in terms of out-of-pocket expenditures (OOPEs) in India remains one of the highest in the world at around 55% of current health expenditures and 48% of total health expenditures. Hence, it becomes extremely important to explore the determinants, i.e., the factors leading to OOPE. Objectives: To explore the determinants of OOPE and the financial strategies undertaken by the households to cope up with OOPE. Methodology: A longitudinal study was conducted among chronic kidney disease (CKD) patients who availed care at a Tamil Nadu Chief Ministers Comprehensive Health Insurance Scheme empanelled health care facility. They recorded their OOPE over a period of 6 months in the hand-book provided to them. An interview schedule was administered at the end of 6 months, to explore the determinants of OOPE and coping strategies.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
195	**Finding the gaps: Measuring treatment adherence in tuberculosis patients**	Anugraha John., Hari Teja Avirneni., Sinthu Sarathamani Swaminathan	CURRENT MEDICAL ISSUES	**- SDG 3 - Good Health and Well-being**	Globally, one of the major barriers in the control of tuberculosis (TB) is the lower levels of adherence to the treatment among TB patients, leading to varied treatment outcomes such as failure in the treatment or relapse of TB while increasing the risk of drug resistance. This in turn can lead to multidrug-resistant TB or extensively drug-resistant TB prolonging the treatment and increasing the medical expenses.[1] Treatment adherence in the context of control of TB can be defined as compliance of the patient to the prescribed treatment regimen over a recommended period. However, adherence to such therapies for usually longer periods is not just determined by a single factor, but by a multitude of factors making it multidimensional. This interplay of factors spanning across dimensions such as socioeconomic status, health-care delivery system, comorbidities, and other factors related to therapy such as side effects of the drugs and treatment response rates. Hence, understanding these factors becomes extremely critical in developing interventions that can effectively lead to good treatment outcomes among TB patients, by improving their treatment adherence along the entire duration of the treatment.[2] Although multiple strategies/interventions have been reported, a “gold standard” for measuring adherence has not been established.[34] Hence, attention to the quantification of adherence needs to be emphasized and this becomes highly important in the current daily regimen with fixed drug combinations under the National Tuberculosis Elimination Program while assessing adherence behaviors. While research studies undertaken in India reported the adherence to directly observed treatment, short-course at 45%–93% among TB patients,[56] there exists a potential scope for further research, in the currently executed daily regimen. Hence, it becomes essential to understand the synergies between adherence and treatment outcomes. Understanding these synergies would certainly help in developing an effective adherence intervention, leading to good treatment outcomes.
196	**Universal adoption of e-portfolios in Indian medical education â€“ Need for a paradigm shift**	Anugraha John., Hari Teja Avirneni., Sinthu Sarathamani Swaminathan	Korean Journal of Medical Science	**- SDG 3 - Good Health and Well-being**	Purpose: The purpose of this study is to examine the characteristics of resistance among medical students toward e-portfolios and find the strategies for them to successfully prepare e-portfolios. Methods: Participants were a group of 258 medical students. The questionnaire comprised 13 items developed based on the innovation resistance theory. The data were analyzed using descriptive analysis and Spearman’s correlation analysis using PASW SPSS version 18.0 (SPSS Inc., Chicago, USA).
197	**Real-Time Brain Mapping Using Wireless Technology for the Future**	Sujatha K., Karthiga G., Bhavani N P G., Kalaivani A., N Janaki	IGI Global Publishing Tomorrow's Research Today	**- SDG 3 - Good Health and Well-being**	As it is known that different brain regions have specific functions, and before performing any surgery on the brain, including surgery for the treatment of epilepsy, the surgeon seeks to understand the functions of the areas affected by the seizures or of the lesion. The attempt to specify in as much detail as possible the location of function in the human brain is called brain mapping. In this paper the authors produced real time brain mapping from digitized EEG data recordings. And the authors developed this software to obtain continuous movie map and spectral slide. Nowadays, monitoring various signals from human body is an active area of research and development. Increasingly, monitoring devices are becoming wireless to allow patient mobility. For this aim the authors made it possible to be wireless.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
198	**Applications of Graphical Natural Language Processing**	S V Gayetri Devi., T.nalini., K G S Venkatesan	CRC Press	**- SDG 3 - Good Health and Well-being**	The enormous amount of data published and disseminated over networks is intensifying the demand for novel and effective natural language processing (NLP) techniques and applications for management, analysis, summarization, and extraction of knowledge from the extensive number of texts available. Graph theory is a mainstream discipline that can deliver useful solutions for NLP applications and related information retrieval using techniques such as text summarization and machine translation. Graph methods are extensively employed in a number of text processing applications. Utilizing algorithms that consider the global graph structure of a specific document, rather than the characteristics of unstructured sets of objects, graph-based techniques enhance a comprehensive range of NLP functions. Automatic summarization facilitates management of the output from information retrieval systems. Random walk summarization, using the notion of lexical centrality, can be applied to both single and multiple documents, since a graph can be constructed on the basis of information inferred from one or several documents in various degrees of detail. The concept of random walk summarization can be enhanced with the theory of biased random walk to addressing the issue of question-centered passage retrieval, wherein user questions are posed in natural language, and relevant passages giving answers to those questions are retrieved from the input document. Keyword extraction applying random walk algorithms achieves better performance than advanced supervised methods, with the vertices of the graphs corresponding to sequences of words that are representative of the input document. Topic identification based on centrality algorithms addresses the automated detection of categories or topics appropriate to the input document with the potential to create a dynamic ranking of the topics inside a framework. Topic segmentation divides the text into segments after the identification of relevant categories or topics by constructing a graph with the text sentences as nodes and weighted edges reflecting pairwise sentence similarity. Cosine similarity or similar metrics can be used to establish sentence similarity. Normalized cut techniques represent graph methods for segmenting the text with the measurement of similarity among a partition as well as dissimilarity within varied partitions. Enhanced results can
199	**An Elite LOA-TFWO Approach for Load-Frequency Control of Islanded Micro-Grids Incorporating Renewable Sources**	V Devaraj., Mathivanan Kumaresan	International Journal of Engineering Trends and Technology	**- SDG 3 - Good Health and Well-being**	In this paper proposes an intelligent hybrid approach for load-frequency control (LFC) in the islanded micro-grids incorporating various resources like Photovoltaic (PV), Wind Turbine (WT), fuel Cell (FC), Diesel Engine Generator (DEG) and Battery Energy Storage System (BESS). The proposed hybrid approach is the combined implementation of the Lichtenberg Optimization Algorithm (LOA) and Turbulent Flow of Water-based Optimization (TFWO); hence it is named as LOA-TFWO approach. The major objective of the proposed approach is minimizing the change of frequency and maintaining the system's stability. The PID controller is utilized to tune the parameter of the system. With the finite time, the proposed LOA approach generates the data set and the TFWO approach process the outcome of LOA and provides optimal outcome. The proposed approach is executed in the MATLAB/Simulink working platform, and the performances are compared with various existing approaches. Maximum overshoot, steady state error, maximum settling time, integral of frequency error’s absolute value in the simulation period, and the objective function is analyzed and compared in the paper. The comparison results reveal that the proposed technique is optimal over the other techniques.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
200	**Blockchain in internet of entities - issues and challenges**	Dahlia Sam., K Jayanthi., Rishabh Tiwari., A Shamila Ebenezer., S Deepa Kanmani., Adlin Sheeba	Academic Press	**- SDG 3 - Good Health and Well-being**	After the invention of the internet of things (IoT), information sharing started happening through the connected cloud-based ecosystem. Blockchain had an important role to play in the expansion of the internet of entities (IoE) market as non-centralized networks were being deployed and used. IoE has emerged as one of the popular add-ons to IoT technology which helps in easy data collection, organizing, and managing of data in non-centralized databases. Gradually, many business organizations and technological institutions have started to adopt the Blockchain from data security and data privacy concerns. However, the adoption of Blockchain with IoE includes the challenges of scalability, energy consumption, interoperability, etc. Apart from these issues, other major hitches in the path of mass adoption of Blockchain technology are lack of regulations, lack of standardization, and shortage of talents. In this chapter, all the major issues and challenges of Blockchain in IoE are analyzed in detail.
201	**Introductionâ€"blockchain and smart grid**	R Hariharan., Kameshwaran Ananthu., Dahlia Sam., Rajendran Santhi Rashika., Nataraj Kanya., Pachaiyappan Lakshmi Narayanan	Mathematical Problems in Engineering	**- SDG 3 - Good Health and Well-being**	Blockchain technology is most simply defined as a decentralized, distributed ledger that records the provenance of a digital asset. Blockchain, sometimes referred to as Distributed Ledger Technology, makes the history of any digital asset unalterable and transparent through the use of decentralization and cryptographic hashing. A simple analogy for understanding blockchain technology is a Google Doc. When we create a document and share it with a group of people, the document is distributed instead of copied or transferred. This creates a decentralized distribution chain that gives everyone access to the document at the same time; doesn't lock out anyone awaiting changes from another party; while recording all modifications to the doc in real-time, making changes completely transparent. Smart grids are currently advancing technologically at a very fast pace by using borrowed capitals for the benefits offered by Wireless Sensor Networks and the Internet of Things. They not only offer optimization in energy production and energy consumption by the adoption of intelligent systems that can monitor and communicate with each other but also reduces manpower requirements with attendant enhanced accuracy that come with automation of the smart sensor-based metering system using Advanced Metering Devices. Thus, the grid is made more cost-efficient with enhanced performance and better intelligence achieving efficient energy utilization. Smart grids also promise more cost-efficient tapping of renewable sources of energy by offering technological support for the transfer of energy between local energy producers and consumers. The consumers who can harvest renewable sources of energy such as sunlight using rooftop solar panels can become producers-cum-consumers by selling their surplus energy either to neighboring consumers or to the grid. This promotes the urgency in consumers to utilize renewable sources of energy. Applications of blockchain in smart grid are Security and Privacy-Preserving Techniques, Energy Trading in Electric Vehicles, Peer-To-Peer Trading Infrastructure, and so forth. Blockchain is an especially promising and revolutionary technology because it helps reduce risk, stamps out fraud, and brings transparency in a scalable way for myriad uses.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
202	**Efficacy of Strengthening Exercises versus Aerobic Exercises on Physical and Mental Health among Post-Menopausal Women**	Tharani Gnanamoorthy., M Hemamalini., K Kamatchi., Seethalakshmi J., Sharmila S	Physiotherapy Section	**- SDG 3 - Good Health and Well-being**	Introduction: Menopause is associated with a variety of physical and mental issues. It's critical to pay attention to postmenopausal women's health issues and develop prevention strategies. Aim: To evaluate association between physical activity and physical and mental health problems in postmenopausal women. Materials and Methods: In the present systematic review, relevant studies were searched in international electronic databases such as, Cochrane Central Register of Controlled Trials (CENTRAL), PubMed and Google Scholar from 2004 to 2021. Terms like physical activity, physical health, mental health, bone mineral density, exercise training, and postmenopausal women were searched. All papers were screened for eligibility. Inclusion criteria of the study was, studies with atleast one exercise group versus one control group, should include women who were postmenopausal at the time of the study, studies that examined effect of physical activity on physical and mental health of postmenopausal women, full text articles written in English language. Results: Total 27 studies were included in the present review. The results revealed that resistance, aerobics, walking, pilates and aquatic exercises have shown benefits in improving physical and mental health parameters of postmenopausal women. Conclusion: Physical activity plays a great role in maintaining overall health and Quality of Life (QOL) of Women. To avoid fractures, these women should engage in workouts with prudence. Physical and mental fitness can be achieved by incorporating exercise into daily routine of postmenopausal women.
203	**An Analytical Study on Improvement of Cloud Provider Optimizations of CostEffectiveness and Scalability for multiple users Mechanism**	Kamalakannan Machap., T Subash., V M Jothi Prakash., K P Thooyamani., S Ravichandran., K G S Venkatesan., Nalini Thulasingam., V Vanaja	International Journal of Innovation Research	**- SDG 3 - Good Health and Well-being**	In this paper, We design a service mechanism for profit optimizations of each a cloud supplier and its multiple users. We consider, matter from a game meta physical perspective and characterize the link between the cloud supplier and its multiple users as a Stackelberg game, within which the ways of all users are subject to the cloud supplier. The cloud supplier tries to select and provision acceptable servers and put together a correct request allocation strategy to cut back energy price whereas satisfying its cloud users at an equivalent time. We approximate its servers choice area by adding a dominant parameter associate in unsigned put together an optimal request allocation strategy. For every user, we tend to style a utility operate which mixes cyberspace profit with time potency and try to maximize its price beneath the strategy of the cloud supplier. We tend to formulating the competitions among all users as a generalized nash equilibrium drawback. To solve the matter by using variational difference theory and prove that there exists a generalized equilibrium resolution set. Finally, We tend to propose associate in unsinged varying rule , that characterizes the whole method of our planned service mechanism. Conducting some numerical calculations to verify our theoretical analysis. The experimental results show that the profit, each of a cloud supplier and its multiple users by configuring correct strategies.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
204	**Challenges Faced in Prefabrication or Modular Construction**	Felecia Beulah R., Ramachandran Sudhakar., Soundararajan Arivalagan	International Journal For Research in Applied Science and Engineering Technology	**- SDG 3 - Good Health and Well-being**	The prefabricated materials used in construction has indeed been hailed amongst the most efficient approaches, there is a difficulty in implementing this process in the construction industry. The article included an outline of the obstacles and factors that influence prefabrication or modular construction in India. The issues of prefabrication and modular construction were investigated through case studies. Prefabricated elements have been demonstrated to be an efficient and efficient approach for improving productivity and the process of construction, as well as assuring the quality of construction & reducing time and cost. However, there are a number of issues with this strategy in practise, including initial high building costs, lack of understanding of the prefabricated method of construction, technical and installation hurdles, and the inability to find prefabrication businesses locally. Because of the nature of the city and also the growing population, the use of such prefabricated materials in the construction of buildings is beneficial.
205	**Survey of polypharmacy prescription in a tertiary care Hospital, Belagavi**	Dr.suma Sukumaran., Premkumar Sundararajan., Hari Prasad Vishwanathan., Dr. Abeetha .s., Tejashwini K., Renu Sharda	**Kanem Journal of Medical Sciences**	**- SDG 3 - Good Health and Well-being**	Polypharmacy is the use of four or more medications in one prescription or implies the prescription of too many medications for an individual. Concerns about polypharmacy include increase adverse drug reactions, drug interactions, prescribing cascade and higher cost. Objectives: To conduct a prescription survey of polypharmacy in tertiary care hospital at Belagavi. Methodology: The study was conducted in the Medicine outpatient department of a tertiary care hospital, Belagavi, after obtaining approval and clearance from the Institutional Ethics Committee. Total 83 patients were selected by Simple Random Sampling and the data were collected prospectively by direct observation in specially designed proforma containing relevant patient details like registration number, age, gender and diagnosis, disease data and drug data. Results: Out of the total sample population (N=83), 56.62% had prescriptions falling under major polypharmacy (>6 drugs), 43.37% had prescriptions categorized as minor polypharmacy (3-5 drugs). The most common age group of patients receiving prescriptions with polypharmacy was between 41 to 60 years accounting for 38.55%. Majority of the patients receiving prescriptions with polypharmacy in our study were females (59.03%) as compared to males (40.96%). Major polypharmacy is more prevalent in patients receiving treatment for Hypertension (60.24%) followed by patients with diabetes (23.67%). Conclusion: Our prescription survey portrays polypharmacy to be widely prevalent in a tertiary care setting. Specific treatment goals with certainty are the essential need for curing diseases rather than polypharmacy, which could be a possible threat of more harm than good.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
206	**BIOMARKERS IN ORAL -A REVIEW**	Khumukcham Sophia., J Manju., Mutum Sangeetha Devi., Linda Christabel S., Vidyasri M	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	The clinical and histologic features alone cannot accurately predict whether potentially malignant disorders of the oral mucosa remain stable, regress or progress to malignancy. Some of them, with or without epithelial dysplasia, may transform to invasive oral squamous cell carcinomas (OSCC). Identification of molecular markers which can predict disease progression is necessary to improve the management of these disorders. Many genes and signaling pathways have been shown to be involved in the development of OSCC. This review summarizes some molecular markers researched in the detection of pre-cancer. We highlight selected markers that are reported to be significantly associated with progression of potentially malignant disorders to OSCC. These include alterations in genes/pathways which control cellular signaling, cell cycle, apoptosis, genomic stability, cytoskeleton, angiogenesis, etc. However, these genetic tumor markers have so far not gained any use in routine diagnosis and their utility in the prediction of risk of malignant transformation remains unknown. It is, however, clear from the large number of studies, some described in this review, that multiple genes/pathways are involved in the progression from normal to metaplastic/dysplastic, and subsequently to cancer. It is therefore necessary to study those significant alterations in multiple genes simultaneously in biopsy samples from large cohorts of subjects.
207	**GENETICS AND DENTISTRY: A REVIEW**	Devi M S., J Manju., Rahul B., Devi T D., Preeti R., Linda C S	International Journal of Applied Dental Science	**- SDG 3 - Good Health and Well-being**	Genetics is the science of heredity and vsariation. It plays an important role in determining our individuality. The term “genetics” conveys two different concepts: genetics as the study of inherited characteristics, and genetics as the study of cellular processes controlled by DNA. Developmental defects of teeth can occur as isolated genetic traits, be associated with a chromosomal abnormality or syndrome, or be inherited as a complex trait with genetic and environmental interactions. Numerous hereditary syndromes are associated with congenitally missing teeth. Often pediatric dentists are the first health care practitioners to document dysmorphic features in a child. This article attempts to gather insight about different dental diseases and their genetic basis, the need for genetic screening and testing to avoid future problems.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
208	**KNOWLEDGE AND AWARENESS OF XEROSTOMIA AMONG DENTAL PRACTITIONERS**	J Manju., Mutum Sangeeta Devi., Thamizhini S., Sanjana M R., Meena J., Sivakumar S	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Background: Dry mouth, also commonly known as “xerostomia”, is a prominent symptom that is often overlooked by dental practitioners and patients. The purpose of this study was to pilot the development of a mobile application for assessing dry mouth symptoms. The application will allow patients to self-assess and enhance knowledge, awareness and communication with dental practitioners in their management of dry mouth. Method: The first phase of the study was to draw on common knowledge and awareness by conducting two focus groups of dental professionals and community members on content, practicality, functionality, design, and effectiveness. The second phase of the study was the development of the dry mouth mobile application followed by the third phase of the study that consisted of face-validity interviews to obtain feedback on the application. Results: Fifty two percent (n=15) of the dental professionals estimated being aware of the prevalence of dry mouth in 40% or more of their patients. Thirty Nine percent of (n=9) community estimated being aware of the prevalence of dry mouth in 40% or more of the community. When asked about their awareness of the etiologies of dry mouth, 100% (n=29) of dental professionals reported that multiple medications and smoking were primary factors whereas the community members indicated that illness and dehydration (87%, n=20) were primary factors in dry mouth. Dental professional’s (25% n=7) were very confident in recognizing symptoms and 28% (n=8) were very confident they knew how to manage dry mouth symptoms. Furthermore, 22% (n=5) of the community members were also very confident about recognizing dry mouth symptoms and 13% (n=3) were very confident knowing how managing it. The ToP report generated from the discussions identified “themes” that were utilized in the development of the mobile application. Most individuals who participated in the validity interviews agreed that the
209	**ACS MEDICAL COLLEGE STUDENTSâ€™ PERCEPTION OF THEIR EDUCATIONAL ENVIRONMENT DURING PANDEMIC TIMES.**	S A Sridevi., Vijayalakshmi Gnanasekaran., Dr.sumitha Arumugam., T Janagan	International Journal of Scientific Research	**- SDG 3 - Good Health and Well-being**	The purpose of this study was to use the Dundee Ready Education Environment Measure (DREEM) scale to determine the perceptions of the second batch (reformed curriculum) of medical graduates on the educational environment at the College of ACS Medical College. This surveybased research may be used to answer any EE-related issues. SPSS was used to examine the data. A total of 155 students took part in the research. Female pupils were more engaged than male classmates. Female students had a greater view of learning, professors, academic self-perception, and social self-perception than male students, while male students had a higher opinion of the atmosphere than female students. The overall impression of the educational environment among students was positive. This study was necessary to assess students' perceptions of the learning environment among medical graduates of the reformed curriculum and to make recommendations for curricular improvements. We expect to see more online teaching approaches integrated into traditional medical education after COVID-19. This might be related to the trend toward virtual consultations in medical practice.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
210	**"Importance of â€¯imparting different levels of knowledge and skills through Tutorial modeâ€™"**	Sekhar Avadhanam Venkata., Chandrika Vijayan Unni Manjapravarieth., Prathibha Padmanabhan Santha., Iyswarya Raghavi Prabushankar	Journal of Positive School Psychology	**- SDG 3 - Good Health and Well-being**	It is the experience of the authors and also of others undoubtedly that for any learning - the attainment of knowledge and skills are of different levels. Though the terms - Knowledge and skills are used with different connotations, they are of different levels for working to bring about different levels of outcomes using them. The paper is more on an exploratory study to bring about clarity on different levels of knowledge and skills and their usage to attain different levels of results. In-depth study reveals that levels of knowledge and skills have to be progressively higher for attaining higher level of knowledge and skills. So for such attainment, the inputs also have to be different, time consuming and involving different types of activities with the correspondingly different supportive components helping such activities. Tutorials are the coaching activities involving time, material, coaching methodologies using multi-contextual anecdotes as references, which result in attainment of higher levels of knowledge and skills. The paper also highlights on why and how Tutorial methodology becomes essential to enable progressively higher level of attainment of knowledge and skills to meet the needs required at higher and higher levels of learning stages. Going by the different levels of knowledge and skills attainable, different tutorial models for different levels of attainment are suggested
211	**"MANAGING TO CREATE, CALIBRATE & DEVELOP TO DO "CONSULTANCY" AS A RESEARCH ORIENTED ACTIVITY IN EDUCATIONAL DEPARTMENTS"**	B Neeraja., Prathibha Padmanabhan Santha., Prabu Manickam., Sekhar Avadhanam Venkata	Journal of Positive School Psychology	**- SDG 3 - Good Health and Well-being**	This paper, largely management-focused, is about Creation, Calibration & Development of ""Consultancy* as a professional engagement of the departments in educational institutions in meeting the knowledge and Skill needs of students pursuing education and the needy employees with deficiency of the skills in them. The narratives and the case-based inputs providing the factor - how to go about - in Consultancy are aimed at efficiently MANAGING TO CREATE, CALIBRATE & DEVELOP TO DO CONSULTANCY AS A RESEARCH ORIENTED ACTIVITY. The model and the briefings help any and every department of institutions to enhance and enrich their capabilities through deliverance of Knowledge and skills which are on demand. The large chunk of Un-organized industrial and Service sector employees and the 'knowledge and Skill deficient students' needing employable skills are the beneficiaries. The paper touches all aspects relevant to different stake holders - Educational Institutions, Departments, Teaching Faculty members, students & Skill-needy employees. Adequate light is thrown on the demand available as well as the potential capabilities to deliver. Utilization of Consultancy will be a highly valuable economic contributor to the qualitative and quantitative indices of any country.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
212	**THE ORAL BIOTOME AND EFFECTS OF RECENT TOPICAL FLUORIDE THERAPIES â€“ A REVIEW**	Rangeeth B Nammalwar., Priyaa Rangeeth	National Library for Medical Science	**- SDG 3 - Good Health and Well-being**	While the effect of fluoride on severe early childhood caries (S-ECC) is clear, knowledge of how it influences the oral microbiota and the consequential effects on oral health is limited. In this cohort study, we investigated the changes introduced in the oral ecosystem before and after using fluoride varnish in 54- to 66-month-old individuals (n=90: 18 children were sampled at 5 different time points). 16S rDNA was amplified from bacterial samples using polymerase chain reaction, and high-throughput sequencing was performed using Illumina MiSeq platforms. Many pronounced microbial changes were related to the effects of fluoride varnishing. The health-associated Bacteroides and Uncultured_bacterium_f_Enterobacteriaceae were enriched in the saliva microbiome following treatment with fluoride varnishing. Co-occurrence network analysis of the dominant genera showed that different groups clearly showed different bacterial correlations. The PICRUSt algorithm was used to predict the function of the microbial communities from saliva samples. The results showed that starch and sucrose metabolism was greater after fluoride use. BugBase was used to determine phenotypes present in microbial community samples. The results showed that Haemophilus and Neisseria (phylum Proteobacteria) was greater before fluoride use. We conclude that the changes in oral microbiology play a role in fluoride prevention of S-ECC.
213	**WORKS OF SHAKESPEARE MAKES TEACHING EFFORTLESS IN ELT CLASSROOM**	Dr.v Anuradha., Manisha Sharma	ResearchGate	**- SDG 3 - Good Health and Well-being**	This paper deals with Communicative Language Teaching(CLT) through Shakespeare in different aspects like incorporating Shakespearean phrases in daily discourse, his use of iambic pentameter for stressing the syllables, phrases and idioms as chunks, his soliloquies in gaining confidence and teaching adjectives and prepositions. Shakespearean English seems very hard to understand, but it sounds remarkably intelligent. It makes sense that you learn how to speak it. To make once speech more attractive one has to work on today's contemporary slang with that of Shakespearean verbal expression which has the benefit of being more flowery and polite. As stress plays an important role in communication Shakespeare's Iambic pentameter will create an impact among the students in modifying their language after watching his plays. Well-known phrases and quotations that are associated with Shakespeare can be used as chunks in the language classes. William Shakespeare's idioms or expressions either coined by him or made more popular due to its usage in his plays can be learnt by the learners as chunks, just by hearing them again and again. Once the learners are familiar with these idioms, we can expose them to a wide range of language learning. Learners often lack in confidence and shy about speaking in front of the class. In order to encourage them and reduce their anxiety and to achieve their target language, Shakespeare's soliloquies can be played and imitated. With all digital distractions of today's students, the challenge of awakening teenagers' interest in his plays has surely become harder. So these are the ways to enhance students' ability to grasp the complexity of Shakespeare's language and implementing them in their communication to make their conversation better.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
214	**FACE MASK DETECTION AND SAFE SOCIAL DISTANCING IN PUBLIC AREAS FOR COVID-19**	T.nalini., Shalini Rai	ResearchGate	**- SDG 3 - Good Health and Well-being**	Coronavirus triggers several respirational infections such as sneezing, coughing, and pneumonia, which transmit humans to humans through airborne droplets. According to the guidelines of the World Health Organization, the spread of COVID-19 can be mitigated by avoiding public interactions in proximity and following standard operating procedures (SOPs) including wearing a face mask and maintaining social distancing in schools, shopping malls, and crowded areas. However, enforcing the adaptation of these SOPs on a larger scale is still a challenging task. With the emergence of deep learning-based visual object detection networks, numerous methods have been proposed to perform face mask detection on public spots. However, these methods require a huge amount of data to ensure robustness in real-time applications. Also, to the best of our knowledge, there is no standard outdoor surveillance-based dataset available to ensure the efficacy of face mask detection and social distancing methods in public spots. To this end, we present a large-scale dataset comprising of 10,000 outdoor images categorized into a binary class labeling i.e., face mask, and non-face masked people to accelerate the development of automated face mask detection and social distance measurement on public spots. Alongside, we also present an end-to-end pipeline to perform real-time face mask detection and social distance measurement in an outdoor environment. Initially, existing state-of-the-art single and multi-stage object detection networks are fine-tuned on the proposed dataset to evaluate their performance in terms of accuracy and inference time. Based on better performance, YOLO-v3 architecture is further optimized by tuning its feature extraction and region proposal generation layers to improve the performance in real-time applications. Our results indicate that the presented pipeline performed better than the baseline version, showing an improvement of 5.3% in terms of accuracy.
215	**MACHINE LEARNING AND DEEP LEARNING BASED ALGORITHM TO SEGMENT THE BRAIN TUMOR**	K Nithiya., Vageshwaran S., Vignesh M., Subash P	MDPI	**- SDG 3 - Good Health and Well-being**	Diagnosing a brain tumor takes a long time and relies heavily on the radiologist's abilities and experience. The amount of data that must be handled has increased dramatically as the number of patients has increased, making old procedures both costly and ineffective. Many researchers investigated a variety of algorithms for detecting and classifying brain tumors that were both accurate and fast. Deep Learning (DL) approaches have recently been popular in developing automated systems capable of accurately diagnosing or segmenting brain tumors in less time. DL enables a pre-trained Convolutional Neural Network (CNN) model for medical images, specifically for classifying brain cancers. The proposed Brain Tumor Classification Model based on CNN (BCM-CNN) is a CNN hyperparameters optimization using an adaptive dynamic sine-cosine fitness grey wolf optimizer (ADSCFGWO) algorithm. There is an optimization of hyperparameters followed by a training model built with Inception-ResnetV2. The model employs commonly used pre-trained models (Inception-ResnetV2) to improve brain tumor diagnosis, and its output is a binary 0 or 1 (0: Normal, 1: Tumor). There are primarily two types of hyperparameters: (i) hyperparameters that determine the underlying network structure; (ii) a hyperparameter that is responsible for training the network. The ADSCFGWO algorithm draws from both the sine cosine and grey wolf algorithms in an adaptable framework that uses both algorithms' strengths. The experimental results show that the BCM-CNN as a classifier achieved the best results due to the enhancement of the CNN's performance by the CNN optimization's hyperparameters. The BCM-CNN has achieved 99.98% accuracy with the BRaTS 2021 Task 1 dataset.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
216	**Metacognitive Reading Strategies Awareness and Usage in Reading Practices of Law Students**	Dr. Meena Rani Ravichandran	National Library of Science	**- SDG 3 - Good Health and Well-being**	This study explores the relationship between reading practices and awareness and metacognitive reading strategies by undergraduate law students. In terms of lexical and syntactic features, legal English is distinct from other types of English for Specific Purposes. Lengthy and convoluted sentences of legal language embedded extensively with archaic phrases and foreign terms make it incomprehensible for law students, the novice readers. Promoting the awareness and conscious usage of metacognitive strategies in understanding legal language will facilitate law students' academic and professional success. A reading achievement test was conducted. The Metacognitive Awareness of Reading Strategies Inventory (Revised) developed by Mokhtari, K., Dimitrov, D. M., & Reichard, C. A., (2018) was administered to a sample of 2nd-year law students. The data obtained using the above instruments indicate a significant correlation between the metacognitive reading strategies awareness and reading proficiency of the law students. It is suggested that explicit teaching of these strategies will positively impact the reading habits of the law students for whom effective reading is imperative in their profession.
217	**Oral Manifestations of Coronavirus Disease 2019â€“An Insight**	Dr.amutha., Sai Lakshmi L J., Selva Kumar R., R Ananthalakshmi., N Anitha	National Library of Science	**- SDG 3 - Good Health and Well-being**	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) presents rapid transmission and significant mortality worldwide. It is responsible for coronavirus disease 2019 (COVID-19). The disease presents diverse clinical symptoms, including fever, cough, dyspnea, and pneumonia. However, other manifestations associated with COVID-19 need to be clarified, leading specialists to an early diagnosis and better prognosis. We describe the spectrum of clinicopathologic COVID-19-related oral lesions that can be the first and/or the unique manifestation of the disease. Fourteen patients with a mean age of 58 years (range: 23 to 88 y) with oral lesions were included. All patients were confirmed to be infected with SARS-CoV-2 by reverse transcription polymerase chain reaction testing. Patients demonstrated mild symptoms, including dysgeusia, anosmia, fever, and headache. The lesions were recognized and classified into 2 groups: (1) lesions caused by ischemia and/or hemorrhage and (2) lesions secondary to inflammatory events associated with viral load. The palate was most affected (n=8), followed by the tongue (n=4), and both the lip and palate (n=2). Histologic analysis demonstrated thrombosis of small arteries and capillaries, associated with areas of hemorrhage and chronic inflammatory infiltrate. Immunohistochemistry showed positive staining for spike protein (SARS-CoV and SARS-CoV-2) and angiotensin-converting enzyme 2 in the surface epithelium, salivary glands, inflammatory cells, and endothelial cells. Although the incidence of oral lesions among patients infected with SARS-CoV-2 appears to be uncommon, these findings suggest that the oral mucosa can also be a target organ for SARS-CoV-2.
218	**DNA Microarrary: An overview**	Dr.amutha., Sai Lakshmi Lj., R Selvakumar	National Library of Science	**- SDG 3 - Good Health and Well-being**	This unit provides an overview of DNA microarrays. Microarrays are a technology in which thousands of nucleic acids are bound to a surface and are used to measure the relative concentration of nucleic acid sequences in a mixture via hybridization and subsequent detection of the hybridization events. This overview first discusses the history of microarrays and the antecedent technologies that led to their development. This is followed by discussion of the methods of manufacture of microarrays and the most common biological applications. The unit ends with a brief description of the limitations of microarrays and discusses how microarrays are being rapidly replaced by DNA sequencing technologies.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
219	**Review on zolgensma: Milestone in spinal muscular atrophy**	M Devi., Kanimozhi L., Ruth J E., Chandralekha K	National Library of Medical Science	**- SDG 3 - Good Health and Well-being**	Spinal Muscular Atrophy (SMA) is a genetic disease that causes weakness and wasting in the voluntary muscles of infants and children. SMA has been the leading inherited cause of infant death. More specifically, SMA is caused by the absence of the SMN1 gene. In May 2019, the Food and Drug Administration (FDA) approved onasemnogene abeparvovec, SMN1 gene replacement therapy, for all children with SMA younger than two years of age, without end-stage weakness. The objective of the study is to review the safety and efficacy of a novel gene therapy, onasemnogene abeparvovec (Zolgensma), for SMA and assess current challenges for gene therapy. For this, we have conducted a literature search on PubMed, MEDLINE, and Ovid (2019 to 2022) in the English language using the terms SMA, onasemnogene, and gene therapy. The search included articles, websites, and published papers from reputable health organizations, hospitals, and global organizations dedicated to bringing awareness to Spinal Muscular Atrophy. We found the first gene therapy for SMA to be onasemnogene, directly providing the survival motor neuron 1 (SMN1) gene to produce the survival motor neuron (SMN) protein. Onasemnogene is approved by the Food and Drug Administration and has the added benefit of being a one-time dose. On the downside, a major side effect of this treatment is hepatotoxicity. There is substantial evidence that the efficacy of therapy is increased when administered early to children under three months of age. Therefore, we concluded that onasemnogene appears to be an efficacious therapy for younger pediatric patients with SMA type 1. Drug cost and potential hepatotoxicity are major concerns. Long-term benefits and risks have not been determined, but it is more cost-effective and requires less time of treatment compared to the other used drug, nusinersen. Therefore, the combined safety, cost, and effectiveness of onasemnogene abeparvovec make it a reliable treatment option for treating SMA Type 1.
220	**Esthetic Management of Congenitally Missing Teeth**	K.sheela., Vidhya Rekha U	Journals of Pharmacy & Bioallied Science	**- SDG 3 - Good Health and Well-being**	Congenitally missing anterior teeth alters the patient's physiognomy and diction in a big way. Maxillary incisor agenesis, prominently the lateral incisor is the most common congenitally missing permanent tooth, in the anterior maxillary region, which is the esthetic zone, representing approximately 20% of all dental anomalies. Treatment planning is inclusive of; smile design, preparation, perception of the patients, and their expectations in relation to esthetics, interdisciplinary alliance that meets the functional, health, and esthetic needs. A critical factor for the overall success is that of choosing a suitable restorative recourse. The case report describes the esthetic rehabilitation for congenitally missing maxillary lateral incisor and early traumatic loss of central incisor using an all ceramic-fixed prosthesis.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
221	**DOMAIN ONTOLOGY BASED RECOMMENDATION USING MULTI-LABEL TEXT CATEGORIZATION APPROACH**	Barath Callistus P., Ramesh P., T.nalini	International Journal for Crative Research Thoughts	**- SDG 3 - Good Health and Well-being**	- As deep web grows at a very fast pace, there has been increased interest in techniques that help efficiently locate deep-web interfaces. An exploratory search may be driven by a user's curiosity or desire for specific information. When users investigate unfamiliar fields, they may want to learn more about a particular subject area to increase their knowledge rather than solve a specific problem. A matching query style has significant limitations. Search results are satisfactory only when users give the right search words. To achieve more accurate results for an exploratory search, Smart Crawler ranks websites to prioritize highly relevant ones for a given topic. We evaluate the effectiveness of the proposed technique Ontology Recommendation Framework, and report the findings (e.g., the importance of context and content factors) in web revisitation Ontology Recommendation Framework delivers the best re-finding quality in finding rate. In proposed system the multi-key word search concept will be used, the system will be giving all the possible relevant links. This will be achieved in two ways the proposed framework by considering numerous ontologies from different domains and more user requirements while focusing on the other multi-label text categorization approaches. The query which is submitted to the application will be preprocessed, after pre-processing only root words will be taken and it will find Synonym, Hypernym and Hyponym and it will listed to the user so this is the reason that all possible links can be found related to search. Our dynamic management of context and content memories including decay and reinforcement strategy can mimic users' retrieval and recall mechanism If

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
222	**Trust discovery and information retrieval using artificial intelligence tools from multiple conflicting sources of web cloud computing and e-commerce users**	P Solainayagi., G O Jijina., K Sujatha., N Kanimozhi., Nataraj Kanya., S Sendilvelan	Academic Press	**- SDG 3 - Good Health and Well-being**	Cloud server adoption turns out to be increasingly well known and profoundly requested because of the unlimited information contribution and retrieval from anyplace and anytime. The existing method has lack of adaptability issues with a trust value calculation based on multidimensional cloud service providers. The truth content discovery algorithm is designed to produce trustworthy information in minimal time along with various types of media information. The technique provides trustworthy information from various news sources with minimal prediction error. It reduces the retrieval time of the query and ranks the news content index based on query matching. Based on an experimental evaluation, the proposed TCD + J48 method provides better results than existing methodologies. It minimizes the query retrieval time (QRT) by 0.9275 s, mean absolute errors (MAE) by 1.22 s and roots mean squared error (RMSE) by 5.14 s. The trustworthy and scalable service providers algorithm (TSSP) is proposed for analyzing the design and relationship among the clients, the broker, and cloud service providers. The trust-based method effectively reduces the cloud client burden and improves the system stability. The proposed technique works based on the data entropy hypothesis to assess the multiattribute-based decision-making. Based on an experimental test, this method reduces the system execution time by 2 msec, the communication cost by 9.33%, and improves the trust scores by 39.33% compared to existing methodologies in the respective parameters and tasks. An efficient feature extraction and classification (EFEC) algorithm is also proposed to extract a feature from opinion words. An EFEC algorithm is used to predict the quantity of positive and negative review opinions. According to an experimental assessment, the proposed technique improves accuracy by 15.05%, precision by 13.7%, recall by 15.59%, and F-measure by 15.07% of the proposed framework compared to existing techniques.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
223	**Awareness and Attitude toward replacement of missing teeth among patients at a dental institute :A Cross-sectional study**	T Ranjani., Dr.m A Eswaran., R Kesavan., Heba Ashi., Athirumal Raj., Shankargouda Patil		**- SDG 3 - Good Health and Well-being**	Aim: To evaluate the awareness among the patients visiting a dental college in replacing the missing teeth. Materials and methods: A cross-sectional survey was conducted to know the patient's awareness and preference for the treatment options. A list of the closed-ended questionnaire was used to record the patient's response about being edentulous. The collected data were statistically analyzed. SPSS, Version 2.1, statistical software was used. The descriptive statistics were done using frequency and percentage. Bar graphs and pie graphs were used wherever applicable. Results: Maximum patients reported to dental treatment with less than 1 year period of edentulousness. This directly indicates an increased awareness among the patients (77.5%). The need to replace the missing teeth was a function such as mastication of food for 42.6% of the patients and 36.6% of the patients wanted to replace their missing teeth for improving their appearance. The most preferred method of the replacement is fixed partial denture (FPD) as it was cost-effective and affordable for them. Only 22% of the patients wanted an implant as a treatment option as it did not involve the adjacent teeth. Conclusion: The awareness and knowledge about the treatment options among the patients visiting the dental college have increased, but still, the awareness about the consequences of being edentulous for a long time should be improved through social media by the dentists. Clinical significance: The replacement of missing teeth is important in rehabilitating the form, function, esthetics, and integrity of the stomatognathic system. There are various treatment options available for replacing missing teeth. Very few patients are aware of all the options and the consequences of not replacing the posterior teeth.
224	**Development-Handwritten Text Recognition**	Shivanshu Patel., Vinay Kumar., K Neeraj., Murugesan Arun., P Joshi	Journal of Oral Pathology & Medicine	**- SDG 3 - Good Health and Well-being**	The clinical and histologic features alone cannot accurately predict whether potentially malignant disorders of the oral mucosa remain stable, regress or progress to malignancy. Some of them, with or without epithelial dysplasia, may transform to invasive oral squamous cell carcinomas (OSCC). Identification of molecular markers which can predict disease progression is necessary to improve the management of these disorders. Many genes and signaling pathways have been shown to be involved in the development of OSCC. This review summarizes some molecular markers researched in the detection of pre-cancer. We highlight selected markers that are reported to be significantly associated with progression of potentially malignant disorders to OSCC. These include alterations in genes/pathways which control cellular signaling, cell cycle, apoptosis, genomic stability, cytoskeleton, angiogenesis, etc. However, these genetic tumor markers have so far not gained any use in routine diagnosis and their utility in the prediction of risk of malignant transformation remains unknown. It is, however, clear from the large number of studies, some described in this review, that multiple genes/pathways are involved in the progression from normal to metaplastic/dysplastic, and subsequently to cancer. It is therefore necessary to study those significant alterations in multiple genes simultaneously in biopsy samples from large cohorts of subjects.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
225	**DETECTION OF SOIL MOISTURE AND AUTOMATIC IRRIGATION SYSTEM BY IOT**	Deepika R., Devadharshini V., Murugesan Arun., V Rameshbabu	International Journal of Computer Science and Information Technology Research	**- SDG 3 - Good Health and Well-being**	The key objective of the paper is to monitor the soil moisture content during its dry and wet conditions with the aid of a moisture sensor ,an automated water inlet setup which can also monitor and record temperature, humidity etc. It controls the irrigation of Plants automatically where the need for human intervention can be reduced As water supply is becoming scarce in today's world there is an urgency of adopting smart ways of irrigation The project describes how irrigation can be handled smartly using IOT. This project aims to save time and avoiding problems like constant vigilance. It also helps in conserving water automatically providing water to the plants/fields depending on the water requirements this system can also prove to be helpful in agricultural parks and lawns. The objective system is to detect the moisture content of the soil and depending upon its sprinkling of water. This entire information will be sent to the user's mobile phone. The smart irrigation system was developed to optimize water use of crops. The system has a distributed wireless network of soil-moisture temperature sensors placed in the root zone of the plants. Also, a gateway unit handles sensor information, triggers, actuators, and transmits data to the web application. An algorithm was developed with threshold values of temperature and soil moisture that was programmed into a microcontroller-based gateway to control water quality the system was proved. The system was powered by solar panel and it has a duplex communication link based on a cellular network.
226	**DISTRIBUTION OF ORAL MUCOSAL LESIONS AMONG TOBACCO USERS**	J Manju., Krithika C., Rajvikram N	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Background: Smoking and chewing tobacco carry significant risks for the development of oral cancer and premalignant lesions. The present study was conducted to find the prevalence of tobacco-related habits in Hazaribagh population and its association with oral mucosal lesion. Methodology: The present study was carried out on patients who visited the Department of Oral Medicine And Radiology, Hazaribagh College of Dental Sciences And Hospital. A total of 5,000 subjects were screened for tobacco-related habits and associated mucosal changes. Detailed clinical history about tobacco-related habits was obtained. Oral mucosal lesions were screened using the WHO format for diagnosis of oral lesions. The findings were tabulated and analyzed statistically. Results: Of the 5,000 subjects enrolled for the study, 1,085 (21.7%) used tobacco in some forms. Habit of smoking tobacco was present among 273 (25.2%) and using smokeless tobacco among 811 (74.7%) individuals. Tobacco pouch keratosis (46.1%) was found to be most common lesion, followed by oral submucous fibrosis (OSMF) (16.1%), lichenoid reaction (14.1%), smokers palate/melanosis (12.2%), leukoplakia (7.2%), erythroplakia (2.3%), and oral cancer in (2%). Conclusion: The results provide insight into prevalent tobacco habits and associated oral mucosal lesions in Hazaribagh population. These may act as baseline data for the formulation of preventive programs and help future studies explore the prevalence of tobacco-associated lesions in vulnerable populations. Current knowledge, including findings from the present study, about the prevalence of tobacco use and various oral lesions associated with it may help primary health care physicians to promote among patients

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
227	**IMPACT OF PERCEIVED STRESS ON LIFE SATISFACTION AMONG FOOD DELIVERY WORKERS**	Appu Dhillipan., Manoj Raghavan., Aditi Ganesh Athreya	GIS SCIENCE JOURNAL	**- SDG 3 - Good Health and Well-being**	In our current technology-based world, many new job opportunities emerged. At the same time, many of these new opportunities are stress-prone, which may have an impact on satisfaction with life due to various factors. One such job is that of food delivery for booking done through mobile applications. This present study focused on the food delivery working population to know the impact of perceived stress on their satisfaction with life, which helps to get more insight to improve their quality life. In this study quantitative correlational design, data were collected from a sample of 107 food delivery employees using Perceived Stress Scale (PSS) & The Satisfaction with Life Scale (SWLS). The Pearson correlation is used as it measures the strength of the linear relationship between two variables and the analysis was done using SPSS package and it was found that there was no significant relationship between the variables which did not match the result of the previous studies done on various other population. Hence the reasons were analysed by conducting an open-ended telephonic interview with the participants and it was found that there were various factors associated with the nature of jobs which did give them satisfaction in life even though they experienced stress. Implications of the study can be used in the Human resource, clinical, and counselling settings
228	**THE IMPACT OF ANXIETY ON PROSOCIAL BEHAVIOR IN YOUNG ADULTS**	Abida R., Manoj Raghavan., Bharathi	DICKENSIAN JOURNAL	**- SDG 3 - Good Health and Well-being**	In current state of life every individual has become increasingly competitive in recent years, and they have become preoccupied with their own affairs The present study is focused on the young adults to know the Impact of anxiety on prosocial behavior in them. Data was collected individually on face-to-face interaction from a sample size of 150 people between the age of 18 to 40 using Hamilton anxiety rating scale & Prosocial Behavior Scale for Adults. Result from the survey indicated that Anxiety and prosocialbehavior among young adults is significantly correlated in 0.01 levels. Hence, theimplication of findings in the present study can improve insight of how anxiety impacts on prosocial behavior among individual and can be used in clinical and counseling processin customizing the interventions to increase the prosocial behavior among adults whichcan have huge impact on their mental health in daily life

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
229	**A Study The Level Of Nomophobia And Its Impact Among Depression, Anixety And Stress Among College Students**	Mohanapriya P., Manoj Raghavan., Nivedha Kesavamurthy	Industrial Psychiartry	**- SDG 3 - Good Health and Well-being**	Background: Nomophobia is a portmanteau for “no mobile phone” and phobia or mobile phone addiction. Nomophobia refers to discomfort, anxiety, nervousness, or anguish caused by being out of contact with a mobile phone. There is a paucity of literature from India on this emerging mental health condition. Objectives: The objectives of this study were to assess the prevalence of nomophobia and its relationship with depression, anxiety, and quality of life among adolescent students. Materials and Methods: A cross-sectional study was carried out in 1386 high school students aged between 14 and 17 years. The Nomophobia Questionnaire (NMP-Q) was used to assess nomophobia. Beck’s Depression Inventory (BDI), Beck’s Anxiety Inventory (BAI), and Short Form-36 (SF-36) were used to measure depression, anxiety, and quality of life, respectively. Results: Out of 1386 adolescents, 569 (41.05%), 303 (21.86%), and 82 (5.1%) have mild, moderate, and severe nomophobia, respectively. There were significantly more males with nomophobia. There was a statistically significant relationship between NMP-Q score and BDI, BAI, and SF-36 scores. A significant positive correlation was observed between NMP-Q score and scores on BDI and BAI and a significant negative correlation between SF-36 score. Conclusion: The results of the study indicate that nomophobia is an emerging mental health condition, especially in male adolescents. Nomophobia is significantly associated with depression, anxiety, and poor quality of life. Multicentric studies are needed to better
230	**The Impact of Self Esteem on Perceived Social Self-Efficacy Among Young Adults**	Sruthika D V., Manoj Raghavan., Adithi Ganesh Athreya	Journal of Xidian University	**- SDG 3 - Good Health and Well-being**	Self-efficacy is a person's or individual's belief in his or her ability to carry out the actions required to achieve specified performance goals and self-esteem Self-esteem is the overall subjective sense of worth or value a person attributes to themselves and how much they appreciate and like themselves regardless of circumstances. The present study focuses on the Perceived Social Self-Efficacy and Self Esteem among the young adults which help to get more insight to improve their self-confidence in social situations. The present study falls under quantitative correlation design. Data was collected from a sample size of 100 participants using, Perceived Social Self-Efficacy Scale (PSSE) & Rosenberg Self Esteem scale (RSES). The Pearson correlation coefficient was calculated to check the relationship between the variables using SPSS software and the results showed that there was no significant relationship between Perceived self-efficacy and self-esteem.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
231	**Emotional Fatigue, Depersonalization, and Professional Fulfillment among Students of a Private Dental College in Chennai, India**	R Kesavan., Abraham Vinita Mary	Journal of Occupational Health and Epidemilogy	**- SDG 3 - Good Health and Well-being**	Background: Stress is unavoidable in life, a common physiological reaction of the body to an adverse stimulus. Burnout is a physiological response to the failure to control stress efficiently. Dentistry students appear to be more prone to anxiety, depression, and burnout due to the variety of stressful situations in their careers. Materials and Methods: The current study had a descriptive cross-sectional design, carried out among 311 clinical and postgraduate scholars of a private dental college in Chennai in 2021. Data was collected through a convenient sampling method using a validated questionnaire obtained from the Maslach Burnout Inventory. The data was analyzed using SPSS 26 software and parametric tests were applied. Results: The results showed that about 41.5% of the participants felt emotionally drained after every day's clinical work. About 52% reported that they never treated the patients as impersonal objects, and 37.3% stated they never became less sensitive towards people after taking up the dental profession. Females had significantly higher emotional fatigue scores than males, and depersonalization scores were highest among interns compared to other groups ($p<0.05$). Conclusion: Students experience a considerable emotional burnout; however, it does not hinder the students' attitudes and practices towards patients' care and professional accomplishment. Necessary steps should be taken to reduce emotional fatigue, possibly further improving the students' professional ability.
232	**Perception, Impact, and Barriers of Online Learning among Dental Students in Chennai City**	R Kesavan., A Vinita Mary., Preethi Ganesh., P Rithika Raj., V Lalitha Priya., S Elakiya	International Journal of Community Dentristry	**- SDG 3 - Good Health and Well-being**	Background: Electronic learning is an influential technological tool that blends the traditional teaching and electronic resources and had become an imperative platform in supporting the education system in recent years due to COVID-19 pandemic. Materials and Methods: A cross-sectional questionnaire survey was conducted among the dental students across Chennai to evaluate the impact of online learning and to identify the barriers faced that will aid in formulating alternative strategies to reduce the difficulties and improve the quality of learning. The study population was selected based on certain inclusion and exclusion criteria. The data collection was done through a validated questionnaire with assistance from Google Forms. Results: It was found that around 67% of the participants had not attended any online classes before COVID-19. Half of them had Internet connectivity issues during online classes and about 62% of the students faced lots of distractions during online classes. When the participants were asked about their learning preference, majority of them responded that they were comfortable with the traditional method. Conclusion: It was concluded that students had experienced connectivity and other technical issues during these classes and most of them were able to manage it. The major disadvantage of online classes was they were not able to reproduce a practical and clinical hands-on experience, which is indispensable for health-care students. However, the students were able to cope up with it since there was the only choice existing.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
233	**Effectiveness of Sub â€“ Occipital Release Technique for Non-Specific Neck Pain**	K Kirupa., S M Divya Mary., R Nithyanisha., G Vaishnavi., V Pavithralochani., K Aarthi., M Priyanka	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	The suboccipital release is a frequently performed OMM technique due to its simple setup and versatility. This technique requires minimal equipment and patient positioning, thus making it easy for providers to perform. Typically, this technique treats migraines, headaches, and neck pain. It can also be used as an adjunct for treating conditions with autonomic dysfunction. This activity outlines and explains the indications and procedures for performing suboccipital release and examines the role of the healthcare team in improving care for patients who undergo suboccipital release. Objectives: Outline and explain how to perform suboccipital release on a patient. Summarize the relevant anatomy involved in a suboccipital release. Review the pathophysiology behind the suboccipital release. Identify indications and contraindications for using suboccipital release in inpatient and outpatient settings.
234	**Virtual Planning of Orthognathic Surgery â€“ A Literature Review**	K Zainab Shariffa., Anila Xavie P X., N Sarasree Neru., M Laavanya., Pradeep Christopher Jesudas	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Numerous publications regarding virtual surgical planning protocols have been published, most reporting only one or two case reports to emphasize the hands-on planning. None have systematically reviewed the data published from clinical trials. This systematic review analyzes the precision and accuracy of three-dimensional (3D) virtual surgical planning of orthognathic procedures compared with the actual surgical outcome following orthognathic surgery reported in clinical trials. A systematic search of the current literature was conducted to identify clinical trials with a sample size of more than five patients, comparing the virtual surgical plan with the actual surgical outcome. Search terms revealed a total of 428 titles, out of which only seven articles were included, with a combined sample size of 149 patients. Data were presented in three different ways: intra-class correlation coefficient, 3D surface area with a difference <2mm, and linear and angular differences in three dimensions. Success criteria were set at 2mm mean difference in six articles; 125 of the 133 patients included in these articles were regarded as having had a successful outcome. Due to differences in the presentation of data, meta-analysis was not possible. Virtual planning appears to be an accurate and reproducible method for orthognathic treatment planning. A more uniform presentation of the data is necessary to allow the performance of a meta-analysis. Currently, the software system most often used for 3D virtual planning in clinical trials is SimPlant (Materialise). More independent clinical trials are needed to further validate the precision of virtual planning.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
235	**Knowledge, Attitude and Awareness on Cryosurgery Among Dental Students and Private Dental Practitioners Across Tamilnadu - A Cross Sectional Survey**	K Senthil Kumar., R V Silambarasan., Dr. K.mohamed Afradh., Pradeep Christopher Jesudas., P Rithika Raj., A M Mugil Sruthi	Research Journal of Pharmacy and Technology	**- SDG 3 - Good Health and Well-being**	Background:Cryosurgery is the use of extreme cold produced by liquid nitrogen (or argon gas) to destroy the abnormal tissue. Its use is increasing in oral cavity. The oral mucosa, because of its characteristics of humidity and smoothness , is an ideal site for its technique. It shows a very good aesthetic result and it may be either the first choice or an alternative option to conventional surgery. Aim:To create awareness and to evaluate the knowledge and attitude on cryosurgery among dental students. Materials and methods: The questionnaire was distributed to 100 dental students regarding their knowledge on cryosurgery. The responses were recorded and analysed. Results:Knowledge,attitude among Dental students regarding cryosurgery is inadequate.Majority of students have good knowledge on material used for cryosurgery.Most of the students also aware that cryosurgery in a painless treatment.
236	**Evaluation of Immediate Functional Loading with Single Piece Implants**	Sanjay Madhavan., Pradeep Christopher Jesudas., Dr. K.mohamed Afradh	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Background. In the current scientific literature there are only few studies on the immediate functional loading of single implants. The aim of the present present study was to evaluate the 4-year survival rate, complication rate and peri-implant marginal bone loss (PIMBL) of immediately loaded single implants inserted in healed ridges and fresh post-extraction sites. Methods. Six centers were involved in this prospective study. The surgical and prosthetic protocol was defined in detail, before the start of recruiting patients. Recruitment of patients and performance of surgeries took place between February 2012 and February 2013. Criteria for inclusion were single-tooth gaps in healed ridges and fresh post-extraction sockets. All the fixtures (Anyridge®, Megagen Corporation, Gyeongbuk, South Korea) were functionally loaded immediately after insertion and followed for a period of 4 years. Outcome measures were implant survival, complications and PIMBL. Results. Forty-six patients (18–73 years of age) were selected. In total, 57 fixtures were placed (10 in fresh post-extraction sockets). After 4 years of functional loading, only one fixture was lost; therefore, high survival rates (97.6% patient-based; 98.1% implant-based) were reported. In addition, a limited incidence of biologic (4.8% patient-based; 3.8% implant-based) and prosthetic (9.7% patient-based; 7.6% implant-based) complications was reported. The overall 4-year PIMBL amounted to 0.38±0.21 mm (healed ridges: 0.4±0.21 mm; fresh post-extraction sockets: 0.33±0.20 mm). Conclusion. Loading single implants immediately seems to be a highly successful treatment modality. However, long-term data are needed to confirm these positive outcomes.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
237	**Post-Covid Mucormycosis- Epidemiology, Clinical Aspects and Management Concerns**	Dr. K.mohamed Afradh., V Lalitha Priya., K Vandana Shenoy., M Laavanya	National Library of Medicine	**- SDG 3 - Good Health and Well-being**	Introduction: Mucormycosis is a serious but rare fungal infection that showed a sharp surge during the second wave of coronavirus disease 2019 (COVID-19) in India. This study aimed to describe the epidemiological aspects of mucormycosis cases presenting to a tertiary care centre of Western Rajasthan, India, as well as to identify potential risk factors for Mucormycosis. Methods: This cross-sectional descriptive study included 55 patients admitted with a diagnosis of mucormycosis between May and June, 2021, covering the second wave's post-COVID-19 period. Data was collected using a pre-designed, semi-structured questionnaire and hospital case sheets. Results: The mean age of the patients was 54.4±12.53 years, with a male-to-female ratio of 1.89:1. Of the patients, 49% were obese and had no prior history of diabetes. Most COVID-19 patients (54.6%) were treated at home and did not require oxygen support during their COVID-19 course. The majority (89%) were on steroid medication, which was mainly intravenous (93.8%) and lasted 5-10 days in most patients. Rhinoorbitocerebral mucormycosis was the most common type seen in this setting, with symptoms appearing 15-30 days after the onset of COVID-19 symptoms. During the fungal infection, about 61.8% of patients had random blood sugar readings of more than 140 mg/dl. Mortality occurred in 14.5% of patients with mucormycosis. Mortality was observed to be associated with high BMI, raised glycated haemoglobin (HBA1C), and urban residency. Conclusion: Mucormycosis appears to be caused by impaired glycemic control due to pre-existing or new-onset diabetes, which may be exacerbated by unintentional glucocorticoid use. It is necessary to use steroids with caution and maintain care for at least 15-30 days after the onset of COVID-19 symptoms.
238	**PHOTOBIOSTIMULATION â€“ MODULATION THERAPY IN POST SURGICAL MANAGEMENT- A REVIEW ON MECHANISM AND OUTCOMES**	Dr. K.mohamed Afradh., Preethi Ganesh., M Lavanya., G Gayathri., C S C Satish Kumar		**- SDG 3 - Good Health and Well-being**	Introduction: One of the major complains after surgery is pain. Recent advances in the prevention and reduction of postoperative pain have provided several modalities. One of them is the use of laser irradiation on the surgical area. Objectives: To evaluate the effects of low level laser therapy (LLLT) on pain and side effects after surgery. Methods: In this research, databases such as: PubMed, Science Direct, Google Scholar, Springer and Cochrane were used and the words of laser therapy, photobiomodulation, therapeutic laser, low level laser therapy, surgery and pain were searched. Articles, including systematic reviews, original articles, case series, and clinical intervention studies related to these words, were studied. The language of all articles was English and consists of papers from 2009 until 2017. Results: A total of 370 papers were studied and 10 articles that met inclusion criteria were selected for this review. Few of these articles were followed up. Surgery included a wide range of surgeries including mastectomy, breast augment post-fracture, episiotomy, tonsillectomy and hernia. The methodological quality score on the PEDro scale was between 5 and 11. 8 trials reported positive effects and 2 trials reported negative effects. In order to study clinical effect size of laser therapy after surgery, only 4 papers met entry criteria and the mean effect sizes were 0.13 to 2.77. Accordingly, the best treatment protocol included a red laser dose of 4 J/cm2 for the post-operative pain of tonsillectomy, which was irradiated through the infra mandibular angle on the tonsils. Conclusion: LLLT may be an appropriate modality for reducing pain after surgery, nevertheless the effect size of this modality is variable. Therefore, further research based on proper protocols for these patients and follow-up of therapeutic course should be designed and implemented.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
239	**THE EFFECT OF SOCIAL EMOTIONAL COMPETENCE ON ATTITUDE TOWARDS SELF AMONG YOUNG ADULTS**	Abdul Shakur A., Manoj Raghavan., Sriranga., Appu Dhillipan	International Journal of Environmental Research and Public Health	**- SDG 3 - Good Health and Well-being**	Background: The purpose of this study was to develop a social and emotional competence enhancement (SECE) program as an intervention for adolescents who bully, and to investigate its effects on school bullying behavior and mental health. Methods: A pre-posttest, 1-month follow-up nonequivalent control group quasi-experimental design was used. In total, 71 school bullies were included in the analysis. Results: The effects of this program were significant with regard to group-by-time interaction effects on social competence, emotional regulation, empathy, and school bullying behavior at the 1-month follow-up. Conclusions: The results indicate that the SECE program was effective at reducing school bullying behavior in adolescents who bully. School and community-based mental health professionals can provide feasible interventions that can be used in the short term to reduce school bullying behavior in adolescents who bully.
240	**Impact Of Stress on Emotional Wellbeing Among College Students**	Divya Dharshini N., Manoj Raghavan., Bharathi Venkatesan		**- SDG 3 - Good Health and Well-being**	Background Lowered mental wellbeing of students is a growing health and societal problem. Experiencing high levels of stress for a longer period of time has been associated with an increased risk for lower mental wellbeing and mental health problems. To reduce stress and improve mental wellbeing it is important to understand how various sources of stress are related with mental wellbeing and which factors can buffer the impact of stress on mental wellbeing. Objectives Deriving from a conceptual model the aim of the study was to explore 1) the association of underlying stressors (academic pressure, family circumstances, side-activity pressure, and financial situation) with perceived stress and mental wellbeing, 2) whether perceived stress mediates the association between the sources of stress and mental wellbeing and 3) whether loneliness, self-esteem, personality and coping styles buffer or reinforce the impact of perceived stress on mental wellbeing. Method A cross-sectional survey design was used among students of an University of Applied Sciences and conducted between November 16, 2020, and January 18, 2021. Study variables were mental wellbeing, perceived stress, academic pressure, financial pressure, family pressure and side-activity pressure, coping style, self-esteem, loneliness, personality. The questionnaire was constructed using validated measures. Simple and multiple linear regression analyses were conducted to assess the association between perceived stress, sources of stress and mental wellbeing. Mediation and moderation processes were explored using Hayes PROCESS models. Results A total of 875 university students (37,2% male, 62,3% female, mean age 21,6) participated. Perceived stress had a strong negative association with mental wellbeing

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
241	**Concentrated growth factors in the treatment of adjacent multiple gingival recessions: A split-mouth randomized control trial**	Shaik Abdul Cader., Snophia Rani Rajamani., Uma Sudhakar., Nimisha Mithradas., Shifa Fathima., Navina Ravindran	National library for Medical Science	**- SDG 3 - Good Health and Well-being**	Aim: The aim of this study was to determine the clinical effect of concentrated growth factor (CGF) in combination with coronally advanced flap (CAF) compared to CAF alone for the treatment of multiple adjacent gingival recessions (GRs). Materials and methods: Twenty patients with a total of 119 Miller Class I and II GRs in the maxilla were included to this study. Recessions were randomly treated according to a split-mouth design by means of CAF + CGF (test; 60 defects) or CAF (control; 59 defects). Clinical outcomes were evaluated at baseline and 6 months after surgery. Results: The mean root coverage (MRC) was 82.06% and 86.67%, complete root coverage (CRC) was 45.8% (27/59) and 56.7% (34/60) for CAF and CAF + CGF, respectively at 6th month. Statistically no difference was demonstrated between the two groups in terms of recession depth (RD), MRC and CRC at 6th month. The increase in width of keratinized gingiva (KGW) and gingival thickness (GT) were statistically significant in the CAF + CGF group compared to the CAF group at 6th month. Conclusions: The use of CGF in combination with CAF did not provide additional benefits in RD, CRC and MRC. This study suggests that use of CGF + CAF may increase the success of GRs because of a significant increase in KGW and GT.
242	**A minimally invasive surgical approach for treatment of ankyloglossia (Tounge Tie) with diode laser: A case report (A developmental anomaly)**	Shaik Abdul Cader., Snophia Rani Rajamani., Uma Sudhakar., Nimisha Mithradas., Shifa Fathima., Navina Ravindran	IP International Journal of Maxillofacial Imaging Official Publication of Khyati Education and Research Foundation	**- SDG 3 - Good Health and Well-being**	Tongue tie otherwise called as Ankyloglossia is a developmental anomaly commonly characterized by a very short lingual frenulum that literally restricts the movements of tongue from the floor of mouth. An uncommon thick band extending beneath the ventral surface of tongue to floor of the mouth. This represents a uncommon length of the lingual frenulum. This causes problems in daily life of the person who was affected with the following difficulties of speech, deglutition, poor oral hygiene etc. This article reports a 19 year college going guy came to the department with the complaint of difficulty in speech and poor oral hygiene. The case was successfully treated with a soft tissue diode laser and followed up.
243	**An Extensive Review on Nanoparticulate Drug Delivery System and Its Toxicity**	Vigneshwar Murugesan., Deepika Sree R., Kalaivani K., Kirankumar S., Dr. N. Harikrishnan N	MDPI Academic Open Access Publishing	**- SDG 3 - Good Health and Well-being**	In the last four decades, nanotechnology has gained momentum with no sign of slowing down. The application of inventions or products from nanotechnology has revolutionised all aspects of everyday life ranging from medical applications to its impact on the food industry. Nanoparticles have made it possible to significantly extend the shelf lives of food product, improve intracellular delivery of hydrophobic drugs and improve the efficacy of specific therapeutics such as anticancer agents. As a consequence, nanotechnology has not only impacted the global standard of living but has also impacted the global economy. In this review, the characteristics of nanoparticles that confers them with suitable and potentially toxic biological effects, as well as their applications in different biological fields and nanoparticle-based drugs and delivery systems in biomedicine including nano-based drugs currently approved by the U.S. Food and Drug Administration (FDA) are discussed. The possible consequence of continuous exposure to nanoparticles due to the increased use of nanotechnology and possible solution is also highlighted.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
244	**ENHANCED ARTIFICIAL BEE COLONY BASED FLEXIBLE NEURAL FOREST (EABC-FNT) AND ENSEMBLE GENE SELECTION (EGS) FOR CANCER SUBTYPES CLASSIFICATION ON GENE EXPRESSION DATA**	Nagasubramaniam Jayashri., M Deepika	Journal of Xi'an Shiyou University, Natural Sciences Edition	**- SDG 3 - Good Health and Well-being**	The categorization of cancer subtypes is critical for cancer analysis and diagnosis. Deep learning algorithms have centred substantial recognition for cancer subtype detection in recent years; but, It's difficult to create a Neural Network (NN), and the results of deep learning approaches aren't always predictable are mostly reliant on their structure. In gene expression datasets, a learning strategy takes a long time and the output of the representation diminishes due to duplicated genes and the curse of dimensionality. To increase the classifier's performance and address these difficulties, Enhanced Artificial Bee Colony based Flexible Neural Forest (EABC-FNT) and Ensemble Gene Selection (EGS) is proposed in this paper. The EABC algorithm is used to optimise the parameters of the EABC-FNT classifier to help to utilize the cancer subtypes classification. In the EABC algorithm, new modified onlooker bee behaviour is used with the better fitness food source as the middle. FNT is a particular NN through the benefit of formation and parameter tuning that may be utilised for multi-class classification. The Fisher Ratio (FR), Neighbourhood Rough Set (NRS), Correlation Based Gene Selection (CFS) and Greedy Hill climbing method are combined with the EGS algorithm. It is used to select primarily beneficial genes with data on the expression of a known breast
245	**Impact Of Online Education And Digital Learning In Covid 19 â€“India**	A Karthick., G Brindha	Asian Journal for Public Opinion Research	**- SDG 3 - Good Health and Well-being**	The unprecedented situation of COVID-19 caused the government of India to instruct educational institutions to switch to an online mode to mitigate the losses for students due to the pandemic. The present study attempts to explore the impact of online learning introduced as a stop-gap arrangement during the pandemic in India. A survey was conducted (N=289), via Facebook and WhatsApp, June 1-15, 2020 to understand the accessibility and effectiveness of online learning and constraints that students of higher education across the country faced during the peak times of the pandemic. The analysis and interpretation of the data revealed that the students acclimatized in a short span of time to online learning, with only 33.21% saying they were not satisfied with the online learning mode. However, the sudden shift to online education has presented more challenges for the socially and economically marginalized groups, including Scheduled Caste (SC), Scheduled Tribes (ST), Other Backward Class (OBC), females, and students in rural areas, due to factors like the price of high-speed Internet (78.20% identified it as a barrier to online learning), insufficient infrastructure (23.52% needed to share their device frequently or very frequently), poor Internet connectivity, etc. According to 76.47% of respondents, the future of learning will be in “blended mode.” A total of 88.92% of the respondents suggested that the government should provide high-quality video conferencing facilities free to students to mitigate the division created by online education in an already divided society.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
246	**A Critical Scrutiny of ConvNets (CNNs) and Its Applications: Review**	M Shanmuganathan., T.nalini		**- SDG 3 - Good Health and Well-being**	This manuscript offers the existing methods used in identifying the objects and its applications. Deep Learning ConvNets (CNN) which help to judge the face of humans face using CNNs are considered in this manuscript which are reviewed and works relating to their applications are examined. Existing research nurtured from national and international articles relating to facial object identification is collected and surveyed to evaluate which method is the most common than the available existing methods in facial object identification in consideration. The publications from the year 1993 onwards are considered, the manuscript recommends that presently, deep CNNs are extensively used in facial object identification. In the process of facial object identification raises privacy issues. It also acts as a commercial and business tool applied in airports, payment methods, health care, retail and education, etc. In airports this method is used in security check-ins, in banks this method is utilized in contactless indispensable payments, in health care this technique can be used in the patient check-in process, emotion detection of the patient, diagnosing the condition of the patient, identification of the staff, security etc., In retail markets this technique helps to identify the experience in shopping, improves the service and satisfaction of the customer as well as the security, in the field of education this technique helps to identify a person formally engaged in learning. ConvNets is applied in different arena such as Sentiment analysis, Social Networks, Traffic Network Analysis, Analysis of user nature behavior, and dealing with social networks. This work demonstrates the Introduction, CNN approaches and its utilization, types available, typical approaches and its applications, Observations, Conclusions and References.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
247	**CONSUMER CONCERNS AND BANK STRATEGIES IN INTERNET BANKING**	Ananthasuresh Karuppasamy., A Devendran., Dr.m Radhikaa Shree	GLOBAL JOURNAL OF BUSINESS RESEARCH	**- SDG 3 - Good Health and Well-being**	Internet banking has attracted the attention of banks, securities trading firms, brokerage houses, insurance companies, regulators and lawmakers in developing nations since the late 1990s. With the rapid and significant growth in electronic commerce, it is obvious that electronic (Internet) banking and payments are likely to advance. Researches show that impact of Internet banking on cost savings, revenue growth and increased customer satisfaction on Industry is tremendous and can be a potential tool for building a sound strategy. However, it has raised many public policy issues before the banking regulators and government agencies. Interestingly, reliable and systematic information on the scope of Internet banking in Indian context is still not sufficient, particularly what it means to the consumers and the bankers. The paper fills significant gaps in knowledge about the consumer's perspective of Internet banking, trace its present growth and project the likely scenario. The paper presents the data, drawn from a survey of Internet banking consumers and the services providers (banks) that offer Internet banking and develops a functional model for maximizing value to the consumers, which the banks may choose to adopt Internet banking strategically. The paper identifies the weaknesses of conventional banking and explores the consumer awareness, use patterns, satisfaction and preferences for Internet banking vis-à-vis conventional form of banking and also highlights the factors that may affect the bank's
248	**NOVEL TETRAHYDRO ISOQUINOLINE ALKALOID DERIVATIVE IN TREATMENT OF COVID 19 BY INSILICO STUDIES**	C N Hemalatha., Hemamalini B., Keerthana V., Mehur Nisha K., Pushpa Priya G., Supriya S., Dr. N. Harikrishnan N	MDPI	**- SDG 3 - Good Health and Well-being**	The ongoing COVID-19 pandemic has caused over six million deaths and huge economic burdens worldwide. Antivirals against its causative agent, SARS-CoV-2, are in urgent demand. Previously, we reported that heterocylic compounds, i.e., chloroquine (CQ) and hydroxychloroquine (HCQ), are potent in inhibiting SARS-CoV-2 replication in vitro. In this study, we discussed the syntheses of two novel heterocylic compounds: tert-butyl rel-4-(((3R,4S)-3-(1H-indol-3-yl)-1-oxo-2-propyl-1,2,3,4-tetrahydroisoquinolin-4-yl)methyl)piperazine-1-carboxylate (trans-1) and rel-(3R,4S)-3-(1H-indol-3-yl)-4-(piperazin-1-ylmethyl)-2-propyl-3,4-dihydroisoquinolin-1(2H)-one (trans-2), which effectively suppressed authentic SARS-CoV-2 replication in Vero E6 cells. Compound trans-1 showed higher anti-SARS-CoV-2 activity than trans-2, with a half maximal effective concentration (EC50) of 3.15 μM and a selective index (SI) exceeding 63.49, which demonstrated comparable potency to CQ or HCQ. Additional anti-SARS-CoV-2 tests on Calu-3 human lung cells showed that trans-1 efficiently inhibited viral replication (EC50 = 2.78 μM; SI: > 71.94) and performed better than CQ (EC50 = 44.90 μM; SI = 2.94). The time of an addition assay showed that the action mechanism of trans-1 differed from that of CQ, as it mainly inhibited the post-entry viral replication in both Vero E6 and Calu-3 cells. In addition, the differences between the antiviral mechanisms of these novel compounds and CQ were discussed.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
249	**A Survey on 6th Generation Li-Fi Technology**	Mrs.maheswari A., Parthibakannan S., Monisha R., Praveen A	ResearchGate	**- SDG 3 - Good Health and Well-being**	In the present era, Wi-Fi is the most trending domain. As internet users almost double every year, there is an enormous load on radio spectrum that leads to congestion. To get better bandwidth, efficiency and speed, a new technology Li-Fi has evolved. Li-Fi stands for Light Fidelity. It is a bidirectional and wireless mode of communication using light. It uses the unused visible spectrum and reduces the load on radio spectrum. Li-Fi can be simply put to be Wi-Fi but instead of radio waves light is used as a medium. Here, data is transmitted using light whose intensity varies faster than human eye to capture. Instead of using modems, Li-Fi uses LED bulbs with transceiver. Data transmission in Li-Fi is about 100 times faster than Wi-Fi. Here, in this paper we explore the need for Li-Fi.
250	**SELF SECURED MODEL FOR CLOUD BASED IOT SYSTEMS**	A Jyothi Babu., Dr.g.soniya Priyatharsini., M Gnana Kiran., P J Sathish Kumar., Kennedy Babu C., Aleem Ali	ELSEVIER	**- SDG 3 - Good Health and Well-being**	A difficult problem to solve concerns the secure installation and startup of devices connected to the Internet of Things (IoT) via the Internet.To provide additional value-added services, this article deals with the verified configuration of IoT devices in a secure manner using the Internet. Following a review of the safe self-configuration limitations imposed on IoT and Cloud technologies; offer a Cloud-based architecture that enables the communication between IoT devices and several federated Cloud services. Specifically discuss two situations, one cloud environment and federated cloud infrastructure interact with IoT devices, and handle unique issues.In addition, it provides many operational design features that take into account the truly open hardware and software products already on the market.
251	**Association of Dry Mouth and Thirst with Intradialytic Weight Gain in Hemodialysis Patients**	Chandan Bala Rajeshkumar., Sangeetha., Sarah Reuel., Manikandan., Jayabharathy Mani	International Journal of Innovative Science and Research Technology	**- SDG 3 - Good Health and Well-being**	The Thirst & Dry mouth are the two major causative agents for high IDWG in dialysis patients a high IDWG can cause complications during dialysis such as hypotension and muscle cramps leading to impaired quality of life. Thus, the aim of the study was to assess the dry mouth in dialysis patients and correlate both with IDWG.The thirst and dry mouth were assessed using DTI & XI scale respectively. The mean Intra dialytic weight gain of study population (N= 60 patients) is 3.5kgs. According to the results of the study the IDWG was highly significant with Xerostomia Inventory and certain other parameters such as frequency of dialysis & blood pressure was also significant with Xerostomia Inventory & dialysis Thirst inventory (DTI) scale. Thereby, the study concludes the IDWG is associated with Xerostomia and Dialysis Thirst Inventory (DTI).

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
252	**EMPOWERING WOMEN THOROUGH MICRO FINANCE: STATUS AND EMERGING CHALLENGES**	Geetha Birudala., Dr. N. Harikrishnan N	ARACADA	**- SDG 3 - Good Health and Well-being**	Poverty always exist into the world in various forms. It is precisely known to the poor countries where people still fight for basic daily needs. This study is made on the basis of women in Nepal where poverty and women empowerment are the main problem. In other to support to alleviation of poverty and encouraging women to gain status in life, Microfinance institutions are playing as one of the main tools. There is a general consensus that microfinance is not equal to all poor women but has positive consequence in the life of Nepalese women. The study investigates the role of Microcredit and its effect on its borrowers. The study is based on the self-made questionnaires to the women of city and village. It is also based on various previous research. The data is collected via telephonic interview from two different areas in Nepal and then analyzed and compared. The research findings proved that there is an improvement not only in economic terms but also in social terms. The results show a positive impact in income and saving despite of different interest rate charged by the companies. Although MFIs are mushrooming in Nepal, the poor villagers are remained under high interest rate with less accessible of money lending comparing to the women in city.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
253	**A self-report on oral hygiene awareness among allied health students of Chennai â€“ A cross-sectional study**	Kotteeswari Manogaran Jayakumar., Jones Eben Raj T., Sujatha Elairajan	Indian Journal of Clinical Anatomy and Physiology Official Publication of Innovative Education and Scientific Research Foundation	**- SDG 3 - Good Health and Well-being**	Introduction: Oral cavity is the mirror of general health. Good oral hygiene plays important role in the prevention of oral diseases. Hence, constant monitoring and evaluation of oral hygiene become promising leads for a general health checkup. Aim: To evaluate the awareness for oral hygiene among Paramedical students of the south Indian population. Materials and Methods: The study is a cross-sectional study involving 1003 students belonging to Allied health sciences studying in Dr. MGR Educational & Research Institute, Chennai, having mean Age of 18 -20 years. The study was conducted for a period of one month (14 August 2021- 10 September 2021). The subjects were asked to fill out a self-explanatory Questionnaire about their daily oral hygiene activities. The observations are tabulated and analyzed using SPSS software. Mean, frequency distribution and chi-square test were used as test of significance. Results: The college students who filled the self-report were aged 18-19 years (88.7%) of which female students gave maximum responses (65.70%) in filling the questionnaires. The tested population brushed twice per day was on higher side (56%) with females having more brushing frequency (39.48%) as compared to males (16.3%). The respondents who noticed bad breadth and bleeding gums was 26.22% and 32.20% respectively. The values of bad breadth have p values with high significance (0.0005%) in comparison to gender. However, Gender comparison with dental floss usage (p = 0.1695) and dental visit observation (P= 0.4293) had no significant statistical P values. Conclusion: Among the Allied Health students, the general knowledge of oral health practices was moderate and dental visits were their choice only during emergency procedures. Inadequate knowledge of routine dental procedures and signs of oral health were seen. Female students have better knowledge upon oral health, oral hygiene practices and maintenance as compared to males.
254	**STATISTICAL FEATURE ANALYSIS USING DBSCAN AND FEATURE OPTIMIZATION USING STOCHASTIC GRADIENT DESCENT (SGD)**	Ezhilmathi Thirupathi Maninathan., Nirmala Sugirtha Rajini Selvaraj		**- SDG 3 - Good Health and Well-being**	On a macro scale, the issue of the spread of infectious disease threatens society having a significant impact on both human lives and the economy. The pattern of contagious diseases differs from region to region because of different reasons where the disease incidence data collected by the country is considered for containing the information. Even though the application of big data has widened its wings into the fields of marketing and earth sciences, still the area of public health remains dependent on conventional surveillance systems, waiting to utilize the fruits of a big data revolution. The need for a new generation big data surveillance system has risen to achieve the flexible, regular, and rapid tracking of infectious diseases, particularly during emerging pathogens. The prime advantage of RNNs is the availability of contextual information during the mapping of IO sequences. This examination work brings out an enhanced RNN model for anticipating infectious illnesses. Enhanced RNN produces Accuracy 94.08%, Precision 0.92 and Recall 0.82. The tool used for execution is Python.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
255	**DIAGNOSIS OF LUNG DISEASES USING CONVOLUTION NEURAL NETWORK**	P Abirami., Nirmala Sugirtha Rajini Selvaraj	Informatics in Medicine Unlocked	**- SDG 3 - Good Health and Well-being**	Lung disease is common throughout the world. These include chronic obstructive pulmonary disease, pneumonia, asthma, tuberculosis, fibrosis, etc. Timely diagnosis of lung disease is essential. Many image processing and machine learning models have been developed for this purpose. Different forms of existing deep learning techniques including convolutional neural network (CNN), vanilla neural network, visual geometry group based neural network (VGG), and capsule network are applied for lung disease prediction. The basic CNN has poor performance for rotated, tilted, or other abnormal image orientation. Therefore, we propose a new hybrid deep learning framework by combining VGG, data augmentation and spatial transformer network (STN) with CNN. This new hybrid method is termed here as VGG Data STN with CNN (VDSNet). As implementation tools, Jupyter Notebook, Tensorflow, and Keras are used. The new model is applied to NIH chest X-ray image dataset collected from Kaggle repository. Full and sample versions of the dataset are considered. For both full and sample datasets, VDSNet outperforms existing methods in terms of a number of metrics including precision, recall, F0.5 score and validation accuracy. For the case of full dataset, VDSNet exhibits a validation accuracy of 73%, while vanilla gray, vanilla RGB, hybrid CNN and VGG, and modified capsule network have accuracy values of 67.8%, 69%, 69.5% and 63.8%, respectively. When sample dataset rather than full dataset is used, VDSNet requires much lower training time at the expense of a slightly lower validation accuracy. Hence, the proposed VDSNet framework will simplify the detection of lung disease for experts as well as for doctors.
256	**SALMAN RUSHDIEâ€™S â€˜MIDNIGHTâ€™S CHILDRENâ€™: A MANIFESTATION OF POSTMODERNISM**	Dr.v Anuradha	Central European Management Journal	**- SDG 3 - Good Health and Well-being**	The literary movement, Postmodernism was prominent in the late 1950 and early 1960 that emphasized play, fragmentation, Meta fiction and inter textuality. It was a quest on the significant human rights violations of World War II. Post-modernist writers broke the rules and sought the unconventional ideology of composition of existentialist deliberation and manifests chaotic situation of the globe. Postmodernism in Indian English writings explores fragmentariness in the construction of characters in the narratives. The sudden growth of Indian English poetry occurred in middle of seventies that marked the beginning of postmodernism with a new phase of imitation and mystic that gained academic acclaim which was called a herald modernism. Novels seen its luxuriant growth and Salman Rushdie's 'Midnight's Children' has revolutionized fiction in the postmodern period that had a hibridity in identifying the self and the shift from village centrism to city centrism that acquired the classic status was immense and commendable will be discussed in this paper. The setting, Rushdie drew sixty-two years of history extended across three countries narrated by Saleem between India, Pakistan and Bangladesh during the period 1915th to 1977th reveals the element of postmodernism.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
257	**EFFECTIVENESS OF POST ISOMETRIC RELAXATION TECHNIQUE OVER POST FACILITATION STRETCHING TECHNIQUE FOR PATIENT WITH TRAPEZITIS**	Sathyaraja Raja., Prabhuraja R., G Mohan Kumar., Dr.jibi Paul., Sarala R., Dhanabakiyam I	Research Journal of Pharmacy and Technology	**- SDG 3 - Good Health and Well-being**	BACKGROUND: Trapezitis is an inflammatory pain arising from the trapezius muscle causing a severe neck spasm. Trapezius muscle pain and spasm is most common musculoskeletal disorder occurring in individuals who works with an awkward position of neck for a prolonged period of time, with repetitive movements. Neck pain is very commonly shown by most people to be in the region of the back of the neck and between the bases of the neck to the shoulder, primarily indicating the upper region of the trapezius muscle. OBJECTIVE: A study to determine the effect of post isometric relaxation in trapezitis among office workers. METHODOLOGY: A convenient sample of 20 subjects selected from the study, any person from 25 to 40 years complaining of pain in the side of the neck and shoulder in unilateral and bilateral for last 3 days. Subjects to males and females were screened as in acute stage patient with painful trapezius muscle and restricted range of motion in shoulder elevation movements. The participants were asked to fill the questionarrie from trapezius muscle pain symptoms and intensity and severity of pain experienced. Subjects were allocated into 2 groups. GROUP A - conventional physiotherapy alone GROUP B - post isometric relaxation with conventional physiotherapy. OUTCOME MEASURES: Visual analog scale, Neck disability index (NDI). RESULTS: The data obtained was tabulated and statistically analysed. Due to the nature of outcome measures that is pain and disability measured by pre and post intervention parametric statistical test, unpaired T test were used. The two-tailed P value is less than that of0.001. By the conventional criteria is difference and it is considered to be statistically significant in experimental group. CONCLUSION: PIR is more effective therapeutic maneuver. PIR were found to be effective in improving trapezius muscle flexibility and also increases the muscle strength.
258	**Pulmonary tuberculosis presenting as cystic disease/abscess: A case report**	Krithikaa Sekar., Suba Rajinikanth., Sithi Athiya Munavarah., Shaweez Fathima S., Akhila Kalyani A., Nandini D., Subashini Panchanathan., Natarajan V., Jacqueline L	International Journal of Health Science	**- SDG 3 - Good Health and Well-being**	There was a 19% increase in year 2021 when compared to 2020 in TB patients' notification in India, even though TB notifications noted around the period corresponding to India's two major COVID-19 waves showed a brief decline, the National Tuberculosis Elimination Programme (NTEP) managed to reclaim the lost numbers. Cystic changes of the soft tissue and chest wall associated with pulmonary tuberculosis is rarely diagnosed and reported, and only few patients were diagnosed based only on the radiological and histopathological findings. Herewith, we report the microbiological, histopathological, computed tomographic, ultrasound and clinical findings of cystic change in pulmonary tuberculosis in an immunocompetent 18-year-old male who presented with pain in the Chest and swelling in the left infra mammary region for a short duration of one month. The lesion regressed and patient showed clinical improvement following Anti-tuberculous therapy treatment initiation after linking the patient with NIKSHAY system and is currently under ATT.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
259	**Description of the Quality Indicators Used in Microbiology Laboratory - Methodological Approach to Quality Improvement of the clinical lab reports generated**	Krithikaa Sekar	International Journal of Advance Research and Innovative Ideas in Education	**- SDG 3 - Good Health and Well-being**	Quality of clinical lab reports generated is of utmost importance because of its direct impact on the diagnosis and patient outcome. Quality indicator is an established measure used to determine how well an organization meets needs and operational and performance expectations. The quality indicators can be classified according to Operational Performance and Phase of the total testing Process. QI required to be analysed sequentially using the overall cumulative data extracted from the database on a monthly basis and year-end audit should be conducted to evaluate the individual performance and this table will help the experts to monitor trends and intervention is required if any deviation is observed. The better-quality lab results generated will assist the clinicians in better diagnosis and patient care which is the ultimate goal of the functioning of a clinical lab.
260	**Estimation of the Prevalence of Latent TB Infection in a wholesale perishable market Complex in Chennai and assessment of risk factors for the progression of LTBI to Active TB Disease- Research Protocol**	Krithikaa Sekar	International Journal for Research Trends and Innovation	**- SDG 3 - Good Health and Well-being**	Background and Justification: PTB is an airborne communicable disease caused by Mtb. TB disease can be contacted by anyone in an endemic nation like India. Vulnerable and key population in particular is at a higher risk of contacting TB when compared to the general population and it is said that LTBI progresses to Active TB within a mean duration of 1-2 years. Many studies have been carried out to detect LTBI and TB disease prevalence among vulnerable population like prisoners, hostelers, healthcare workers and is also being implemented as a part of the NTEP. It is important to consider the staff of wholesale perishable market complex like Koyambedu market complex in Chennai which is a closed, damp, dark, dusty and overcrowded environment also as key population and they possess a threat of faster TB spread among themselves and also to the community. Not many studies are reported worldwide to detect the prevalence of LTBI in wholesale perishable market complex. Hence, we propose to estimate the prevalence of LTBI and also assess the environmental and occupational risk factors for the progression of LTBI to active TB disease which will serve as a platform for the better understanding about the spectrum of TB disease among population in such a setting and lead to future studies with regards to whether perishable goods can act as a source or carrier of Mtb leading to aerosol generation and thus serving as a hotspot for TB transmission. Those participants who have been identified to be IGRA positive will be referred to NTEP for Active TB disease screening. Participants will be declared as LTBI positive only after ruling out active TB disease which will also help to identify potential individuals for TPT under NTEP. We propose to conduct this study in Koyambedu

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
261	**Estimation of the Prevalence of Latent TB Infection in a wholesale perishable market Complex in Chennai and assessment of risk factors for the progression of LTBI to Active TB Disease- Research Protocol**	Krithikaa Sekar	International Journal for Research Trends and Innovation	**- SDG 3 - Good Health and Well-being**	Background and Justification: PTB is an airborne communicable disease caused by Mtb. TB disease can be contacted by anyone in an endemic nation like India. Vulnerable and key population in particular is at a higher risk of contacting TB when compared to the general population and it is said that LTBI progresses to Active TB within a mean duration of 1-2 years. Many studies have been carried out to detect LTBI and TB disease prevalence among vulnerable population like prisoners, hostelers, healthcare workers and is also being implemented as a part of the NTEP. It is important to consider the staff of wholesale perishable market complex like Koyambedu market complex in Chennai which is a closed, damp, dark, dusty and overcrowded environment also as key population and they possess a threat of faster TB spread among themselves and also to the community. Not many studies are reported worldwide to detect the prevalence of LTBI in wholesale perishable market complex. Hence, we propose to estimate the prevalence of LTBI and also assess the environmental and occupational risk factors for the progression of LTBI to active TB disease which will serve as a platform for the better understanding about the spectrum of TB disease among population in such a setting and lead to future studies with regards to whether perishable goods can act as a source or carrier of Mtb leading to aerosol generation and thus serving as a hotspot for TB transmission. Those participants who have been identified to be IGRA positive will be referred to NTEP for Active TB disease screening. Participants will be declared as LTBI positive only after ruling out active TB disease which will also help to identify potential individuals for TPT under NTEP. We propose to conduct this study in Koyambedu

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
262	**Detection of Helicobacter pylori antigen in stool by Enzyme Linked Immunosorbent Assay and comparison with conventional methods**	Krithikaa Sekar	International journal for research trends and innovation	**SDG 3**	Helicobacter pylori (H. pylori) bacteria are 'slow' bacterial pathogens and are associated with gastritis, peptic ulcers, gastric adenocarcinoma and gastric Mucosa-Associated Lymphoid Type (MALT) B-cell lymphomas. Several methods, both invasive and non-invasive, are available for detection of H. pylori infection. Invasive methods involve endoscopy and examination of gastric biopsies, e.g. by culture, rapid urease test or histology and are not appropriate for large-scale population studies. Non- invasive methods include the urea breath test, serology and stool antigen test. The latter approach is non-invasive, does not require highly specialized equipment and unlike serology is more likely to provide evidence of active rather than past infection. Furthermore, it may be more appropriate for use in paediatric patients, where techniques such as serology are insensitive and invasive methods are undesirable. Additionally, it may be used for treatment follow-up purposes. Pathogen-specific stool antigen tests are a valid alternative to the Urea Breath Test for non-invasive detection of H. pylori. METHODOLOGY A total of 120 patients who underwent upper gastrointestinal endoscopy for various gastrointestinal disturbances like dyspepsia were included in the study. Stool samples were obtained from the patient on the day of endoscopy and stored at - 20[degrees]C. Three biopsy samples were collected, two from the gastric antrum and one from the corpus. One biopsy sample from the antrum was used for performing Rapid urease test at the Endoscopy room and the other two samples were placed in 10% formalin and sent to the laboratory for histopathological examination. RESULTS Sensitivity, specificity, positive and negative predictive values of ELISA was 100%, 77%, 52% and 100% respectively. CONCLUSION H. pylori stool antigen (HpSA) is suitable to use particularly in developing countries and for selection of patients for endoscopy. Detection of HpSA shows high sensitivity and specificity and might be useful for non-invasive diagnosis of H. pylori infection in children and adult patients.
263	**3D FOOD PRINTING: A REVOLUTION IN FOOD MANUFACTURING TECHNOLOGY- A REVIEW**	J Sofia., N Ethiraj	JOURNAL OF NORTHEASTERN UNIVERSITY	**SDG 2**	The additive manufacturing technology has been applied to directly construct physical model from 3D model without mold and die. Several industries utilize this technology to manufacture a complicated part such as automobile, aerospace including food industry. The advantage 3D food printing are ability to produce complex food model and ability to design unique pattern. A 3D food printing technique is composed of an extrusion-based printing, binder jetting and inkjet printing. The food materials such as sugar, chocolate, and cheese are used to create designed shape based on layer-by-layer. This paper presents a review of 3D food printing techniques. This review is to categorize, printability, productivity, properties of material and mechanism of 3D food printing techniques, as well as to provide the direction of future development

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
264	**Improved blockchain system for high-secured IoT integrated supply chain**	Nagasubramaniam Jayashri., Veeresh Rampur., Durgaprasad Gangodkar., Abirami M., Balarengadurai C., Anil Kumar N	Measurement: Sensors	**SDG 9**	The incredibly complex supply chains in today's world face significant problems in terms of accountability and reliability. Blockchain technology could be able to solve these problems by offering a tamper-proof audit trail of supply chain activities & data on a product lifecycle, but it could resolve the issue of information's inherent lack of reliability. Current Reputation systems offer a practical solution to the confidence issue. Moreover, it is based on a small number of observations, lack granularity or mechanization have considerable overhead, current reputational methods are not suitable for blockchain-based supply chain operations. In this research, we present TrustChain, a three-layered system for managing trust that tracks connections between supply chain actors and automatically calculates trust and reputation scores based on those connections using a consortium blockchain with Internet of Things (IoT). Trustchain would be novel because it supports reputation rankings that distinguish between supply chain participants & goods, allowing the assignment of product-specific reputations for the same participant, (a) the reputation design that assesses the performance of commodities and the trustworthiness of entities based on several observations of supply chain events, (b) the use of smart contracts for transparent, impactful, safe, and automated computation of reputation rating, and (c) reputation scores that differentiate between supply chain members and services.
265	**PERFORMANCE ANALYSIS OF FLYING OBJECT DETECTION USING MACHINE LEARNING TECHNIQUE**	Annalakshmi Krishnan., R Rajeswari	Advanced engineering sciences	**SDG 9**	This paper compares the classification performance of machine learning classifiers vs. deep learning-based handcrafted models and various pretrained deep networks. The proposed study performs a comprehensive analysis of object classification techniques implemented on low-altitude UAV datasets using various machine and deep learning models. Multiple UAV object classification is performed through widely deployed machine learning-based classifiers such as K nearest neighbor, decision trees, naïve Bayes, random forest, a deep handcrafted model based on convolutional layers, and pretrained deep models. The best result obtained using random forest classifiers on the UAV dataset is 90%. The handcrafted deep model's accuracy score suggests the efficacy of deep models over machine learning-based classifiers in low-altitude aerial images. This model attains 92.48% accuracy, which is a significant improvement over machine learning-based classifiers. Thereafter, we analyze several pretrained deep learning models, such as VGG-D, InceptionV3, DenseNet, Inception-ResNetV4, and Xception. The experimental assessment demonstrates nearly 100% accuracy values using pretrained VGG16- and VGG19-based deep networks. This paper provides a compilation of machine learning-based classifiers and pretrained deep learning models and a comprehensive classification report for the respective performance measures.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
266	**ASSESSMENT OF SELF-HEALING ABILITY OF RECYCLED AGGREGATE CONCRETE**	Depaa Rani Balachandran	Advanced engineering sciences	**SDG 9**	In recycled coarse aggregate (RCA) based concrete, the strength and durability are influenced by the characteristics of RCA. Micro-level cracks and poor interfacial transition zone (ITZ) lead to macro-level cracks, compromising the integrity of concrete structures. Controlling the formation and propagation of smaller cracks in RCA concrete and improving RCA quality is crucial to have good structural performance. Therefore, microbially induced calcium carbonate precipitation can help to improve the RCA quality, microstructure, cracks propagation, and ITZ. This research compares the effect of different immobilizers and their size on RCA concrete nested with Bacillus Pumilus. Bacteria were incorporated into the concrete by direct introduction and through nano to macro carriers including RCA, sand, and iron oxide nanoparticles (IONPs). The crack healing potential of the concrete samples, mechanical properties, microstructure, and phase configuration were studied. The compressive strength and split tensile strength of IONPs immobilized bacterial mix was 28% and 45% more than the controlled mix, respectively. The results indicated that maximum of 1.3 mm wide cracks could be sealed by the Bacillus pumilus bacteria when immobilized with IONPs and were more efficient upon pre-cracking at 3 and 7 days. In contrast, bacteria immobilized in RCA were more efficient in healing cracks when samples pre-cracked at 28 days. The crack healing precipitate was identified as calcite using field-emission scanning electron microscopy (FE-SEM), energy dispersive spectroscopy (EDS), thermogravimetric analysis (TGA), and x-ray diffraction (XRD).
267	**Awareness among Dental Students and Practitioners on Biohazards Associated with Prosthodontic Materials**	S Narmadha Devi., Anila Xavie P X., Ponsekar Abraham Anandapandian., Keerthi Narayan. V	JOURNAL OF CLINICAL PROSTHODONTICS AND IMPLANTOLOGY	**SDG 3**	Dental materials for permanent restorations are manufactured with the intent to be stable and insoluble, but they do not fully achieve this goal. The amount of dissolved components is small and their detection sometimes requires sophisticated analytical equipment. The minute amounts of components that leach out of permanent dental restorative materials are most unlikely to cause toxic reactions, locally or systemically. Reliable research information using robust methodology is thus needed to clarify the various safety issues and frequency of adverse reactions in general dentistry, including prosthodontic treatment.
268	**COVID-19 outbreak data analysis and prediction**	M Shanmuganathan., P Radhakrishnan., R Anandan., T.nalini., Shwetambari Chiwhane	Measurement: Sensors	**SDG 3**	Covid-19 is a novel pandemic disease with no potential vaccine treatment or medicine, the world is facing currently as of now. The death toll has increased to several lakhs and recovery rate is comparatively very less, was initially spotted in Wuhan (China). This spreads through close contact with people and socializing. The number of infected people varies with different parts of the world In our particular country India we are going through the lock down period which is the only vaccine to promote “social distancing” The hurdle arose due to the widespread of corona is major economy loss in combo with innocent lives. In this manuscript, we are visualizing the dataset which is publicly available to map, differentiate and separate the data in order to segregate the places that are most prone and perform basic regression to identify and predict the increasability of the counts from the dataset.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
269	**Climate Change Induced Migration and Its Association with Oral Health Related Quality of Life**	Uma Mageswari., Manoj Kumar., Dr. Kanimozhiy Senguttuvan	International Journal of Medical Science and Applied Research	**SDG 13**	The effects of climate change on human health, including oral health, are detectable, now making this an acute and present situation. In 2015, global mean surface air temperature (SAT) reached 1°C above pre-industrial levels1 and is predicted to increase rapidly to 1.5°C by about the 2030s and reach 2°C by the 2050s.1 This rate of global warming and increased global mean SAT are associated with higher risks for adverse health outcomes 1,2,3,4 that are measurable today.The recent 'Climate Crisis and Clinical Practice Symposium'3 aimed to demonstrate clinical implications of climate change on human health, suggest schemes that boost clinical practice resilience in the face of climate-related events, and urge engagement of health professionals in the climate crisis discussion. Similarly, oral healthcare providers must strategise for clinical practice resilience and consider clinical manifestations of climate change in their dental patients.
270	**APPLICATION OF ARTIFICIAL INTELLIGENCE IN TACKLING COVID-19 IN INDIA – A BRIEF REVIEW**	Hetal Tejas Mer., Vinodhini Balamurugan., Merlin G	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH	**SDG 3**	During the current global public health emergency caused by novel coronavirus disease 19 (COVID-19), researchers and medical experts started working day and night to search for new technologies to mitigate the COVID-19 pandemic. Recent studies have shown that artificial intelligence (AI) has been successfully employed in the health sector for various healthcare procedures. This study comprehensively reviewed the research and development on state-of-the-art applications of artificial intelligence for combating the COVID-19 pandemic. In the process of literature retrieval, the relevant literature from citation databases including ScienceDirect, Google Scholar, and Preprints from arXiv, medRxiv, and bioRxiv was selected. Recent advances in the field of AI-based technologies are critically reviewed and summarized. Various challenges associated with the use of these technologies are highlighted and based on updated studies and critical analysis, research gaps and future recommendations are identified and discussed. The comparison between various machine learning (ML) and deep learning (DL) methods, the dominant AI-based technique, mostly used ML and DL methods for COVID-19 detection, diagnosis, screening, classification, drug repurposing, prediction, and forecasting, and insights about where the current research is heading are highlighted. Recent research and development in the field of artificial intelligence has greatly improved the COVID-19 screening, diagnostics, and prediction and results in better scale-up, timely response, most reliable, and efficient outcomes, and sometimes outperforms humans in certain healthcare tasks. This review article will help researchers, healthcare institutes and organizations, government officials, and policymakers with new insights into how AI can control the COVID-19 pandemic and drive more research and studies for mitigating the COVID-19 outbreak.
271	**Knowledge, Attitudes, and Practices Associated with Biomedical Waste Management among Students in an Indian Teaching Hospital: A Cross-Sectional Study**	Thirumurugan E., Gomathi Krishnadoss., Yamuna., Kalimunnisha., Aathilakshmi	International Journal of Health Sciences and Pharmacy	**SDG 3**	In developing countries, the medical waste management and treatment pose a great deal of concern because of the potential health and environmental hazards presented by this waste. Although India has guidelines on preventing and managing waste, the implementation is still difficult due to technological, economic, and social challenges, as well as insufficient training for the staff, students, in charge. This study aimed to measure the level of knowledge, attitudes, and practices among allied health science, physiotherapy, pharmacy, and nursing students about biomedical waste management.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
272	**Right ventricular systolic function assessment methods (Cardiology)**	Gomathi Krishnadoss., Thirumurugan E., Swathy Palani., Syed Ali Afrin., Karpaga Pavithra Chandrasekaran., Sudesan Jothi	International Journal of Medical Science and Innovative Research	**SDG 3**	Assessment of right chamber function has become increasingly popular and important in recent decades, complementing the evaluation of left chamber functional parameters. The late adoption and integration of right ventricular (RV) function into a complete evaluation of cardiac function could be due in part to the difficulty in visualization of the whole right ventricle, inconsistency in the analysis of RV parameters, and poor understanding of the impact of RV function on prognosis. From M-mode to 2-dimensional (2D) measurements of RV size and function, there have been arrays of parameters that provide important information of the right ventricle. However, there are limitations of using 2D echocardiography to quantify RV volume and ejection fraction (EF), and currently accurate measurements of RV volumes and EF can be obtained using cardiac magnetic resonance (CMR) imaging. Using 3-dimensional echocardiography (3DE), the measurements of RV volumes and EF have become feasible and reproducible. Importantly, 3D measurements have been validated against CMR with higher correlation compared to 2D measurements. With the establishment of reference values, 3D echocardiography determined RV volumes and EF have the potential for better understanding of RV function and exploration of its significance for outcome research in various clinical scenarios.
273	**Analysis of different de-noising filters in autistic children's images (Autism research)**	M Swedha., A Devendran., Viji Vinod	advanced Engineering Science	**SDG 3 and 10**	An emerging hypothesis postulates that internal noise is a key factor influencing perceptual abilities in autism spectrum disorder (ASD). Given fundamental and inescapable effects of noise on nearly all aspects of neural processing, this could be a critical abnormality with broad implications for perception, behavior, and cognition. However, this proposal has been challenged by both theoretical and empirical studies. A crucial question is whether and how internal noise limits perception in ASD, independently from other sources of perceptual inefficiency, such as the ability to filter out external noise. Here, we separately estimated internal noise and external noise filtering in ASD. In children and adolescents with and without ASD, we computationally modeled individuals' visual orientation discrimination in the presence of varying levels of external noise. The results revealed increased internal noise and worse external noise filtering in individuals with ASD. For both factors, we also observed high inter-individual variability in ASD, with only the internal noise estimates significantly correlating with severity of ASD symptoms. We provide evidence for reduced perceptual efficiency in ASD that is due to both increased internal noise and worse external noise filtering, while highlighting internal noise as a possible contributing factor to variability in ASD symptoms.
274	**Oral Verrucous Carcinoma - A Case Report (Oral Cancer)**	Ashwath V., Christopher M., Dr T Radhika., Dr. Nadeem Jeddy	Journal of Oral and Biomedical Sciences	**SDG 3**	Verrucous carcinoma is a low-grade variant of squamous cell carcinoma with specific morphologic, cytokinetic and clinical features. Despite low mitotic activity and slow growth, it can infiltrate adjacent tissues in advanced stages but does not metastasize. The most frequently affected site is the oral cavity. The following article provides latest updates in the etiology, clinical presentation, diagnostics and treatment options in oral verrucous carcinoma and discusses the existing dilemmas linked to this unique malignancy.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
275	**Agile Software Methodology with Tools and Improvements (Software Development)**	D Hemanand., S Bhuvana., Stephen Kevin Andrews	Journal of Microcontroller Engineering and Applications	**SDG 9 and 4**	p>Software engineering is a discipline that undergone many improvements that aims to keep up with the new advancements in technologies and the modern business requirements through developing effective approaches to reach the final software product, agile software development is one of these successful approaches. Agile software development is a lightweight approach that was proposed to overcome the convolutional development methods' limitations and to reduce the overhead and the cost while providing flexibility to adopt the changes in requirements at any stage, this is done by managing the tasks and their coordination through a certain set of values and principles. In this work, a comprehensive review that outlines the main agile values and principles, and states the key differences that distinguish agile methods over the traditional ones are presented. Then a discussion of the most popular agile methodologies; their life cycles, their roles, and their advantages and disadvantages are outlined. The recent state of art trends that adopts agile development especially in cloud computing, big data, and coordination are also explored. And finally, this work highlights how to choose the best suitable agile methodology that must be selected according to the task at hand, how sensitive the product is and the organization structure.</p
276	**Energy Scavenging in Pure Electric Vehicles (Sustainable Energy)**	Bhuvaneswari M	Advanced Engineering Science	**SDG 7**	Hybrid electric vehicles (HEVs) have been developed extensively thanks to the inherent merits of both internal combustion engine vehicles (ICEVs) and battery electric vehicles (BEVs). In HEVs, batteries and electric motors are introduced to help internal combustion engines improve fuel efficiency and reduce greenhouse gas (GHG) emissions. Accordingly, HEVs provide opportunities for energy harvesting methods that are suitable for both ICEVs and BEVs. With these energy harvesting methods, more energy can be harvested from HEVs and lower GHG emissions can be achieved. Therefore, energy harvesting methods are investigated in this critical overview and discussed from four perspectives, namely waste heat recovery from exhaust gas, mechanical energy recovery from braking, vibration and/or shock, alternative fuels and renewable energy integration, with emphasis on thermoelectric generators, the organic Rankine cycle, regenerative shock absorbers, regenerative braking and solar roofs. Specifically, the working principles, distinct features, current research, and challenges of various energy harvesting methods in HEVs are discussed. In the conclusion, recommendations for future research are provided. This study provides a comprehensive overview of energy harvesting and emission reduction technologies in HEVs.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
277	**Management of Patients on Anticoagulant Therapy (Healthcare)**		International Journal of Innovative Science and Research Technology	**SDG 3**	Introduction: Adequate hemostasis is crucial for the success of invasive dental treatment, since bleeding problems can give rise to complications associated with important morbidity-mortality. The dental treatment of patients who tend to an increased risk of bleeding due to the use of anticoagulant and/or antiplatelet drugs raises a challenge in the daily practice of dental professionals. Adequate knowledge of the mechanisms underlying hemostasis, and the optimized management of such patients, are therefore very important issues. Objectives: A study is made of the anticoagulant / antiplatelet drugs currently available on the market, with evaluation of the risks and benefits of suspending such drugs prior to invasive dental treatment. In addition, a review is made of the current management protocols used in these patients. Material and Methods: A literature search was made in the PubMed, Cochrane Library and Scopus databases, covering all studies published in the last 5 years in English and Spanish. Studies conducted in humans and with scientific evidence levels 1 and 2 (metaanalyses, systematic reviews, randomized phase 1 and 2 trials, cohort studies and case-control studies) were considered. The keywords used for the search were: tooth extraction, oral surgery, hemostasis, platelet aggregation inhibitors, antiplatelet drugs, anticoagulants, warfarin, acenocoumarol. Results and Conclusions: Many management protocols have been developed, though in all cases a full clinical history is required, together with complementary hemostatic tests to minimize any risks derived from dental treatment. Many authors consider that patient medication indicated for the treatment of background disease should not be altered or suspended unless so indicated by the prescribing physician. Local hemostatic measures have been shown to suffice for controlling possible bleeding problems resulting from dental treatment.
278	**Knowledge and Awareness about Systemic Conditions and Oral Manifestations (Dental Health)**		International journal of creative research thoughts	**SDG 3**	Oral health is integral to systemic health. There is a growing body of evidence of an association between periodontal and systemic diseases. The aim of the study was to evaluate the awareness of dentists regarding link between oral and systemic health.
279	**Error Detection and Correction in Quantum Teleportation (Quantum Technology)**		International Research Journal of Modernization in Engineering Technology and Science	**SDG 9**	Quantum error correction is an essential tool for reliably performing tasks for processing quantum information on a large scale. However, integration into quantum circuits to achieve these tasks is problematic when one realizes that nontransverse operations, which are essential for universal quantum computation, lead to the spread of errors. Quantum gate teleportation has been proposed as an elegant solution for this. Here, one replaces these fragile, nontransverse inline gates with the generation of specific, highly entangled offline resource states that can be teleported into the circuit to implement the nontransverse gate. As the first important step, we create a maximally entangled state between a physical and an error-correctable logical qubit and use it as a teleportation resource. We then demonstrate the teleportation of quantum information encoded on the physical qubit into the error-corrected logical qubit with fidelities up to 0.786. Our scheme can be designed to be fully fault tolerant so that it can be used in future large-scale quantum technologies.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
280	**Role of C-reactive protein in predicting the outcome of acute pancreatitis (Medical Research)**	Venkatesh Sreenivasulu., Neetha V., Manish S., Krishnan P B	International Surgery Journal	**SDG 3**	Acute pancreatitis is a disease with a wide spectrum of severity, complications, and outcome with severe life-threatening complications develop in patients leading to high mortality in severe acute pancreatitis. The rationale of this study is to diagnose the severity of acute pancreatitis using a single test ratio, i.e., CRP/albumin ratio which is a combination of markers for systemic inflammation and nutritional status. All those patients with age group 16–80 years who were diagnosed with acute pancreatitis and admitted subsequently to ICU were included. Severe pancreatitis was determined as CT severity score above 7. About 41% patients out of total 225 had severe pancreatitis. CRP/albumin ratio >4.35 had a sensitivity of 87% and accuracy of 76% to predict acute severe pancreatitis. Elevated CRP/albumin ratio was also associated with complications like multi-organ failure OR: 2.31 [1.3–4.2], duodenal thickening OR: 2.25 [1.2–4.2], and ascites OR: 2.90 [1.5–5.6]. Although, the severity of this elevation varied with different age groups, such non-invasive and readily available parameters should be relied upon admission to risk stratify the patients suffering from pancreatitis. CRP/albumin ratio has higher sensitivity and negative predictive value to predict severe pancreatitis than CRP alone and hence give additional advantage as a prognostic marker, although Delong's test to compare AUROC was indifferent (P-value: 0.22).
281	**Cytomorphological Spectrum of Pleural Fluids (Medical Research)**	Mohammed Faisal Mahfooz., SHARMILA S PRAKASH	INDIAN JOURNAL OF APPLIED RESEARCH	**SDG 3**	Cytological examination of pleural fluid is one of the most informative laboratory procedures in the diagnosis of pleural effusions. Although tuberculosis is the commonest cause of pleural effusions in developing countries, tumours, including grade ones, can present with effusions.
282	**A rare case of colonic lipoma causing colo-colonic intussusception**	Akhil S Nair., Sneha Hemachandran., Santosh Malleshappa Prabhakar	International Surgery Journal	**SDG 3**	Gastrointestinal tract (GIT) lipomas are rare, benign mesenchymal neoplasm affecting all segments of the GIT and colon is affected most frequently. Reported incidence of colonic lipomas varies from 0.2% to 4.4%. Adult intussusception represents 1% of all bowel obstructions and 5% of all bowel intussuceptions. Gastrointestinal lipomas are rare benign tumors and intussusception due to a gastrointestinal lipoma constitute an infrequent clinical entity. Although intussusception is a common disease in children, intussusception caused by colonic lipoma in adults is a rare condition, and is usually caused by a large pedunculated lipoma. The majority are asymptomatic but may cause abdominal pain, obstruction or bleeding. The treatment for symptomatic or large lipomas is surgical excision. We would like to report a unique case of an elderly lady with colonic lipoma causing colo-colonic intussusception. After thorough investigations, exploratory laparotomy with colo-colonic anastomosis was done.
283	**Health effects among COVID-19 frontline health care professionals using level III personal protective equipment**	Bindu Chavala Mohan., Reena Raja., A C Shyam., Vivek Gundappa., Channaveeradevaru Chandrakala., Setty Muthihar Ramachar Usha	Asian Journal of Medical Sciences	**SDG 3**	The proper usage of personal protective equipment (PPE) must be prioritised for health care workers (HCWs), where shortages and prolonged use of personal protective equipment can threaten safety in essential health services.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
284	**An analytical study of conceptualization, growth, and challenges of bio-based business in India**	Sangeeta Bhimrao Dongre., Rashmi Ajiet Jachak., LAKSHMINARAYANA SURA ANJANAPPA	Recent Trends and Latest Innovations in Life Sciences	**SDG 8, 9 and 12**	India is committed to increase its use of renewable energy to reduce its greenhouse gas emissions. The country has an overarching goal of installing 450 GW of renewable energy by 2030. Bioenergy can play an important role in the energy mix by balancing the seasonal and hourly power demands that may be unmet by intermittent renewables. Ensuring the sustainable production and consumption of bioenergy are key to meeting India's bioenergy targets. Here, using GCAM, future bioenergy pathways in India are modeled to understand four important dimensions of sustainability: water availability, greenhouse gas emissions, air pollution, and land use change. It is found that a higher demand for bioenergy crops cause an increase in water demand and creates a competition for land that forces crop production to move to basins with higher growing capacity, causing concerns for food security in the future. However, with investments to improve water use efficiency in the agricultural sector, capacity goals can be reached by 2030 with minimal food-energy-water impacts. Finally, with the development of ample supply chains to incentivize the harvesting, processing, and transportation of agricultural residues for bioenergy, many of the potentially negative impacts from bioenergy crop expansion can be alleviated.
285	**An analytical study of the role and perspectives of Industry 4.0 on sustainable development**	Korla Swapnavahini., Arti Gupta., LAKSHMINARAYANA SURA ANJANAPPA	Recent Trends and Latest Innovations in Life Sciences	**SDG 9 and SDG 11**	Industry 4.0 has been identified as a major contributor to the era of digitalisation. Its implications for sustainable development have gained widespread attention from the perspectives of the triple bottom line, sustainable business models and circular economy. The purpose of this paper is to map the broad field of sustainable development and investigate the key research areas which comprises the aforementioned perspectives under Industry 4.0 framework. A systematic mapping review was conducted by searching five databases for relevant literature published between January 1, 2012 and April 17, 2020. The search yielded 4291 papers of which 81 were identified as primary papers relevant to the research herein. The primary findings are that the majority of sustainability research focuses on conceptual analysis, and the Internet of Things is dominantly cited with an emphasis on achieving the triple bottom line benefits. Sustainable development in the Industry 4.0 context contributes to circular economic objectives by achieving social, economic, and environmental benefits. Triple bottom line studies mainly focus on Industry 4.0 adoption and implementation, sustainable supply chains, smart and sustainable cities, and smart factories. Circular economy and sustainable business models as emerging research themes that focus on Industry 4.0 adoption and implementation, as well as sustainable supply chains. Our analysis consolidates emerging research patterns areas in both the Industry 4.0 and sustainability literature. Furthermore, it identifies salient research gaps and suggests future research.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
286	**An observational study of simultaneous pulse oximetry and arterial oxygen saturation readings in intensive care unit/high dependency unit in COVID-19 patients**	Nadia Rose., Ramya B Sriram., Karthik Grama Sheshadri., Sowmya Madihalli Janardhana., Sudheer R	ASIAN JOURNAL OF MEDICAL SCIENCES	**SDG 3**	The influence of variables that might affect the accuracy of pulse oximetry (SpO2) recordings in critically ill patients is not well established. We sought to describe the relationship between paired SpO2/SaO2 (oxygen saturation via arterial blood gas analysis) in adult intensive care unit (ICU) patients and to describe the diagnostic performance of SpO2 in detecting low SaO2 and PaO2. A paired SpO2/SaO2 measurement was obtained from 404 adults in ICU. Measurements were used to calculate bias, precision, and limits of agreement. Associations between bias and variables including vasopressor and inotrope use, capillary refill time, hand temperature, pulse pressure, body temperature, oximeter model, and skin colour were estimated. There was no overall statistically significant bias in paired SpO2/SaO2 measurements; observed limits of agreement were +/-4.4%. However, body temperature, oximeter model, and skin colour, were statistically significantly associated with the degree of bias. SpO2 <89% had a sensitivity of 3/7 (42.9%; 95% confidence intervals, CI, 9.9% to 81.6%) and a specificity of 344/384 (89.6%; 95% CI 86.1% to 92.5%) for detecting SaO2 <89%. The absence of statistically significant bias in paired SpO2/SaO2 in adult ICU patients provides support for the use of pulse oximetry to titrate oxygen therapy. However, SpO2 recordings alone should be used cautiously when SaO2 recordings of 4.4% higher or lower than the observed SpO2 would be of concern. A range of variables relevant to the critically ill had little or no effect on bias.
287	**A study of Rationale use of Sodium valproate and Levetiracetam as monotherapy in pediatric patients with Epilepsy at a tertiary care hospital**	Gadhiraju Jayakrishna Prakash Raju., Dwajani S., Kannan Rajendran., Adarsh Eregowda	Biomedicine	**SDG 3**	Drug utilization studies helps in the understanding of drug usage among patients, as well as the socioeconomic background and rational use of antiepileptics in children with epilepsy.
288	**PAST, PRESENT AND FUTURE OF STEM CELLS**	Marie Asha Ambroise., D Jayarajan., T Ramesh., VAMSEEDHAR ANNAM	INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES	**SDG 3 and SDG 9**	In recent years, stem cell therapy has become a very promising and advanced scientific research topic. The development of treatment methods has evoked great expectations. This paper is a review focused on the discovery of different stem cells and the potential therapies based on these cells. The genesis of stem cells is followed by laboratory steps of controlled stem cell culturing and derivation. Quality control and teratoma formation assays are important procedures in assessing the properties of the stem cells tested. Derivation methods and the utilization of culturing media are crucial to set proper environmental conditions for controlled differentiation. Among many types of stem tissue applications, the use of graphene scaffolds and the potential of extracellular vesicle-based therapies require attention due to their versatility. The review is summarized by challenges that stem cell therapy must overcome to be accepted worldwide. A wide variety of possibilities makes this cutting edge therapy a turning point in modern medicine, providing hope for untreatable diseases.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
289	**Mitogen and Stress Triggered Protein Kinase Inhibitor Molecular Docking Studies for Cardiovascular Disease**	Suresh D R., Anil J., VAMSEEDHAR ANNAM	INTERNATIONAL JOURNAL OF FOOD AND NUTRITIONAL SCIENCES	**SDG 3 and SDG 9**	Among the myriad of intra-cellular signaling networks that govern the cardiac development and pathogenesis, mitogen-activated protein kinases (MAPKs) are prominent players that have been the focus of extensive investigations in the past decades. The four best characterized MAPK subfamilies, ERK1/2, JNK, p38, and ERK5, are the targets of pharmacological and genetic manipulations to uncover their roles in cardiac development, function, and diseases. However, information reported in the literature from these efforts has not yet resulted in a clear view about the roles of specific MAPK pathways in heart. Rather, controversies from contradictive results have led to a perception that MAPKs are ambiguous characters in heart with both protective and detrimental effects. The primary object of this review is to provide a comprehensive overview of the current progress, in an effort to highlight the areas where consensus is established verses the ones where controversy remains. MAPKs in cardiac development, cardiac hypertrophy, ischemia/reperfusion injury, and pathological remodeling are the main focuses of this review as these represent the most critical issues for evaluating MAPKs as viable targets of therapeutic development. The studies presented in this review will help to reveal the major challenges in the field and the limitations of current approaches and point to a critical need in future studies to gain better understanding of the fundamental mechanisms of MAPK function and regulation in the heart.
290	**REVERSAL OF VECURONIUM INDUCED NEUROMUSCULAR BLOCK WITH SUGAMMADEX USING TRAIN OF FOUR MODE IN PATIENTS UNDERGOING SURGERIES UNDER GENERAL ANESTHESIA**	Sahajananda H., Dwajani S., Spoorthy S., Alekhya M ., Vasanth Rao Kadam., Anand John	International Journal of Scientific Research	**SDG 3**	Acetylcholinesterase inhibitors cannot rapidly reverse profound neuromuscular block. Sugammadex, a selective relaxant binding agent, reverses the effects of rocuronium and vecuronium by encapsulation. This study assessed the efficacy of sugammadex compared with neostigmine in reversal of profound vecuronium-induced neuromuscular block under sevoflurane anesthesia.
291	**A Study of Lipid Profile in Patients with Subclinical Hypothyroidism**	Sindhu S., Vijay Munirudrappa Benglorkar	Journal of the Association of Physicians of India	**SDG 3**	subclinical hypothyroidism refers to biochemical evidence of thyroid hormone deficiency in patients who have few or no apparent clinical features of hypothyroidism.The subclinical hypothyroidism is diagnosed mostly by biochemical tests, in which most of the patients have a serum TSH(5-10) levels elevated above the normal reference range but serum free T3 and free T4 are normal. In subclinical hypothyroidism, most of the patients have few or no signs of thyroid dysfunction. Hence, subclinical hypothyroidism is essentially a laboratory diagnosis.
292	**Comparative study of TFT and lipid profile levels in pre and postmenopausal women with thyroid disorders**	MAMATHA BASAVARAJ PATIL ., S Niranjana	International Journal Dental and Medical Sciences Research	**SDG 3**	Normal levels of thyroid hormones are essential for maintaining thermogenic and metabolic homeostasis in the adults and has effects on all the systems of the body especially cardiovascular system. Thyroid disorders are more common in women than men and onset increases with age. Thyroid dysfunction especially hypothyroidism is known to cause dyslipidemia. Hence, this study was undertaken to highlight the importance of identifying thyroid dysfunction in women and its associated dyslipidemia so that timely intervention can be instituted to prevent cardiovascular morbidity and mortality in future.
293	**A safe corridor using palpable anatomical landmarks to avoid injury to the common peroneal nerve - A South Indian cadaveric study**	Vetrivel Chezian Sengodan., Jyothi Lakshmi Gadde Lakshmi., Bharathidasan Masilamani., Surendhar Rathinasamy	National Journal of Clinical Anatomy	**SDG 3**	Peroneal nerve impalement is a recognized complication of percutaneous placement of fibular transfixation wires by palpatory method after increase use of ilizarov technique in treatment of Tibial fractures, deformity correction and limb lengthening. The purpose of this study was to identify the relationship between the Common Peroneal Nerve (CPN) and the palpable landmark, fibular head for insertion of proximal fibular transfixation wire, safe zones in proximal tibia and percentage of fibula where nerve crosses the neck.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
294	**Amit Jain's surgical scoring system and its ability in predicting the major amputation in diabetic foot complications**	Pratheek K C., Amith Kumar Chaganlal Jain., Vishakha M	International Journal of Health Sciences	**SDG 3**	There are numerous scoring system used in different parts of the world and most of them are for diabetic foot ulcers only with Amit Jain's surgical scoring system being the first such scoring for diabetic foot complications. This study aims to validate the Amit Jain's scoring system in predicting the risk of major amputation in diabetic foot complications. A retrospective analysis was done in Department of General Surgery of Raja Rajeswari medical college, Bengaluru, India. The study period was from January 2018 to December 2019. All the patients who underwent surgeries for diabetic foot complications in our department were included in the study. A total of 47 patients were included in this study. Majority of patients (76.6%) were males 61.7% of patients had diabetes mellitus of less than 10 years duration. Abscess was the most common pathological lesion seen in the foot affecting 36.17%. Most of the patients (59.6%) with diabetic foot complications had Amit Jain's surgical score of 6-10 and were in low risk category. 12 patients (25.5%) underwent major amputation in this study and a significant association (P<0.001) was noted between Amit Jain's surgical scoring and major amputation.
295	**Preoperative ultrasonographic evaluation of the subclavian vein and inferior vena cava for predicting hypotension associated with the induction of general anesthesia**	Nadiya Rose., Maheh Chandra., Chris C Nishanth., Srinivasan Rangalakshmi	Anesthesia: Essays and Researches	**SDG 3**	Induction of general anesthesia is often associated with hypotension and is a common scenario faced by anesthesiologists. Intraoperative hypotension can have detrimental effects and cause various adverse effects leading to an extended hospital stay. Patients' preinduction volume status can have an effect on postinduction blood pressure. Ultrasonography is a useful tool for measuring intravascular volume status. We studied the ability of ultrasonographic measurement of subclavian vein (SCV) and inferior vena cava (IVC) diameter, collapsibility index (CI) to predict hypotension after induction of general anesthesia.
296	**Androgen Insensitivity Syndrome: A Case Report**	Angadi A V., Shaik Hussain Saheb., Shruthi Bidare Nanjappagowada., Vivikta Venkatesh., Vishnu Sri Manoj D R., Bharathi Dhananjaya	International Journal of Anatomy and Research	**SDG 3**	Complete androgen insensitivity syndrome (CAIS) is a rare disease that can be easily misdiagnosed. Before puberty, this condition is easily misdiagnosed as an inguinal hernia. This case report describes a 31-year-old phenotypically female patient with CAIS who was misdiagnosed twice previously with an inguinal hernia. Her karyotype analysis showed that she was 46, XY. She underwent a bilateral gonadectomy and long-term hormone replacement therapy. A Leydig cell tumour of the right testis was diagnosed postoperatively. This report also reviews the current understanding of the diagnosis and treatment of CAIS.
297	**A Case Series of Floppy Neonates: A Chain is No Stronger than its Weakest Link**	Adarsh Eregowda., Srinivas Mahesh Prasad., Sagethya A., Shamakrishna Honneshettihalli Surabhi	Archives of Clinical and Medical Case Reports	**SDG 3**	Floppy infant syndrome (FIS) can be caused by a variety of disorders. FIS categorised into four main groups, namely, the central nervous system, the spinal motor neuron, peripheral nerves, neuromuscular junction and the muscles. Neonates might appear with a variety of signs depending on the cause of hypotonia. The perinatal asphyxia is the most common cause of central hypotonia in newborns. Other causes of central hypotonia include brain malformations, chromosomal abnormalities and inborn errors of metabolism like Non-ketotic hyperglycaemia (NKH). Infancy has a 13% prevalence of neuronal dysmigration disorder, which causes hypotonia. Peripheral causes (30%) include spinal muscular atrophy, myasthenia gravis, drug/toxin exposure, hereditary neuropathies, muscular dystrophies, congenital/metabolic myopathies, and congenital myotonic dystrophies. We'll take a look at how central and peripheral hypotonia manifest themselves in neonates in this case series. This study involves five neonates who required resuscitation after delivery and NICU care due to respiratory distress, necessitating examination and evaluation in order to diagnose these conditions during the neonatal period. Though uncommon, a high index of suspicion is necessary for diagnosis and can help with antenatal counselling.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
298	**A Case Report of Takayasu's Arteritis With Cerebral Infarction As Initial Presentation**	Tehsim Memon., Tufayl Ahmed M Shekha., Pavan Acharya., Rifath I Nishu., Naila Akhter	Cureus	**SDG 3**	Takayasu's arteritis is a chronic inflammation of the large arteries such as the aorta and its primary branches, causing progressive arterial occlusion. This leads to reduced blood flow in the limbs and organs, resulting in arm or leg claudication, diminished or absent peripheral pulses, and end-organ ischemia. Stroke is one of the common complications; however, it is rarely the initial presentation. We describe one such case of a 16-year-old female, who presented with right-sided hemiparesis and non-fluent aphasia, without any significant past history. On examination, her right arm was cold and pulseless. She was extensively investigated for the cause of her presentation. Only non-specific inflammatory markers such as erythrocyte sedimentation rate (ESR) were elevated. Imaging studies revealed left middle cerebral artery territory infarct with occlusion of common carotid arteries, bilateral bifurcation, most parts of the left internal carotid artery, and the proximal part of the right internal carotid artery. She was diagnosed with Takayasu's arteritis and was prescribed steroids, on which she gradually recovered and was discharged. In conclusion, young patients, who present with stroke, should be investigated for Takayasu's arteritis, which leads to earlier treatment and prevention of further life-threatening end-organ damage.
299	**Comparison of intravenous route versus nebulization of magnesium sulfate (MgSO4) for post-operative sore throat and hoarseness: A randomized comparative double-blinded clinical trial**	Rashmi Raghavendra., Surekha Kumar., Sowmya Madihalli Janardhana	Asian Journal of Medical Sciences	**SDG 3**	Postoperative sore throat (POST) is a known complication following general anesthesia requiring endotracheal intubation. Its incidence ranges from 21% to 65% and remains the eighth most undesirable postoperative event. Various measures have been tried to decrease the incidence of sore throat with various success rates.
300	**Assessment of Availability & Stockout of Essential Drugs at Primary Health Care (PHC) in Bengaluru Urban District**	H Rajeshwari., Channaveeradevaru Chandrakala	International Journal of Conceptions on Management and Social Sciences	**SDG 3**	Delivering high quality Primary Health Care, achieving the Sustainable Development Goals and the smooth functioning of any Health Centres, drugs are essential elements. To manage it the right drugs and supplies at the right quantity and at right time should be made available, so that the patients can access affordable products when needed. This can be achieved only when proper management of Inventory is planned, as a research scholar to begin with the Assessment of Inventory Management strategy for Essential drugs at Primary Health Care level in Bengaluru Urban District is taken up to emphasis on availability and stockout facility at Primary Health Care level. Thus the study helps to identify the issues and challenges in supply chain management faced by Primary Health Care and Identify the various ways to tackle the issues.
301	**DRUG UTILIZATION PATTERN OF HYPOLIPIDEMIC DRUGS AMONG GERIATRIC DIABETIC PATIENTS FOR PRIMARY PREVENTION OF CVD: A PROSPECTIVE OBSERVATIONAL STUDY**	Priya Mohan B N., Suma Jayaram	World Journal of Pharmaceutical Research	**SDG 3**	The prevalence of dyslipidemia is higher in type 2 diabetes mellitus (T2DM) and hypolipidemic drugs like statins are effective for the primary and secondary prevention of cardiovascular events. Most of the patients with type 2 diabetes have a mixed type of dyslipidemia. This study aimed to evaluate the utilization of hypolipidemic drugs, patterns, and factors affecting dyslipidemia in T2DM participants.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
302	**Current practices in organization of anesthesia drug tray**	Sowmya Manjunath Jois., Sowmya Madihalli Janardhana., Mahesh Chandra., Srinivasan Rangalakshmi., Arunkumar Namachivayam	ASIAN JOURNAL OF MEDICAL SCIENCES	**SDG 3**	The risk of medication error is high in the operating room, since the anesthesiologist prepares, stores, and administers the medication. Poor labeling practices and cluttered drug trays increase the risk of syringe swap and medication error. Well-organized drug tray can reduce the incidence of erroneous drug administration and decrease the response time during intraoperative emergencies. Aims and Objectives: The aim of the study was to determine the attitude and practices of anesthesiologists in organizing drug trays. Materials and Methods: In the first part of the study, 30 drug trays with 209 syringes were observed before and after the procedure for 14 parameters. At the end of the procedure, a questionnaire was given to the anesthesiologists involved about their knowledge of labeling and organizing drug tray. Results: All the labels were handwritten with 139 (74.7%) syringes labeled circumferentially, and 47 (25.2%) syringes labeled vertically. Unlabeled syringes found were 23 (11.0%). Labels were legible in 168 (90.3%) syringes. Syringes were not found to be replaced in their designated place according to the template at the end of surgery in 7 (23.3%) trays. About 66.7% of anesthesiologists had experienced incorrect pickup of the syringe and 40.0% of anesthesiologists reported that they rely on other pointers apart from the label to identify the drug. Conclusion: This study identifies the variation of practices in labeling, organizing, and maintaining drug tray among anesthesiologists. Adherence to institutional protocol, eternal vigilance, and improvement in error reporting practice would minimize the incidence of medication error.
303	**Morphometric analysis of the anterior cruciate ligament**	Vetrivel Chezian Sengodan., Jyothi Lakshmi Gadde Lakshmi., Marimuthu Sivagnanam., P A Shree Shyam Sundar	National Journal of Clinical Anatomy	**SDG 3**	The Anterior Cruciate Ligament tends to stabilise the knee in various range of extension and flexion. Precise study of anatomy, attachments and position of bundles is important for successful ACL reconstruction. In our study, we attempt to assess general anatomy of ACL, determine and compare its morphometric data pertaining to length and width and its tibio-femoral foot prints in different gender and secondarily determine changes in the same during ACL dynamics witnessed during knee flexion changes.
304	**A Study to Compare The Relation of Taste Threshold Between Type 1 and Type 2 Diabetes Mellitus**	Smriti Sinha., G Shekar Latha., Meenakshi K R., Manjubhargavi D	Journal of clinical and medical images case reports	**SDG 3**	Type 2 diabetes mellitus (T2DM) has a very high impact on quality of life as it is characterized by disabling complications. There is little evidence about taste alterations in diabetes. Since many individual factors are involved in the onset of diabetes, the purpose of our study is to search a possible link between diabetes and individual taste function. Thirty-two participants with T2DM and 32 volunteers without T2DM (healthy controls) were recruited. Four concentrations of each of the four basic tastes (sweet, sour, salty, bitter), and pure rapeseed oil and water, were applied with cotton pads to the protruded tongue, immediately posterior to its first third, either to the left or right side. The results showed significant differences between groups in the ability to recognize sour, bitter, sweet, and water. Taste scores were lower in subjects with T2DM than in healthy controls, and an age-related decline in taste function was found. The taste function reduction associated with T2DM was not related to gender, disease duration, and glycemic control. In conclusion, it can be hypothesized that a general alteration of taste function can lead patients with type 2 diabetes to search for foods richer in sugars, as in a vicious circle, thus decreasing the likelihood of remission of diabetes mellitus.
305	**A Morphometric Study on Anatomic Characteristics of Corona Mortis in South Indian Population**	Bharathi Dhananjaya., Deepali Dattatrey Deshatty., Shruthi Bidare Nanjappagowada	International journal of anatomy radiology and surgery	**SDG 3**	Inguinal hernia repair is one of the most common daily operations in general surgery. However, the anatomical structures of the region, such as the corona mortis (the crown of death), make this procedure quite challenging. A comprehensive knowledge of its anatomy is essential, since massive hemorrhage may occur if the vessel is injured. The current review of the literature aimed to report the frequency and anatomical variations of vascular corona mortis.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
306	**Cellular Changes and Effect on DNA Integrity of the Epididymal Cells of Swiss Albino Mice Post Exposure to High Dose of Cyclophosphamide**	Dr. SUPRIYA., Sneha G Kalthur., Guruprasad Kalthur., Guruprasad Nayak., Sandhya Kumari	International Journal of Science and Healthcare Research	**SDG 3**	Many studies done in past literature focuses on gonadal toxicity of Cyclophosphamide, but very less studies are done on the epididymis post exposure to this drug. Hence a sincere attempt is made in present study to look into the cellular changes in the epididymis through histology and TUNEL Assay.
307	**Study Of Correlation Between Hand Washing Practice And Gastroenteritis In Rural Students- An Original Research**	MONICA KRISHNAPPA ., Heena Dixit Tiwari., Rahul V C Tiwari., Afroz Kalmee Syed., Akriti Mahajan., Kanika Sharma	Journal of Advanced Medical and Dental Sciences Research	**SDG 3 and 6**	Diarrheal diseases and respiratory infections (RI) are two leading causes of childhood mortality in low and middle-income countries. Effective handwashing at critical time-points may mitigate these diseases. However, there is a lack of published data investigating this association in school-aged children in India. This study is part of a larger prospective handwashing intervention study in a low-income community in New Delhi, India examining the associations between handwashing behavior and diarrhea and RI in schoolchildren. This current study reports the findings of the baseline survey administered to 272 mother–child dyads. Children aged 8–12 years, and their mothers, were recruited from six schools. A baseline questionnaire was used to collect sociodemographic data, handwash behavior, and mother-reported recent diarrhea and RI incidence among the children. Handwashing before and after preparing food, after defecation, and after cleaning dishes significantly reduced the odds of diarrhea by over 70%, and of RI by over 56%. Using a clean cloth after handwashing lowered odds of diarrhea and RI by 72% and 63% respectively. Around 60% of the participants believed that handwashing could prevent diarrhea and RI in their children. There was a low prevalence of handwashing at critical time-points and a poor perception regarding handwashing benefits. To improve handwashing behavior, hygiene promotion programs need to understand what motivates and hinders handwashing in vulnerable populations.
308	**The way forward to sustain environmental quality through sustainable sand mining and the use of manufactured sand as an alternative to natural sand**	Vijaya Bhoopathy., Senthil Selvan Subramanian	Environmental Science and Pollution Research	**SDG 15**	The rapid rise in urbanization and construction of large-scale infrastructure projects are driving increasing demands for concrete construction materials globally (Brunauer and Copland 1964), “Man consumes no material except water in such tremendous quantities.” Concrete and cement composites are presently the most economical materials used in the construction industry. Over the most recent 15years, the accessibility of good-quality sand dwindles gradually. Thus, the State and the Central Government of India has taken several steps to control and regulate unsustainable excavation of riverbed sand mining. This comes amidst to develop ecological concerns and a more noteworthy consciousness of the security of natural bounties.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
309	**Investigation of Mechanical and Tribological Characteristics of Medical Grade Ti6al4v Titanium Alloy in Addition with Corrosion Study for Wire EDM Process**	S Prakash., C S Abdul Favas., I Ameeth Basha., R Venkatesh., M Prabhahar., V P Durairaj., K Gomathi., Haiter Lenin	Advances in Materials Science and Engineering	**SDG 9**	Metals used in biomedical applications are frequently coated to prevent oxidation and metallic ion release, both of which can be harmful due to toxic effects. To prevent these adverse effects of metals, researchers have focused their efforts on developing various coating techniques, facilitating surface coating, or obtaining functional surfaces. (WEDM) is now considered a difficult method of obtaining functional surfaces for medical applications. The properties of the surface and subsurface layers obtained by the WEDM method are particularly interesting in this regard. The analysis utilised RSM-based computational technique to evaluate the WEDM characteristics (MRR SR) of Ti6Al4V Titanium Alloy in biomedical applications. The biggest drawback of the material in the biomedical industry, which includes orthopedic applications and dental implants, would be that it releases harmful atoms such as iron, chromium, and nickel into the bodily fluid environment. To combat the problems, a hydroxyapatite layer applied to the metal implant improves biocompatibility, osteocompatibility, and antimicrobial properties. By comparing the Modified Differential Evolution (MDE) approach to the basic differential evolution (DE) optimization strategy, the effectiveness of the MDE approach has been established. According to the cyclic polarized test, the Hap coated Titanium material had better corrosion resistance than the pure sample. The Hap coated titanium material has a higher zone of inhibition than the pure sample. The next step is to synthesis hydroxyapatite from cuttlebone, which is then electrodeposited onto titanium. FTIR, electrochemical tests, FESEM, and SEM were used to describe the coated sample, as well as an antibacterial test using E. Coli and B. Cereus bacteria. Because it is porous, the Hap coating helps bone tissue growth by preventing detrimental metal ions from escaping into the biological medium. The corrosion inhibition efficiency of the coated sample was performed in SBF (NaHCO3—0.35 g/L, MgCl2.6H2O—0.30 g/L, CaCl2·2H2O—0.37 g/L, K2HPO4. 3H2O—0.23 g/L, Na2SO4—0.071 g/L, NaCl—7.99 g/L, KCl—0.22 g/L, Tris's buffer—6.063 g/L) solution using the potentiodynamic polarisation method and the solution pH was maintained.
310	**Current understanding of MSC-derived exosomes in the management of knee osteoarthritis**	Madhan Jeyaraman., Sathish Muthu., Byeong-cheol Ahn., Ramya Lakshmi Rajendran., Arulkumar Nallakumarasamy., Rathinavelpandian Perunchezhian Packkyarathinam	Experimental Cell Research	**SDG 3**	Mesenchymal stem cell-derived exosomes (MSC-Exos) have been utilized as medicinal agents or as delivery vehicles in cartilage injuries and cartilage-based diseases. Given the ongoing emergence of evidence on the effector mechanisms and methods of the utility of the MSC-Exos in knee osteoarthritis, a comprehensive review of the current evidence is the need of the hour. Hence, in this article, we review the current understanding of the role of MSC-Exos in the management of knee osteoarthritis in view of their classification, characterization, biogenesis, mechanism of action, pathways involved in their therapeutic action, in-vitro evidence on cartilage regeneration, in-vivo evidence in OA knee models and recent advances in using MSC-Exos to better streamline future research from bench to bedside for OA knee.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
311	**Platelet-rich plasma therapy ensures pain reduction in the management of lateral epicondylitis – a PRISMA-compliant network meta-analysis of randomized controlled trials**	Sathish Muthu., Sandeep Patel., Ashwin Gobbur., Sandesh C Patil., Madhan Jeyaraman., Karthikav Hathwar Ks., Vijendra Yadav	Expert Opinion on Biological Therapy	**SDG 3**	Objectives: Analyze the effectiveness of PRP therapy in comparison to other available treatments in the management of lateral epicondylitis (LE). Materials and methods: We conducted electronic database searches in PubMed, Embase, Web of Science, and Cochrane Library until June 2021 for RCTs analyzing the efficacy of PRP in the management of LE. VAS for pain, DASH score, and PRETEE score were the outcomes analyzed. The analysis was performed in R-platform using MetaInsight and interventions were ranked based on p-score approach. Cochrane's CINeMA approach was used for quality appraisal. Results: Twenty-five RCTs with 2040 patients were included in the network analysis. Compared to saline control, only leukocyte-rich-PRP resulted in significant pain relief (WMD=-14.8,95% CI [-23.18,-6.39];low confidence) compared to steroid, local anesthetic, laser, and surgery. On analyzing DASH scores and PRETEE scores, none of the above-mentioned treatment methods were superior to saline control. In subgroup analysis, leucocyte-rich-PRP resulted in clinically significant improvement. Leucocyte-rich-PRP seems more promising with p-score of 0.415. Conclusion: PRP therapy offers significant pain relief compared to saline control in the management of LE without similar improvement in functional outcome. With available low-quality evidence, PRP was the most promising therapy that needs further exploration to explore its usefulness in lateral epicondylitis.
312	**"Analysis of the Emissions and Performance of a Diesel Engine Using Pumpkin Seed Oil Methyl Ester with Different Injection Pressures"**	Surendrababu Kuppusamy., Prabhahar Muthuswamy., Muthurajan Kumarasamy., S Sendilvelan	Fluid Dynamics and Materials Processing	**SDG 7 and 13**	Biodiesel fuel is a potential alternative energy source for diesel engines due to its physiochemical characteristics relatively similar to those of traditional diesel fuel. In this study, the performance, emission, and combustion features of a mono cylinder DI diesel engine are assessed using 20% Pumpkin seed methyl ester (PSOME20) and considering varying injection pressures (200, 220, 240, and 260 bar). The considered Pumpkin seed oil is converted into pumpkin biodiesel by transesterification and then used as fuel. The findings demonstrate that the Brake Thermal Efficiency (BTE) of PSOME20 can be raised by 1.68%, and the carbon monoxide (CO), hydrocarbon (HC), and smoke emanations can be lowered, while oxides of nitrogen (NOx) emissions are increased at an injection pressure (IP) of 240 bar compared to the standard IP of 200 bar. The cylinder pressure and the Heat Release Rate (HRR) become higher at 240 bar, whereas the ignition delay is shortened with respect to PSOME20 at a normal IP of 200 bar.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
313	**"Utilization of Azadirachta indica biodiesel, ethanol and diesel blends for diesel engine applications with engine emission profile"**	T Sathish., V Mohanavel., M Arunkumar., K Rajan., Manzoore Elahi M Soudagar., M A Mujtaba., Saleh H Salmen., Sami Al Obaid., H Fayaz., S Sivakumar	Fuel	**SDG 7 and 13**	Plant-based oils have the most important role in the biodiesel research in engines used for different applications like automobiles, marines, fishing boats, power generators and others. Thisstudy deals with the non-edible plant-based oil of Azadirachta indica, (locally knows as neem), ethanol and diesel fuels for the IC engine. There are three blending D80B20 (80% of diesel and 20% of bio-fuel of Azadirachta indica oil), B80E20 (80% of diesel and 20% of ethanol) and D60B20E20 (60% of diesel, 20% of bio-fuel of Azadirachta indica oil & 20% ethanol) were created for the comparison with 100 % of diesel and 100% of Bio-fuel of Azadirachta indica oil. The brake thermal efficiency (BTE) and emissions such as smoke, carbon-monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx) of exhaust also examined for the comparison. All the values gained by the experiments were clearly compared and the corresponding variations in percentage with diesel fuel are spotlighted. The proposed fuels D80B20, D60B20E20, and B80E20 exhibits 8.49%, 4.25% and 3.02% higher BTE than pure diesel. B80E20 have the very less CO and smoke index, D80B20 yielded much higher BTE and the low HC when compared with other individual and blend fuels for this investigation. Bio-fuel of Azadirachta indica oil and ethanol combination also exhibited appreciable performance not only in BTE but also in reduction of exhaust emissions Like HC, CO and Smoke intensity than conventional diesel fuel. Hence these blends of biodiesel are recommended using as alternate fuel in IC engine for the engine.
314	**"Trade-off characteristic between soot and oxides of nitrogen emission with pre-injected diesel and biodiesel in a SICI-CIDI engine"**	M Prabhahar., Sulaiman Ali Alharbi., Hesham S Almoallim., S Prakash., M Saravana Kumar., K Surendrababu., S Sendilvelan., K Bhaskar., Josef MarouÅ¡ek., A Anderson	Fuel	**SDG 7 and 13**	Emission Pongamia methyl ester Heat release rate A B S T R A C T In this work, SICI mode (Split Injection Compression Ignition) was tested, using diesel as a split injected fuel along with the diesel and biodiesel main injection with various split injected ratios of 0.20, 0.40 and 0.60. Re-circulated Exhaust Gas has been used to analyse the variation in performance and emission, with the exhaust gas rate was varied from 10% to 30% to control nitrogen di oxide and nitrous oxide emissions. The experimental results compared with conventional diesel injection was done in the main chamber. It has been established that hydrocarbons, soot emissions, and carbon monoxide increase as per the experiments carried out on a CIDI engine. With up to 20% recirculated exhaust gas, soot emission decreases and increases when recirculated exhaust gas was increased beyond 20%. So, 20% recirculated exhaust gas would be the optimum use for SICI mode (Split Injection Compression Ignition) with a Split Injected ratio of 0.20%. Compared to CIDI mode, brake thermal efficiency has been slightly decreased. Consequential reduction in NOx can be achieved with the SICI combustion mode due to the lean operation.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
315	**"Relationship between mindfulness (5 factors of mindfulness) and emotional regulation among young adults"**	Dhanushya K., Manoj Raghavan., Divya Devi Muruganandam	gis.Science - Die Zeitschrift fur Geoinformatik	**SDG 3 and 4**	Mindfulness is the status of being alert to the present and functioning with complete focus on immediate sensations and situations that is happening both within and in the immediate environment of a person. Emotional distress and emotionally aroused state is primarily associated with the past events the person has experienced in his life or anticipation related the future. The aim of the study was to investigate The Relationship between Mindfulness (5 factors of Mindfulness) and Emotional regulation among young adults. The research design was correlational. Data was collected using the Five-Facet Mindfulness Questionnaire and Emotion Regulation Questionnaire a sample size of 129 participants between the age of 17-23 years in a paper pen test format. The data collected was analysed using a statistical package for social science (SPSS) to find the relationship between the 2 variables. The results showed that there is a significant relationship between Mindfulness 4 factors observing, describe, acting and awareness and nonreactive was found to have significant relationship and Emotional Regulation, while it was found that the 5th factor non-judging did not have a significant relationship with mindfulness
316	**"Effectiveness of instructional module on knowledge, perception on early menarche among adolescent girls - A Pilot study"**	Motcharakkini Lourdusamy., Dr Hema Viswanatha Halasyam	HIV Nursing	**SDG 3 and 5**	Menarche is the first menstrual bleeding in humans. The aim of the study was to determine the effectiveness of instructional module on knowledge, perception on early menarche among adolescent girls. Methods: A pre-experimental one group pre and post-test research design of 15 adolescent girls by non-probability purposive sampling technique. A structured knowledge questionnaire and five-point rating scale was administered. Results: Among 15 adolescent girls, in pre-test 66.7% had moderately adequate and 33.3% had insufficient amount of knowledge. In post-test 60% had fairly sufficient and 40% had sufficient amount of knowledge. In pre-test 73.3% had moderate and 26.7% had good level of perception. In post-test 60% had good and 40% had moderate level of perception. Conclusions: The instructional module had a greater impact on enhancing the knowledge, perception on early menarche among adolescent girls.
317	**EFFECTIVENESS OF INSTRUCTIONAL MODULE ON KNOWLEDGE, PERCEPTION ON EARLY MENARCHE AMONG ADOLESCENT GIRLS: A SYSTEMATIC REVIEW**		HIV Nursing	**SDG 3**	Menarche is the first menstrual bleeding in humans. The aim of the study was to determine the effectiveness of instructional module on knowledge, perception on early menarche among adolescent girls. Methods: A pre-experimental one group pre and post-test research design of 15 adolescent girls by non-probability purposive sampling technique. A structured knowledge questionnaire and five-point rating scale was administered. Results: Among 15 adolescent girls, in pre-test 66.7% had moderately adequate and 33.3% had insufficient amount of knowledge. In post-test 60% had fairly sufficient and 40% had sufficient amount of knowledge. In pre-test 73.3% had moderate and 26.7% had good level of perception. In post-test 60% had good and 40% had moderate level of perception. Conclusions: The instructional module had a greater impact on enhancing the knowledge, perception on early menarche among adolescent girls.
318	**"Effect of empowerment program on quality of life, adherence, clinical outcomes and caregiver burden of patients undergoing hemodialysis: A systematic review"**		HIV Nursing	**SDG 3 and SDG 10**	Hemodialysis patients face numerous physical and psychological stresses that result in reduced health. The aim of this study is to determine the impact of an empowerment program on self-efficacy, quality of life, clinical indicators of blood pressure and interdialytic weight gain, and laboratory results in these patients.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
319	**"Effectiveness of empowerment program on adherence among patients undergoing hemodialysis - A Pilot study"**		HIV Nursing	**SDG 3 and 10**	Global burden of chronic kidney disease (CKD) is gradually increasing and imposes great challenges in the lives of patients. Adherence to treatment schedule is very essential to have a good quality of life free of complications. Present study was undertaken to assess the effect of an empowerment programme on Adherence among patients undergoing Hemodialysis. Methods: A Quasi experimental two group pretest post test design was used in the study. 10 Patients undergoing hemodialysis were selected and shift wise randomization was done. Pre test was done using The End Stage Renal Disease Adherence Questionnaire. Patients in the experimental group received an empowerment programme (which included Cognitive and psychological intervention) 2sessions per week for 3 weeks and control group received routine care. Post test was done 4 weeks and 12 weeks after the intervention. Results: The study findings revealed that the overall level of Adherence was found to be low. There was a statistically significant difference in the post test level of Adherence between experimental and Control group. Conclusions: Empowerment interventions would be beneficial in improving the adherence among patients undergoing Hemodialysis.
320	**"Interventions in the diagnosis and adoption of pacemaker therapy in sinus node dysfunction patients: Results from the IMPROVE Brady study"**	Rishi Sethi., Fazila Tun Nesa Malik., Yogesh Kumar A Kothari., Calambur Narasimhan., Dwight W Reynolds	Indian Heart Journal	**SDG 3 and 10**	IMPROVE Brady was a sequential, prospective, quality improvement initiative conducted in India and Bangladesh. Patients with symptomatic bradycardia were enrolled. In Phase I, physicians assessed and treated patients per standard care. Phase II began after implementing educational materials for physicians and patients. Primary objectives were to evaluate the impact of the intervention on SND diagnosis and pacemaker (PPM) implant. SF-12 quality of life (QoL) and Zarit burden surveys were collected pre- and post-PPM implant. A total of 978 patients were enrolled (57.7 ± 14.8 years, 75% male), 508 in Phase I and 470 in Phase II. The diagnosis of SND and implantation of PPM increased significantly from Phase I to Phase II (72% vs. 87%, $P < 0.001$ and 17% vs. 32%, $P < 0.001$, respectively). Pacemaker implantation was not feasible in 41% of patients due to insurance/cost barriers which was unaltered by the intervention. Both patient QoL and caregiver burden improved at 6-months post-PPM implant ($P < 0.001$).
321	**"The time taken for retrieval of separated instrument and the change in root canal volume after two different techniques using CBCT: An in-vitro study"**	Balu Santhosh Kumar., K Sri Devi., Dr.sandhya.s., A R Pradeep Kumar	Indian Journal of Dental Research	**SDG 3**	Forty extracted human mandibular molars with 30°-40° mesiobuccal root canal curvature were selected based on cone-beam computed tomography (CBCT) and divided into two groups (n = 20 each). Group 1: Terauchi group (Terauchi ultrasonic tips) and Group 2: Satelec group (Satelec ET25 ultrasonic tip) based on the retrieval technique. Groups 1 and 2 were further divided into two subgroups (n = 10 each) based on the size of the separated instrument; Groups 1a and 2a with ProTaper Gold (PTG) F1 and Groups 1b and 2b with PTG F2. The time taken for retrieval was calculated and increase in root canal volume was evaluated using CBCT. Results were statistically analysed with paired t-test and post hoc analysis by Tukey's HSD test.
322	**"Knowledge, Attitude and Practice of Dental Practitioners, Interns and Post Graduate Trainees about COVID-19 Pandemic in Chennai"**	C Krithika., Srithi Srinath., Bharath Marlecha R., Chitathoor Sridhar., Sreedevi Jeyakumaran., Dr. Nadeem Jeddy., A C Vinod Kumar	Indian Journal of Dental Research	**SDG 3**	Coronavirus disease-2019 COVID-19) pandemic has been sweeping around the globe and the cases have been reported in India since the second week of March, with Chennai being one of the most affected cities. Healthcare professionals, particularly the dental personnel have a higher risk of infection due to close face-to-face contact and the risk of inhalation of aerosolised particles.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
323	**"Chronic mucocutaneous candidiasis in an 11-year-old child – A case report from South India"**	Pavithra Gunasekaran., Geetharani Gopalan	Indian Journal of Dermatology	**SDG 3**	Ketoconazole, a new oral antifungal agent, was evaluated in the treatment of four patients with severe chronic mucocutaneous candidiasis refractory to standard antifungal therapy. Three had Candida esophagitis, and too had previously received intravenous amphotericin B. Initial ketoconazole dosage was 100 mg daily for patients weighing less than 30 kg and 200 mg daily for patients over 30 kg. All four patients showed dramatic improvement on the initial dose; three had complete clearing of mucous membrane and skin lesions within three weeks. Of the three patients with Candida esophagitis, one had complete clearing of esophagitis within one month and two were markedly improved. One patient required 400 mg daily to obtain complete clearing of skin and mucous membrane lesions. Two patients were maintained free of overt disease on one dose three times weekly but two patients relapsed and have required daily ketoconazole therapy to keep them free of Candida. The only side effects were mild nausea (two patients) occasional emesis at higher doses (two patients), and transient hypocholesterolemia (one patient). No adverse hematologic, gastrointestinal, or renal effects were noted. Ketoconazole appears to be a valuable oral antifungal agent for some patients with CMC.
324	**"Potential Laccase Producer (Pleurotus Sajorcaju)"**	B Priyadharshini., R Vishali., A Anitha., G R Sujithra., Kowsalya., Kalliratty Ganesan Purushotham., Ramanathan Narayanan	Indian Journal of Environmental Protection	**SDG 15**	This paper enumerates the production of lignolytic extracellular enzyme, laccase enzyme from the fungal species- Pleurotus sajorcaju (an edible lignolytic mushroom) and usage of its agro residues as a potent biofertilizer. Fungus have been obtained and subcultured in potato dextrose agar and enzyme activity is checked using a substrate, guaiacol (phenolic compound). Changes in the Petri dishes, zonal formation around the mycelia discs shows the oxidizing property of the enzyme after the guaiacol addition is checked for a week and graph is plotted showing the differences. Solid state fermentation is carried on using various substrates (rice bran, wheat bran, wood powder, coconut coir, green pea husk, paper, sugarcane bagasse). Enzyme activity assay is done for all the above content assayed by guaiacol and protein activity assay (Bradford protein assay) is done, prognosis showed that the amount of enzyme produced by P. sajorcaju is high in green pea husk infused fermentation media. Temperature and pH optimization has been done and the results are compared between the test and control. Results are plotted in graph in accordance with optical density (OD), temperature and pH, respectively. Purification and characterization of laccase enzyme is done implementing the methods dialysis and SDS-PAGE, respectively. The agro residual waste, leftover residue after the extraction of media is screened for C,P,N,K content to ensure its biofertilizing capacity.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
325	**"COVID -19 Vaccine Awareness among Dental Students: A Cross-Sectional Study":**	K.sheela., Ashika A., Elakiya S., Malleswari., Sanjana Reghu., Ponsekar Abraham Anandapandian	Indian Journal of Forensic Medicine and Toxicology	**SDG 3**	Dental professionals are frequently exposed to environments with high levels of occupational hazards by performing duties in close contact with the oral cavity prone for COVID 19 disease transmission. Further, as healthcare providers, dentists are assigned with providing health care support and encouraging their patients, and community in various activities to prevent the spread of diseases including vaccinations especially during this COVID19 pandemic. Aim: The present study was aimed to assess the awareness of an individual towards COVID19 vaccination. Methodology: A cross sectional online-survey was conducted using self-administered questionnaires, through Google forms among dental students of Thai Moogambigai dental college and Hospital, Chennai, Tamilnadu, India. Results: Majority of the dental students were aware of the COVID19 Vaccines currently available. Among which 78.85% considered COVID-19 vaccines should be made mandatory for all the health care professionals. 75% felt vaccination is not recommended immediately following covid-19 infection or recovered recently. About half of the participants were unaware of vaccination protocols for patients with diabetes, immuno-compromised disease or any bleeding disorder. Conclusion: Most of the dental students were aware of vaccines available for the COVID 19 infection however show very low vaccination rate. Thus immediate implementation of epidemiology education associated with infectious diseases and vaccination developments should be incorporated by organizing awareness programs.
326	**COVID -19 Vaccine Awareness among Dental Students: A Cross Sectional Study**	K.sheela., Ashika A., Elakiya S., Malleswari., Sanjana Reghu., Ponsekar Abraham Anandapandian	Indian Journal of Forensic Medicine and Toxicology	**SDG 3**	A total of 2780 dental students were approached to participate in the study but only 2701 (97.1%) students (M = 900, F = 1801) gave response. Out of the total 2701 students, 79.45% were aware of HBV infection and only 51.50% of the participants received hepatitis B vaccine. 20.5% have come across HBV infected patients and 59.5% are unaware of postexposure protocol. Of all, 63.9%, 21.5% and 42% felt the mode of transmission is blood, sexual contact and oral fluids, respectively. 49.12% recommended for awareness programs on risks in HBV; 56.46% suggested mandatory Hepatitis B vaccination programs in dental colleges.
327	**"Knowledge, attitude, and practice of ophthalmic manifestations in COVID-19 patients at a tertiary care center"**	Shweta Samuel., Sushmitha S Sriganesh., Prathibha Shanthaveerappa., Sriya Sridhar., Linto M Thomas	Indian Journal of Ophthalmology	**SDG 3**	Our study found that 82 (39%) of the 210 participants were aware that COVID-19 could present with symptoms in the eyes. A total of 47 participants had experienced eye symptoms of COVID-19. Among them, only 15 (31.91%) consulted and received treatment from an ophthalmologist or general physician for the same. Most of them (59.57%) did not seek any treatment, and 8.5% self-medicated or used non-allopathic forms of medicine. The most common symptom was redness of the eyes, reported by 57.44% of those who had eye symptoms.
328	**"Past, Present and Future of Arthroscopic Research: A Scientometric Analysis of Research Frontiers in Arthroscopy"**	Ashwin Gobbur., Vijay Kumar Konkathi., Gangireddi Suresh Babu., Girinivasan Chellamuthu., Sathish Muthu., Madhan Jeyaraman	Indian Journal of Orthopaedics	**SDG 9**	We recovered 383 RCTs and 11,853 non-RCT articles in the field of arthroscopy from the global literature of 15,766 arthroscopy-related publications from 1990 to 2019. Research co-operation group with the top contribution to the arthroscopic literature was from BG Domb, MJ Philippon, and SJ Nho for non-RCT articles and Casati A, Pluta A, and Lund B for RCTs. Weaker collaboration exists among the institutions globally, but the network of domestic institutions seemed stronger in co-institution analysis. USA and England have been the pioneers in research particularly the RCTs. The current hotspots were around the outcome analysis, particularly in the knee and shoulder pathologies. In the hip the main area of focus was the Femoro-Acetabular Impingement (FAI). The other areas of arthroscopy remain relatively less explored.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
329	**"Analysis of Spin in RCTs of Spine Surgery Using ORG–LOC Grading Tool"**	Madhan Jeyaraman., Sathish Muthu., Girinivasan Chellamuthu., Eswar Ramakrishnan., Arun Prasad Dakshinamoorthy., K S Karthika Hathwar	Indian Journal of Orthopaedics	**SDG 9**	The median CAS was 11 (IQR 10-12). Only 47.6% (n = 119) articles had High LOC with no or one non-critical spin in abstract. 12.4% (n = 31) had Moderate LOC and 28% (n = 70) had Low LOC. The rest had Critically Low LOC with more than one critical spin. Of the variables analyzed in multivariate regression analysis, only CAS had a (negative) correlation with the LOC of the abstracts.
330	**"Bacteriophage Therapy in Implant-Related Orthopedic Infections"**	Madhan Jeyaraman., Naveen Jeyaraman., Vijay Kumar Konkathi., Arulkumar Nallakumarasamy., Sathish Muthu., Manish Khanna	Indian Journal of Orthopaedics	**SDG 3**	Biofilm producers pose a major challenge in treating implant-related orthopedic infections (IROIs). The incidence of IROIs for the closed fracture amounts to 1% to 2% whereas for open fracture it is up to 30%. Due to inappropriate and irrational use of antibiotics in the management of infections, there is an emergence of a global “antimicrobial resistance crisis”. To combat these antimicrobial resistance crises, a few innovative and targeted therapies like nanomedicine, phage therapy, antimicrobial peptides, and sonic therapies have been introduced. In this review, we have detailed the basic mechanisms involved in the employment of bacteriophage therapy for IROIs, along with the preclinical and clinical data on its utility. We also present the guidelines on its regulation, processing, and limitations of bacteriophage therpay to combat the upcoming era of antibiotic resistance.
331	**"Industry 5.0 in Orthopaedics"**	Madhan Jeyaraman., Arulkumar Nallakumarasamy., Naveen Jeyaraman	Indian Journal of Orthopaedics	**SDG 9**	Industrial revolutions play a major role in the development of technologies in various fields. Currently, the world is marching towards softwarization and digitalization. There is an emerging need for conversion of Industry 4.0 to Industry 5.0 for technological development and implementation of the same in the digital era. In health care, digitalization emerged in Industry 4.0 revolution. To enhance patient care and quality of life, Industry 5.0 plays a major role in providing patient-centric care and customization and personalization of products. The integration of human intelligence with artificial intelligence provides a precise diagnosis and enhances the recovery and functional outcome of the patients.
332	**PRISMA-Compliant Meta-Analysis of Randomized Controlled Trials on Osteoarthritis of Knee Managed with Allogeneic vs Autologous MSCs: Efficacy and Safety Analysis**	Madhan Jeyaraman., Sathish Muthu., D S Nischith., Naveen Jeyaraman., Arulkumar Nallakumarasamy., Manish Khanna	Indian Journal of Orthopaedics	**SDG 3**	In total, 21 studies with a total of 936 patients were considered for this analysis. Because none of the studies made a direct comparison of the autologous and allogeneic sources of MSCs, we pooled the results of all of the included studies of both sources and made a comparative analysis of how the two types of MSCs fared in their respective applications. Although both allogeneic and autologous sources of MSCs demonstrated significantly better VAS improvement after 6 months ($p = 0.006$, $p = 0.001$), this trend was not maintained after 1 year for the allogeneic source ($p = 0.171$, $p = 0.027$). When compared to their respective controls based on WOMAC scores after 1 year, autologous sources ($p = 0.016$) of MSCs performed better than allogeneic sources ($p = 0.186$).A similar response was noted between the sources at 2 years in their Lysholm scores ($p = 0.682$, $p = 0.017$), respectively. Moreover, allogeneic sources ($p = 0.039$) of MSCs produced significant adverse events than autologous sources ($p = 0.556$) compared to their controls.
333	**Virtual Fracture Clinic Model in India: A Technological Innovation**	Madhan Jeyaraman., Karthikeyan P Iyengar., Vijay Kumar Jain., Arulkumar Nallakumarasamy	Indian Journal of Orthopaedics	**SDG 9**	Virtual Fracture Clinics (VFCs) are an alternative to the conventional model of fracture and minor injuries care. It is a new, evolving service designed to speed up patient access to orthopaedic care introduced in the United Kingdom in 2011 and has been increasingly used in the management of certain musculoskeletal injuries.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
334	**“Fizz Sign” in Acute Sinusitis–A CT Scan Finding**	Nagalingeswaran Ahilasamy., Veerasigamani Narendrakumar., Rajendran Dinesh Kumar., Sivaprakasam Rajasekaran., R Niharika., M Lavanya	Indian Journal of Otolaryngology and Head and Neck Surgery	**SDG 3**	To study the Computerized Tomography (CT) Paranasal Sinus findings in patients with acute bacterial sinusitis and the clinical symptom associated with it. 120 patients were examined over 2 years with coronal CT images of paranasal sinus with clinical symptoms of acute sinusitis of 2 weeks duration from the onset. Patients with symptoms of more than 2 weeks and patients with chronic sinusitis, immunocompromised status were excluded. Air mixed with fluid is seen like a Fizz of cola drink within the maxillary, frontal or sphenoid sinus, mucosal thickening of more than 5 mm, fluid level and presence of opacifications were used as evidence of acute sinusitis. 28 patients (23.3%) had Fizz sign (Air mixed with fluid seen as bubbles) coronal CT images of the paranasal sinus. The study demonstrated great variation in the CT paranasal findings amongst patients with suspected acute sinusitis. More than one sinus subsite was affected amongst patients in whom acute sinusitis was confirmed by CT Paranasal sinus imaging. We hereby highlight a new sign of air mixed with fluid which the senior author had named as Fizz Sign because of its resemblance to the fizz of dark cola drink.
335	**How I do it:- Endoscopic Reverse Denker’s Approach**	Nagalingeswaran Ahilasamy., Veerasigamani Narendrakumar., RAJENDRAN DINESH KUMAR ., Arya N Baby., Manoj Kumar N	Indian Journal of Otolaryngology and Head and Neck Surgery	**SDG 3**	Endoscopic Denker’s approach involves complete exposure of the anterior, inferior and lateral walls of the maxillary sinus providing access to both infratemporal and pterygopalatine fossa. Open approaches to maxillary sinus may lead to a high chance of cranial nerve dysfunction, trismus and wound healing issues. Surgical methods differ based on pathology, exposure, visualization and extent of clearance of the pathology.
336	**Local Anaesthetic Nerve Blocks in Endoscopic Nasal and Sinus Surgery**	Nagalingeswaran Ahilasamy., Veerasigamani Narendrakumar., Rajendran Dinesh Kumar., N Sai Sarath	Indian Journal of Otolaryngology and Head and Neck Surgery	**SDG 3**	In the present era, Hemostasis in Endoscopic nasal and sinus surgeries are challenging even with appropriate use of instrumentation and surgical skills. This can be addressed with appropriate local anaesthesia and nerve blocks. Expertise in performing surgery under local anaesthesia can be acquired over years of surgical training. The objective of this article is to define complete nerve blocks which can be used in endoscopic nasal surgeries.
337	**Transoral Laryngeal Surgery in Low-grade Myofibroblastic Sarcoma of Larynx: A Plausible Treatment Option**	Anand Subash., B M Joshna., Akshay Kudpaje., Rajendran Dinesh Kumar	Indian Journal of Otolaryngology and Head and Neck Surgery	**SDG 3**	The laryngeal tumor type, location and disease extent are essential determinants in deciding the type of surgery and the potential voice and swallowing outcomes. The surgical options available are conservative laryngeal surgeries like transoral laser microsurgery (TLM) or open conservative laryngeal surgery and Total laryngectomy. We report an unusual case of low-grade Myofibroblastic sarcoma of vocal cord which was managed by TLM.
338	**Palatal tic disorder causing objective clicking tinnitus in an 8 years old**	N Manoj Kumar., Rajiv Sanji Ranganath., Krishna Sriranga Prasad	Indian Journal of Otology	**SDG 3**	Palatal tremors including myoclonus are well-known causes of objective tinnitus. Essential palatal tremors and tic disorders are recognized but rarer causes of objective pulsatile tinnitus. An 8-year-old boy presented with a chief complaint of clicking sounds in both the ears for 1 month, intermittent, occurs frequently in episodes, wherein intraoral examination revealed bilateral rhythmic, low frequency, symmetrical contractions of the soft palate muscles accompanied by clicking sounds audible to physician as well (objective tinnitus). The child's mother stated that the clicking sounds were not present when he was asleep. When the child was distracted by tuning fork sound, the palatal movements stopped. CNS examination, developmental history, birth, and growth history were all normal. Magnetic resonance imaging study with contrast enhancement was normal. The child was started on clonazepam and clonidine and follow-up was done after 1st and 2nd months. The tinnitus reduced but did not resolve completely. Clinical features of a patient with palatal tremor should be carefully assessed with prior knowledge of possible etiopathologies to guide the investigations and management. We highlight a case of palatal tic disorder to bring the possibilities quickly to the reader's mind.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
339	**Utility of Different Lipids and Effect of Soya Lecithin on Sustained Delivery of Zidovudine via Biodegradable Solid Lipid Microparticles: Formulation and in-vitro Characterization**	Nandhakumar Sathyamoorthy., Vankayala Devendiran Sundar., Vijayalakshmi Rajendran., Navyashri Sirikonda., Dr. N. Harikrishnan N	Indian Journal of Pharmaceutical Education and Research	**SDG 3**	Solid lipid nanoparticles (SLNs) and nanostructured lipid carriers (NLCs) have emerged as potential drug delivery systems for various applications that are produced from physiological, biodegradable, and biocompatible lipids. The methods used to produce SLNs and NLCs have been well investigated and reviewed, but solvent injection method provides an alternative means of preparing these drug carriers. The advantages of solvent injection method include a fast production process, easiness of handling, and applicability in many laboratories without requirement of complicated instruments. The effects of formulations and process parameters of this method on the characteristics of the produced SLNs and NLCs have been investigated in several studies. This review describes the methods currently used to prepare SLNs and NLCs with focus on solvent injection method. We summarize recent development in SLNs and NLCs production using this technique. In addition, the effects of solvent injection process parameters on SLNs and NLCs characteristics are discussed.
340	**Investigation on growth, structural, DFT and third-order nonlinear optical studies of cyclohexylammonium 4-nitrobenzoate for optical limiting applications**	Gomathi Ramasamy., R Ganesamoorthy., D Rajan Babu., G Vinitha., S Madeswaran	Indian Journal of Physics	**SDG 9**	Cyclohexylammonium 4-nitrobenzoate (CYH4NBA) organic nonlinear optical material was crystallized using slow evaporation solution growth method and characterized by elemental analysis, single crystal X-ray diffraction, thermal analysis and dielectric studies. The functional group and molecular structure are identified by FT-IR and FT-NMR analyses. UV–Vis-NIR spectrum shows the cutoff wavelength is at 263.24 nm. It is compared with the value (259.83) calculated by time-dependent density-functional theory calculation. HOMO–LUMO energy difference and molecular electrostatic potential surface were investigated using density-functional theory calculations. The optical limiting phenomena, moderate melting point (160 ◆C) and large third-order nonlinear optical susceptibility (2.58 9 10-6 esu) suggest that CYH4NBA is favorable for optical limiting application
341	**Prevalence of Anaemia in Adolescence Females between Ages of 18-21 in Tamilnadu**	Thillai Govindarajan G E., Ruth J E., Hira H Tahera., Priyanka Chowdary., Divyasri A., S Gejalakshmi Talluri Sonalika	Indian Journal of Public Health Research and Development	**SDG 3**	Adolescent period is signalized by marked physical activity and rapid growth spurt; therefore, they need additional nutritional supplements and are at utmost risk of developing nutritional anaemia. Anaemia play a major role in affecting the adolescents especially girls. On September 2019, Ministry of Health and Family welfare, Govt. of India directed to all state and district health authority to conduct Test, Treat and Talk (T-3) anaemia camps for celebration of nutrition month (Poshan Maah) in all government schools and colleges. The present study aimed to assess prevalence of anaemia and factors associated with it among school going adolescent girls attending T-3 camp in Delhi.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
342	**"A Diagnostic Revelation: Case of a Mucinous Carcinoma of the Breast"**	Sheena Wadhwa., Ashwini Rajareddy Kothudam., Syed Iqbalulla Sha Khadri	Indian Journal of Surgical Oncology	**SDG 3**	Mucinous or colloid cancers are a rare subtype of invasive ductal carcinoma, making up only 2-3% of infiltrating carcinomas. Prevalence of pure mucinous breast cancer(PMBC) among infiltrating duct carcinomas in less than 60 year olds is 2-7%, and in less than 35 year olds, it is 1%. Mucinous carcinoma of the breast is divided into 2 subtypes, the pure type and mixed type. PMBC is characterized by a lower incidence of nodal involvement, favourable histological grade, and higher ER/PR expression. Axillary metastases are rare, though found in 12-14%. It has a better prognosis than infiltrative ductal cancer with 10-year survival being more than 90%. Here is the case of a 70-year-old female who presented with lump in the left breast since 3 years. On examination, we detected a left breast lump occupying the whole breast except lower outer quadrant, measuring 10 × 8 cm with overlying skin stretched with puckering and engorged veins seen, nipple displaced laterally and higher by 1 cm, firm to hard in consistency, and mobile with breast tissue. Sonomammography, mammography, FNAC and biopsy were suggestive of benign phyllodes tumour. Patient was hence posted for simple mastectomy on the left side with removal of attached lymph nodes (near axillary tail). Histopathological examination revealed pure mucinous breast carcinoma with nine lymph nodes, free from tumour and showing reactive hyperplasia. Immunohistochemistry studies demonstrated ER + , PR + , HER-2-NEU-. The patient was started on hormonal therapy. Therefore, mucinous carcinoma of the breast is a rare entity with imaging features sometimes mimicking a benign tumour such as Phyllodes tumour, hence making it important to include it as a differential diagnosis in our daily practice. It is especially important in the subtyping of carcinoma of the breast since it carries a favourable risk profile with less chances of lymph node involvement, higher hormone receptor positivity and good response to endocrine treatment.
343	**"A Smart Car Parking System Based on IoT with Gray Wolf Optimization-Probability Correlated Neural Network Recognition Methods"**	Anumolu Lasmika., Mathivanan Kumaresan	Ingenierie des Systemes d'Information	**SDG 9**	The use of vehicles is increasing every day because of the growing industrialization. Hence, parking the vehicles in the metropolitan cities could create the traffic congestion, which is one of the major problem need to be resolved in the smart city systems. For this purpose, this research work intends to develop a smart car parking system with proper controlling and monitoring units. The main motive of this work was to avoid the traffic congestion by developing an advanced car parking system with the help of Internet of Things (IoT) technology. Also, an image processing technique is utilized in this framework for identifying whether the car is present or not in the parking area. In which, an Anisotropic Diffusion Gaussian Filtering (ADGF) technique is utilized to preprocess the given image for improving the quality and reducing the noise effects. After that, the Grey Level Co-occurrence Matrix (GLCM) is employed to extract the contrast, correlation, energy and homogeneity features. After that, the suitable number of features are optimally selected by using the Grey Wolf Optimization (GWO) technique, which efficiently improves the speed of operation. Finally, the Probability Correlated Neural Network (PCNN) technique deployed for accurately recognizing that whether the car is present or not. For validation, the performance of this scheme is evaluated and compared by using various measures.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
344	**"Electrochemical degradation of organic pollutants using Cu nanocubes modified electrode – A facile approach for environmental remediation"**	R Singaravelan., A Abdul Salam., Nirmalakrishnan., P Vasanthi	Inorganic Chemistry Communication	**SDG 6 and 13**	The present work investigates the electrocatalytic behaviour of copper nanocubes (CuNCs) synthesized through an inexpensive novel electrodeposition process. The cubic structured morphology of the CuNCs/electrodes was optimized by applied potential and current during electrodeposition. The structural morphology, phase composition and elemental distribution of the nanocatalyst (CuNCs) were investigated by HRSEM, powder X-ray diffraction (PXRD), X-ray photoelectron spectroscopy (XPS) and Fourier transform infrared spectroscopy (FTIR). The oxidative degradation of malachite green (MG) (target pollutant) was monitored using the polarization current by cyclic voltammetry (CV) technique. The degradation efficiency of MG was determined using a UV-visible spectrophotometer. The CV results proved the improved electrocatalytic efficiency of CuNCs modified glassy carbon electrode (GCE) which shows the polyhedral structures with active surfaces. The XPS spectra recorded before and after the electro-oxidation confirmed the stability of CuNCs during the electrochemical oxidation. This study also demonstrates the efficient electrocatalytic activity of metal nanoparticles toward the removal of harmful organic wastes. Furthermore, the antimicrobial properties of CuNCs were evaluated towards the gram-positive and gram-negative bacterial strains. The versatility of CuNCs in removing harmful microbial contaminants has a great impact on environmental remediation and sustainable development.
345	**"Lithium toxicity at therapeutic doses as a fallout of COVID-19 infection: a case series and possible mechanisms"**	Naveen Manohar Pai., Vidhyavathi Malyam., Manisha Murugesan., Sundarnag Ganjekar., Sydney Moirangthem., Geetha Desai	International Clinical Psychopharmacology	**SDG 3**	Lithium, a mood stabilizer used in the treatment of bipolar disorder is known for its anti-inflammatory properties with the discussion of its potential use in COVID-19 infection. The SARS-CoV-2 virus causing COVID-19 infection is known to enter the target cells through angiotensin converting enzyme-2 receptors present in abundance in the lung and renal tissue. Recent research supports the evidence for direct renal injury by viral proteins. Here we report two patients with bipolar disorder presenting with lithium toxicity in the presence of COVID-19 infection. Two patients with bipolar disorder, maintaining remission on lithium prophylaxis, presented to the psychiatric emergency with recent-onset fever and altered sensorium. Both the patient's investigations revealed lithium toxicity, elevated serum creatinine, urea and inflammatory markers. Hypernatremia, hyperkalaemia, and hyperchloremia were seen in one patient. Lithium and other psychotropic medications were stopped immediately, and COVID-19 treatment was initiated. Patient with clinical signs of lithium toxicity, hypernatremia, hyperkalaemia, and hyperchloremia developed ventricular tachycardia. He survived and regained consciousness after 2 weeks of aggressive conservative management. However, another patient died of acute respiratory failure on day 3. Possible direct infection of the kidney by SARS-CoV-2 viral proteins can manifest with acute kidney injury and lithium toxicity among patients on long-term lithium therapy. Health professionals treating COVID-19 infection among individuals on lithium therapy should be aware of the possibility of lithium toxicity in the background of renal injury.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
346	**"Experimental Evaluation of Direct Injection Diesel Engine Performance and Emissions with Acacia Biodiesel"**	J M Babu., M Sarath Chandra., P Ravichandra Ganesh., P Jayaprakash., K Sunil Kumar., M Nagappan	International Journal of Ambient Energy	**SDG 7**	Bharath's sixth stage emission benchmark norms are stringent as per the global Emission norms, and their implementation is a great concern. The current Bharath stage VI emission norms were implemented on 1 April 2020. The aim of this work is to study the engine performance and emissions when the engine is fuelled by a new and unique bio-diesel. The engine selected for this experimentation is a Kirloskar , single-cylinder, 4-stroke and water-cooled, common rail direct injection (CRDi) diesel engine. The biodiesel was drawn from the Acacia seeds, which are available in plenty most of the places in South India, especially like Andhra Pradesh, Tamil Nadu and Karnataka . The oil was extracted from the dry acacia seeds and sent through a motorised expeller. The oil expelling efficiency is 19%, the available oil content is 220 ml, out of it 190 ml of oil was extracted, whereas with a hand-operated expeller, it was 16%; hence there is an improvement of 3%. The oil has been verified with FFA content and had 1.0%. FFA content single-step transesterification process is selected, which has yielded 97%. Experiments were conducted at 500 bar with a single injection, 500 bar with the main injection 15 degrees b TDC, pilot injection 23 degrees b TDC and 500 bar with B10 a single injection and 200 bar with the main 15 degrees b TDC, pilot injection 23 degrees b TDC. The results were observed when the engine was running with 15 degrees main injection and 23 degrees pilot injection strategy.
347	**"Bio-inspired and deep learning approach for cerebral aneurysms prediction in the healthcare environment"**	Srividhya Srinivasa Raghavan., Arunachalam Arunachalam	International Journal of Artificial Intelligence	**SDG 3**	Diagnosis is being used in a variety of fields, including treatments, scientific knowledge, technology, industry, and many deals. A diagnosis begins with the person's complaints and understanding something about the condition of the patient dynamically while in a question-and-answer session, as well as by taking measurements, like blood pressure or skin temperature, among other things. The prognosis is then calculated by considering the obtainable patient information. The adequate intervention is then prescribed, and the method may be repeated. In the medical field, humans, sometimes, have constraints when diagnosing diagnosis, primarily because this procedure is arbitrary and heavily relies on the assessor's memories and perception of patient transmissions. The work is primarily concerned with the investigation of cerebellar aneurysm diagnosing. In the meantime, it's become evident even during literature reviews research that a much more basis of theoretical research of a number of existing learning methods was required. As a result, this paper is to provide a comparison of classification techniques like tree structure, random trees, and regression. At about the same time, another important goal is to have a decision-making framework based on biomimetic elephant-whale enhancement for a great deal of consideration of cerebral aneurysm variables, providing a quick, accurate, and dependable clinical medicine remedy.
348	**"Clinical characteristics and 30-day outcomes in patients with acute decompensated heart failure: Results from Indian College of Cardiology National Heart**	T R Raghu., P B Jayagopal	International Journal of Cardiology	**SDG 3**	Acute decompensated heart failure (ADHF) is a challenging medical emergency with high mortality and its prevalence is increasing in India. There is paucity of data on ADHF in the country.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
349	**"Experimental Study on Structural Properties of Concrete by Partial Replacement of Cement by Rice Husk ash"**	Soundararajan Arivalagan	International Journal of ChemTech Research	**SDG 9 and 11**	This research work was experimentally carried out to investigate the effects of partially replacing Ordinary Portland cement (OPC) with our local additive Rice Husk Ash (RHA) which is known to be super pozzolanic in concrete at optimum replacement percentage which will help to reduce the cost of housing. With this research work, the problem of waste management of this agro-waste will be solved. The specific gravity of RHA was found to be 1.55, the density of RHA concrete was found to be 2.043, 1.912 and 1.932kg/m 3 at 10%, 20% and 25% replacement percentages respectively. RHA concrete was found to be very workable with a slump value of over 100mm. The incorporation of RHA in concrete resulted in increase water demand and enhanced strength. The compressive strength values at 28days were found to be 38.4, 36.5 and 33N/mm 2 at the same replacement percentages above. These compressive strength values compared favourably with the controlled concrete strength of 37N/mm 2 at a mix ratio of 1:1.5:3.
350	**An Optimal Routing Protocol Using a Multiverse Optimizer Algorithm for Wireless Mesh Network"**	P Supraja., Anas A Salameh., Varadaraju H R., Margabandu Anand., Unggul Priyadi	International Journal of Communication Networks and Information Security	**SDG 9**	Wireless networks, particularly Wireless Mesh Networks (WMNs), are undergoing a significant change as a result of wireless technology advancements and the Internet's rapid expansion. Mesh routers, which have limited mobility and serve as the foundation of WMN, are made up of mesh clients and form the core of WMNs. Mesh clients can with mesh routers to create a client mesh network. Mesh clients can be either stationary or mobile. To properly utilise the network resources of WMNs, a topology must be designed that provides the best client coverage and network connectivity. Finding the ideal answer to the WMN mesh router placement dilemma will resolve this issue MRP-WMN. Since the MRP-WMN is known to be NP-hard, approximation methods are frequently used to solve it. This is another reason we are carrying out this task. Using the Multi-Verse Optimizer algorithm, we provide a quick technique for resolving the MRP-WMN (MVO). It is also proposed to create a new objective function for the MRP-WMN that accounts for the connected client ratio and connected router ratio, two crucial performance indicators. The connected client ratio rises by an average of 16.1%, 12.5%, and 6.9% according to experiment data, when the MVO method is employed to solve the MRP-WMN problem, the path loss falls by 1.3, 0.9, and 0.6 dB when compared to the Particle Swarm Optimization (PSO) and Whale Optimization Algorithm (WOA), correspondingly.
351	**"An Efficient Signcryption Scheme Using Near-Ring Hybrid Approach for an IoT-Based System"**	V Vinoth Kumar., V Muthukumaran., N Ashwini., I S Beschi., K Gunasekaran., V R Niveditha	International Journal of e-Collaboration	**SDG 9**	Signcryption is a cryptographic primitive which combines both the functions of digital signature and public key encryption logically in a single step, with a computational cost significantly less than the traditional signature-then-encryption approach. Signcryption is another approach to accomplish secrecy and validation simultaneously across Internet of Things (IoT). Numerous signcryption schemes have been created and executed , but it uses different security attributes and computational cost. In this paper, introducing a new signcryption scheme whose security relies on the intractability of combination of the Twisted Root Extraction Problem (TREP) and Conjugacy Search Problem (CSP) which can utilised for IoT based system for secure transferring of data. It is applied over an IoT to upgrade the security of information and its confidentiality. Experiment shows that modified signcryption algorithm outperforms than existing approaches.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
352	**"Prognostic of Soil Nutrients and Soil Fertility Index Using Machine Learning Classifier Techniques"**	Dr. B. Swapna., Manivannan S., Kamalahasan Murugan	International Journal of e-Collaboration	**SDG 2 and 15**	Soil testing is a unique tool for finding the available soil reaction (pH), organic carbon, and nutrients status of the soil. It helps to select the suitable crops concerning available pH and soil nutrients level to increase crop production. In this current approach, the soil test prediction is used to differentiate several soil features like soil fertility indices of available pH, organic carbon, electrical conductivity, macro nutrients, and micro nutrients. The Classification and prediction of the soil parameters lead to reduce the artificial fertilizer inputs, increasing crop yield, improves soil health and crop growth and increase profitability. These problems are solved by using fast learning and classification techniques known as machine learning (ML) classifier techniques such as random forest, Gaussian naïve Bayes, logistic Regression, decision tree, k-nearest neighbour and support vector machine. After the analysis decision tree classifier attains the maximum performance to solve all problems which goes above 80% followed by other classifiers.
353	**"Integrated dominating and hit set-inspired unequal clustering-based data aggregation in wireless sensor networks"**	V Muthukumaran., A C Kaladevi., G Vennira Selvi., S Satheesh Kumar., Dr. B. Swapna	International Journal of Intelligent Computing and Cybernetics	**SDG 9**	In wireless sensor networks, improving the network lifetime is considered as the prime objective that needs to be significantly addressed during data aggregation. Among the traditional data aggregation techniques, cluster-based dominating set algorithms are identified as more effective in aggregating data through cluster heads. But, the existing cluster-based dominating set algorithms suffer from a major drawback of energy deficiency when a large number of communicating nodes need to collaborate for transferring the aggregated data. Further, due to this reason, the energy of each communicating node is gradually decreased and the network lifetime is also decreased. To increase the lifetime of the network, the proposed algorithm uses two sets: Dominating set and hit set.
354	**"The Association between Gut Microbiota and Osteoarthritis: Does the Disease Begin in the Gut?"**	Luciano C Ramires., Gabriel Silva Santos., Rafaela Pereira Ramires., Lucas Furtado Da Fonseca., Madhan Jeyaraman., Sathish Muthu., Anna Vitória Lana., Gabriel Azzini., Curtis Scott Smith., José Fábio Lana	International Journal of Molecular Sciences	**SDG 3 and 15**	Some say that all diseases begin in the gut. Interestingly, this concept is actually quite old, since it is attributed to the Ancient Greek physician Hippocrates, who proposed the hypothesis nearly 2500 years ago. The continuous breakthroughs in modern medicine have transformed our classic understanding of the gastrointestinal tract (GIT) and human health. Although the gut microbiota (GMB) has proven to be a core component of human health under standard metabolic conditions, there is now also a strong link connecting the composition and function of the GMB to the development of numerous diseases, especially the ones of musculoskeletal nature. The symbiotic microbes that reside in the gastrointestinal tract are very sensitive to biochemical stimuli and may respond in many different ways depending on the nature of these biological signals. Certain variables such as nutrition and physical modulation can either enhance or disrupt the equilibrium between the various species of gut microbes. In fact, fat-rich diets can cause dysbiosis, which decreases the number of protective bacteria and compromises the integrity of the epithelial barrier in the GIT. Overgrowth of pathogenic microbes then release higher quantities of toxic metabolites into the circulatory system, especially the pro-inflammatory cytokines detected in osteoarthritis (OA), thereby promoting inflammation and the initiation of many disease processes throughout the body. Although many studies link OA with GMB perturbations, further research is still needed.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
355	**"Antiproliferative Effects of Olanzapine against MCF-7 Cells and Its Molecular Interactions with Survivin"**	Poojith Nuthalapati., Krishna Murthy Potla., Y Sheena Mary., V A Varahi Vedam., Mohan Krishna Ghanta., Darling Chellathai David., Meduru Vijayalakshmi	International Journal of Nutrition, Pharmacology, Neurological Diseases	**SDG 3**	Epidemiologic findings revealed approximately one-third of patients with breast cancer develop brain metastases. Recent research has found that schizophrenia patients who take antipsychotic medications on a long-term basis have a decreased risk of cancers than normal individuals. This serendipitous anticancer action of antipsychotic medications is now being investigated by many studies. The ability of these drugs to penetrate the blood–brain barrier may target brain metastases. We investigated antiproliferative activity of antipsychotic drug. The present study aimed to determine the antiproliferative effects of olanzapine against MCF-7 cells and also to examine its molecular interactions with survivin.
356	**"ANTIOXIDANT AND ANTIDEPRESSANT ACTIVITIES OF ETHANOLIC LEAF EXTRACT OF MANILKARA ZAPOTA"**	G.v.n.kiranmayi., M Sai Sureshma	International Journal of Pharmaceutical Sciences and Research	**SDG 3**	A common theme, which underlines etiology of several degenerative disorders, is free radical stress. The production of free radicals is inextricably linked to the inflammatory process. Free radicals prime the immune response, recruit inflammatory cells and are innately bactericidal [1, 2]. Some of these free radicals play a positive role in vivo such as energy production, phagocytosis, regulation of cell growth and intercellular signaling and synthesis of biologically important compounds [3]. However, free radicals are very detrimental in attacking lipids in cell membranes and also DNA, inducing oxidations that cause membrane damage such as membrane lipid peroxidation and a decrease in Abstract The present study evaluated the antioxidant activity of cold ethanolic extract of Manilkara zapota (Sapotaceae) leaves. In vitro antioxidant activity was determined using 1, 1-diphenyl-2-picrylhydrazyl radical, reducing power capacity, total phenol and flavonoid content. The extract demonstrated significant dose dependent antioxidant activity in vitro methods. In DPPH radical scavenging assay IC 50 values of Manilkara zapota leaves (MZL) and ascorbic acid (standard) were found to be 68.27 and 16.17 µg/ml, respectively. In vivo, the extract was evaluated by carbon tetrachloride (CCl 4) induced liver damage rats in hepatoprotective model. CCl 4 produced significant alteration of serum marker enzymes, total bilirubin, total protein and liver weight. Restoration of these values towards normal, which is comparable to control group, indicated hepatoprotective activity, which reflects the antioxidant potential of the extract. Results presented here indicate that MZL possess strong antioxidant activity and they can therefore be used as a good natural source of antioxidant.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
357	**"MICROWAVE-ASSISTED SYNTHESIS AND IN-SILICO SCREENING OF NOVEL SUBSTITUTED 1, 3, 4-THIADIAZOLE DERIVATIVES FOR TREATING ANTIVIRAL AGENTS"**	Gejalakshmi Subramanian., Dr. N. Harikrishnan N., S Rajesh., S Pooja., A Divyasri., G E Thillai Govindarajan	International Journal of Pharmaceutical Sciences and Research	**SDG 3**	A green and efficient method was developed for the synthesis of 1,3,4-thiadiazole based compounds under microwave (MW) activation. The nucleophile N-(5-amino-1,3,4-thiadiazol-2-yl)thiophene-2-carboxamide (3) was synthesized and reacted with different carbon electrophilic reagents to afford thiadiazolo-pyrimidine or imidazolo-thiadiazoline derivatives (4-6 & 8), respectively. Furthermore, a one-pot reaction of 3 with p-chlorobenzaldehyde and different carbon electrophile/ or nucleophiles under microwave irradiation yields the cyclic thiadiazolo-pyrimidine derivatives 10-15. Additionally, nucleophilic substitution of aromatic amines and/or potassium salts of some heterocyclic compounds with chloroacetamido-thiadiazole 6 yields derivatives 16-20. All the new derivatives were synthesized by both conventional and MW irradiation methods. All the new 1,3,4-thiadiazole derivatives were evaluated against four cancer cell lines, HepG-2, MCF-7, HCT-116, and PC-3. The anti-proliferative activity of most of the synthesized compounds exhibited excellent broad-spectrum cytotoxic activity against the cancer cell lines with IC50 values ranging from 3.97 to 9.62 μM. Moreover, the enzymatic assessment of five derivatives (2,4b, 6, 8, 9a) against VEGFR-2 tyrosine kinase showed significant inhibitory activities with IC50 of 11.5, 8.2, 10.3, 10.5 & 9.4 nM respectively. Further studies revealed the ability of compound 9a to have a strong DNA-binding affinity of 36.06 μM via DNA/methyl green assay. Moreover, molecular docking study was carried out to reveal the binding interactions of compounds in the binding site of VEGFR-2 enzyme explaining the significant inhibitory activity of these derivatives. Finally, ADME/Tox studies was performed to predict the pharmacokinetics of the synthesized compounds.
358	**"ESTIMATION OF SERUM MAGNESIUM LEVELS AND ITS CORRELATION AMONG PATIENTS WITH DIABETIC RETINOPATHY"**	Suma S., Dr. Abeetha .s., Divya R	International Journal of Pharmacy and Pharmaceutical Sciences	**SDG 3**	To find the correlation of serum magnesium levels in diabetic patients with and without retinopathy. Methods: Hospital Based Cross-Sectional study was conducted on diabetic patients who attend the ophthalmology outpatient department in a medical college and hospital, Puducherry. Patients were divided into two groups with and without diabetic retinopathy. After obtaining institutional ethical committee approval and consent from the patient, anthropometry measurements were taken, followed by the comparison of serum magnesium level estimation in both groups. All parameters are presented as mean±standard deviation (mean±SD). The data was entered and analysed by using Epi info (version 6.04d) software package.
359	**"Deep Learning-Based Smart Hybrid Solar Water Heater Erection Model to Extract Maximum Energy"**	Bharathi M L., T Sripriya., Abdi Diriba., B Muthuraj., D Sateesh Kumar., Badireddy Satya Sridevi., V Venkatesh., Munaga Masthan Siva Krishna., K Rajan	International Journal of Photoenergy	**SDG 7**	Currently, we are trying to get electricity in alternative ways. Many solar powered water heaters have come up to use water heaters. However, these tools are not 100 percent fully effective. The device we have manufactured is an automatic device that runs in the direction of sunlight. The device runs automatically in the morning facing east and in the evening facing west. In this instrument, the defective one-inch tube lamp and the three-quarter-inch tube lamp are put together and connected in series. In this paper, a smart deep learning model was proposed to improve the performance of the solar water heater. The gap between the tube lights is filled with methane gas, and the tube inside is filled with water. The water thus filled is heated by sunlight. Methane gas acts as a fast conductor of solar heat. An electronic control device is placed to determine the temperature of the hot water and to expel the hot water. This device can heat at least 10 liters of water in 15 minutes. Increasing the number of incandescent tube lights can heat up a large amount of water when this device is set up, or it can be designed by replacing tube lights with a series of large glass tubes using the same technology. This tool can be manufactured at low cost so that people from all walks of life can use it.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
360	**Deep Learning-Based Smart Hybrid Solar Water Heater Erection Model to Extract Maximum Energy**	T. Sripriya	International Journal of Photoenergy	**SDG 7**	Due to the reduction of fossil resources, the replacement of renewable energy sources such as solar energy has become mandatory. Solar energy does not contain pollution and widely available in all parts of the world, especially in warm regions. Our country (IRAN) is geographically located in a hot and dry region, and with more than 280 sunny days per year, one of the nonpower applications of solar energy is heating space and water consumption of the building using solar thermal energy. Solar water heaters can be used to heat the water used in buildings, which is the main purpose of this study. Water heating consumes an average of 20% to 30% of the total energy consumption in the residential building. Therefore, using solar water heaters annually can provide 70% of the energy needed for water heating. The system designed in this research is able to provide 75% of the hot water consumption needs. If an auxiliary heat source is used next to this system, all hot water needs of the building can be met throughout the year. In this case, as much as 237.3 kWh, energy will be saved from fossil energy sources.
361	**Multicluster Analysis and Design of Hybrid Wireless Sensor Networks Using Solar Energy**	S.S.sivaraju	International Journal of Photoenergy	**SDG 7**	A wireless touch network is a distributed, self-organizing network of multiple sensors and actuators in combination with multiple sensors and a radio channel. Also, the security area of such a network can be several meters to several meters. The main difference between wireless sensor networks from traditional computer and telephone networks is the lack of a fixed infrastructure owned by a specific operator or provider. Each user terminal in a touch network is capable of acting as a terminal device only. Despite the long history of sensor networks, the concept of building a sensor network is not finally imposed and expressed in some software and hardware (platform) solutions. In this paper, the design and analysis of multicluster model of the sensor nodes in wireless sensor network with the help of solar energy. This proposed model provides the required energy to transmit the information between two end nodes in different cluster. The communication between the end to end clusters was increased based on this design. The implementation of sensory networks at the current stage depends largely on the specific needs of the industrial problem. The architecture, software, and hardware implementation technology is at an intensive development stage, attracting the attention of developers looking for a technological niche of future makers.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
362	**Quantum Dot loaded BQCA-Octadecylamine conjugate nanosystems for theranostic applications in Alzheimerâ€™s Disease**	Nandhakumar sathyamoorthy	Alzheimer's & dementia: the journal of the Alzheimer's Association	**SDG 3**	Alzheimer´s Disease (AD) is one of the most common types of dementias in the world and is characterized by progressive, irreversible neurodegeneration. Benzyl quinolone carboxylic acid was shown to have beneficial in management of AD. The current challenge with BQCA is its low brain half-life, permeability and rapid elimination. The above challenge can be answered by formulating lipid drug conjugates of BQCA, with octadecyl amine (BQCA-ODA). Quantum dots (QDs) with their unique optical properties, with high sensitivity and stability emerging as theranostic agents in several neurodegenerative diseases. Hypothesizing the co-delivery of QDs and BQCA for the effective treatment of AD, in the present study we have formulated lipid nano carriers loaded with quantum dots (QDs) surface modified with Polysorbate 80, called PS80-QD-BQCA-ODA-NPs, for integrating imaging and therapy for effective management of AD. BQCA was conjugated to Octadecyl amine (ODA), to form BQCA-ODA LDC conjugate. The amphiphilic nature of the BQCA-ODA conjugate allows the formation of self-assembled nanoparticles. Here, we have employed solvent injection method followed by sonication, while addition of QDs in the organic phase and P80 in the aqueous phase to form PS80-QD-BQCA-ODA-NPs . The optimized formulation was evaluated for physicochemical properties (particle size, zeta potential and polydispersity index) surface morphology and in vitro drug release. The in vitro biocompatibility of the PS80-QD-BQCA-ODA-NPs was assessed on RBC and SHSY-5Y cell lines. Further the application of PS80-QD-BQCA-ODA-NPs was assessed by in vivo imaging and behavioural studies on STZ induced mice models of AD. The formation of BQCA-ODA conjugate formation was confirmed 13C-NMR, 1H-NMR, LC-MS. The optimized PS80-QD-BQCA-ODA-NPs were found to have a near spherical shape with a particle size (PS) of 152.62 ± 1.82 nm, zeta potential (ZP) of 18.59 ± 0.56 mV and polydispersity index (PDI) of 0.214±0.08. PS80-QD-BQCA-ODA-NPs. The NPs shown improved brain permeability, with greater fluorescence intensity in mouse brains when compared to free QDs. In the in vivo efficiency studies PS80-QD-BQCA-ODA-NPs shown a significant improvement in memory in mice models. The PS80-QD-BQCA-ODA-NPs nanomedicine was
363	**Survey on Unassailable Embedding of Testimony over Cyberspace Using Image Steganography**	Bin Li	Journal of Information Hiding and Multimedia Signal Processing	**SDG 16**	Steganography and steganalysis are important topics in information hiding. Steganography refers to the technology of hiding data into digital media without drawing any suspicion, while steganalysis is the art of detecting the presence of steganography. This paper provides a survey on steganography and steganalysis for digital images, mainly covering the fundamental concepts, the progress of steganographic methods for images in spatial representation and in JPEG format, and the development of the corresponding steganalytic schemes. Some commonly used strategies for improving steganographic se-curity and enhancing steganalytic capability are summarized and possible research trends are discussed.
364	**Design and Implementation of IoT based Smart Cultivation and Soil Moisture Monitoring System**	C Andal	Handbook of Research on Innovations and Applications of AI, IoT, and Cognitive Technologies	**SDG 9**	We know that the agricultural sector requires manual work for sure due to various reasons. Nowadays farmers are facing many problems to grow up the fruits and vegetables for us. This is because it is very difficult to know the conditions of land such as water level, soil moisture and many more parameters without the physical presence of farmers at the agricultural farm. During the month of April and May, they find it very difficult to perform agricultural activities as the land dries within a certain period. Therefore, here we are implementing a research work, which will give the whole data about the farm cultivation. By the help of these research work farmers gets much relief in farm cultivation and the growth of crops will be not affected by these conditions.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
365	**Realism in Dickensâ€™ Novels**	Dr. SATRUGHNA SINGH	International Journal of English Language, Literature and Translation Studies (IJELR	**SDG 8**	From time immemorial, it has been acknowledged that literature has a fond relationship with the realistic portrayal of society. However, few writers of a few particular periods depict their society uniquely in their literary works. One such writer is Charles Dickens from the Victorian period, who presented his time's realism uniquely in his novels. The most important aspect of his realism is that he has not shown any biasness while portraying the picture of his contemporary society. As a result, both poor and rich, hero and villain, virtues and vices find a place in his novels. Thus, reading Dickens' novels is like reading about the society of his time. This paper will explore how Dickens' novels depict realism intensely with a special reference to the history of realism in literature.
366	**A Study on Listening Skill and Achievement in Educational Psychology of Bachelor of Education Students**	Dr.Renga raj	International Journal of Special Education	**SDG 4**	The researcher aims to find out the significant relationship between listening skill and achievement in Educational Psychology. The data collected with regard to listening skill and achievement in Educational Psychology of B.Ed. students were analyzed with reference to the objectives and hypotheses of the study subjected to the following statistical analysis namely Correlation Analyses, Differential Analyses. From differential analysis, there is significant difference in Listening skill regarding communities and among universities and there is significant difference in achievement in Educational Psychology regarding communities and among universities. On the other hand, from differential analysis, there is no significant difference in Listening skill in Educational Psychology regarding sex and there is no significant difference in Achievement in Educational Psychology regarding sex.
367	**Analysis of influencing features with spectral feature extraction and multi-class classification using deep neural network for speech recognition system**	Dinesh Anguraj	International Journal of Speech Technology	**SDG 9**	There is a drastic need for extracting information from non-linguistic features of the audio sources. It leads to the eminent rise of speech technology over the past few decades. It is termed computational para-linguistics. This research concentrates on extracting and providing a robust feature that examines the characteristics of speech data. The factors are analysed in a spectral way which stimulates the auditory elements. The speech enhancement technological process is being initiated with pre-processing, feature extraction, and classification. Initially, the input data conversion is done with ADC of 16 kHz sampling frequency. The spectral features are extracted with minimal Mean Square Error to enhance the re-construction ability and eliminate the redundancy characteristics. Finally, the deep neural network is adopted for multi-class classification. The simulation is performed in MATLAB 2020a environment, and the empirical outcomes are evaluated with existing approaches. Here, metrics like Mean Square Error, accuracy, Signal-to-Noise ratio (SNR) and features retained are computed efficiently. The anticipated model shows a trade-off in contrast to prevailing approaches. The outcomes demonstrate a better recognition rate and offer significant characteristics in selecting the most influencing features.
368	**RETRACTED ARTICLE: Powerful basic frequency extraction from monophonic signs utilizing versatile sub-band separating**	K.loheswaran	International Journal of Speech Technology	**SDG 8**	The Editor-in-Chief and the publisher have retracted this article. The article was submitted to be part of a guest-edited issue. An investigation by the publisher found a number of articles, including this one, with a number of concerns, including but not limited to compromised editorial handling and peer review process, inappropriate or irrelevant references or not being in scope of the journal or guest-edited issue. Based on the investigation's findings the Editor-in-Chief therefore no longer has confidence in the results and conclusions of this article. The authors M. Prabu and V.R. Niveditha disagree with the retraction. The remaining authors have not responded to correspondence regarding this retraction. The online version of this article contains the full text of the retracted article as Supplementary Information.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
369	**Effective prediction of bitcoin price using wolf search algorithm and bidirectional LSTM on internet of things data**	V.R. Niveditha	International Journal of System of Systems Engineering	**SDG 11**	Internet of things is the concept of establishing relationships and interactions with other connected devices through a network to reach a specific objective. The collected data from devices could be transformed into valuable insights by applying some intelligent learning algorithms. A distributed, permission less ledger called IOTA (MIOTA) manages micro transactions between multiple devices with the help of IoT. It provides the information about the transactions made with the specific type of crypto currency in the market. In this paper, an effective crypto currency price prediction model is proposed to identify the fluctuations in currency value from the past one-year data. Wolf search optimisation algorithm selects the best performing feature subset. Bidirectional long short-term memory (BiLSTM) model is employed to train and validate the data captured from the feature selection process. The proposed model attained 93% accuracy, significantly higher than the existing methods, portraysits significance and efficacy.
370	**A novel way to compute association rules**	S.J.Vivekanandan	International Journal of System Assurance Engineering and Management	**SDG 11**	Association Rule mining is the prime booming field among researchers. Apriori algorithm is a prime algorithm to compute association rules. Apriori algorithm considers only frequent itemsets and it neglects the non-frequent itemsets. In real-time scenarios, Non-frequent itemsets also have the chance to give more utility. Utility mining is a newish form of data mining study topic that focuses solely on high utility itemsets computed from utility values. To overcome this problem, we proposed an approach that incorporates both frequent and utility values called the Novel Utility Frequent Apriori algorithm. This approach considered both frequent itemsets together with non-frequent itemsets. Utility computed for both frequent itemsets and rare itemsets. Finally, it categorized the itemsets based on utility value and frequent value like High-Profit High Frequency, High-Profit Rare Frequency, Low-Profit High Frequency, and Low-Profit Rare Frequency itemsets. Repeated transactions were handled efficiently by our proposed method. We experimented with different datasets by using python, The Novel Utility Frequent Apriori method surpasses the classic Apriori algorithm in terms of time i.e. average rate of time reduction was 63% with first experiment and 82% with second experiment. We found that our approach is effective in categories of itemsets and also this approach will be useful in E-Commerce to make more profit, Medical field to discover new diseases and Banking sector to discover fraud activities.
371	**Assessment of cardiovascular technologists radiation exposure during percutaneous coronary intervention**	Thirumurugan E	Research Article - Interventional Cardiology	**SDG 3**	Percutaneous coronary intervention utilize an X-ray machine for visualization of coronary artery and it is considered as the major keystone in diagnosis of coronary artery disease. Cardiovascular technologists operate, maintain X-ray generating laboratory and they are susceptible to innumerable radiation dose. Minimizing radiation in the cardiac catheterization laboratory is important to prevent long term complications. To minimize the cardiovascular technologists radiation exposure without compromising the quality of PCI, deep understanding of factors which are associated with high radiation exposure is needed.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
372	**Comparison of the Effects of Task Oriented Balance Training Versus Blindfolded Balance Training in Patients with Parkinsonâ€™s Disease**	Sudha, N.	Creative Commons Attribution	**SDG 4**	The purpose of this study was to find the efficacy of task oriented balance training and blindfold balance training to improve postural balance in patients with Parkinson's disease. Materials and Methods: A comparative study was done with 20 samples. The study was conducted in kriston clinic. The duration of treatment was 8 weeks. Both male and female individuals with Parkinson's disease in concern about falling, instability and balance problem, between the age group of 50-55 were included. PD with other neurologic diagnosis, severe impairments, cardiac problem, uncooperative are excluded. The measurements were taken using Unified Parkinson's Disease Rating Scale (UPDRS) and Berg balance scale (BBS). Based on inclusion and exclusion criteria and outcome measures, 20 subjects with Parkinson disease (PD) were divided into two groups. Group A- 10 subjects were treated by using Blind folded balance training and Group B-10 subjects were treated by using Task Oriented balance training. Before the onset of treatment protocol, the technique was explained to the patients and informed concern was taken from the patients. The baseline measurements were taken by using Unified Parkinson's Disease Rating Scale (UPDRS) and Berg balance scale (BBS).
373	**Plain Kevlar and a CNT-reinforced Kevlar epoxy polymer composite: Comparative study of its mechanical, low velocity and ballistic impact properties**	Ravindran Prabhu	IRANIAN POLYMER JOURNAL (ENGLISH)	**SDG 3**	This study focuses on the development of an advanced material using Kevlar-reinforced Polymer epoxy Composites reinforced with 1% carbon Nanotubes for armor application. The tensile strength, flexural strength, low-velocity Impact strength, and ballistic Impact strength were analyzed for plain Kevlar reinforced epoxy Composite and multi-walled carbon Nanotubes reinforced Polymer Composite. The sonification method was employed in the current research to acquire a uniform mixture of multi-walled carbon Nanotubes in epoxy resin for fabricating multi-walled carbon Nanotubes reinforced Kevlar epoxy Composites. All the tests were conducted under standard test conditions. The results showed the addition of 1% multi-walled carbon Nanotubes in Kevlar epoxy Polymer Composites has decreased the tensile strength, flexural strength, low-velocity Impact resistance, and ballistic Impact resistance. The common reason for the decrease in properties of the Composite is the increased agglomeration of multi-walled carbon Nanotubes in the epoxy matrix, which allows an increase in porosity of the multi-walled Nanotubes reinforced Kevlar epoxy Composite compared to plain Kevlar epoxy Composite. Maximum tensile strength is 197. 10 MPa and maximum flexural strength is 131. 98 MPa for plain Kevlar epoxy Polymer Composite. The common failure mechanisms observed during testing were deformation, fiber cracking, matrix cracking, intercrystalline fracture, and agglomeration.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
374	**A cross-sectional study on assessing depression among hemodialysis patients**	Mahmodi mohammed reza	JOURNAL OF KERMAN UNIVERSITY OF MEDICAL SCIENCES	**SDG 3**	Background: We sought to determine whether there is a linear trend between different levels of depression and different food security/insecurity situations in patients with diabetes mellitus. Methods: Two hundred women with diabetes mellitus referred to the diabetic clinic of Shaheed Bahonar, Kerman/ Iran and aged 35-75 years were enrolled randomly in a descriptive-analytic cross-sectional study. The patients completed Beck depression Inventory-II (BDI-II) and Food Security Questionnaire (HFIAS). Pearson's Chi-Square test was carried out to assess whether depressive disorders and household food security/insecurity were related. Results: There was a significant association between the four-level variable of depressive disorders and the four-level variable of food security/insecurity (X 2 ≥ 29. 545, p=0. 001). There was a significant association between the two-level variable of depressive disorders and the four-level variable of food security/insecurity (X 2 ≥ 9. 878, p=0. 020). There was also a significant association between the two-level variable of depressive disorders (normal and depressive diabetic patients) and the two-level variable of food security/insecurity (food secure and insecure diabetic patients) (X 2 ≥ 6. 073, p=0. 014). About half (47%) of the patients with mild to extreme depression had mild to severe food insecurity. However, two-thirds of the patients in the normal situation were food secure (p=0. 014). Conclusion: We found enough evidence to suggest a significant association between household food security/insecurity and depressive disorders. The value of the linear by linear association test for trend was shown to be significant and indicated that household food insecurity trends to rise with values of depressive disorders. Therefore, the more severe the depression, the greater the food insecurity.
375	**Comparison of peritubal infiltration and single level T10 paravertebral block in percutaneous nephrolithotomy (PCNL)**	K.Shankar	Journal Logo	**SDG 3**	In percutaneous nephrolithotomy (PCNL), distension of renal capsule, pelvicalyceal system and nephrostomy tube causes intense postoperative pain. The present study was done to compare the efficacy of peritubal infiltration of Ropivacaine with Dexmedetomidine and ultrasound guided single level T10 paravertebral block for post-operative analgesia in patients undergoing PCNL.
376	**Anti proliferative potentials of Excoecaria agallocha Leaf extract in human breast cancer cell line- an antioxidant enzyme approach**	Palagati rohit kumar reddy	The Journal of Applied Pharmaceutical Science	**SDG 3**	In this investigation, an attempt has been made to study the anticancer potential of ethanolic extract of Excoecaria agallocha (EEEA) leaves in terms of their restoration of altered antioxidant status in human breast cancer (MCF-7) cell line. The MCF-7 cell line which was primarily passaged was used for this study. Approximately 4 × 105 cells in each well were divided into four groups and the following treatments were given. Group-I control cells without any treatment, group-II cells were treated with EEEA 25 µg/ml, and group–III cells were treated with EEEA 50µg/ml, respectively. Group-IV cells were treated with doxorubicin (10µg/ml), the positive control used in this study. The treated cells were incubated at 37°C for 24 hours in a CO2 incubator. The enzymatic antioxidants such as catalase (CAT), superoxide dismutase (SOD), glutathione reductase (GR), glutathione S-transferase (GST), and glutathione peroxidase (GPX) as well as non-enzymatic antioxidants such as glutathione, vitamin E, and vitamin C were estimated in the treated MCF-7 cells at the end of incubation. In this study, there was a significant ($p < 0.05$) increase in CAT and glutathione levels and a decrease in vitamin C, vitamin E, SOD, GR, GST, and GPX levels in the untreated MCF-7 cells. It can be concluded that the ethanolic extract of the EEEA leaf exerts its anticancer activity by modulating the antioxidant enzymes.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
377	**Energy-efficient retrofitting with exterior shading device in hot and humid climate â€“ case studies from fully glazed multi-storied office buildings in Chennai, India**	Chockalingam chandrasekharan	Journal of Asian Architecture and Building Engineering	**SDG 3**	Many existing buildings are not sustainable, such as poorly-insulated office buildings with large glass window panels that significantly increase the cooling energy use in a hot and humid climate. As a sustainable option, energy-efficient retrofitting can substantially reduce energy use through a passive façade design. For this climate, the exterior shading can mitigate solar insolation, offer cooling load reductions, and improve daylight distribution. This paper suggests simulation as a method for selecting a façade retrofit solution at the early design stage. A façade retrofit solution that requires the integration of all three sustainability dimensions: energy efficiency, visual comfort, and economics. The study creates a simulation model for testing the energy use in E-Quest and daylighting performance in Insight, a plugin for Revit. Two case studies of fully glazed multi-storied office buildings of different sizes demonstrate the methodology. This research adopted two simulation methods: one for façade retrofit solutions with fixed exterior shading device (ESD) types and the other for a dynamic ESD. The results show that fixed ESD with perforated fabric for 100% of the glazing area was 22.7% energy-saving retrofitting solution than the base case for the small sample and 17% energy-saving for the large sample with a low payback periods of 7 years for both the case sample. Building practitioners, stakeholders, and end-users can use this simulation methodology for a successful façade retrofit decision-making at the early design stage.
378	**Role of primary cilia and Hedgehog signaling in craniofacial features of Ellis-van Creveld syndrome**	Janani Dakshina Murthy	Special Issue:Cilia-Associated Disorders	**SDG 3**	Ellis–van Creveld syndrome (EvC) is an autosomal recessive genetic disorder involving pathogenic variants of EVC and EVC2 genes and classified as a ciliopathy. The syndrome is caused by mutations in the EVC gene on chromosome 4p16, and EVC2 gene, located close to the EVC gene, in a head-to-head configuration. Regardless of the affliction of EVC or EVC2, the clinical features of Ellis–van Creveld syndrome are similar. Both these genes are expressed in tissues such as, but not limited to, the heart, liver, skeletal muscle, and placenta, while the predominant expression in the craniofacial tissues is that of EVC2. Biallelic mutations of EVC and EVC2 affect Hedgehog signaling and thereby ciliary function, crucial factors in vertebrate development, culminating in the phenotypical features characteristic of EvC. The clinical features of Ellis–van Creveld syndrome are consistent with significant abnormalities in morphogenesis and differentiation of the affected tissues. The robust role of primary cilia in histodifferentiation and morphodifferentiation of oral, perioral, and craniofacial tissues is becoming more evident in the most recent literature. In this review, we give a summary of the mechanistic role of primary cilia in craniofacial development, taking Ellis–van Creveld syndrome as a representative example.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
379	**Cardiac MRI in myocardial infarction without obstructive coronary artery disease (MINOCA) helps arrive at correct diagnosis - A case report and discussion**	Amit Bandari	The National Center for Biotechnology Information	**SDG 3**	Myocardial infarction without obstructive coronary artery disease (MINOCA) is a common condition with estimated prevalence of 5 to 15 %. It is not a benign condition and diagnosing the exact underlying etiology can be challenging, but it is important to ensure appropriate management of MINOCA patients. Cardiac magnetic resonance imaging (CMRI) can be a valuable and non-invasive test to identify the underlying etiology, as well as to risk-stratify such patients. Both the European Society of Cardiology and the American Heart Association recommend CMRI in diagnostic work up of MINOCA patients. We report a case of an 83-year-old man who presented to the emergency department with atypical chest pain but had significantly elevated cardiac troponin levels, with non-obstructive coronary artery disease on left heart catheterization. Subsequent CMRI led to the diagnosis of acute myocarditis. He was medically managed with good clinical outcomes. We discuss this case in detail and highlight the role of CMRI in MINOCA patients. As our understanding of troponin elevation and its various mechanisms continues to evolve, cardiac MRI has a significant role in diagnosis and management, as demonstrated in our case
380	**A Comparative study of Audio Visual Reaction Time Variability in Controlled and Uncontrolled Type II Diabetes Mellitus Patients**	Rekha k.N	Journal of Cardiovascular Disease Research	**SDG 3**	Neuropathy is one of the major microvascular complications of Diabetes Mellitus. Auditory (ART) and visual (VRT) reaction time were used in this study as diagnostic and prognostic tools for Diabetic Neuropathy
381	**Association of Sub Clinical Hypothyoidism with Microvascular Complications in Type2 Diabetes Mellitus Patients in A Tertiary Care Hospital**	Dr.K.Mohan	Journal of Cardiovascular Disease Research	**SDG 3**	The incidence of Thyroid dysfunction in diabetics is higher than that of general population. Undiagnosed thyroid dysfunction may affect the metabolic control and enhance cardiovascular and other chronic complications in diabetic patients. Diabetes mellitus is one of the most common disease in the world and is acquiring epidemic Proportions in developed and developing countries. Indians are genetically more susceptible to diabetes. The prevalence of Type 2DM is on the rise much more rapidly, which is due to increasing obesity and reduced activity levels. Several studies have assessed the relationship between thyroid function and micro-vascular complications in patients with T2DM. Few studies have examined the relationship between subclinical hypothyroidism(SCH) and vascular complications in patients with Type 2 diabetes mellitus.
382	**Cardiovascular Risk Assessment of Patients with Subclinical Hypothyroidism, Including Framingham Score, hsCRP, ECG &2D Echo**	Dr.Prashanth Rai	Journal of Cardiovascular Disease Research	**SDG 3**	Hypothyroidism is usually a progressive disease impacting almost all the bodily functions. Hypothyroidism is diagnosed when low levels of the thyroid hormones result in elevated levels of thyroid-stimulating hormone (TSH), whereas subclinical hypothyroidism (SCH) is diagnosed when TSH levels are elevated above the upper limit of the assay reference range with normal thyroid hormone levels. As the heart is the main target of thyroid hormone activity, hypothyroidism may precipitate or aggravate heart failure, influencing heart rate and blood pressure (BP) while increasing cardiovascular (CV) stiffness and also cardiomegaly. Subclinical hypothyroidism can cause changes in cardiovascular function same as observed in overt hypothyroidism there by indicating that cardiac effects progress from subclinical disease through overt hypothyroidism
383	**Assessment Of Clinical and Laboratory Evaluation of Sicca Complaints in Patients of Sjogenâ€™s Syndrome**	Fabiola reis de Oliveria	Clinical and laboratory evaluation of sicca complaints	**SDG 3**	jögren Syndrome (SS) is a systemic autoimmune disease with a wide spectrum of manifestations that can lead to misdiagnosis. This study describes and compares demographic, clinical, serological, and histopathological data from subjects with SS and non-Sjögren Syndrome (NSS). It also details specific features within the primary SS (pSS) and secondary SS (sSS) groups identifying sub-groups.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
384	**Echocardiographic Evaluation of Diastolic Dysfunction among Menopausal Women: A Cross-sectional Study**	E.THIRUMURUGAN	Echocardiographic Evaluation of Diastolic Dysfunction	**SDG 3**	: Heart Failure with Normal Ejection Fraction (HFNEF), also known as Diastolic Heart Failure (DHF), has been well-studied since the past two decades. The signs of HFNEF are signs of heart failure and abnormal ventricular filling pressure with normal systolic function. A Metabolic Syndrome (MS) is a clustering of metabolic risk factors. Cardiovascular disease caused by metabolic syndrome includes vascular and myocardial abnormalities such as diastolic dysfunction and relaxation abnormalities
385	**Effect of Yogic Breathing Manoeuvre on Pulmonary Function and VO2 Max in Male Football Players**	SHUBHAM JANGAM	Echocardiographic Evaluation of Diastolic Dysfunction	**SDG 3**	Yoga has proven to improve spiritual as well as psychophysiological behaviour of a human being. This helps them to perform better in their game improving abdominal strength and gives benefits to every player's need. It also helps improve both physical and mental health.
386	**Yoga Intervention for Patients with Systemic Lupus Erythematosus- A Research Protocol**	R SHOBHANA	Echocardiographic Evaluation of Diastolic Dysfunction	**SDG 3**	Systemic Lupus Erythematosus (SLE) is one of the most common systemic autoimmune diseases with a wide range of clinical manifestations. SLE patients experience periods of exacerbation or flare and quiescent disease activity. An increase in the frequency of exacerbations or flares causes permanent organ damage, increased morbidity, and early mortality, which are mainly due to the increased activity of immune-mediated inflammatory reactions. Yoga interventions have an immunemodulatory potential that regulates the psycho-neuro-immune axis, moderates disease activity, and improves the Quality Of Life (QOL) for patients.
387	**Effects of COVID-19 Lockdown on Clinical Practice among Undergraduate Dental Students in Tamil Nadu- A Survey**	ABHIRAMI VETEI SELVAN	Effects of COVID-19 Lockdown on Clinical Practice among Undergraduate Dental Students in Tamil Nadu- A Survey	**SDG 3**	: The Coronavirus Disease-2019 (COVID-19) pandemic had not only developed as a key challenge to public health all around the world but also instigated physical and mental constraints on he healthcare professionals especially on the education of dental students with the sudden switch from traditional teaching methodsto e-learning platforms thereby shutting allmeans of clinical experiences
388	**A Cross-sectional Study on Knowledge, Section Attitude, and Practice Regarding Notification of Tuberculosis Patients by Private Practitioners of Urban Chennai, India**	Himal Mondal	Journal of Clinical and Diagnostic Research	**SDG 3**	India accounts for one-fourth of global incidence of Tuberculosis (TB) with 2.79 million estimated cases, annually. To improve and intensify case finding, the Government of India declared TB a notifiable disease in May 2012. It is now mandatory that, all public and private health providers notify TB cases to the designated public health authorities. To facilitate notification, the central government has created a web-based, case-based notification system called Nikshay. Notification also provides support to the private sector in adherence to standards of TB care which helps in the monitoring of the patients, contact screening and adherence to the treatment.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
389	**Histomorphometrical Study of Placental Villi in Preeclampsia: A Case-control Study**	K.Devi shankar	Development/Regeneration Anatomy & Cell Biology	**SDG 3**	Placental morphology and cellular arrangement are altered in maternal diseases such as preeclampsia (PE) in which oxygen delivery from the mother to the fetus is greatly disturbed, ultimately resulting in cellular oxidative stress. The present study was conducted at the Department of Anatomy and included 112 placentas (56 each from mothers with and without PE [controls]) collected at the Department of Obstetrics and Gynecology. A histological study was performed using hematoxylin and eosin staining. The morphology of stem and terminal villi (TV) was studied, and the surface area and diameter of TV and capillaries were measured. The gross placental morphometrical study revealed that the mean placental weight, thickness, diameter, and surface area were significantly lower in placentas with PE than in controls. The histomorphometrical findings of the villous surface area and diameter were lower in placentas with PE, whereas the TV density was higher in placentas with PE than in controls, and the differences were significant (P<0.0001). In these TV, the diameter and density of fetal blood vessels of placentas with PE were significantly lower than those of controls (P<0.05). In conclusion, the both morphological and histological changes in PE placentas are indicative of the pathogenesis of maternal and fetal morbidity and mortality in women with PE. The observed and comparative histomorphometrical changes indicate a decline in all aspects of the PE placenta, except the number of TV.
390	**Substance Dependence and Risk Factors for Suicide Attempt: A Retrospective Study**	MYTHREYI PAGURI	Journal of Clinical and Diagnostic Research	**SDG 3**	Suicide is closely linked to substance abuse and it is one of the main component of premature death.
391	**A Rare Case Report of a 8-weeks-old Infant with Hypercalcaemia and Subcutaneous Fat Necrosis**	SAMAGANI AKSHAY	IP Indian Journal of Clinical and Experimental Dermatology	**SDG 3**	Subcutaneous fat necrosis of newborn is a rare cutaneous disorder affecting neonates. It usually presents as subcutaneous nodules or plaques, within the first few weeks of life, following an eventful delivery. It ischaracterized by hypercalcemia, which may present with lethargy, irritability, hypotonia and dehydration,mimicking sepsis. Histopathology is proven to be the gold standard in diagnosis with characteristiclobular panniculitis, mixed inflammatory cell infiltrate and radially arranged crystals. This needs to be differentiated from other causes of lobular panniculitis, as early diagnosis and treatment to prevent long-term complications are advocated. Education of parents regarding the disease and danger signs of hypercalcemia and weekly monitoring of serum calcium is recommended. Treatment based on rehydration,dietary vitamin D and calcium restriction, Furosemide and prednisolone are considered. We have discusseda case of subcutaneous fat necrosis, in an 8-week-old male baby. Key Messages: Subcutaneous fat necrosis is an important differential in neonates presenting with palpable subcutaneous nodules, along with sclerema neonatorum. Severe complications like hypercalcemia should be detected early and managed aggressively to prevent morbidities and mortalities associated with it.Symptomatic management, use of calcium lowering drugs and regular monitoring of calcium levels are recommended.
392	**PULP Score vs AAST EGS Grading System in Prediction of Outcome of Perforated Peptic Ulcer Disease: A Retrospective Study**	B.Bharath	Journal of Clinical and Diagnostic Research	**SDG 3**	Peptic Ulcer Disease (PUD) is the most common diagnosis for upper abdomen pain, and it includes ulcerations and erosion in the stomach and duodenum. Complication such as Perforated PUD (PPUD) is only second to bleeding and remains a life-threatening emergency.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
393	**Para-Adnexal Cysts- A Clinicopathological Study**	Sowjanya Bandi	International Journal of Reproduction, Contraception, Obstetrics and Gynecology	**SDG 3**	Adnexal mass is a common clinical presentation among women of all age groups and is extremely common among reproductive age groups. It may be gynecological or non-gynecological origin. The exact prevalence of adnexal mass could not be determined, as most of them develop and resolve without any clinical symptoms. Adnexal mass poses a special perplexity to the attending gynecologists, because the differential diagnosis is extensive and most masses are benign. Differential diagnosis of adnexal mass is complex and includes benign and malignant ovarian tumors, functional cysts, para ovarian cysts, tubo-ovarian abscess, ectopic pregnancy, hydrosalpinx, fimbrial cyst, tubal malignancies, broad ligament fibroid.
394	**Need for intensive care admission based on point-of-care measurement of serum lactate levels in early trauma care**	Arul Kumar Nallakuraswamy	National library of Medicine	**SDG 3**	Trauma is the leading cause of preventable death in the world. The time delay in presentation and the lack of knowledge about the availability of early markers of severity assessment decrease the success of survivability. The serum lactate analyses help the intensivist in effective triaging and thereby sorting out the indeed need of trauma victims for early intensive care management. Moreover, it guides orthopaedic surgeons, on when they should impart definitive surgery on polytrauma patients. Serum lactate analysis is an excellent 'resuscitation predictor' and its value have well utilized for framing a resuscitation protocol in advanced trauma care. The objective of this review is to enlighten the usage of serum lactate analysis at the point of early trauma care. Nevertheless, it describes the application of a continuous lactate monitoring system using sensor-based technologies in sports as well as trauma medicine.
395	**Bacteriophage therapy in infection after fracture fixation (IAFF) in orthopaedic surgery**	Madan JayaRaman	Journal of Clinical Orthopaedics and Trauma	**SDG 3**	Infection after fracture fixation (IAFF) in orthopaedic surgery is a significant complication that can lead to disability due to chronic infection and/or relapsing disease, non-union necessitating revision surgery. Management of IAFF is a major challenge facing orthopaedic surgeons across the world due to two key pathogenic mechanisms of Biofilm formation and antimicrobial resistance (AMR) against traditional antibiotics. Advanced prophylactic and treatment strategies to help eradicate established infections and prevent the development of such infections are necessary. Bacteriophage therapy represents an innovative modality to treat IAFF due to multi-drug resistant organisms. We assess the current role and potential therapeutic applications of the novel bacteriophage therapy in the management of these recalcitrant infections to achieve a successful outcome.
396	**Awareness and Attitude toward the Replacement of Missing Teeth among Patients at a Dental Institute: A Cross-sectional Study**	Ranjani Thillaigovindan	National library of Medicine	**SDG 3**	The replacement of missing teeth is important in rehabilitating the form, function, esthetics, and integrity of the stomatognathic system. There are various treatment options available for replacing missing teeth. Very few patients are aware of all the options and the consequences of not replacing the posterior teeth.
397	**Efficacy of Fluoride Varnish with Casein Phosphopeptide and Amorphous Calcium Phosphate vs Fluoride Varnish in Prevention of White Spots Lesion in fixed Orthodontic Patients: In Vivo Study**	Sumanth Rangarajan	National library of Medicine	**SDG 3**	Through our study, we concluded that no statistical significance was found between the effectiveness of MI varnish and Fluoritop except in the cervical region where MI varnish was found to be more effective than Fluoritop in preventing WSLs.
398	**Portraiture and Double Bond Conversion of a Monomethacrylate-based Oral Prosthetic Resin Substituted with a Novel Tri(azine-acrylate) Cross-linker**	V Rakshagan	The Journal of Contempory Dental Practice	**SDG 3**	: To formulate, design, and chemically characterize a novel denture base resin (DBR) copolymer containing triazine-based antimicrobial comonomer and also to evaluate the double bond conversion (DC) in the copolymer with various concentrations of the comonomer by fourier transform infrared (FTIR) spectroscopy.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
399	**Evaluation of Reactive Oxygen Metabolites, Resistin, and Red Complex Bacteria in Obese Subjects with or without Periodontitis**	Patri Krishna Chaitanya	World Journal of Dentistry	**SDG 3**	To evaluate and compare the efficacy of surgical periodontal therapy (SurgPT) in conjunction with photodynamic-assisted surgery (PTAS) with SurgPT alone. Materials and methods: A total of 13 participants with stages II and III, with grades B and C periodontitis and contralateral probing pocket depths (PPD) ≥5 mm on at least two adjacent teeth, were randomly assigned to PTAS and SurgPT groups. Plaque index (PI), gingival index (GI), PPD, and clinical attachment level (CAL) were measured at baseline, 3, and 6 months. Red complex bacteria levels were measured using polymerase chain reaction (PCR) at baseline and 3 months. Results: All clinical parameters were reduced significantly in both groups. Intergroup comparison revealed that the PTAS group had a considerably higher PI and GI decrease. However, the difference in reduction of PPD and CAL was not significant at given time intervals. At 3 months, PCR evaluation showed a decrease in levels of red complex bacteria with no intergroup differences. Conclusion: Both the PTAS and SurgPT showed definitive improvement in all parameters. PTAS using indocyanine green (ICG) yielded a resolution of PI and GI, which can be attributed to the antimicrobial photodynamic therapy (PDT). Clinical significance: PTAS may be a safe alternative for systemic antibiotics in combination with SurgPT for the management of chronic periodontitis.
400	**Monocyte-to-High-density Lipoprotein Cholesterol Ratio as a Novel Inflammatory Marker in Periodontal Disease: A Pilot Study**	T A Lalitha	The Journal of Contempory Dental Practice	**SDG 3**	The monocyte-to-high-density lipoprotein cholesterol ratio (MHR) has currently been proposed as an indicator of inflammation. The aim of the present study was to assess the relationship between the monocyte-to-high-density lipoprotein cholesterol ratio and periodontal health and disease. Materials and methods: A total of 90 patients were selected for the study – 30 healthy patients (group I) and 60 periodontitis patients (groups II and III). All the patients were subjected to blood sampling and serum malondialdehyde (MDA), high-density lipoprotein cholesterol (HDL) levels and monocyte counts were estimated. Results: Monocyte-to-high-density lipoprotein cholesterol ratio was 80.64 ± 28.71 for patients with moderate periodontitis (group II), 95.14 ± 53.21 in severe periodontitis (group III), and 14.28 ± 16.05 for the healthy patients. Monocyte-to-high-density lipoprotein cholesterol ratio values were found to be statistically significantly higher than the control group ($p < 0.001$). Monocyte-to-high-density lipoprotein cholesterol ratio also showed significantly positive correlation with the severity of periodontitis. Conclusion: Malondialdehyde and MHR are increased in periodontal disease and correlate with severity of the periodontal disease. Clinical significance: Monocyte-to-high-density lipoprotein cholesterol ratio is a novel, readily available inflammatory and oxidative stress marker in patients with periodontitis and can be useful to evaluate periodontitis and disease severity.
401	**Effect of Frequency of Micro-osteoperforation on Miniscrewsupported Canine Retraction: A Single-centered, Split-**	Sudhakar Venkatachalapathi	The Journal of Contempory Dental Practice	**SDG 3**	The present study aimed at evaluating the increase in the rate of tooth movement by increasing the number and frequency of micro-osteoperforations (MOPs).
402	**A Therapeutic Trial Comparing Modified Autoinoculation, a Novel Approach with Topical Potassium Hydroxide Application in the Treatment of Molluscum Contagiosum**	Akshay Samagani	National library of Medicine	**SDG 3**	Molluscum contagiosum (MC) is a common viral cutaneous infection. Despite multiple treatment options, there is no definitive treatment. In some cases, the lesions are severe, recurrent, and cosmetically odd. Modified autoinoculation (MAI) is a novel technique that induces cell-mediated immunity resulting in clearance of local as well as distant lesions. Potassium hydroxide (KOH) acts by dissolving the keratin and penetrating deeply destroys the hyperproliferative tissue. We would here like to compare MAI with topical KOH in the treatment of MC.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
403	**An outbreak of Leclercia adecarboxylata from a tertiary neurocare center: A systematic approach, control and preventive measures**	Benachinamadri	J Datta Meghe Inst Med Sci Univ	**SDG 3**	Hospital-acquired infection (HAI) outbreaks are special-cause events having multiple factors involved in it. HAI outbreaks often reflect problems that are unique, urgent, unusual, or difficult to control. There are only a few case reports and case series of Leclercia adecarboxylata reported in the literature. Materials and Methods: The outbreak occurred in a 1000-bedded tertiary neurocare center. There was sudden isolation of an unusual organism from different samples such as tracheal secretion, ventriculo-peritoneal shunt tip, pus, wound swab, urine, and blood. All the samples were processed according to the standard protocol and antibiotic susceptibility was carried out by Kirby–Bauer disk-diffusion method and interpreted according to the Clinical and Laboratory Standards Institute guidelines. All the isolates were subjected to VITEK-2 system for confirmation. The steps involved in outbreak investigation were (1) case definition, (2) case confirmation, (3) establishing the background rate of disease and finding cases, (4) identification of source, (5) control measures, (6) communicate findings, and (7) maintain surveillance.
404	**Clinical Outcome of Nonsurgical Root Canal Treatment Using a Matched Single-Cone Obturation Technique with a Calcium Hydroxideâ€“based Sealer: A Retrospective Analysis**	Arunajatesan Subbiya	Journal of Endodontics	**SDG 3**	Introduction The aim of this retrospective study was to estimate the outcome of non-surgical root canal treatment using matched single-cones with a calcium hydroxide-based sealer and to identify the various prognostic factors influencing the outcome. Methods This was a retrospective study which enrolled 272 patients who underwent routine endodontic therapy and were obturated with matched single-cones (Dentsply Maillefer, Switzerland) and Sealapex as sealer (Sybron-Kerr, USA). This study involved 223 patients with 261 teeth meeting the selection criteria and recalled between 24 and 84 months. The outcome was categorized as success (healed/healing clinically and radiographically) or failure (not healed clinically and/or radiographically). Two calibrated examiners assessed the treatment outcomes. A binomial logistic regression model was performed to identify the effect of various prognostic factors. Chi-square test was used to find the association between sealer extrusion and the initial PAI scores. Results The overall success rate was found to be 89.7% for a mean recall period of 39.18 (±11.05) months. An increase in age was associated with increased odds of success, while the success rates were reduced by an increase in the number of roots and negative pulp sensibility status. Initial PAI scores, presence of pre-operative sinus tract, number of visits and sealer extrusion did not affect the outcome significantly (P>0.05). Conclusion Within the limitations of this study, it was found that teeth obturated with matched single-cone and Sealapex achieved substantial success rates. Sealer extrusion did not have any significant effect on the treatment outcome.
405	**CONDITION MONITORING AND PREVENTIVE MAINTENANCE IN DIGITAL CHECKLIST FOR MACHINERY USING ANIMATION**	Martin Pech	MDPI Journals	**SDG 3**	With the arrival of new technologies in modern smart factories, automated predictive maintenance is also related to production robotisation. Intelligent sensors make it possible to obtain an ever-increasing amount of data, which must be analysed efficiently and effectively to support increasingly complex systems' decision-making and management. The paper aims to review the current literature concerning predictive maintenance and intelligent sensors in smart factories. We focused on contemporary trends to provide an overview of future research challenges and classification. The paper used burst analysis, systematic review methodology, co-occurrence analysis of keywords, and cluster analysis. The results show the increasing number of papers related to key researched concepts. The importance of predictive maintenance is growing over time in relation to Industry 4.0 technologies. We proposed Smart and Intelligent Predictive Maintenance (SIPM) based on the full-text analysis of relevant papers. The paper's main contribution is the summary and overview of current trends in intelligent sensors used for predictive maintenance in smart factories.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
406	**Awareness of Myocardial Infarction Risk Factors among Secondhand Smokers**	J Multidiscip Healthc.	National library of Medicine	**SDG 3**	The objectives of this study were to assess second-hand smoke (SHS) exposure among coronary heart disease (CHD) patients at home, in transportation, workplace, public and social places; to examine the demographic factors that predict SHS exposure; and to investigate the relationship between SHS exposure and CHD complications, age at the time of diagnosis, and number of admissions in the last years.
407	**Combined Experimental and Theoretical Investigations on 9-[3,4-dihydroxy-5-(hydroxymethyl)oxolan-2-yl]-1,9-dihydro-6H-purin-6-one 4-nitrophenol (IPNP) Molecule**	R.V.Kabilan	Journal of Molecular Structure	**SDG 3**	Inosine and p-nitrophenol were taken in equimolar ratio to synthesize 9-[3,4-dihydroxy-5-(hydroxyme-thyl)oxolan-2-yl]-1,9-dihydro-6H-purin-6-one 4-nitrophenol via solvent vaporization technique. The synthesized material was subjected to single-crystal X-ray diffraction analysis, which confirms that it is crystallized in a monoclinic crystal system with space group P21. Hirshfeld analysis showed that molecule had close contacts of O···H/H···O, amounting to 45.7%, observed over dnorm surface with red spots owing to intermolecular hydrogen bonding. 1H NMR and 13C NMR analysis confirmed the structure of the IPNP molecule. The signal at δ 162.82 ppm confirmed the presence of hydroxyl group attached carbon in p-nitrophenol. FTIR spectroscopy confirmed the presence of all functional groups in the molecule. The broad band at 3334 cm−1 is due to OH stretching and the strong peak at 1694 cm−1 is owing to NO stretching. Density functional theory calculations performed by Becke-3-Lee-Yang-Par (B3LYP) level and M06-2X, combined with the standard 6-31G (d,p) basis set on IPNP molecule correlated well the with experimental data. UV-Vis spectrum showed absorption at 244 and 318 nm, which are due to n→π* and π→π* transition in the molecule. The HOMO-LUMO energy gap was 4.561 eV. A fluorescence peak was observed at 385 nm with an energy gap of 3.21 eV via photoluminescence spectroscopy. The antibacterial activity tests indicated that IPNP inhibited both Vibrio alginolyticus and Staphylococcus aureus bacteria.
408	**Comparative Performance Study of Difference Differential Amplifier Using 7â€‰nm and 14â€‰nm FinFET Technologies and Carbon Nanotube FET**	Anand Kumar	Journal of Nanomaterials	**SDG 3**	Difference differential amplifiers (DDA), which were built on FinFET and carbon nanotube FET (CNTFET), are frequently used for signal processing owing to their advantages of low-power dissipation and reduced device dimension. In this work, high-performance DDA was established using CNTFET model parameters as well as FinFET 7 nm and 14 nm technology. The DDA circuit used in this scenario was identically the same to the one used previously. With the use of Verilog AMS code-based Stanford model parameters applied CNTFET and 7 nm and 14 nm FinFETs, schematic capture and simulations of the DDA were carried out in the Symica environment. The mostly used measurements for assessing the performance of operational amplifiers were also adopted for DDA. The CNTFET-based difference differential amplifiers have slew rates of 10.8 V/femtosecond and 11.2 mV/femtosecond, respectively, with settling times of 0.65 femtosecond and 0.43 femtosecond, respectively. The power supply rejection ratio (PSRR) is 2.53 dB with a dynamic range of 198 mV and 6 mV for CNTFET DDA operating at 0.6 V DC. The incentives of CNTFET appropriateness for DDA designed in this study for any analogue front end were further demonstrated by using CNTFET for DDA with the achievement of open loop differential gain of 116.03 dB with BW of 4 GHz and phase margin of 270 and common mode gain of -28.65 dB with BW of 55.14 MHz and phase margin of 270.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
409	**Copper Oxide Nanoparticles Incorporated in the Metal Mesh Used to Enhance the Heat Transfer Performance of the Catalytic Converter and to Reduce Emission**	M. Prabhahar	Journal of Nanomaterials	**SDG 3**	Heating the catalysts chemically at a cold start is indeed an approach to achieving catalytic performance. The purpose of this effort is to reduce cold flow emissions to background levels during regular engine operation. To address this issue, a thermal model was created, and a temperature study of various configurations was performed utilizing the computational dynamics method. This was followed by a regression model to confirm the results of the experiment. The article discusses how using a computational fluid dynamic to simulate the transient temperature profile of a chemically heated catalytic converter (CHCC) in exhaust may aid in the development of a much more powerful and energy-efficient catalytic converter. In this research, nanoparticles have been used as a heat transfer enhancement agent to improve the thermal conductivity of the exhaust gases. This work has been proposed to calculate the flow behaviour and heat transfer of nanoparticles in the proposed catalytic converter. The nanomaterial composite, created by incorporating copper oxide nanoparticles (CuO2) on the surfaces of metal mesh, is used in the catalytic converter. The analytical technique has previously demonstrated its use in better predicting and comprehending the dynamic behaviour of a tightly linked catalyst and its thermally light-off period. The converter was evaluated in this study together with the SI (spark ignition) engine, and the data collected has been verified using analysis of regression. It is seen that in the converter with nanocopper oxide configuration, 50% carbon monoxide (CO) conversion efficiency is possible when the temperature of the main converter reaches 250°C and the CO is initially 2.7% Vol, and after reaching light off, it is 1.95% Vol. The time it takes to reach 250°C is 48 seconds after a cold start. In the case of hydrocarbons (HC), 50% HC conversion is reached during the test period of 168 seconds after the cold start. The HC is 605 ppm initially, and after light off, it is 130 ppm. The time taken to reach the HC light-off temperature is 300°C, with nanocopper oxide reaching this temperature in 168 seconds.
410	**Myofibroblasts as important diagnostic and prognostic indicators of oral squamous cell carcinoma: An immunohistochemical study using alpha-smooth muscle actin antibody**	Piyush Gandhi	J Oral Maxillofac Pathol	**SDG 3**	Oral squamous cell carcinoma (OSCC) is the most common malignancy of the oral cavity, with multifactorial etiopathogenesis. Data from the past literature suggest that myofibroblasts (MFs) can also contribute significantly to the pathogenesis of the disease. Hence, the present study was undertaken for assessing the expression of MF in well-differentiated OSCC (WDOSCC), moderately differentiated OSCC (MDOSCC), poorly differentiated OSCC (PDOSCC) and healthy controls by immunohistochemistry using alpha-smooth muscle actin (α-SMA) antibody.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
411	**Efficacy of herbal alternatives in maintaining oral health in cancer patients: A systematic review**	Nadeem Jeddy	J Oral Maxillofac Pathol	**SDG 3**	Herbal rinses possess different medicinal properties. Numerous studies have reported the usefulness of various herbal oral rinses. Few studies claimed that herbal rinses are superior to synthetic mouth rinses for certain purposes, but there appears to be a lack of sound scientific evidence to prove the efficacy of herbal rinses in controlling oral plaque in cancer patients. This review analyses the various clinical studies on herbal rinses and aims to find the safety and efficacy of red ginseng mouth rinses over other available mouth rinses in carcinoma patients. A thorough electronic search was conducted in various databases and 10 articles were included in the review based on the inclusion and exclusion criteria. The data extracted were tabulated and analyzed. The risk of bias table was drawn. Meta-analysis was not performed due to the heterogeneity of the included studies. Of the 10 clinical trials included in the review, three studies appeared to have low risk of bias. The mean follow-up period was 14 days, ranging from 7 to 21 days. The sample size in each study was reported to be between 10 and 50, except one study with 240 samples. Seven studies have reported a significant difference between the herbal mouth rinse group and the chlorhexidine group. Of all the herbal rinses, mouth rinses with ginger extracts show more efficacy over other herbal rinses and red ginseng appears to be a more safer herbal rinse. Based on the available evidence, herbal mouth rinses are comparable to synthetic mouth rinses in their anti-bacterial properties. The red ginseng with anti-bacterial, anti-inflammatory and anti-cancerous properties may be an alternative mouth rinse in cancer patients. However, further clinical trials with more samples are required for better evidence.
412	**Assessment of the anti-oxidant reduced glutathione in oral squamous cell carcinoma â€“ Systematic review and meta-analysis**	KhadijahMohideen	J Oral Maxillofac Pathol	**SDG 3**	The excess reactive oxygen species or free radicals reaction leads to oxidative injury to the biological components such as cells and tissues, which would result in the initiation and progression of carcinogenesis. The magnitude of oxidative damage depends primarily on the balance between free radicals (pro-oxidants) and antioxidant system activity.
413	**Salivary and serum acetaldehyde levels in betel quid chewers, pan masala chewers with or without tobacco and tobacco smokers: A comparative study using head space gas**	DoraiRaju Pavitra	J Oral Maxillofac Patho	**SDG 3**	Acetaldehyde, a natural by-product of combustion and photo-oxidation, has been detected at low levels in cigarette smoke. Various literature studies have shown increased salivary acetaldehyde production among smokers and heavy drinkers.
414	**Depleting levels of endogenous anti-oxidant superoxide dismutase in oral sub-mucous fibrosis: A systematic review and meta-**	KhadijahMohideen	J Oral Maxillofac Patho	**SDG 3**	The systematic review is aimed to assess the antioxidant status by superoxide dismutase level in oral sub-mucous fibrosis using available literature.
415	**In-vitro Antioxidant and In-vitro Anti-inflammatory activities of Ethanolic leaves extract of Ormocarpum Cochinchinense**	Somasekhar	Journal of Orofacial Sciences	**SDG 3**	Periodontitis, a chronic inflammatory disease with microbial etiology, is mediated by multiple inflammatory processes and oxidative stress is now well recognized as a part of periodontal pathogenesis. A balance between reactive oxygen species and antioxidants is required to maintain periodontal health. Medicinal herbs with bioactive phytocompounds have rich source of antioxidants and anti-inflammatory compounds. Ormocarpum cochinchinense is a medicinal herb with antioxidants and anti-inflammatory phytocompounds. The phytocompounds activities of the herb are not much explored. This study is focused on the In-vitro antioxidant and anti-inflammatory activities of the ethanolic extract of leaves of O. cochinchinense. To assess the In-vitro antioxidant and In-vitro anti-inflammatory activities of ethanolic extracts of O. cochinchinense.
416	**Ischiofemoral impingement syndrome: a case report and review of literature**	Jeyaraman M	J Orthop Surg Res	**SDG 3**	The etiology of ischiofemoral impingement (IFI) syndrome, an unusual and uncommon form of hip pain, remains uncertain. Some patients demonstrate narrowing of the space between the ischial tuberosity and lesser trochanter from trauma or abnormal morphology of the quadratus femoris muscle. Combined clinical and imaging aid in the diagnosis.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
417	**Assessment of risk factors in post- COVID-19 patients and its associated musculoskeletal manifestations: A cross-sectional study in India**	Jeyaraman M	J Ortho p	**SDG 3**	Musculoskeletal manifestations of COVID-19, post COVID-19, and post COVID-19 vaccination include arthralgia, myalgia, new-onset backache, fatigue, inflammatory arthritis either symmetrical or polyarticular, reactive arthritis, osteoporosis, osteonecrosis of the femoral head, neuropathies, myositis, and myopathies. Almost 15% and 44% of post-COVID-19 patients reported arthralgia and myalgia. We aim to analyze the musculoskeletal manifestations of COVID-19 infection and the factors determining their severity.
418	**KNOWLEDGE OF EARLY INTERVENTION IN DEVELOPMENTAL DELAY AMONG PARENTS (KEIDDAP)-QUESTIONNAIRE DEVELOPMENT AND**	K C Gayatri	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	To develop questionnaire which measure knowledge of early intervention in developmental delay among parents in the questionnaire form and its content validation .
419	**Imperative Linear Algebra For Data Science With R-Software**	R. Nagarathinam	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Data science and machine learning are built on linear algebra. Machine learning and data science make extensive use of linear algebra, a branch of Mathematics. Machine learning relies heavily on linear algebra. Matrix representations are commonly used in machine learning models. Using linear algebra in data science means regularizing, reducing to dimensions, recognizing images, learning algorithms, and analyzing images. Many data science algorithms are based on linear algebra. This article will cover three uses of linear algebra in three different data science domains. We will discuss loss functions from the perspective of machine learning, and image convolution from the perspective of computer vision. Any prospective data scientist must learn R since it is a very strong language designed specifically for data analysis and data visualisation. With linear algebra, R is extremely useful. It has built-in data types like matrices and vectors.
420	**Collision Observation And Handling Technology Using Gps**	Dr.V.Rameshbabu	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	The number of deaths resulting from motor vehicle accidents in urban areas is rapidly increasing due to various factors. These fatalities can be reduced through providing medical attention quickly. Challenges that prevent a timely response are traffic congestion, insufficient ambulance services, lack of network coverage, and negligence. To address these issues, an auto-response technology is needed. Smartphones, with their in-built sensors, are ideal for the development of such technology. This project introduced the Collision Observation and Handling Technology (COHT) to locate the site of the collision and ensure that medical help is dispatched to the scene immediately. This technology comprises of two main components: the server and the COHT software. Different sensors in Smartphones can be used to detect the location of the incident.In the event of a crash, the COHT will transmit a signal to both the ambulance and the emergency contact. The COHT receiver will use the sensors in the Smartphone to pinpoint the location and trigger an alert to the closest hospital and emergency team. This technology will allow the response team to get to the scene of the accident quickly, thus providing medical assistance to those affected. This technology is beneficial in that it decreases the time taken to act on the situation, ultimately decreasing the death rate.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
421	**Tweet Based Emotion Recognition System**	Dr.D.USHA	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Social networking spots like Twitter have lately produced vast amounts of organised, unshaped, and semi-structured data. Twitter gives people the chance to examine data from a vast and broad perspective. Sentiment analysis is a system for examining people's stations, passions, and opinions toward colourful motifs. It may be applied to tweets to examine how the public feels about colorful motifs, including news, policy, revolutionary movements, and individualities. the hottest subjects in contemporary natural language appreciation is emotion analysis from textbook. Deep literacy ways for emotion recognition greatly profit from attention and embedding mechanisms. Experimenters have been interested in emotion analysis. Rather of examining the reasons why feelings aren't or are inaptly linked, the maturity of earlier sweats in the field of artificial-intelligence have concentrated on emotion recognition. The incapability to honour feelings is told by the association of feelings. Two fresh datasets, one binary and the other multi-class, were used to further confirm the suggested approach's stability and produce dependable findings. Twitter is an extremely quick and effective microblogging platform that enables druggies to shoot brief posts, which are appertained to as tweets. Twitter is a popular app in the world and a successful social media network. pots are motivated by sentiment analysis to identify consumer’s preferences for brands, goods, and results.
422	**Different types of bio preservatives -a comprehensive review**	Cargi Ghoshal	National library of Medicine	**SDG 3**	In pulsed electric field (PEF) method sources of high voltage pulses are placed amid two electrodes in to fluid or paste type foods. Electricity is passed between two electrodes to sterilize the food. Almost all PEF technology entails the use of this technology in milk and milk product processing, eggs, poultry, juices and other liquid foods to prevent microorganisms. PEF technology, one of the promising methods of non-thermal preservation of food, can address the biological hazards efficiently. Recently available research papers explored PEF technology not only to facilitate the inactivation of microorganisms but also to alleviate the pressing competence for juice extraction purpose from plants for food application and also to intensify the drying and dehydration process of food. Most of the literatures are available on killing of microorganisms using PEF technology but the reports on influence of PEF technology on quality parameters of food after treatment and about their acceptability are limited. Now the technology is becoming popular and many recent papers reported about better yield and excellent quality of nutrient extracted by using PEF technology.
423	**Chimeric ScFv Monoclonal Antibody Composed of Tocilizumab-Light Chain, Heavy Chain, and Bacterial Flagellin for the Treatment of Autoimmune Disorder: Insilco Design and Cytotoxicity Study**	K.Rajganapathi	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	The Tocilizumab (TCZ), a recombinant humanised anti-interleukin-6 receptor (IL-6R) monoclonal antibody, is primarily used to treat various autoimmune disorders specifically, rheumatoid arthritis. The usage of tocilizumab injection may reduce our capacity to combat infections brought on by bacteria, viruses, and fungi and raise our risk of developing a serious or potentially fatal illness that may spread throughout the body. To overcome these obstacles, the current work was concentrate on the Designing of a Chimeric Flagellin-mediated Tocilizumab Monoclonal Antibody for Autoimmune Disorders. The flagellum, a whip-like appendage that facilitates bacterial mobility, has a component protein called flagellin which has now been discovered to be a potent immune activator that shapes both the innate and adaptive immune systems in response to microbial infections.
424	**A Study Of The Impact Of Carrying â€˜Xy Chromosomeâ€™ On Maternal Insulin Secretion And Insulin Resistance At A Tertiary Care Center In Chennai**	Brethis C.S	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Retrospective analyses of perinatal databases have raised the suspicion that there could be a positive association between the fetal gender and gestational diabetes mellitus (GDM), but it is still unclear. We thus thought to evaluate the relationship between fetal sex and maternal glucose metabolism in a well-characterized cohort of women reflecting the full spectrum of GDM in a prospective cohort study.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
425	**Calcium To Magnesium Ratio In Senile Cataract Patients: A Case-Control Study In A Tertiary Care Centre**	Hemalathaa R	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Cataracts are one of the main causes of vision loss and age-related cataracts are the most common. The role of the ratio
426	**An Early Detection Of NIPAH Infectious Disease Based On Integrated Medical Features For Human Using Ensemble RBM Techniques**	M.Kannan	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	The importance of early diagnosis of a hazardous illness cannot be overstated. The transmission rate is extremely high, especially in the current pandemic condition. The ability to predict epidemics will aid public health in reducing mortality and morbidity. Machine Learning (ML) approaches are used in the construction of an effective disease prognosis model. Furthermore, only if the model learns good associated features from the data is it possible to generate a speedy outcome. As a result, selecting features is also necessary before beginning the forecasting process. Objective: However, because of the virus's dynamic structure, it's difficult to predict Nipah disease and/or zoonotic infection. Furthermore, there is no clinical treatment for Nipah. The major goal of this research is to develop a prognostic model for early diagnosis of Nipah disease using a combination of several clinical factors such as symptoms, disease incubation information, and routine blood test results confirmed by a lab technician.Proposed System: The healthcare application and data are more complex to handle than other ML applications since various clinical features are assessed throughout disease manifestation. As a result, selecting the most relevant variables is critical when designing a prognosis model for any viral disease. To deal with clinical features from a vast number of features, we proposed a Restricted Boltzmann Machine (RBM) method in this research. Additionally, we employed a hybrid ensemble learning method to predict if the patient was infected with NiV after choosing features using the RBM. Data Collection: The proposed system is being implemented using the NiV infection dataset that erupted in Kozhikode, Kerala in 2018 and 2019. Result: The developed stacking-based ensemble Meta classifier was successfully implemented using the python programming language, and its performance was evaluated using a variety of metrics includingaccuracy, precision, recall, f1-score, log loss, AUROC and MCC. Our proposed Stacking Ensemble Meta Classifier (SEMC) model achieved an accuracy rate of 88.3% with a log loss of 0.36. Model precision, recall, f1-score, AUROC, and MCC value were 92.5%, 89.2%, 90.9%, 92.1%, and 0.74 respectively.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
427	**District-Wise Composite Indices, Development Indices Analysis and Regional Differences of Agricultural Development in Tamilnadu**	R Lakshmi	Journal of Critical Reviews (JCR)	**SDG 3**	This research paper to measure the extents of regional differences are in agricultural development of various districts in Tamil Nadu. This study is entirely based on the secondary sources of data and it has brought into the analysis of two different periods of time in the year 2008-09 and 2017- 18 with the help of Composite Indices (CI) and Development Indices (DI) analysis. In addition, the study areas have taken 31 out of 38 districts and the rest of the districts recently split into administrative purpose. Rest of Districts considered as outliers due to insufficient database. Extensive disproportion in the level of agricultural development has been observed in different districts. The northern and north-eastern part of the state was found to be highly developed whereas some of the western and southern districts of Tamilnadu were low developed. While compared with the results of the composite index of development in two benchmark years, the districts of Villupuram and The Nilgiris persistently have a high and least in the level of agricultural development respectively based on the selected indicators. This research paper has a efficient impact to measuring the degree of regional differences in the level of agricultural development and classifies districts of Tamil Nadu into three categories like High Level Developed Districts (HLDD), Middle Level Developed Districts (MLDD) and Low Level Developed Districts (LLDD) based on their agriculture composite indices of Tamilnadu. Additionally, the study is that it takes more districts than previous studies, virtually 82 percent of the districts in Tamil Nadu and it covers the most recent time.
428	**Molecular Docking Study Of Thymoquinone With Target Proteins Involved In Choleserol Biosynthesis**	K.Uma Maheswari	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Hypercholesterolemia is a hazardous disorder that increases the risk of coronary heart disease, heart attack, and stroke in persons with normal cholesterol levels. Nigella sativa (N. sativa) (Family Ranunculaceae) is a medicinal herb that is widely used worldwide. Numerous researchers have conducted extensive research on N. sativa, elucidating a broad range of its pharmacological actions, which may include antidiabetic, anticancer, immunomodulator, analgesic, antimicrobial, anti-inflammatory, spasmolytic, bronchodilator, hepatoprotective, renal protective, gastroprotective, and antioxidant properties. Thymoquinone (TQ) is a significant bioactive component found in the Nigella sativa (NS) black seeds. We examined the efficacy of TQ in the treatment of hypercholesterolemia in the current study. The TQ was docked with 20 proteins involved in cholesterol production. The docking data indicated that TQ had the greatest docking score with the majority of the target proteins and also exhibited a favourable interaction pattern with the target proteins. Thus, upon experimental validation, TQ may be an effective treatment for hypercholesterolemia.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
429	**A Research On The Perspective Of Exploring Restricted Decentralized Blockchain By Applying Pofe: Proof Of Familiarity And Existence To Reinforce Multiple Domains**	K.Sheela	2022 3rd International Confer...	**SDG 3**	Incorporation of Blockchain technology into our real-life scenarios serves in many aspects to improvise their services. Blockchain is a node-to-node decentralized distributed ledger system which provides clarity and unchangeable records of any digital assets while avoiding the intervention of a middleman. It is a new and revolutionary technology that is gaining a lot of attention because of its ability to eliminate threats and frauds on a large scale. The complete decentralized nature of blockchain has certain drawbacks wherein a restricted decentralized network can be accomplished in order to direct the overall process. The centralized server will be maintained along with its basic distributed nature with an authorized controller or miner. Every transaction will be stored in all the nodes and one node will be considered as a chief node wherein certain authenticating powers are provided to monitor and direct the operation in a successful manner. This process eliminates the involvement of multiple parties called miners to mine the block which reduces certain complications like time consumption for choosing miners, finding a fault node in case of breakdown and so on. Certain procedures are implemented to prove the presence of the records along with a process which encourages synergistic decision making for users using the Proof of Familiarity and Existence algorithm. Also, an approach of utilizing the nodes of any sector will be considered for smooth maintenance of an entire data in a blockchain platform. An approach of collaborating Proof of Familiarity and Proof of Existence will be carried out to enrich the decision-making system in both private and public sectors.
430	**A Secondary Data Analysis For Anaemia Among Patients Of A Tertiary Care Hospital In Madhuranthagam**		JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	According to World Health Organization (WHO, 1972), Anaemia is defined as, “a condition in which the haemoglobin concentration in the blood is below a defined level, resulting in a reduced oxygen carrying capacity of red blood cells”
431	**Lower Serum Calcium Levels In Covid-19 Patients: A Case-Control Study In A Tertiary Care Centre**	Hemalathaa	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	The novel coronavirus disease (COVID-19) has affected over 50 million people and has inflicted more than 1.2 million casualties ever since its inception in December 2019. Besides, multiple hematological and biochemical parameters have emerged as potential biomarkers to predict severe disease and mortality in COVID-19. One such biochemical biomarker is hypocalcemia. Hypocalcemia is associated with severe disease, organ failure, increased likelihood of hospitalization, admission to the intensive care unit, need for mechanical ventilation, and death from COVID-19. Hence, the present study was undertaken to compare the serum total calcium in patients infected with COVID-19 and a normal healthy population.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
432	**Formulation Development and Evaluation of Transdermal Patches of Miglitol**	B. Senthilnathan	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Transdermal patches are placed on the surface of the skin, which is a polymeric preparation; it delivers the medication at a controlled rate through the dermal layer to produce an active systemic effect. Miglitol transdermal patches were designed with the following primary objectives: better absorption, more consistent plasma drug concentration, enhanced bioavailability, minimal side effects, quick and ease of application, and the advantage to prevent drug release into the body by simply peeling the patch from the skin. Polyethylene glycol 400 serves as a plasticizer with dimethyl sulfoxide (DMSO) which improves the permeation rate. Six formulations (F1-F6) of miglitol transdermal patches were formulated with three different polymers: HPMC, PVP K30 and Eudragit L100 with three different ratios of drug and polymer. The solvent casting method was performed to formulate the patch, which was evaluated for its drug concentration, folding endurance, flatness, moisture absorption, tensile strength and SEM evaluation. The in-vitro drug release profile studies were conducted in pH 5.5 buffer using a Franz Diffusion cell under sink conditions, after which the drug was analyzed spectrophotometrically at 232 nm. The preparation F1 possessed maximum drug release, which showed that miglitol can be formulated as a transdermal formulation in providing effective treatment for diabetes with enhanced patient compliance.
433	**Correlation Of Visceral Adiposity Index (Vai) & Hirsutism As A Predictor Of Metabolic Consequences In Poly Cystic Ovarian Syndrome**	Lavanya Sekar	JOURNAL OF PHARMACEUTICAL NEGATIVE RESULTS	**SDG 3**	Poly Cystic Ovarian Syndrome (PCOS) is one of the most common reproductive and metabolic disorders among women of reproductive age. Women suffering from PCOS present with an array of symptoms connected with menstrual dysfunction and androgen excess, which significantly impacts their health well being. PCOS women are likely to be at increased risk of multiple co-morbidities, including insulin resistance, obesity and cardiovascular disease (CVD), type II diabetes mellitus, infertility and psychological illness. The most commonly exhibited problems noticed in PCOS is menstrual cycle disturbances (oligo/amenorrhea), hirsutism, infertility, dyslipidemia and metabolic disturbances due to insulin resistance (IR). Obesity, in particular visceral obesity, is associated with an increased risk of metabolic diseases, such as cardiovascular disease, pre-diabetes and type 2 diabetes (dysglycemia), hypertension and dyslipidemia. Cardio-metabolic diseases are the global leading causes of death and represent a significant economic burden on health systems. The pressure to search for and use new effective preventive tools increases and given the current epidemiological situation, as these diseases are to a large extent preventable. This review is an attempt to correlate the visceral adiposity index (VAI) & hirsutism in predicting metabolic consequences in PCOS.
434	**Homocysteine Levels and Clinical Outcomes in Schizophreniaâ€"A Pilot Randomized Controlled Trial**	Venkata Aksheena	Journal of Pharmacology and Pharmacotherapeutics	**SDG 3**	Background There is an increasing need for proactive and individualized responses to various diseases in today's progressive health-care fraternity. Accordingly, the approach to schizophrenia patients encompasses novel developments in the area of personalized medicine. Antipsychotic drugs in clinical practice necessitate biomarkers for the prediction of treatment outcomes and monitoring to ensure an appropriate choice of duration of chronic therapies. Hence, we studied the relation between homocysteine levels in peripheral blood and the effectiveness as well as the safety of haloperidol and olanzapine in schizophrenia treatment. Materials and Methods A prospective randomized parallel-group open-label interventional clinical trial was conducted on 40 mild to moderate schizophrenia patients. To compare the efficacy of olanzapine and haloperidol Brief Psychiatric Rating Scale (BPRS) score was used. Homocysteine levels of peripheral blood and Abnormal Involuntary Movement Scale scores were evaluated. Results BPRS score improved in both groups on day 14 and day 28. But significantly more with olanzapine (P value =.001)

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
435	**The Empirical Analysis For Effective Prediction of Crop Price Using Neuro Evolutionary Algorithm based on Machine Learning Approach**	T. Nalini	Journal of Physics: Conference Series,	**SDG 3**	Based on a neuro evolutionary algorithm, this study proposes a neural network model for efficient crop price prediction. When viewed from the perspective of agricultural business, the market price of corn reflects its current demand. For agricultural management, to improve profits, it is important to track and predict the market price. In this manuscript, a neural network model based on the output prediction of a neuro evolutionary algorithm is used to predict the price of the crop and compared with the existing Naive Bayes algorithm. By recognizing patterns in our training dataset, which serves as one of the inputs to the algorithm, we are able to determine the price of the crop. The parameters (Yield, Rainfall, Minimum Support Price, and Maximum Trade) are fed to the algorithm by the user. It is compared with existing algorithms to determine the performance of the proposed algorithm. The features considered for the analysis are Climate, historical costs, location, demand indicators, and crop health are the variables used for predicting future corn crop cost. According to the empirical analysis, the proposed model is significantly more accurate in predicting crop prices.
436	**Face Recognition using Nearest Neighbour and Nearest Mean Classification Framework : Empirical Analysis, Conclusions and Future Directions**	M. Shanmuganathan	ournal of Physics: Conference Series,	**SDG 3**	Human Face recognition algorithms have made huge progress in the last decade. In this manuscript, we have presented an approach for the implementation of a face recognition system in a successful manner by varying pose, scale, lighting, and age variation. The different empirical analysis was performed with various datasets for face detection and face identification. Face identification system detects efficiently segments and recognizes face in a cluttered sequence under varying pose, lighting and age variations. From this experimental analysis morphological model outperformed k-NNC, NMC based closest mean classifier and informative knowledge distillation with fairly reasonable accuracy. Three proposed methods on the basis of an efficient way of handling the face recognition problems. The morphological method outperformed well when compared with k-NNC, NMC based closest mean classifier a proposed method, and another innovative method named Informative knowledge Distillation. The morphological method is suitable for large datasets where occlusion, pose variation, age variations, and different expression of images.
437	**Effect of N,N-Dimethylacetamide/lithium chloride modified microcrystalline cellulose (MCC) on the processing behaviour and properties of cellulose-rubber (NBR and EPDM) composites**	LAVANYA, R	Journal of Polymer Materials .	**SDG 3**	Rubber composites of nitrile (NBR) and Ethylene-Propylene-Diene (EPDM) containing unmodified and modified microcrystalline cellulose(MCC) are evaluated for their processing behaviour. The used modified MCC (T-MCC) was treated by N,N-dimethylacetamide/lithium chloride (DMAc/LiCl). ATR-FTIR spectra of NBR-MCC composites have indicated N-H stretching and bending vibrations and confirmed interactions between nitrile rubber and MCC. AFM studies have indicated that the average roughness of NBR-T-MCC was significantly reduced when compared to that of NBR-untreated MCC. Important processing parameters such as scorch time and cure time are found to decrease significantly for both NBR and EPDM composites withT-MCC. Mechanical properties of these composites are found to be low irrespective of cellulose. While swelling of NBR-T-MCC composites was found to be higher in ethylmethyl ketone and DMAc/LiCl solvent systems. The composites with EPDM rubber do not indicate any swelling in DMAc/LiCl and in toluene.
438	**Age Estimation Using Third Molar Eruption Stages and Its Maturation â€“ A Retrospective Study Among South Indian Population**	K.indra priyadarshini	J Int Soc Prev Community Dent.	**SDG 3**	To assess the estimation of chronological age based on the stages of third molar development following the eight stages (A–H) method of Demirjian et al. in Chennai population of South India.
439	**Long term accelerated influence on thermo-mechanical properties of glass/carbon fiber reinforced interpenetrating polymer network**	Karjala Santhosh Priya	The Journal of Reinforced Plastics and Composites	**SDG 3**	Long term accelerated influence on thermo-mechanical properties of glass/carbon fiber reinforced interpenetrating polymer network hybrid composites

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
440	**Performance Analysis of XGBoost Ensemble Methods for Survivability with the Classification of Breast Cancer**	T. R. Mahesh	*Journal of sensors*	**SDG 3**	Breast cancer (BC) disease is the most common and rapidly spreading disease across the globe. This disease can be prevented if identified early, and this eventually reduces the death rate. Machine learning (ML) is the most frequently utilized technology in research. Cancer patients can benefit from early detection and diagnosis. Using machine learning approaches, this research proposes an improved way of detecting breast cancer. To deal with the problem of imbalanced data in the class and noise, the Synthetic Minority Oversampling Technique (SMOTE) has been used. There are two steps in the suggested task. In the first phase, SMOTE is utilized to decrease the influence of imbalance data issues, and subsequently, in the next phase, data is classified using the Naive Bayes classifier, decision trees classifier, Random Forest, and their ensembles. According to the experimental analysis, the XGBoost-Random Forest ensemble classifier outperforms with 98.20% accuracy in the early detection of breast cancer.
441	**PROFILE OF DEATHS DUE TO SNAKEBITE; AUTOPSIED AT KIMS, HUBBALLI**	Mahesh M Devadas	Indian Journal of Forensic Medicine & Toxicology, O	**SDG 3**	Worldwide, Snakebite is an important and preventable health hazard in many of the tropical and subtropical countries. Death following snake bite is a cumulative effect of all the toxic reactions that are produced by the snake venom in the body of the victim.1 Globally it is estimated that the true incidence of snake envenomation could exceed 3 million per year and about 1,00,000 of these develop severe sequelae. With this background, a study has been conducted to determine the pattern of snakebite death cases, autopsied at KIMS, Hubballi, Karnataka. The study revealed that maximum number of snakebite cases were recorded in the rainy season (34.9%) followed by the winter season (31.7%).In a greater number of cases the incidence of snake bite occurred predominantly in lower limb (54%) as compared to upper limb (46%).Peak incidence of snake bite was recorded in the time between 08:00 am to 04:00 pm (41.3%) followed by 04:00 pm to midnight (30.2%). Majority of the cases were declared dead (47.61%) within 24 hours of initiation of anti-snake venom. The cause of death in majority of the study population was respiratory failure (92.06%) followed by shock (7.93%).
442	**AN AUTOPSY STUDY OF SUDDEN NATURAL DEATHS**	Mandar Sane	STUDY OF SUDDEN NATURAL DEATHS IN MEDICO-LEGAL AUTOPSIES WITH SPECIAL REFERENCE	**SDG 3**	This prospective cross-sectional study was carried out at Government Medical College, Aurangabad (M.S.) during a period of one year. Most of the sudden deaths were in 41-50 years of age group. Males predominate the females among all sudden deaths with male to female ratio 4.3:1. Cardiovascular causes were the principle cause followed by the respiratory causes among all sudden deaths. Deaths due to coronary artery disease and myocardial infarction amount to almost half of the cases of sudden natural deaths (40.25%). Confirmation of cause of death by histopathological examination was emphasized.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
443	**IDENTIFICATION AND CLASSIFICATION OF DISEASES IN BASIL AND MINT PLANTS USING PSORBFNN**	V. SATHIYA	Journal of Theoretical and Applied Information Technology	**SDG 3**	The world is a place for many living things apart from human beings, like plants, trees, animals, bacteria, insects, mammals, reptiles, etc., in which plants and trees are the vital source for oxygen for us humans. Every organism has its own life-time where it could live prolong for several hundred/ thousand/ billion years like a 'Bristlecone pine-tree' or algae like 'Proterocladusantiquus'. During their lifespan each plants and trees also experience sickness or illness due to diseases which results in withering away, fruits and leaves drop. Studying these factors affecting the plants, plant's lifespan, solutions and classifications of plants and diseases are known as "Plant Pathology". Though the Plant Pathology could be achieved through machine languages and automated machine approaches, the involvement of humans for classifying and categorizing diseases have been the only approach till-date. It is costlier, time consuming and labour intensive. Hence the proposed research aims at developing an algorithm that could automatically identify, classify and categorize the plant inputs through RBFNN (radial basis function neural network) with image segmentation through weighing function, where the optimization is done through PSO aiming at efficient and higher accuracy rate based rapid results. The developed RGM (region growing algorithm) increases network efficiency for speed and clustering the common attribute-based seeds towards extraction process of plant's feature. By focusing on fungal diseases classification with factors like, leaf spots, leaf curl, late blight, common rust, early blight and cedar-apple rust the study was carried-out. The developed algorithm and outcome through test and train method shows efficiency, accuracy in classifying and categorizing the plant diseases.
444	**A Comparative Study of High Intensity Interval Training and Inspiratory Muscle Training with concurrent Training to Improve the Pulmonary function among over**	Anne E. Palermo,	National library of medicine	**SDG 3**	To compare the change in maximal inspiratory pressure (PImax) over the first 4 weeks of two different inspiratory muscle training (IMT) protocols and explore if either method is more effective for people with spinal cord injury.
445	**PRELIMINARY STUDY ON ADDITIVELY MANUFACTURED PLASTIC LINER OF AN ACETABULAR CUP COMPONENT**	Sofia, J	PRELIMINARY STUDY ON ADDITIVELY MANUFACTURED PLASTIC LINER OF AN ACETABULAR CUP COMPONENT	**SDG 3**	Additive manufacturing is extensively used in the medical field due to its flexibility in manufacturing implants based on the patient's requirements. This research study aims to investigate the additively manufactured plastic liner part, which is one of the parts of an artificial hip joint. In this study, fused deposition modeling (FDM) is used for fabricating the plastic liner from polylactic acid (PLA). The investigation was carried out to understand the manufacturability of dimensionally accurate, defect-free and better surface quality of the additively manufactured cup liner and to study the wear behaviour of the material chosen. The dimensions of the formed components were measured using a coordinate measuring machine (CMM). Non-destructive testing methods namely dye penetrant and radiography were carried out for identifying the existence of any surface or internal defects, respectively. The surface roughness values were measured to characterize the surface texture of the component made. The wear behaviour of the PLA material was studied by a pin-on-disc test. It is seen from the macrostructural images that some external surface defects exist. These observations are also confirmed by the dye penetrant test results. However, no internal defects were noticed by the radiography testing of the additively manufactured liner. The surface roughness measurements and macrostructural images have shown the poor surface finish of the part. The coefficient of friction of 0.302 and higher specific wear rate of PLA material were observed in pin-on disc test.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
446	**Application of Orthobiologics in Achilles Tendinopathy: A Review**	Luciano C Ramires	National library of medicine	**SDG 3**	Orthobiologics are biological materials that are intended for the regeneration of bone, cartilage, and soft tissues. In this review, we discuss the application of orthobiologics in Achilles tendinopathy, more specifically. We explain the concepts and definitions of each orthobiologic and the literature regarding its use in tendon disorders. The biological potential of these materials can be harnessed and administered into injured tissues, particularly in areas where standard healing is disrupted, a typical feature of Achilles tendinopathy. These products contain a wide variety of cell populations, cytokines, and growth factors, which have been shown to modulate many other cells at local and distal sites in the body. Collectively, they can shift the state of escalated inflammation and degeneration to reestablish tissue homeostasis. The typical features of Achilles tendinopathy are failed healing responses, persistent inflammation, and predominant catabolic reactions. Therefore, the application of orthobiologic tools represents a viable solution, considering their demonstrated efficacy, safety, and relatively easy manipulation. Perhaps a synergistic approach regarding the combination of these orthobiologics may promote more significant clinical outcomes rather than individual application. Although numerous optimistic results have been registered in the literature, additional studies and clinical trials are still highly desired to further illuminate the clinical utility and efficacy of these therapeutic strategies in the management of tendinopathies.
447	**Monkeypox: An Emerging Global Public Health Emergency**	Madhan Jeyaraman	National library of medicine	**SDG 3**	The virus causing monkeypox, a rare zoonotic viral disease, belongs to the Poxviridae family and the Orthopoxvirus genus. On 23 July 2022, the World Health Organization (WHO) declared the monkeypox outbreak as a Public Health Emergency of International Concern (PHEIC). From May to July 2022, a multi-country outbreak of monkeypox was reported in both endemic and non-endemic regions. Major goals of managing monkeypox are to identify the suspected cases, detect generic orthopoxvirus DNA at a state or commercial laboratory, and establish the Centers for Disease Control and Prevention real-time polymerase chain reaction testing. Currently, there are no approved treatments for monkeypox virus infection. However, a variety of antiviral medications originally designed for the treatment of smallpox and other viral infections could be considered. Pre-exposure prophylaxis for laboratory and health care employees and post-exposure prophylaxis for individuals with high-risk or intermediate-risk exposures are to be considered. The CDC Emergency Operations Center is available for advice on the appropriate use of medical countermeasures, and can help in obtaining antiviral drugs and vaccines from the National Strategic Stockpile. This review gives an overview of the global scenario, clinical presentation, and management of monkeypox in the light of a global public health emergency.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
448	**Mesenchymal Stromal Cell-Derived Extracellular Vesicles in Wound Healing**	Arulkumar Nallakumarasamy	Mesenchymal Stromal Cell-Derived Extracellular Vesicles in Wound Healing	**SDG 3**	The well-orchestrated process of wound healing may be negatively impacted from interrupted or incomplete tissue regenerative processes. The healing potential is further compromised in patients with diabetes mellitus, chronic venous insufficiency, critical limb ischemia, and immunocompromised conditions, with a high health care burden and expenditure. Stem cell-based therapy has shown promising results in clinical studies. Mesenchymal stem cell-derived exosomes (MSC Exos) may favorably impact intercellular signaling and immunomodulation, promoting neoangiogenesis, collagen synthesis, and neoepithelization. This article gives an outline of the biogenesis and mechanism of extracellular vesicles (EVs), particularly exosomes, in the process of tissue regeneration and discusses the use of preconditioned exosomes, platelet-rich plasma-derived exosomes, and engineered exosomes in three-dimensional bioscaffolds such as hydrogels (collagen and chitosan) to prolong the contact time of exosomes at the recipient site within the target tissue. An appropriate antibiotic therapy based on culture-specific guidance coupled with the knowledge of biopolymers helps to fabricate nanotherapeutic materials loaded with MSC Exos to effectively deliver drugs locally and promote novel approaches for the management of chronic wounds.
449	**Comparison of Covid SeveriTy score PReDiCTOR 50 and CURB 65 in prognostic assessment of patients with COVID 19 illness**	Manjari, Archana, Vivek, Parinita.	global-literature-on-novel-coronavirus	**SDG 3**	The greatest difficulty during the COVID pandemic was in effective triaging of patients. A new scoring system was developed by our center in order to provide a holistic assessment of the illness including systemic manifestations. This study was to evaluate the effectiveness of the scoring system in comparison to CURB 65, the most commonly used screening tool for prognostic assessment of pneumonia.
450	**The effect of adverse drug reactions on prolongation of treatment in patients of tuberculosis**	Elisha Paikray	National library of medicine	**SDG 3**	Tuberculosis (TB) is an airborne contagious illness caused by Mycobacterium tuberculosis. Ineffective anti-TB medication prolongs and exasperates illness, promotes disease spread, increases the probability of developing resistance to treatment, and increases death rate. Bedaquiline (BDQ) and Delamanid (DLM) were conditionally made available in the treatment of multidrug-resistant TB (MDR TB). In drug-resistant TB patients, adverse drug reactions (ADR) management is essential to improve medication compliance. In addition, we performed this study since there are very few studies published on the analysis of ADR monitoring of BDQ and DLM-based regimen. This study was performed to study the spectrum of ADR in drug-resistant TB patients receiving BDQ and DLM-based regimen.
451	**Investigation of TiO2 Nano Filler in Mechanical, Thermal Behaviour of Sisal/Jute Fiber Reinforced Interpenetrating Polymer Network (IPN) Composites**	Kumar Vijayendra Gopa	Materials Research.	**SDG 3**	In this work, various proportionate (0%, 1%, 3% 5% & 7%) of titanium di-oxide nano-filler was utilized as particulate matter along with the sisal/jute fiber reinforcement, in the view to increase the physical properties of the composite materials. Beside, as matrix material the mixture of Epoxy (E) and Polyurethane (PE) was chosen with the proportionate of 70 and 30 wt.% respectively, in order to extract the specific qualities of both the matrices to achieve the interpenetrating polymer networks (IPNs). Moreover, to exactly find out the thermo-mechanical characteristics of the sisal/jute fiber reinforced IPN composites, tests like thermo-gravimetric analysis (TGA), tensile, flexural, Impact, short beam strength and water absorption tests were carried out as per standards. It was found that, incorporation of 5% of TiO2 , increases the mechanical properties such as tensile, flexural, impact and short beam strength. Similarly, incorporation of TiO2 into IPN matrix enhances the thermal stability and water absorption resistance. All the obtained values of various filler weight % of TiO2 were compared with each other against with and without particulate incorporated IPN laminate in the purpose of using the same in construction industries.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
452	**Power-Sharing Analysis of Hybrid Microgrid Using Iterative Learning Controller (ILC) considering Source and Load Variation**	S. Angalaeswari,	Hindawi Mathematical Problems in Engineering	**SDG 3**	In this study, a novel iterative learning controller is proposed to maintain power balance in hybrid microgrid considering source and load variation. A hybrid microgrid comprising of solar, battery, utility grid, and AC and DC loads are developed with ac and dc bus in MATLAB Simulink environment. e primary or local level control is implemented for solar and battery for maintaining stable dc bus voltage. e secondary or system level control is implemented by controlling the interlinking converter placed between ac and dc bus to supply stable voltage along with the smooth grid synchronization and ensuring the proper real power sharing between dc/ac buses. e simulation studies reveal that the proposed iterative controller has e cient and e ective control over the voltage and power in hybrid microgrid under various modes of operation such as autonomous and grid connected modes.
453	**Spectral, antimicrobial and anticancer activity of E-4-{[(5-bromothiophen-2-yl)methylidene]amino}-1,5-dimethyl-2-phenyl-1,2-dihydro-3H-pyrazol-3-one**	Sasikala	LOW-DIMENSIONAL SOLIDS AND MOLECULAR CRYSTALS	**SDG 3**	A Schiff base E-4-{[(5-bromothiophen-2-yl)methylidene]amino}-1,5-dimethyl-2-phenyl-1,2-dihydro-3H-pyrazol-3-one (4ATP) has been synthesized by condensation 5-bromothiophene-2-carboxaldehyde with 4-amino antipyrine by condensation. The compound crystallized in the monoclinic system (P21/n) with E-configuration at azomethine C = N bond. The Hirshfeld surface analysis and crystal structure data confirm the intramolecular hydrogen bonding interaction (C-H…O: 2.963 Å) in a conjugated six-membered cyclic structure. The IR, Raman, 1H NMR, 13C NMR and mass spectral studies have been interpreted based on the crystal structure data. The compound is more effective in its cytotoxic activity for the A549 cell line than that of Vero cells.
454	**Deep grading of mangoes using Convolutional Neural Network and Computer Vision**	Nirmala Gururaj	Deep grading of mangoes using Convolutional Neural Network and Computer Vision. Multimed Tools Appl	**SDG 3**	The grading of mangoes is an essential aspect of providing quality fruits to consumers and control the needs of the fruit processing industry. Manual visual inspection leads to inconsistencies, and it is human labour intensive. This paper is focused on improving the accuracy of the automatic mango grading system by doing multi-level grading using Deep Learning, Computer Vision and Image processing techniques. The proposed system is based on the mango maturity ripening stage, shape, texture features, colour and defects to identify the mango variety and classify based on quality. The maturity ripening stage of the mango is extracted using the Convolutional Neural Network (CNN). Computer Vision and Image processing techniques are used to extract shape, texture features and defects. The extracted features are input to the Random Forest classifier to identify the mango variety and grade the mango quality into three classes Notfit, Average and Good. The system has been validated on the dataset created for this study across three different varieties, Banganapalli, Neelam and Rumani, the most popular in Tamil Nadu. The proposed system using features extracted from CNN enhanced the system's efficiency with an accuracy of 93.23% for variety recognition and 95.11% for quality grading. Hence the proposed system is fully automated, commercially viable and has improved accuracy in variety recognition and quality grading of mangoes across different varieties.
455	**Auditory brainstem response in type 2 diabetes mellitus patients**	Siddharth Suresh	International Journal of Otorhinolaryngology and Head and Neck Surgery	**SDG 3**	Diabetes mellitus causes pathophysiological changes at multiple organs. Brainstem Evoked Response Auditory (BERA) represents a non-invasive tool to detect diabetes related sensorineural hearing loss. The aim was to assess diabetes related central auditory pathway involvement using BERA.
456	**An Ancient Schwannoma of the Radial Nerve-Rare Case**	Duy Phan,	National library of medicine	**SDG 3**	Ancient schwannoma is a very rare subtype of schwannoma. In this report, a case of ancient schwannoma in the upper extremity is reported. A 40-year-old man presented with a slowly growing tumor in the right forearm. He underwent surgery to remove the tumor. Investigation revealed an ancient schwannoma originated from the right radius. Careful preoperative imaging evaluation is important for correct preoperative diagnosis and surgical strategy.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
457	**An Investigation for detecting cyber security to overcome cyber attacks using machine learning methods**	A P Chukhnov1	Journal of Physics: Conference Series	**SDG 3**	Machine learning is used in almost all application domains: driving, controlling production processes, searching for malicious files, etc. [1, 2, 3, 4]. Obviously, a machine learning system should be practically “perfect” (or close to such) in its predictions. Malware varieties continue to increase either in quantity, type, functionality or target of the attack. Traditionally, antivirus solutions have relied on signature and heuristic methods, but they require malware to be analyzed before rules and heuristics are defined. Taking into account the large data amount, constantly growing types of attacks, as well as the use of malicious code obfuscation, traditional approaches (including manual ones) do not cope with the task. Machine learning (ML) methods can solve this problem as well as cyber-security ones: detect network threats and attacks, prevent data leaks, encrypt personal data, detect malicious files and phishing [5], et
458	**ENHANCEMENT OF SECURITY FOR TAX DATA TRANSMISSION IN BLOCKCHAIN NETWORKS USING HIERARCHICAL PRIORITY-BASED SHA256 (HP-SHA-256) ALGORITHM**	BOBBY K SIMON	International Research Journal of Engineering and Technology	**SDG 3**	The data transfer in fiscal device terminals are utilized as inward or outside specialized GPRS gadgets, sending charge related data from financial money registers and monetary printers to an expense organization server, so cyber security is of fundamental significance. With a huge amount of personal data in big data era, fiscal devices are at high risks associated with potential disclosure of privacy data. In this paper, a trustworthy method is proposed during transaction phase, which helps to protect user’s data. The method proposed is AES 256 and it also helps to encrypt the user’s personal data with 256 bit key. Since the amount of data is very large the concept of block chain is used. It helps in reducing the storage space and also protects the stored data with the help of SHA. For processing this bulk of data Hash function is being used. This paper also implements security of stored data for each tax payer with the help of block chain.
459	**Aggregation of Encrypted Data using a Secure Paillier Key in Wireless Sensor Networks**	Vishal Krishna Singha	The 11th International Conference on Future Networks and Communications	**SDG 3**	The use of attack-prone hardware makes designing secure schemes for data collection a complex task. Addressing the continuous threat of attacks at the aggregator nodes, this work proposes a privacy preserving secure in-network data aggregation (PPSDA) technique for wireless sensor networks (WSNs). Using the pallier crypto system, a secure scheme which is resilient to false data injection attacks, is devised to compute the SUM, COUNT and MEAN at the sink node. Extensive theoretical analysis and simulation results show that the proposed scheme outperforms other existing aggregation approaches

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
460	**In-Silico Analysis Of Hydroxy Citric Acid From Pithecellobium Dulce Benth As A Treatment For Obesity-Related Diabetes Mellitus**	T Sundarrajan., K Manikandan., D Jothieswari., Senthilraj R	NeuroQuantology	**SDG - 3**	Hydroxycitric acid (HCA), a major active ingredient of Garcinia cambogia extracts, is known to suppress body weight gain and fat synthesis in animals and humans. But the underlying mechanism of HCA action is not fully understood. Clinical study on 100 obese individuals for a period of 3 months was performed followed by a computational study aimed to investigate the effects of HCA treatment on human subjects at anthropometric and plasma lipid profile levels. A detailed hepatic metabolic model was used to incorporate the effect of HCA at the metabolic pathway level. Perturbation analysis of ATP citrate lyase activity in the metabolic pathway was performed to simulate the net effect of HCA. Significant reductions in body weight, triceps, subscapular, and mid axillary measurements as well as in serum triglyceride, cholesterol, HDL and LDL levels were observed following HCA dosage. During the study, half of the subjects experienced a decline in body weight and the remainder experienced an increase in body weight. However, analysis of fat mass with the help of empirical correlations clearly showed significant reduction in the mean values due to HCA dosage in both cases. An extra increase in fat free mass was responsible for offsetting the decrease in fat mass for the subjects who experienced an increase in body weight during the trials. Perturbation analysis showed a net reduction in fatty acid, triglyceride and cholesterol synthesis along with urea cycle fluxes under lipogenetic conditions. Moreover, protein synthesis fluxes increased under these conditions. These results indicate that HCA treatment can reduce body weight gain and fat accumulation in obese subjects along with improving their anthropometric parameters and metabolic state.
461	**NANOPARTICLE â€“ A VERSATILE DRUG DELIVERY SYSTEM**	K Masilamani., Senthilraj R., R Gowri., M Loganathan., K Manvizhi., B Senthilnathan	NeuroQuantology	**SDG - 3, SDG - 9, SDG - 17**	Controlled drug delivery systems (DDS) have several advantages compared to the traditional forms of drugs. A drug is transported to the place of action, hence, its influence on vital tissues and undesirable side effects can be minimized. Accumulation of therapeutic compounds in the target site increases and, consequently, the required doses of drugs are lower. This modern form of therapy is especially important when there is a discrepancy between the dose or the concentration of a drug and its therapeutic results or toxic effects. Cell-specific targeting can be accomplished by attaching drugs to specially designed carriers. Various nanostructures, including liposomes, polymers, dendrimers, silicon or carbon materials, and magnetic nanoparticles, have been tested as carriers in drug delivery systems. In this review, the aforementioned nanocarriers and their connections with drugs are analyzed. Special attention is paid to the functionalization of magnetic nanoparticles as carriers in DDS. Then, the advantages and disadvantages of using magnetic nanoparticles as DDS are discussed.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
462	**Preparation and Characterization of Solid Lipid Nanoparticles for Artemisinin**	Vigneshwar Murugesan., S Sweetlin Subitha., L Karpagavalli., B Senthilnathan., S Vedha Pal., K Manvizhi., K Masilamani., Vigneshwar Murugesan., S Sweetlin Subitha., L Karpagavalli., B Senthilnathan., S Vedha Pal., K Manvizhi., K Masilamani	NeuroQuantology	**SDG - 3**	Solid lipid nanoparticles are at the forefront of the rapidly developing field of nanotechnology with several potential applications in drug delivery, clinical medicine and research, as well as in other varied sciences. Due to their unique size-dependent properties, lipid nanoparticles offer the possibility to develop new therapeutics. The ability to incorporate drugs into nanocarriers offers a new prototype in drug delivery that could be used for secondary and tertiary levels of drug targeting. Hence, solid lipid nanoparticles hold great promise for reaching the goal of controlled and site specific drug delivery and hence have attracted wide attention of researchers. This review presents a broad treatment of solid lipid nanoparticles discussing their advantages, limitations and their possible remedies. The different types of nanocarriers which were based on solid lipid like solid lipid nanoparticles, nanostructured lipid carriers, lipid drug conjugates are discussed with their structural differences. Different production methods which are suitable for large scale production and applications of solid lipid nanoparticles are described. Appropriate analytical techniques for characterization of solid lipid nanoparticles like photon correlation spectroscopy, scanning electron microscopy, differential scanning calorimetry are highlighted. Aspects of solid lipid nanoparticles route of administration and their biodistribution are also incorporated. If appropriately investigated, solid lipid nanoparticles may open new vistas in therapy of complex diseases.
463	**Neurolinguistic Approach to Fostering Writing Skills: An Intervention Research**	Venkateswara U., Abinaya K., Vijayakumar., P.sasirekha	NeuroQuantology	**SDG - 4**	Graduate students have unique writing requirements, particularly in ESL and EFL contexts. There are psychological issues that learners face during writing and there neurolinguistics possibilities in analyzing challeneges during writing research. According to Fernandez-Ríos &Buela-Casal, (2009),writing is both cognitive and neurocognitive. Previous studies have failed to look at the neurolinguistic aspects involved in writing" (p.4). Therefore, this paper delves into new realms of neurolinguistic processing and the impact of socio cognitive theory.Neurocognition deals with the ability to think and reason, whereas socio- cognition refers to social interactions and acquiring knowledge through scaffolding.The researchers feel that the perspective from earlier studies will help us integrate both as we move forward with these new aspects of writing research. The hypothesis on neurocognitive processing for better writing outcomes proposed in the study predicts that if students' thinking is triggered to reason by exposing them to visual experiences and social contacts, they will be able to articulate their opinions better. Examining student performance in a specific engagement writing task (Argumentative Writing) also provides empirical confirmation for the hypothesis. This study investigates the effect of neurolinguistic intervention using pretest-posttest research with a sample size of 40 students using argumentative writing tasks.Their performance indicated the impact of blending both these concepts. The descriptive and inferential statistics indicated that the students wrote better argumentative essays than control group after NLP intervention. Moreover, the study revealed that the longer the learners were exposed to such strategies, the more the quality of their texts improved. This study is educationally significant since it paves the way for a neurolinguistics pedagogical perspective.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
464	**Efficacy of Foot Reflexology& Nutrition Bolus on Biochemical marker among Tuberculosis Drug Induced Peripheral Neuropathy Clients**	R Vijayaraghavan., Tejeshwari B V., G Bhuvaneswari., B G Parasuramalu	NeuroQuantology	**SDG - 3**	Tuberculosis (TB) is an infectious disease usually caused by Mycobacterium tuberculosis (MTB) bacteria. Tuberculosis generally affects the lungs, but it can also affect other parts of the body. Most infections show no symptoms, in which case it is known as latent tuberculosis. Around 10% of latent infections progress to active disease which, if left untreated, kill about half of those affected. Typical symptoms of active TB are chronic cough with blood-containing mucus, fever, night sweats, and weight loss. It was historically referred to as consumption due to the weight loss associated with the disease. Infection of other organs can cause a wide range of symptoms. Methods: True-experimental design was recruited by non-probability purposive sampling technique used for the present study. Necessary administrative permission was obtained from the concerned authority. The Structured interview schedule was used to elicit the baseline data. Result: The study revealed that out of 180 Tuberculosis patients among 12 each Tuberculosis patients selected from control, Experimental I and Experimental II , the mean B12 values of Control Pre-test, Posttest 1 and Post-test 2 were 370.8, 410.0 and 443.3 (pg/mL) respectively. The mean B12 values of Experimental 1 Pre-test, Post-test 1 and Post-test 2 were 392.1, 462.5 and 546.7 (pg/mL) respectively. The mean B12 values of Experimental 1 Pre-test, Post-test 1 and Post-test 2 were 383.3, 491.7 and 640.0 (pg/mL) respectively. Conclusion:- The study concluded that the foot reflexology of anti-tuberculosis drug-induced peripheral neuropathy among Tuberculosis patients from selected community area, Ramanagara Taluk & District, Karnataka carried out the study was found to be effective in the improving Vitamin B12 of Tuberculosis patients as evidenced by the significant change between control and experimental values, From the Pretest to Post-test 2, in the control group 19.6 % increase, and in Experimental 1 39.4 % and Experimental 2 67.0 % increase in B12 level was observed. This shows that the Experimental 2 is the best intervention. Keywords: - Effectiveness, foot reflexology, Tuberculosis patients, peripheral neuropathy, Bio-chemical parameter

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
465	**Does Age Have a Role in Color and Whiteness Variations After Dehydration and Rehydration in Maxillary Anterior Teeth? An In Vivo Study**	Dr. Sharmila Ramajayam., Sridevi Krishnamoorthy., P Ravishankar., A R Pradeep Kumar	NeuroQuantology	**SDG - 3**	Abstract Objective: To determine the influence of in vivo dehydration and rehydration on color and whiteness variations in maxillary anterior teeth of younger, middle-aged, and older individuals. Methods and materials: The spectrophotometric shade of maxillary anterior teeth from younger (20 to 30 years, n=20), middle-aged (50 to 60 years, n=20) and older (65 to 80 years, n=20) participants were assessed at baseline and every 10 minutes for 30 minutes after rubber dam isolation (dehydration). The teeth were then allowed to rehydrate, and shade values were assessed every 10 minutes for 30 minutes, after 24 hours, and after 48 hours. Data were collected as International Commission on Illumination (CIE) L*a*b* color coordinates. Color differences (ΔE*ab) and whiteness differences (ΔWID) were evaluated. Statistical analysis was performed using one-way analysis of variance with the Tukey Honest Significant Difference test. Results: The color and whiteness changes of maxillary anterior teeth in older individuals after dehydration for 30 minutes were significantly lower than that of younger and middle-aged individuals. In younger participants, after 10 minutes of dehydration, mean ΔE*ab values of maxillary anterior teeth were above the acceptability threshold (AT), while mean ΔWID values were above AT only in maxillary canines. In middle-aged participants, mean ΔE*ab values were above AT, and mean ΔWID values were above the perceptibility threshold (PT) and below AT after 10 minutes of dehydration. In older participants, mean ΔE*ab values were above PT and below AT at 20 minutes of dehydration, while mean ΔWID values were above PT at 10 minutes of dehydration, and both were above AT at 30 minutes of dehydration. The mean ΔE*ab values were above AT after 20 minutes of rehydration in younger and middle-aged participants, while they were below AT in older participants after 10 minutes of rehydration. Mean ΔWID values were below AT for older participants after 20 minutes of rehydration. All mean ΔWID values were below AT and above PT after

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
466	**A study on effect of diabetes mellitus and hypertension on ocular blood flw by colour doppler ultrasonography**	PRATHIBHA SHANTHAVEERAPPA., SEETHA PRAMILA VARADA VENKATA ., Ratnapriya Srivastava., Kailash Venkatakrishnan., Rihin Samuel Anish., Sanket Vinubhai davra	Operative Dentistry	**SDG - 3**	Abstract Background: Diabetes mellitus (DM) and hypertension (HT) have been the two major medical and public health issues for over 40 years worldwide. Colour doppler imaging (CDI) is widely used to evaluate ocular circulation. It is non-invasive, safe, and useful tool, most commonly used to investigate circulatory parameters in retrobulbar blood vessels. The aim was to study ocular blood flow (OBF) velocity in the ophthalmic artery (OA), central retinal artery (CRA) and central retinal vein (CRV) in patients with DM and HT by CDI. Materials and methods: A cross-sectional observational study was done for 6 months (June 2021–November 2021) on 40 patients of age 40 years and above with DM and/or HT of a minimum 6 months duration. Retrobulbar circulation was assessed in all subjects bilaterally. Subjects were further divided into groups with or without retinopathy. Results: Of the total number of 40 participants, 26 (65%) were male, and 14 (35%) were female. 16 (40%) participants were diabetics, 8 (20%) were hypertensive, and 16 (40%) had both DM and HT. 57.5% were diagnosed with retinopathy changes. The mean values of the pulsatile index (PI) were: 1.23 in patients with DM, 1.30 in patients with HTN, and 1.33 in patients with DM and HTN. Conclusion: Our study showed reduced blood flow velocity and increased resistivity index (RI) in patients with DM and/or HT. Significant changes were noted in retrobulbar blood flow in patients with retinopathy. These

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
467	**Evaluation of the periodontal viruses in cardiovascular patients associated with periodontitis**	Sanjay M Cherian., Vasugi Suresh., V Vinoth Khanna., Paavai Ilango., Jaideep Mahendra., Little Mahendra., Arulpari Mahalingam., T Abirami	Ophthalmology Journal	**SDG - 3**	Objectives: The current study aimed in evaluating the prevalence of Epstein-Barr virus (EBV), cytomegalovirus (CMV), and herpes simplex virus (HSV) in periodontitis and/or coronary artery disease (CAD) patients to compare with their healthy controls and insist their significance in the same. Methodology: Two hundred and forty patients were divided into 4 groups. Non-periodontitis+non-cardiac (NP+NC) = 60 patients, periodontitis+non-cardiac patients (P+NC) = 60 patients, non-periodontitis+cardiac patients (NP+C) = 60 patients, and periodontitis+cardiac (P+C) = 60 patients. Demographic variables, cardiac and periodontal parameters were recorded. EBV, CMV, and HSV were evaluated in the subgingival plaque samples using RT-PCR (real-time polymerase chain reaction) and compared between the groups. The results were statistically analyzed using Student's t-test, Pearson's chi-square, Turkey post hoc analysis, and multiple logistic regression analysis. Results: The demographic variables did not differ significantly between the groups, except for age. Systolic blood pressure, diastolic blood pressure, low-density lipoprotein, and random blood sugar were significantly higher in NP+C and P+C ($p \leq 0.05$). The plaque index, probing pocket depth, and clinical attachment loss ($p \leq 0.05$) were significantly higher in P+NC and P+C. EBV and CMV were significantly higher in the two periodontitis groups P+NC and P+C (p-value = 0.000). HSV was significantly higher in the two cardiac groups (NP+C and P+C) ($p \leq 0.05$). Multiple logistic regression analysis revealed a significant association between EBV and CAL ($p \leq 0.05$). Conclusion: The study concluded that higher prevalence of EBV and CMV was found in groups with periodontitis patients. This indicates the significant role of the viruses in periodontitis as confirmed by association between EBV and CAL. The viruses were said to be highest in periodontitis patients with CAD. This could pave a new link in the
468	**Biogenic synthesis of gold nanoparticles using red seaweed Champia parvula and its anti-oxidant and anticarcinogenic activity on lung cancer**	Sandhiya Viswanathan., Dr.thirunavukkarasu Palaniyandi., R Kannaki., Rajeshkumar Shanmugam., Gomathy Baskar., A Mugip Rahaman., L Tharrun Daniel Paul., Barani Kumar Rajendran., Asha Sivaji	Oral Diseases	**SDG - 9, 12, 13, and 15**	The biocompatible gold nanoparticles (AuNPs) have great potential in the development of next-generation anti-cancer medicine. Here, AuNPs were synthesized through a biogenic method using the red marine algae Champia parvula. The synthesized Cp-AuNPs were characterized and confirmed by various spectroscopic techniques. The UV spectroscopy analysis found the Cp-AuNPs Surface Plasmon Resonance (SPR) peak at 550 nm. The accurate size and morphology of Cp-AuNPs were identified by Transmission Electron Microscope (TEM) and Scanning Electron Microscope (SEM) analysis were found to be 20 nm in size and round in shape. The crystal nature of Cp-AuNPs was confirmed by X-ray Diffraction (XRD) spectrum. The FTIR analytical tool was used to determine the presence of organic compounds in the algae extract and synthesized Cp-AuNPs. The biogenic Cp-AuNPs showed excellent anti-oxidant and free radical scavenging ability due to the presence of anti-oxidant-rich components. Anti-cancer activity of Cp-AuNPs was investigated on lung cancer (A549) cells and demonstrated high anti-cancer potential. Our findings suggested that synthesized Cp-AuNPs have a significant therapeutic ability for lung cancer.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
469	**Effect of Euphorbia hirta on Urinary Flow in Albino Male Rats**	Sivaji Asha., Gani Taju., Dr.thirunavukkarasu Palaniyandi., Abdul Majeeth Mohamed Sadiq	Particulate Science and Technology	**SDG - 3**	The aim of this work was to evaluate diuretic activity of the ethanol extract of Euphorbia hirta leaves and elucidate the possible mechanism of its action. The diuretic activity was studied on male albino rats in comparison to furosemide as a standard drug. Two doses of E. hirta extract (300 and 600 mg/kg) were administered and the urinary volume and electrolyte (Na+, K+) concentrations were measured. Results showed that administration of the ethanol extract of E. hirta led to significantly increased urinary volume and excretion of urinary electrolytes such as sodium, potassium and chloride in 24 h urine compared to that for normal animals. Among the two selected doses, 600 mg/kg body weight exhibited higher diuretic activity level than 300 mg/kg dose. Although both these levels were statistically significant when compared to control in respect of all parameters, these levels were lower compared to the standard drug. Hence, the ethanol extract of E. hirta exhibited a dose dependent diuretic activity. Upon the isolation and identification of active compounds from E. hirta ethanol extract, it was found that lupeol and quercetin were the major constituents responsible for the diuretic activity in rats. The present study confirmed validity of the ethnopharmacological use of E. hirta as a diuretic agent under experimental conditions studied.
470	**Lineage Differentiation Potential of Different Sources of Mesenchymal Stem Cells for Osteoarthritis Knee**	Gollahalli Shivashankar Prajwal., Naveen Jeyaraman., Krishna Kanth V., Madhan Jeyaraman., Sathish Muthu., Sree Naga Sowndary Rajendran., Ramya Lakshmi Rajendran., Manish Khanna., Eun Jung Oh., Kang Young Choi., Ho Yun Chung., Byeong-cheol Ahn., Prakash Ga	Pharmaceutical Chemistry Journal	**SDG - 3**	Tissue engineering and regenerative medicine (TERM) have paved a way for treating musculoskeletal diseases in a minimally invasive manner. The regenerative medicine cocktail involves the usage of mesenchymal stem/stromal cells (MSCs), either uncultured or culture-expanded cells along with growth factors, cytokines, exosomes, and secretomes to provide a better regenerative milieu in degenerative diseases. The successful regeneration of cartilage depends on the selection of the appropriate source of MSCs, the quality, quantity, and frequency of MSCs to be injected, and the selection of the patient at an appropriate stage of the disease. However, confirmation on the most favorable source of MSCs remains uncertain to clinicians. The lack of knowledge in the current cellular treatment is uncertain in terms of how beneficial MSCs are in the long-term or short-term (resolution of pain) and improved quality of life. Whether MSCs treatments have any superiority, exists due to sources of MSCs utilized in their potential to objectively regenerate the cartilage at the target area. Many questions on source and condition remain unanswered. Hence, in this review, we discuss the lineage differentiation potentials of various sources of MSCs used in the management of knee osteoarthritis and emphasize the role of tissue engineering in cartilage regeneration.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
471	**Advancing Regenerative Cellular Therapies in Nonâ€□Scarring Alopecia**	Talagavadi Channaiah Anudeep., Madhan Jeyaraman., Sathish Muthu., Ramya Lakshmi Rajendran., Prakash Gangadaran., Prabhu Chandra Mishra., Shilpa Sharma., Saurabh Kumar Jha., Byeongâå,¬Â□cheol Ahn	Pharmaceuticals	**SDG - 3**	Alopecia or baldness is a common diagnosis in clinical practice. Alopecia can be scarring or non-scarring, diffuse or patchy. The most prevalent type of alopecia is non-scarring alopecia, with the majority of cases being androgenetic alopecia (AGA) or alopecia areata (AA). AGA is traditionally treated with minoxidil and finasteride, while AA is treated with immune modulators; however, both treatments have significant downsides. These drawbacks compel us to explore regenerative therapies that are relatively devoid of adverse effects. A thorough literature review was conducted to explore the existing proven and experimental regenerative treatment modalities in non-scarring alopecia. Multiple treatment options compelled us to classify them into growth factor-rich and stem cell-rich. The growth factor-rich group included platelet-rich plasma, stem cell-conditioned medium, exosomes and placental extract whereas adult stem cells (adipose-derived stem cell-nano fat and stromal vascular fraction; bone marrow stem cell and hair follicle stem cells) and perinatal stem cells (umbilical cord blood-derived mesenchymal stem cells (hUCB-MSCs), Wharton jelly-derived MSCs (WJ-MSCs), amniotic fluid-derived MSCs (AF-MSCs), and placental MSCs) were grouped into the stem cell-rich group. Because of its regenerative and proliferative capabilities, MSC lies at the heart of regenerative cellular treatment for hair restoration. A literature review revealed that both adult and perinatal MSCs are successful as a mesotherapy for hair regrowth. However, there is a lack of standardization in terms of preparation, dose, and route of administration. To better understand the source and mode of action of regenerative cellular therapies in hair restoration, we have proposed the "À La Mode Classification". In addition, available evidence-based cellular treatments for hair regrowth have been thoroughly described.
472	**Antioxidant and Antiangiogenic Activities Assesse mentof Abutilon indicum Ethanolic Root Extract**	G.v.n.kiranmayi., Kakaraparthy Ravishankar., Dr. N. Harikrishnan N., Karumanchi Srikanth Kumar	Pharmaceutics	**SDG - 3**	The current study aims to identify the antioxidant and antiangiogenic effects of the ethanolic root extract of Abutilon indicum. Antioxidant activity was evaluated against a range of free radicals, including nitric oxide scavenging and hydroxyl radicals tests, using ascorbic acid as a standard. The chorioallantoic membrane of the chick embryo is the most popular in vivo assay for assessing antiangiogenic effectiveness (CAM). The ethanolic root extract of Abutilon indicum has a significant antioxidant status as evidenced by its IC50 values of 21.4 ug/mL for nitric oxide radicals and 22.3 ug/mL for hydroxyl radicals. The results are on par with ascorbic acid’s. The percentage of inhibition of antioxidant activity was estimated by computing IC50 values. It prevents neovascularization, which is probably connected to the dose-dependent decrease in the development of capillary networks (50 to 150 g/egg). The investigation’s findings demonstrated that the chorioallantoic membrane had a significant antiangiogenic effect. The plant extract has shown effective free radical scavenging action, as indicated by their percentage inhibition. It exhibits considerable antiangiogenic properties as well, which may be the reason for its historical use as an anticancer medication.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
473	**Effect of Substituents on the Photodynamic Action of Anthraquinones: EPR, Computational and In Vitro Studies**	Anish Babu., Pandian Sokkar., Anbazhagan Kolandaswamy., Felsis Angelene Daison., Murugesan Ramachandran	Pharmakeftiki	**SDG - 3, 9, 17**	Anthraquinone class of compounds possesses a broad spectrum of therapeutic applications. Cancer cell targeting ability, together with photogeneration of reactive oxygen species, renders anthraquinones an interesting class of photosensitizers for photodynamic therapy (PDT). Screening of newer compounds for better singlet oxygen generation is of current interest to improve the practical usability in PDT. In this study, we investigate the photodynamic activity of nine commercially available anthraquinones, using EPR spectroscopy and computational techniques, to identify the role of substituents on singlet oxygen yield. Three anthraquinone derivatives, 1,5-diaminoanthraquinone, 15-dihydroxyanthraquinone and 1,2,7-trihydroxyanthraquinone, showed highest singlet oxygen quantum yield (0.21, 0.18 and 0.15, respectively) relative to Rose Bengal. Time-dependent density functional theory calculations indicate the singlet oxygen quantum yield of anthraquinones inversely correlate well with the excited singlet-triplet (S1-T1) energy gap. Electron-donating substituents present at positions 1, 2 and 5 of anthraquinone seem to reduce the S1-T1 energy gap, facilitating inter-system crossing and the production of singlet oxygen. This would greatly aid in the design of newer anthraquinone-based photosensitizers. This study also highlights the suitability of 1,5-diaminoanthraquinone for PDT applications as demonstrated by in vitro experiments of photoinduced DNA cleavage and photocytotoxicity in Dalton's lymphoma ascites.
474	**Design, Synthesis, and Biological Evaluation of Tryptanthrin Alkaloids as Potential anti-Diabetic and Anticancer Agents**	Chitrala Teja., Karuppasamy Ramanathan., Kondapalli Naresh., R Vidya., K Gomathi., Fazlur Rahman Nawaz	Photochemistry and Photobiology	**SDG - 3, 9, 17**	An efficient green chemical approach has been reported to synthesize tryptanthrin alkaloids, utilizing isatin and isatoic anhydride as a substrate in the presence of tetrabutylammonium salt-based ionic liquids (TBA-ILs) as catalyst and reaction medium under microwave conditions (MWs). The reaction proceeds evenly under mild conditions to provide the bioactive natural product tryptanthrins in excellent yields. Besides, the molecular docking studies show that all the synthesized scaffolds exhibit potential binding affinities toward α-amylase, α-glucosidase ligands, GLP-1, and EGFR receptors; the in-vitro α-amylase and α-glucosidase assays show positive inhibition. In addition, the in vitro anticancer activity against A-549 non-small lung cancer (NSLC) cell lines leads to excellent inhibition. The present findings show the therapeutic potential of the tryptanthrins for targeting antidiabetic and anticancer activities.
475	**Effect of nanosilica on mechanical, thermal, fatigue, and antimicrobial properties of cardanol oil/sisal fiber reinforced epoxy composite**	Ram Subbiah., Arivumangai Anbazhagan., S Kaliappan., Balaji V., Yuvaraj G., Pravin P Patil	Polycyclic Aromatic Compounds	**SDG - 9,7,12**	Sisal fiber reinforced nanosilica and cardanol oil toughened epoxy composites were prepared and characterized in this present work. The main aim of this study was to understand the importance of adding cardanol oil and nanosilica to sisal-reinforced epoxy composites in enhancing the load bearing, thermal stability, and antimicrobial properties. The composites were fabricated by the hand layup process and specimens were cut using a water jet machine. The composites were tested using the respective ASTM standards. The results found that the blending of cardanol oil makes the epoxy less brittle and the composites are environment friendly. Similarly, nanosilica with sisal fiber in cardanol oil blended epoxy composites showed improved mechanical properties. The highest tensile strength and modulus were found to be 56% and 64% than pure epoxy resin. The maximum impact resistances and hardness values observed for the composites are 6.48 J and 91 shore-D. Moreover, improved fatigue life counts were observed for composite designation ECN2, which contains 1.0 vol% of nanosilica, but also a decrement in it if the volume percentage was increased to 2.0. The antimicrobial properties improved with the increment of nanosilica and cardanol oil content. These eco-friendly, mechanically toughened biocomposites could be used in drug and food storage, automotives, drones, structural, and sports goods as well as in household appliances manufacturing.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
476	**Experimental and Numerical Investigation of Ballistic Impact Analysis on Kevlar Reinforced Polymer Composites and Shape Memory Alloy Sheet Reinforced Kevlar Epoxy Polymer Composites**	Prabu Ravindran., Kumarappan Mani Kumar., Selvam Rangasamy., Kuttynadar Rajammal Vijaya Kumar	Polymer Composites	**SDG - 9,12,16**	In the present study, the ballistic impact resistance of kevlar reinforced polymer composites and shape memory alloy sheet reinforced kevlar epoxy polymer composites have been compared numerically and experimentally. The test specimens have been fabricated by the hand layup method, and the ballistic impact test has been conducted according to NIJ Level IIIA. In the current research, a new method has been proposed to measure the ballistic impact resistance of the material by using Image J software. From the test results, it has been observed that reinforcement of shape memory alloy in kevlar epoxy polymer composites has increased the ballistic impact resistance by 89-145% for the damaged area compared with plain kevlar reinforced epoxy polymer composite. Also, the damaged area observed in the numerical and the experimental results is almost the same.
477	**Experimental investigations on modified thermosyphons using R134a/Al2O3 and comparative machine learning analysis**	C P Jawahar., Zafar Said., A Brusly Solomon., Shibin David., Evangelos Bellos., R S Anand	Polymer Korea	**SDG - 7,9,12,13,17**	Thermosyphon operating with refrigerants are usual choices for low temperature heat transfer applications. The present study focuses on the performance evaluation of thermosyphons employing refrigerant R134a and Al2O3/R134 as working fluids, with novel designs to enhance the heat transfer. Two designs are proposed in the study in which eight internal axial fins are incorporated in one design termed as finned thermosyphon 1, and in addition to the internal fins, a uniform radial cut or gap is provided in the evaporator section in another design termed as finned thermosyphon 2. The performance of the thermosyphon shows that the thermal resistance of finned thermosyphon 1 and finned thermosyphon 2 decreases by 26.8% and 44.8%, respectively than conventional thermosyphon. Experimental investigations were also carried out using nanoparticles Al2O3 mixed with refrigerant R134a at a concentration of 1.0% concentration by weight on the modified design was employed in finned thermosyphon 2, as its performance was better when R134a was utilized. The thermal resistance of Al2O3/R134 based finned thermosyphon 2 decreases by about 55.3%, and 38.9% when compared to the conventional thermosyphon and finned thermosyphon 1, respectively. At the optimum condition, the heat transfer coefficient and surface area are determined for the conventional, finned type thermosyphons 1 and 2. The experimental analysis results are validated with a machine learning algorithm to estimate the deviation between the experimental and predicted results. The predicted and experimental results were found to be in good agreement with each other.
478	**In-silico ANALYSIS AND MOLECULAR DOCKING STUDIES OF NOVEL THIAZOLIDINEDIONE DERIVATIVES AGAINST PPAR-Î³**	Geetha Birudala., Dr. N. Harikrishnan N., P Sharmili., E Esther Rani., A Haripriya	Applied Thermal Engineering	**SDG - 3,9**	Type 2 Diabetes mellitus (T2DM) is one of the immunometabolic disorders that are distinguished by hyperglycemia persisting over a period of time. Thiazolidinediones are the drugs that activate the Peroxisome proliferator-activated receptors (PPARs). Materials and Methods: A sequence of new Thiazolidine 2,4-dione derivatives was designed with ChemDraw software. In silico predictions like PASS prediction, Molinspiration, and Acute rat toxicity prediction with the help of GUSAR software were done. Results: Based on the results, the designed derivatives were docked with the target protein Peroxisome Proliferator-Activated Receptor Gama (PPARγ) (Pdb Id: 7AWC). Conclusion: Compounds T6, T5, T7, T9, T63, and T11 showed the maximum potency and binding affinity to the PPAR-γ receptor when compared to the rosiglitazone as standard. From the docking score, it is quite clear that the substitution of the fluorene ring to the thiazolidine 2,4- dione nucleus increases the antidiabetic activity.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
479	**MODIFIED ZEOLITE CATALYSTS FOR EFFICIENT PROCESSING OF N-HEXANE AND GASOLINE FRACTION**	M I Tulepov., A A Omarova., L R Sassykova., G T Saidilda., S Sendilvelan., B T Tuktin., A A Khamlenko	Rasayan Journal of Chemistry	**SDG - 9**	In this work hydrogen-free processing (in the absence of hydrogen) and hydrotreating of n-hexane and straight-run petrol fraction on the catalysts samples "C-1" (La-ZSM-Al2O3) and "C-2" (Ni-Mo-LaP -ZSM-Al2O3) were studied. "C-2" catalyst has high activity in both studied processes. The conversion of n-hexane during hydrogen-free processing on the "C-2" catalyst in the range of 350-500ºC increased from 58.8 to 90.7%; the octane rating of the final product in the temperature range of 350-500 ºC was within 55.1-87.9 according to the research method (RM), and from 61.4 to 84.9 according to the motor method (MM). The octane rating of hydrotreating products increases mainly due to an increase in the content of isoalkanes. The octane rating of the resulting gasoline is significantly higher than that of the original straight-run gasoline (73.1 (RM), 54.1 (MM)), and it reaches 92.1 (RM) and 81.7 (MM)
480	**Challenges in the clinical translation of exosomal therapy in regenerative medicine**	Madhan Jeyaraman., Sathish Muthu., Naveen Jeyaraman	Rasayan Journal of Chemistry	**SDG - 3**	The recent advances in translational and nanomedicine have paved the way for developing the targeted drug delivery system at a greater pace among global researchers. On par with these technologies, exosomes act as a potential portal for cell-free drug delivery systems as these are bestowed with the native characteristics of the parent cell of origin. Exosomes, called extracellular vesicles (EcVs), are present in almost all cells, tissues, and body fluids. They help in intercellular signaling and maintains tissue homeostasis in the disease pathobiology. Researchers have characterized 9,769 proteins, 2,838 miRNAs, 3,408 mRNAs, and 1,116 lipids being present in exosomal cargo. The separation of exosomes from cells, tissues, and body fluids follow different patterned kinetics. Exosomes interact with the recipient cells through their surface receptor molecules and ligands and internalize within recipient cells through micropinocytosis and phagocytosis. Advancing technologies in regenerative medicine have facilitated the researchers to isolate exosomes from mesenchymal stem cells (MSCs) as these cells are blessed with supreme regenerative potentiality in targeting a disease. Exosomal cargo is a key player in establishing the diagnosis and executing therapeutic role whilst regulating a disease process. Various in vitro studies have exhibited the safety, efficacy, and therapeutic potentiality of exosomes in various cancers, neurodegenerative, cardiovascular, and orthopedic diseases. This article throws light on the composition, therapeutic role, and regulatory potentials of exosomes with the widening of the horizon in the field of regenerative medicine.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
481	**Photoactivated platelet-rich plasma: is it the future of platelet-rich plasma?**	Madhan Jeyaraman., Sathish Muthu., Naveen Jeyaraman., Ashim Gupta	Regenerative Medicine	**SDG - 3,8,9,10,17**	Platelet-rich plasma works with the principle of degranulation of alpha granules with the release of various growth factors. There is no available consensus in terms of either the preparation methods, rate of centrifugation, size of needles utilized, activation methods, or centrifugation protocols to prepare PRP. With the lack of the above-mentioned consensus, the quality of PRP being injected is not validated. In the management of chronic musculoskeletal pathologies, an orthopedic surgeon or a regenerative orthobiologist requires a sustained release of growth factors in the pathological site to exert the regenerative function of PRP at the injured tissue. Usual methods of activation such as collagen, thrombin, adenosine diphosphate, and calcium ionophores have cost and side effects involved in their usage. Moreover, once activated 70% of the available growth factors were released within an hour of its activation. Almost all of the available factors were released within a day of its activation making its paracrine signaling limited by time. To have sustained release of growth factors from platelets, various methods such as a hydrogel, 3D scaffolds, and sponges were used by researchers either to form a coagulum after injecting into the target site for sustaining its action at the site of interest but none of them are without their limitations. In this editorial, we discuss the photoactivation method of PRP which might be the future of PRP activation methods showing promising results in-vitro.
482	**A Comparative study on ECG changes among normal and otherwise healthy congenitally deaf children**	Suma S., Hari Prasad V., Dr. Abeetha .s., Tejashwini K., Renu Sharda	Regenerative Medicine	**SDG - 3,4,10,17**	ackground: Congenital deafness is usually seen to be associated with number of heart diseases. Screening congenitally deaf children with ECG can give us an insight on unidentified congenitally associated heart disease. Aim and objective: To study the ECG changes in congenitally deaf children and compare with normal children of the same age group. Materials and methods: We conducted a community based cross sectional analytical study with a sample size of 120 subjects out of which 60 were children from deaf school as cases and 60 were children from normal school with normal hearing as controls. Both the groups had 30 males and 30 females. 12 lead ECG was taken, studied and compared among the two groups. Results: Deaf children showed significant ECG changes like long QTc (16.7%), left axis deviation (3.3%), right axis deviation (1.6%), clockwise rotation (8.33%), anticlockwise rotation (5%), QRS complex abnormalities (45%), T wave inversions (45%). Conclusion: Our study was able to pick up numerous changes in ECG of deaf children. Yet the findings are inconclusive. Further genetic and thorough cardiac evaluation is necessary to comprehensively establish the relation between co-occurrence of ECG changes and congenital sensorineural deafness.
483	**Recent advancement in Nano-drug delivery for Topical Wound Healing**	Srikrishna Theerdhala., Dr. N. Harikrishnan N	Research Journal of Pharmacy and Technology	**SDG - 3,4,8,9,10,17**	Skin damages are defined as one of most common lesions people suffer from, some of wounds are notoriously difficult to eradicate such as chronic wounds and deep burns. Existing wound therapies have been proved to be inadequate and far from satisfactory. The cutting-edge nanotechnology offers an unprecedented opportunity to revolutionize and invent new therapies or boost the effectiveness of current medical treatments. In particular, the nano-drug delivery systems anchor bioactive molecules to applied area, sustain the drug release and explicitly enhance the therapeutic efficacies of drugs, thus making a fine figure in field relevant to skin regeneration. This review summarized and discussed the current nano-drug delivery systems holding pivotal potential for wound healing and skin regeneration, with a special emphasis on liposomes, polymeric nanoparticles, inorganic nanoparticles, lipid nanoparticles, nanofibrous structures and nanohydrogel.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
484	**To Compare the Effectivness of Balance and Proprioception with Conventional Exercise in Non Specific Neck Pain**	V Rajalaxmi., Sushmitha Anandhan., K Kirupa., K Kamatchi., Radhakrishnan Unnikrishnan., Shady Abdullah Alshewaier	Research Journal of Pharmacy and Technology	**SDG - 3,4,8,10,17**	Therapeutic exercises are used in clinical practice for patients with low back pain (LBP). Core stabilization exercises can retrain the important function of local trunk muscles and increase the accuracy of the sensory integration process for stability of the spine in individuals with LBP. The aim of this study was to compare the effects of two different exercise regimes, Core stabilization exercises (CSE) and Strengthening exercise (STE), on proprioception, balance, muscle thickness and pain-related outcomes in patients with subacute non-specific low back pain (NSLBP).
485	**Phyllanthus seeds Methanolic extract: In vivo evaluation of Analgesic activity**	Dr.sumitha Arumugam., Dhanasekaran R., Dr.archana . A., S A Sridevi., Dr. S Thamizharasan.phd., C S Brethis	Research Journal of Pharmacy and Technology	**SDG - 2,3,4,10,17**	Phyllanthus amarus is a small herb used in tradicinal medicine worldwide. The phytoconstituents of seeds of this plant is evaluated for various medicinal properties.This study was done to evaluate analgesic activity of Phyllanthus amarus seeds in albino mice.Analgesic activity of methanolic extract of Phyllanthus seeds was evaluated using hot plate and Tail clip animal models. Normal saline was used as control drug and standard drug was Morphine and 50 mg,100 and 200 mg/kg of methanolic extract of Phyllanthus seeds was used as test drugs. Phyllanthus seed extract showed statistically significant ($p<0.05$) increase in the reaction time of animals as compared to control at doses of 100mg/kg and 200 mg/kg at 60 min of drug administration in hot plate method and at 30 min and 60 min of drug administration in tail clip method.The results of the present study shows that methanolic extract of seeds of Phyllanthus amarus showed central analgesic activity in both hot plate and tail clip models in albino mice.
486	**Mechanical and Morphological Investigation of Aluminium 7075 Reinforced with Nano Graphene / Aluminium Oxide / Inconel Alloy 625 Using Ultrasonic Stir Casting Method**	Thayumanavan Mahendran., Vijayakumar K R	Research Journal of Pharmacy and Technology	**SDG - 8,9,12,13,17**	Aluminium Hybrid Metal Matrix Nano Composites (AHMMNCs) are finding widespread use in the aerospace, marine, defence, and automotive industries due to its high stiffness, high strength-to-weight ratio, and outstanding wear resistance. Hybrid nano composite materials are commonly used in engineering applications due to their proper mechanical organisation. Mechanical property improvement of hybrid nano composites is now a prominent field of research in materials and industrial technology. Aluminium alloy 7075 was reinforced with 0.5, 1.5%, and 2.0 wt. percent of nano-graphene (20-30nm), 2,4,6,8 wt percent of aluminium oxide (50m), and 2,4,6,8 wt percent of Inconel alloy 625 and 1wt percent of magnesium utilising an ultrasonic stir casting process in this study. Mechanical characteristics of the hybrid nano-composite material were evaluated using tension, compression, hardness, and flexural tests. SEM was used for morphology inquiry examination.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
487	**DermICNet: Efficient Dermoscopic Image Classification Network for Automated Skin Cancer Diagnosis**	Sankarakutti Palanichamy Manikandan., Vedanandam Karthikeyan., Ganesamoorthy Nalinashini	Revue des Composites et des Materiaux Avances	**SDG - 3,4,9,17**	The incidence of skin cancer is rapidly increasing worldwide. The relevance of Skin Cancer Diagnosis (SCD) and the difficulty in achieving an accurate and consistent diagnosis have resulted in significant research interest. Furthermore, automated detection or classification would be even more helpful in a diagnostic assistance system. This study develops an efficient Dermoscopic Image Classification Network (DermICNet) for automated SCD. The proposed DermICNet is a deep learning architecture with an efficient arrangement of eight convolutional layers with small-sized convolution filters (3x3). The extracted features from the convolution layers are fed to the dense layer for classification. It consists of a neural network that uses stochastic gradient descent optimization to find the optimal solution for SCD. Finally, a softmax classifier is employed to classify the patterns in the dermoscopic images. The proposed DermICNet is assessed using PH2 database images. The classification results reported are based on the random-split (70:30) approach, which divides the PH2 database into training and testing. It is demonstrated that it is feasible to discriminate between abnormal and normal dermoscopic images with an average accuracy of 99.2% using the proposed DermICNet. The results suggest that the analysis of dermoscopic images using DermICNet has the potential as a diagnostic tool for SCD
488	**Is there a gender gap in global rheumatology leadership?**	Tayyeba Khursheed., Ghita Harifi., Pavel V Ovseiko., Harish G Shekar., Humeira Badsha., Latika Gupta	Revue d'Intelligence Artificielle	**SDG - 5,10**	Dear Editor, While the rheumatology workforce in many countries is increasingly becoming gender-balanced [1], advancing equity in academic recognition is still an unmet need. A report from 2015 estimated that 66% of fellows and 41% of rheumatologists in the USA are women. The same report predicted that by 2025 women will comprise the predominant majority of the rheumatology workforce [2]. Similarly, in many European countries, including Belgium, Hungary, Italy, Lithuania, the Netherlands and the UK, women comprise >50% of the rheumatology workforce [3]. Despite being in the majority, women in rheumatology are underrepresented in leadership positions [2–4]. The gender equity in academic rheumatology initiative has sparked discussions on the effect of inequity in academia on assignment to leadership roles [3–5]. To explore whether a gender gap exists in the global rheumatology leadership, we undertook a cross-sectional review of gender representation among the presidents of regional rheumatology leagues, namely the ACR, African League Against Rheumatism (AFLAR), Asia-Pacific League of Associations for Rheumatology (APLAR), the EULAR and the Pan-American League of Associations for Rheumatology (PANLAR).

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
489	**Peptide-based direct electrochemical detection of receptor binding domains of SARS-CoV-2 spike protein in pristine samples**	Sowmiya Srinivasan., Ramavaidyanathan., T H Vignesh Kumar., Vinoth Krishnan., Dr. Anand Babu K., Sudhakar Natarajan., Murugan Veerapandian	Rheumatology	**SDG - 3,9,17**	RNA isolation and amplification-free user-friendly detection of SARS-CoV-2 is the need of hour especially at resource limited settings. Herein, we devised the peptides of human angiotensin converting enzyme-2 (hACE-2) as bioreceptor at electrode interface for selective targeting of receptor binding domains (RBD) of SARS-CoV-2 spike protein (SP). Disposable carbon-screen printed electrode modified with methylene blue (MB) electroadsorbed graphene oxide (GO) has been constructed as cost-efficient and scalable platform for hACE-2 peptide-based SARS-CoV-2 detection. In silico molecular docking of customized 25 mer peptides with RBD of SARS-CoV-2 SP were validated by AutoDock CrankPep. N-terminal region of ACE-2 showed higher binding affinity of -20.6 kcal/mol with 15 H-bond, 9 of which were < 3 Å. Electrochemical biosensing of different concentrations of SPs were determined by cyclic voltammetry (CV) and chronoamperometry (CA), enabling a limit of detection (LOD) of 0.58 pg/mL and 0.71 pg/mL, respectively. MB-GO devised hACE-2 peptide platform exert an enhanced current sensitivity of 0.0105 mA/pg mL-1 cm-2 (R2 = 0.9792) (CV) and 0.45 nA/pg mL-1 (R2 = 0.9570) (CA) against SP in the range of 1 pg/mL to 1 µg/mL. For clinical feasibility, nasopharyngeal and oropharyngeal swab specimens in viral transport medium were directly tested with the prepared peptide biosensor and validated with RT-PCR, promising for point-of-need analysis.
490	**INTEGRATIVE FORENSICS FRAMEWORK APPROACH FOR INTERNET OF THINGS USING BLOCK CHAIN**	K Venkatagurunatham Naidu., Rajavarman Veeramalai Natarajan	Sensors and Actuators, B: Chemical	**SDG - 9,10,16,17**	Abstract—The decentralised nature of blockchain technologies can well match the needs of integrity and provenances of evidences collecting in digital forensics across jurisdictional borders. In this work, a novel blockchain based digital forensics investigation framework in the Internet of Things (IoT) and social systems environment is proposed, which can provide proof of existence and privacy preservation for evidence items examination. To implement such features, we present a block enabled forensics framework for IoT, namely IoT forensic chain (IoTFC), which can offer forensic investigation with good authenticity, immutability, traceability, resilience, and distributed trust between evidential entitles as well as examiners. The IoTFC can deliver a gurantee of traceability and track provenance of evidence items. Details of evidence identification, preservation, analysis, and presentation will be recorded in chains of block. The IoTFC can increase trust of both evidence items and examiners by providing transparency of the audit train. The use case demonstrated the effectiveness of proposed method.
491	**AN EFFECTIVE APPROACH FOR TURMERIC GROWTH DETECTION USING MULTILEVEL LINEAR ALGORITHM**	S Revathy., Stephan Kevin Andrews., Palamadai Subramanian Rajakumar., Rajavarman Veeramalai Natarajan	Seybold Report	**SDG - 1,2,8,9,13,17**	Turmeric is a major cultivated crop in India. Some growing factors affect the yield and quality of turmeric production. In this paper, multilevel linear regression method is proposed to predict the growth of turmeric. The proposed method multilevel linear regression is predicting the turmeric growth level from turmeric yield dataset. Turmeric growth can predict through different statistical methods such as Linear Regression (LR), Polynomial Regression (PR), Decision Tree (DT) and Naïve Bayes. These algorithms are performing less due to prediction of turmeric growth based on accuracy and time. These algorithms give huge difference in prediction such as accuracy level and speed. To solve the above problem, turmeric yield data fed to the pre-trained for prediction of turmeric growth. The proposed method multilevel linear regression gives high accuracy prediction compared to other statistical algorithms. Multilevel linear regression method gives high accuracy of about 94% compared to conventional methods.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
492	**A HYBRID DC-LG ALGORITHM FOR IMPROVING EFFICIENCY AND ACCURACY IN PREDICTIVE ANALYTICS**	Gayathri R., Rajavarman Veeramalai Natarajan	Seybold Report	**SDG - 4,8,9,10,11,17**	In Computer Aided Decision(CAD) systems, machine learning algorithms are adopted to assist a physician to diagnose disease of a patient. The purpose of this study is to improve the prediction accuracy on medical datasets by hybridizing machine learning algorithms. In this paper Hybrid Machine Learning algorithm is proposed using two supervised algorithms, Naïve Bayes and JRIP. The methodology adopted in this paper for proposing new Hybrid Machine Learning Algorithm is implemented by using R programming language and weka software tool. Further, comparative study is made between individual algorithms and proposed hybrid algorithm to prove the improvement in prediction accuracy on medical datasets. The proposed algorithm shows enhanced performance compared to the individual classifiers and assist the physician in diagnosis.
493	**FRAUD AND LATE DELIVERY PREDICTION USING HYBRID MODEL**	Hemavathi Rajendiran., Rajavarman Veeramalai Natarajan	Seybold Report	**SDG - 8,9,10,11,17**	The cargo sector is going through considerable expansion in volume owing to technical innovation in e-commerce and global trade liberalization. Volume expansion also indicates a surge in fraud cases involving smuggling and fraudulent reporting of goods. Shipping businesses and customs are largely dependent on normal random examination hence uncovering fraud is typically by coincidence. As the volume raises considerably it would no longer be viable and beneficial for both transportation firms and customs to pursue standard fraud detection tactics. Other related publications in this field have demonstrated that intelligent data-driven fraud detection is proved to be significantly more successful than regular inspections. The proposed system using machine learning algorithm for Support Vector Machine (SVM), Random Forest (RF) and Hybrid Scikit algorithms. As such in this article, we evaluate and then determine the most efficient methodologies and algorithms to detect fraud successfully within the shipping business. We also analyse characteristics that drive fraud activity, examine current fraud detection models, build the detection framework and apply the framework using the tool.
494	**A SYSTEMATIC REVIEW OF CLOUD ASSISTED IOT BASED VEHICLE RADAR PROGRESS**	P Shobana Pritha., T Kamalakannan., Rajavarman Veeramalai Natarajan	Seybold Report	**SDG - 9,11,13,17**	Internet of Things is being developed to offer vast opportunities to enhance the seamless services for the users and developing such systems became feasible and cost-effective in real-time. Developing a robust vehicle tracking system is mandate to provide safety and security measures to the school students commuting between schools and homes. Children's safety is considered to be a major concern and an effective research should be carried out to avoid the child missing cases. In this paper a detailed survey of development of IoT automotive industry, IoT based school bus tracking system and cloud based IoT enabled smart vehicle systems are carried out. A comprehensive IoT application with general vehicle monitoring conceptual framework in real time is also described here. The outline of future perspectives of cloud assisted IoT based vehicle tracking system and its impact in the development of IoT platform in automotive applications is also given.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
495	**IMPACT OF 3D ANIMATION IN RECOLLECTING THE SUBJECT OF RESPIRATORY SYSTEM AMONG SCHOOL CHILDREN**	Jeevalatha Govindasamy., Ravichandran Kamalakannan	Seybold Report	**SDG - 3,4,5,10,17**	A methodical modeling of human respiratory organ is created by using the respiratory modeling architecture (RMA) of the scene-graph of H-Anim structure. H-Anim follows an X3D file format to construct the modeling features for the level of detail of a complex human respiratory organs including structures, inner surfaces, and the lungs. The respiratory animation can be created by the respiratory structures and keyframe animation. The generated animation offers the motions of how human lungs, ribcage, and diaphragm perform during their breathing. Moreover, to visualize the respiratory modeling and animation on the Web, a web standard method of X3DOM framework is utilized for interactive display of 3D scenes.
496	**RAMIFICATION OF GREEN PRODUCT KNOWLEDGE AND ATTITUDE ON GREEN PRODUCT SUSTAINABILITY**	Jai Kumar Kattar Rajendran., G Brindha	Seybold Report	**SDG - 4,12,13,14,17**	The intention to purchase green products cannot be separated from environmental consciousness among people. This study analyzes the effect of environmental knowledge, word of mouth (WOM), and green marketing on environmental care attitudes and the intention to purchase green products. A total of 159 valid questionnaires were analyzed with structural equation modeling. The empirical results indicate that environmental knowledge significantly affects environmental care attitudes. In addition, green marketing and environmental concerns significantly and positively affect the intention to purchase green products. Meanwhile, WOM and green marketing do not significantly affect environmental care attitudes. Similarly, environmental knowledge and WOM do not significantly affect the intention to purchase green products. Finally, managerial implications for the government and business were formulated.
497	**DIGITAL CHECKLIST PROCESS AUTOMATION FOR MACHINERY WITH ANIMATED EFFECTS**	Subatra Devi Suresh	Seybold Report	**SDG - 8,9,11,13,17**	The performance of the machinery in industries can be maintained by following a certain procedure to lead the machine in its routine work. This can be achieved by the condition monitoring and preventive maintenance techniques, which prevents the machine from unexpected failure. Checklists support the machinery to perform all the sequence of operations in a certain procedure that has to be done repeatedly. In this paper, the condition monitoring and preventive maintenance are applied for the machinery with digital checklist process using animation. By using digital checklist, it confirms its machinery and its parts are in intact and improves the performance of the machines on daily or shift wise basis. Using digital checklist, the condition monitoring and preventive maintenance of the machine are monitored continuously, which prevents the machine from failure and also helps the user to perform the operation of the machine in an easier way. It is proved experimentally that the machine is monitored and prevented effectively.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
498	**Advancement in the contemporary clinical diagnosis and treatment strategies of insomnia disorder**	Soumi Paul., Karavadi Sri Sai Vidusha., Sivasudha Thilagar., Dinesh Kumar Lakshmanan., Guna Ravichandran., Abirami Arunachalam	Seybold Report	**SDG - 3,4,8,10,17**	This review is intended to provide an updated summary of, but not limited to, classification, etiopathogenesis, diagnosis, and treatment strategies for insomnia disorder. The severity of insomnia symptoms irrespective of co-existing primary medical condition/s in the studied patients classified insomnia as 'insomnia disorder' to prioritize the clinical attention on insomnia (Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition). The frequency and duration of symptoms further divided insomnia into chronic, short-term, and other insomnia disorder (International Classification of Sleep Disorders, Third Edition). This disorder is a phenomenal state of hyperarousal developed and perpetuated by environmental, behavioral, cognitive, genetic, socioeconomic, preexisting medical factors. Overarching physiological, cortical, behavioral, and cognition changes in hyperarousal manifest insomnia disorder. It, sometimes, leads to the co-occurrence of other chronic medical condition/s. The contemporary diagnosis of insomnia disorder needs to consider modified diagnostic criteria, growing evidence on insomnia disorder symptoms, associated factors, co-existing medical condition/s (if any) to identify the subjective severity of insomnia disorder and design a treatment plan. The recommended treatment strategies include cognitive-behavioral therapy for insomnia (CBTI) and pharmacotherapy. However, CBTI lacks accessibility, qualified facilitators, and pharmacotherapy has limitations like side effects, physiological tolerance/dependence. The investigation of phytocompounds subdued these drawbacks of existing treatments as some compounds showed anti-insomniac potential. Furthermore, complementary alternative medicines (CAMs) like mindfulness-based practices, acupuncture, listening to music, Yogasanas, Pranayama, digital cognitive behavioral therapy for insomnia (dCBTI) during bedtime proved supportive in insomnia disorder treatment.
499	**Biserial targeted feature projection based radial kernel regressive deep belief neural learning for covid-19 prediction**	S Subash Chandra Bose., Anitha Premkumar., M Gokilavani., A Vinoth Kumar., M Deepika	Sleep Medicine	**SDG - 3,9,10,13,17**	Coronavirus disease 2019 (COVID-19) is a highly infectious viral disease caused by the novel SARS-CoV-2 virus. Different prediction techniques have been developed to predict the coronavirus disease’s existence in patients. However, the accurate prediction was not improved and time consumption was not minimized. In order to address these existing problems, a novel technique called Biserial Targeted Feature Projection-based Radial Kernel Regressive Deep Belief Neural Learning (BTFP-RKRDBNL) is introduced to perform accurate disease prediction with lesser time consumption. The BTFP-RKRDBNL techniques perform disease prediction with the help of different layers such as two visible layers namely input and layer and two hidden layers. Initially, the features and data are collected from the dataset and transmitted to the input layer. The Point Biserial Correlative Target feature projection is used to select relevant features and other irrelevant features are removed with minimizing the disease prediction time. Then the relevant features are sent to the hidden layer 2. Next, Radial Kernel Regression is applied to analyze the training features and testing disease features to identify the disease with higher accuracy and a lesser false positive rate. Experimental analysis is planned to measure the prediction accuracy, sensitivity, and specificity, and prediction time for different numbers of patients. The result illustrates that the method increases the prediction accuracy, sensitivity, and specificity by 10, 6, and 21% and reduces the prediction time by 10% as compared to state-of-the-art works.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
500	**Closing the Gender Gap in Global Rheumatology Leadership- Are We There Yet?**	Pavel Ovseiko., Latika Gupta., Tayyeba Khursheed., Ghita Harifi., Humeira Badsha., Harish G Shekar	Soft Computing	**SDG - 3,5,10,17**	Tayyeba Khursheed1, Pavel Ovseiko2, Ghita Harifi3, Humeira Badsha4, Harish G Shekar5 and Latika Gupta6, 1Pakistan Institute of Medical Sciences, Islamabad, Pakistan, 2John Radcliffe Hospital, Oxford, Oxford, United Kingdom, 3Department of Rheumatology, Mediclinic Parkview Hospital, Dubai, United Arab Emirates, 4Dr. Humeira Badsha Medical Center, Dubai, United Arab Emirates, 5Rajarajeswari medical College and hospital, Bangalore, India, 6Royal Wolverhampton Trust, Wolverhampton/University of Manchester, United Kingdom
501	**Study of Significance of Fasting & Stimulated Serum C Peptide Levels in Newly Detected Young Diabetes Mellitus Among the Age Group of 35-40**	G V.K.	Arthritis & Rheumatology	**SDG - 3,4,8,17**	Diabetes mellitus refers to a group of common metabolic disorders that share the phenotype of hyperglycemia. The worldwide prevalence of DM has risen dramatically over the past two decades.Diabetes mellitus is a major cause of mortality and morbidity worldwide. Assay for C-peptide can be used to provide an index of endogenous insulin production and pancreatic beta cell function.
502	**How do I: Evaluate the safety and legitimacy of unproven cellular therapies?**	Indira Guleria., Madhan Jeyaraman., Asawari Bapat., Sathish Muthu	The Journal of the Association of Physicians of India	**SDG - 3,12**	Unproven cellular therapies are being offered to patients for a variety of conditions and diseases for which other treatments have failed. The use of untested cellular therapies is a worldwide problem. Practitioners (e.g., physicians, scientists, QA/QI facility managers, and policy advocates) are perhaps unaware of the risks involved with such therapies. Therefore, a critical need exists to bring attention to the potential limitations and adverse effects of these therapies to inform and limit misinformation.
503	**Energy Efficient and Delay Aware Optimization Reverse Routing Strategy for Forecasting Link Quality in Wireless Sensor Networks**	Guruva Reddy Elangovan., T Kumanan	Transfusion	**SDG- 7,9,11,13,17**	Wireless Sensor Networks (WSNs) have a rapidly increasing number of applications due to the development of long-range low-powered wireless devices. Node decoupling for (NoRD) efficient power-supplying of nodes offers a evade network to avoid sleepy nodes (Chen and Pinkston in NoRD: Node-node decoupling for effective power-gating of on-chip nodes, in Intl, Symp, On Microarchitecture (MICRO), 2012). Though, it obtains a huge latency as well as restricted scalability. In addition, it enhances energy utilization. To defeat this problem, Energy Efficient and Delay Aware Optimization Reverse Routing Strategy (EEOS) is proposed for forecasting link quality in WSN. The main objective of this research is to design a Multi-hop Reverse Routing Technique in WSN. The reverse routing technique avoids the amount of retransmission. Forecasting link quality is used to measure the link quality by Estimating Communication Count (ECC), energy, and delay. This technique enhances routing, link stability, and energy efficiency and minimizes network congestion. It supports Quality of Service (QoS) necessities of energy control, traffic arrangement, and route allotment. In this scheme, the Signal-to-Interference and Noise Ratio (SINR) assists in measuring the quality of a wireless connection. In addition, the route link score is used to form the route from sender to receiver. The reverse routing also provides an efficient route. Simulation results prove that the EEOS minimizes both the delay and the energy utilization and increases the network throughput compared to the baseline protocol.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
504	**Influence of Cocos nucifera Oil Extract on the Caries Activity of Removable Partial Denture Wearers: Thirty-six Months Follow-up**	Vidya G Shankar., R Prabhu., Shilpa Bhandi., Ramachandra Prabhakar., R Saravanan., Khalid Ghiaz., R Ganesh Kumar., Saravanan Muthiah., Shankargouda Patil	Wireless Personal Communications	**SDG - 3,17**	This study aimed to evaluate the intraoral caries activity of removable partial denture wearing patients with the use of Cocos nucifera oil as an adjuvant to routine oral hygiene measures. Materials and methods: Removable partial dentures were done for 63 patients and caries assessment was done for the remaining natural teeth which were used as the abutments for serving the purpose of retention and also for the non-abutment teeth. International Caries Detection and Assessment System (ICDAS) criteria of caries assessment was done following the regular use of C. nucifera oil. Standard protocols were followed, and revisits were carried out every 6 months duration for 36 months for assessment of the progression of caries activity. Qualified dental personnel examined the denture wearers for the entire study period. Results: Clinical evaluations were done after the restoration of the partially edentulous patients for an average of 6 months with the use of C. nucifera oil. About 82% of the teeth made had no noticeable difference in the caries activity status and 57% of the sample were without any signs of active caries activity. Results indicate that there was no loss of both the abutment and non-abutment teeth due to caries activity during the observation period, ensuring a 91% caries protection rate. Conclusion: C. nucifera oil exhibits caries protective activity and satisfactory survival rate without any loss of remaining natural teeth among removable partial denture wearing patients during the 36 months observation period.
505	**Collocation of Malondialdehyde and Superoxide Dismutase Levels in Chronic Periodontitis and Pruning them Post-scaling and Root Planing Coupled with Vitamin E Supplementation**	Uma Sudhakar., Jagadish Ebenezer., S Parthiban., Kumukcham Sophia., Nimisha Mithradas., Navina Ravindran	World Journal of Dentistry	**SDG - 3,4,17**	The purpose of this study is to determine the effect of vitamin E supplementation on malondialdehyde (MDA) and superoxide dismutase (SOD) status post-scaling and root planing (SRP) in patients with chronic periodontitis.
506	**Comparison of Gingival Crevicular and Capillary Finger-prick Blood in the Blood Glucose Levels Assessment of Gingivitis and Periodontitis Patients**	Ayswarya V Vummidi., Paavai Ilango., T Vatsala., R Visali., Abirami T., M Arul Pari., G D Gomathi	World Journal of Dentistry	**SDG - 3,4,17**	The etiopathogenesis of diabetes mellitus is multi-factorial & complex and appears to involve interactions of various immunological, genetic and environmental factors1 . The Diabetes mellitus is associated with increased blood glucose level. It represent one of the major chronic health problem faced by the society today2 . The aim of this study is to evaluate a quick, safe, noninvasive and painless method to screen for diabetes during regular clinical examination using self-monitoring glucometer.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
507	**Evolution of evidence in spinal surgery â€“ past, present and future Scientometric analysis of randomized controlled trials in spinal surgery**	Sathish Muthu., Madhan Jeyaraman., Naveen Jeyaraman	World Journal of Dentistry	**SDG - 3,9**	Spine surgery is evolving and in the due course of its evolution, it is useful to have a comprehensive summary of the process to have a greater understanding to refine our future directives. With the multiple domains of research in the spine, it has become difficult for a surgeon to find the potential hotspots in research or identify the emerging research frontiers. Aim: To analyze RCTs (1990-2019) for potential research domains along with their research networks and identify the hot topics for future research. Methods: A comprehensive and systematic analysis of all the RCTs published on spinal surgery from 1990 to 2019 retrieved from the Web of Science Core Collection database. Scientometric and visual analysis of their characteristics, cooperation networks, keywords, and citations were made using CiteSpace software. Journal and article impact index were retrieved from Reference Citation Analysis (RCA) Database. Results: A total of 696 RCTs were published on spinal surgery from 1990 to 2019; of which, the United States (n = 263) and China (n = 71) made a significant contribution. Thomas Jefferson University (n = 16) was the leading contributor to RCTs on spinal surgery. Weinstein JN was the most cited author in the field followed by Deyo RA. Spine (n = 559) remained the top-cited journal for RCTs on spinal surgery. On literature co-citation analysis, spinal stenosis, anterior cervical discectomy and fusion, degenerative disc disease, and minimally invasive decompression were identified as the hotspots and potential research frontiers. Conclusion: The identified hotspots that extending the frontiers in the management of degenerative disorders of the spine through further research holds the potential for advancement in spinal care.
508	**Effect of biofilm on flexural strength of root canal dentin: A pilot study**	Tejaswi Bollina., D Saranya., D Archana., B Santhosh Kumar., Jyothi Lexmi Chetty	World Journal of Orthopaedics	**SDG - 3,4,17**	Despite the vast literature on the effects of root canal irrigants on the dentin characteristics, the precise effects of clinically relevant irrigation sequences remain unclear. In this review, we systematically dissect the role of different sequential irrigation approaches that are used in clinical endodontics. Using a systematic search strategy, we attempt to answer the question: 'Which irrigating sequence has the most deleterious effects on dentin structure and properties?' The effect of irrigants on the dentin composition and mechanical properties have been reviewed. A wide variety of concentrations, duration and techniques have been employed to characterize the effects of chemicals on dentin properties, thus making it impossible to draw guidelines or recommendations of irrigant sequences to be followed clinically. It was apparent that all the studied irrigation sequences potentially result in some deleterious effects on dentin such as decrease in the flexural strength, microhardness, modulus of elasticity and inorganic content and organic-inorganic ratio of the dentin. However, the literature still lacks comprehensive investigations to compare the deleterious effect of different irrigation sequences, using a wide variety of qualitative and quantitative methods. Such investigations are essential to make clinical recommendations and strategize efforts to minimize chemically-induced damage to dentin characteristics.
509	**A Study to Assess the Knowledge and Practice of Exclusive Breastfeeding among Mothers in Selected Pediatric Clinics at Chennai**	A Parimala., Motcharakkini L., Hema V H	ENDODONTOLOGY	**SDG - 2,3,4,5,17**	Exclusive breastfeeding (EBF) is recommended for the first six months of age by the World Health Organization. Mothers' good knowledge and positive attitude play key roles in the process of exclusive breastfeeding practices. In this study, we report on a systematic review of the literature that aimed to examine the status of mothers' knowledge, attitude, and practices related to exclusive breastfeeding in East Africa, so as to provide clues on what can be done to improve exclusive breastfeeding.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
510	**A Quasi Experimental Study to Assess the Effectiveness of IEC on Knowledge, Attitude and Practice Regarding Breast Self-Examination among Female Supportive Staff Working in A.C.S Medical College & Hospital**	E Sangeetha., Mahizh Punitha Isaiah., Hema V H	INTERNATIONAL JOURNAL OF NURSING EDUCATION	**SDG - 3,4,5,17**	Breast cancer (the uncontrolled growth of abnormal cells in the breast) is one of the most common cancer types in the United States. Early detection is key in the treatment of breast cancer. There are steps you can take to detect breast cancer when it is most treatable. Although breast cancer screening cannot prevent breast cancer, it can help find breast cancer early, when it is easier to treat.
511	**Effect of long-term yoga training on autonomic function among the healthy adults**	R Shobana., K Maheshkumar., S T Venkateswaran., M Bagavad Geetha., R Padmavathi	INTERNATIONAL JOURNAL OF NURSING EDUCATION	**SDG - 3,16**	Autonomic dysfunction is one of the major complications in noncommunicable diseases, and there are studies to prove yoga practice improves cardiac autonomic function. So, this present study was done to compare the autonomic functions among yoga practitioners and nonyoga practitioners.
512	**Working hours impact on the sleep quality and oral health status among migrant construction workers in Chennai**	Suresh Sushanthi., Doraikannan Srisakthi., Jayakumar N D., Indiran Meignana Arumugham., R Kesavan	JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE	**SDG - 3,8,10**	Nowadays, a shift in our lifestyle which espouses long working hours and low sleep quality can have a direct impact on the general health and oral health status. Sleep deprivation results from intense long working hours.
513	**Predictors of hypertension among current smokeless tobacco users in India; analysis from the fourth round of National Family Health Survey (2015â€“2016)**	Vidya G S., Garima Bhatt., Jeyashree Kathiresan., Shreyans Rai., Madhur Verma., Sonu Goel	JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE	**SDG - 3**	Hypertension is a major modifiable risk factor for cardiovascular and cerebrovascular diseases. The association between different risk factors including smoking and hypertension is studied extensively; however, there is a paucity of literature with respect to association between smokeless tobacco use and hypertension in India. In the current study, the relationship between smokeless forms of tobacco use and hypertension is being investigated.
514	**Burden Of Care and Depression in Caregivers of Patients with Schizophrenia**	Mubeen Taj., Maithreyi Poguri., Glady Mariyana Jernas., Sujitha Jebarose Jebanesy Thomas., Christina Mary Paul	JOURNAL OF FAMILY MEDICINE AND PRIMARY CARE	**SDG - 3,4,10,17**	Schizophrenia, a chronic psychiatric disorder affecting all major domains of a patient's life, leads to significant disability. Since the deinstitutionalization policy, the onus of care is on families especially the primary caregiver who experiences physical and emotional burden. Depression among caregivers has been estimated to be higher than the general population. This cross-sectional study aimed to assess burden of care and depression in primary caregivers and associated caregiver variables. Methods: 75 consenting primary caregivers of patients with ICD-10 diagnosis of schizophrenia were assessed for burden of care and depression using the Burden Assessment Schedule and the Patient Health Questionnaire - 9 after collecting socio-demographic and caregiving details. Results: All the caregivers, 49 females and 26 males, had moderate to high levels of burden with a majority having moderate to severe levels of depression. Spouses (p=0.0038), older caregivers (p=0.01) and those with lower educational levels (p=0.01) experienced more burden. There was a significant positive correlation between burden of care and depression (p=0.000). Conclusion: In one of India's largest metropolitan cities, though psychiatric services are easily available, caregivers continue to feel burdened and depressed. This can impact not just the caregiver but also care being provided to the patient and illness outcome.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
515	**Development of patient derived organoids for cancer drug screening applications**	Gomathy Baskar., Dr.thirunavukkarasu Palaniyandi., Sandhiya Viswanathan., Barani Kumar Rajendran., Maddaly Ravi., Asha Sivaji	NATIONAL JOURNAL OF COMMUNITY MEDICINE	**SDG - 3,9**	Cancer is a disease characterised by abnormal cell growth that can invade or spread to other regions of the body. Organoids are three-dimensional ex vivo tissue cultures made from embryonic stem cells, induced pluripotent stem cells, progenitor cells or tissue that serve as a physiological model for cancer research. These are designed to recapitulate the in vivo properties of tumours. Importantly, effective recapitulation of the structure of tissues and function is believed to predict patient response, allowing for the creation of personalised therapy in a timely manner that may be used in the clinic. This Review discusses the pre-clinical model and different types of human organoids as models for the development of high throughput drug screening and also aims to highlight how organoids are shaping the future of cancer research.
516	**Gene expressions and their significance in organoid cultures obtained from breast cancer patient-derived biopsies**	Barani Kumar Rajendran., Asha Sivaji., P Pranav., Dr.thirunavukkarasu Palaniyandi., Gomathy Baskar., Maddaly Ravi., Mohan Ranganathan	Acta Histochemica	**SDG - 3,9**	Gene expression changes are one of the hallmarks of malignant cells and such changes in specific genes have been identified for a variety of human cancers. Such an association in gene expression changes becomes very significant for breast cancers due to the genetic heterogeneity seen in such cancers. It is due to such genetic implication that breast cancers are classified into several subtypes; based on the expression and the magnitude of expression of estrogen and progesterone receptor genes. Changes in the expression of ERBB2, ESR1, PLAU, MUC1, PGR, and TP53 are implicated in breast cancers. Of the various models available for cancer research, organoid cultures from patient-derived biopsies are being considered as the most relevant for invitro testing. Organoid cultures derived from patient biopsies mitigate several limitations of other commonly available models such as cancer cell lines. Such organoids retain the functional physiology of solid tumors which include gene expression. Also, utilizing patient derived organoids for in vitro testing paves way for personalized medicine which greatly enhances the effectiveness of cancer therapy for individuals. We present the genes implicated in breast cancers, the ways in which organoids can be derived from breast cancer biopsies and their applications for gene expression studies.
517	**Prospect and retrospect of 3D bio-printing**	Barani Kumar Rajendran., Asha Sivaji., Pranav Prabhakaran., Dr.thirunavukkarasu Palaniyandi., B Kanagavalli., V Ram Kumar., Rajeswari Hari., Jayaraman Sandhiya., Gomathy Baskar	Acta Histochemica	**SDG - 3.9**	3D bioprinting has become a popular medical technique in recent years. The most compelling rationale for the development of 3D bioprinting is the paucity of biological structures required for the rehabilitation of missing organs and tissues. They're useful in a multitude of domains, including disease modelling, regenerative medicine, tissue engineering, drug discovery with testing, personalised medicine, organ development, toxicity studies, and implants. Bioprinting requires a range of bioprinting technologies and bioinks to finish their procedure, that Inkjet-based bioprinting, extrusion-based bioprinting, laser-assisted bioprinting, stereolithography-based bioprinting, and in situ bioprinting are some of the technologies listed here. Bioink is a 3D printing material that is used to construct engineered artificial living tissue. It can be constructed solely for cells, but it usually includes a carrier substance that envelops the cells, then there's Agarose-based bioinks, alginate-based bioinks, collagen-based bioinks, and hyaluronic acid-based bioinks, to name a few. Here we presented about the different bioprinting methods with the use of bioinks in it and then Prospected over various applications in different fields.
518	**Comparative Antioxidant and Anti-gout Activities of Citrullus colocynthis loaded Fruit Silver nanoparticles with its Ethanolic extract**	Suganya Karunakaran., Rajeswari Hari	Acta Histochemica	**SDG - 3,12,15,17**	The biological synthesis of silver nanoparticles (AgNPs) using plant materials is a rapidly developing method with several alternative medical applications. This comparative study of ethanolic fruit extract of Citrullus colocynthis (C. colocynthis) (EFECC) and synthesized silver nanoparticles (CC-AgNPs) were carried out for antioxidants and anti-gout arthritic activities.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
519	**A Study on Glycyrrhiza glabra-Fortified Bread: Predicted Glycemic Index and Bioactive Component**	M Prabhahar., Gomathi Kannayiram., Prakash S., S Sendilvelan., Saravana Kumar M., Jijina Go., Edwin Geo Varuvel., Haiter Lenin A	Avicenna Journal of Medical Biotechnology	**SDG - 2,3,12,17**	Tis article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. Tis investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process: (1) Discrepancies in scope (2) Discrepancies in the description of the research reported (3) Discrepancies between the availability of data and the research described (4) Inappropriate citations (5) Incoherent, meaningless and/or irrelevant content included in the article (6) Peer-review manipulation Te presence of these indicators undermines our confdence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process. Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity. We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation. Te corresponding author, as the representative of all authors, has been given the opportunity to register their
520	**Revisiting dextran effect on red blood cell to understand the importance of rouleaux distribution and red blood cell-endothelial cell adhesion**	Mahalakshmi Vijayaraghavan., Suvro Chatterjee., V N Sumantran., Tamilselvan Jayavelu	Bioinorganic Chemistry and Applications	**SDG - 3,4,9,17**	Biopolymers are naturally synthesized from algae, fungi, and plants. One among them is dextran, which has been extensively studied and still being explored to clarify its mechanistic function in supporting red blood cell (RBC) aggregation. Although its importance is widely established, in our present study, we have reexamined RBC aggregation stability by evaluating distribution of RBC rouleaux shape and its adhesive nature towards endothelial cell (EC) in a non-flowing environment. Our observation on aggregated RBC, besides showing increment in rouleaux number, also revealed increment in rouleaux size by exhibiting constant rouleaux shapes namely I-shape, L-shape, Y-shape, and clump-shaped with gradient change in dextran concentration (450–650 kDa). In addition, our study also highlights that aside from stimulating aggregation in RBC, dextran (7.5 and 10% DEX) consistently promotes single RBC adhesion towards EC than aggregated RBCs. Overall, our present study demonstrates rouleaux shape distribution and single RBC adhesion to EC as an important causative factor in provoking abnormalities. From the obtained data, we postulate that dextran-RBC interactions must be considered when designing biomaterials with dextran biopolymer for clinical applications.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
521	**Mechanical, thermal, and fatigue behavior of aloe vera fber/pistachio shell powder toughened epoxy resin composite**	Suganya G., Senthil Kumar S., Jaya Balakrishnan D., Somasundaram S., Bhaskar K., S Sendilvelan	Biomass Conversion and Biorefinery	**SDG - 3,12,13,17**	An epoxy resin hybrid composite composed of aloe vera fiber and pistachio shell particles was developed and tested for its mechanical, thermal, and load-bearing properties. The primary aim of this present study was to study the significant effect of adding silane treated aloe vera fiber and pistachio shell particles in the properties of brittle epoxy resin and its composites. The 3-aminopropyltrimethoxysilane was used to treat the surfaces of aloe vera fiber and pistachio shell particles in an aqueous solution and the powerless hand layup process was applied to make composites. In particular, the composites were post-cured in a hot air oven for 12 h to make the composites tougher. The post-cured aloe vera fiber and pistachio shell particle epoxy resin composites were examined in accordance with ASTM standards. The results revealed the PS3 composite outperformed in load-bearing properties. However, the PS4 showed a marginal improvement in wear resistance. Similarly, an increased fatigue resistance was found in an aloe vera fiber and pistachio shell particle composite material PS3 up to 38,725. Adding silane-treated fibers and particles increases both the load-bearing and time-dependent characteristics of the material. Consequently, innovative silane-treated aloe vera and pistachio shell particle reinforcement might be made from biodegradable materials. Using aloe vera fibers and pistachio shell particles, these epoxy bio-composite materials might be employed in a variety of domestic, automotive, structural, and defense applications.
522	**Molecular and Biochemical Characterization of Hypothyroid Patients in Chennai**	Smita Ayer., Kamatchi C., Nibedita Dey., Rajeswari Hari	Biomass Conversion and Biorefinery	**SDG - 3,17**	The lifestyle disorders are taking a toll on many individuals. With the fast-paced life, it is difficult to control the diet and physical activity necessary for optimal living. Stress too has added up to the various aliments associated with the body. Thyroid diseases are found to be a major hormonal discomfort found in many Asians. Hypothyroidism is a special condition in which there is a deficiency in the thyroid hormone production. The present study was devised to provide a comprehensive data on the effect of fresh onset of hypothyroidism on patients in Chennai. The diagnosed patients were experimented for their biochemical and molecular profiles. There was a significant increase in the lipid and peroxidase profiles. The antioxidant enzyme content also saw a steep decrease in individuals with hypothyroidism. The presence of thyroid peroxidase gene was found to be present in most of the hypothyroid patients. The genes were found to be 320 and 422 bp in size for the amplified product. Therefore, we were able to suggest that there is a very inevitable relation between hypothyroidism and heart ailments. Prolonged and unmonitored hypothyroidism can lead to various other pathological conditions to manifest in the patient in the long run.
523	**Anticancer Activity of Phyto Ligands from Carica papaya Leaves by Suppression of PI3CKA and BCL2 Proteins- An insilico Approach**	Priya Durairaj., Rohith., Dr.thirunavukkarasu Palaniyandi., Sindhu Rajesh., Rajeswary Hari	Biomedical and Pharmacology Journal	**SDG - 3,9,17**	The plant derived compounds possess several medicinal property including anticancer activities. In the present investigation molecular docking analysis was performed to identify a suitable antagonistic ligand from the phyto ligands of Carica pappya leaves which can inhibit the tumor progressive proteins PIK3CA, BCL 2. The molecular Docking analysis was performed using Autodock 4.2. The protein PIK3CA, BCL 2 structures were retrieved from PDB, and by GC-MS analysis the phyto molecules were identified. The ligand chemical structures were drawn using Chem sketch. The enzyme and ligand interaction were obtained as docking score using the Arguslabs server.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
524	**Effect of exercise, relaxation, and ergonomics on physiological stress indicators-An experimental study on teachers**	G Vaishnavi., M Majitha Parveen., C V Senthil Nathan., G Tharani., K Kamatchi., Rajalakshmi. G., Yuvarani Gopinath., D Aruna	Biomedical and Pharmacology Journal	**SDG - 3,4,10**	Introduction and Aim: Stress is a reaction of the body to substantial or unusual demands. It, a complex reaction of the neurologic and endocrinologic system which can initiate the 'Fight or Flight' response. This may lead to headache, tense muscles, insomnia. Stress can alter the memory function, immune function, metabolism, and susceptibility to the disease. The effect of stress and relationship in making teachers quite inefficient in their profession is a growing concern. The present study objective is to investigate the effective significance of exercise, relaxation, and ergonomics on physiological stress in teachers. Materials and Methods: A total of 30 teachers, both male and female were randomly selected. They supported the inclusion and exclusion criteria and were between 30 to 60 years, separated into 2 groups. They were asked to fill necessary information in the stress profile for teachers. The subjects with moderate to high stress were taken for the study and were divided into two groups. Group 'A' were given aerobic stepper exercise and relaxation techniques. Group 'B' were given aerobic stepper exercise and suggestions given on ergonomic correction for an intervention period of about 8 weeks, 5 days per week 45 minutes per session. Pre- and post-test values were taken on blood pressure and blood glucose level using sphygmomanometer and glucometer. Results: The pre- and post-test between group A and group B show a highly significant difference. However, group A showed higher significance than group B. Conclusion: According to the findings, aerobic stepper exercise with relaxation techniques shows highly significant difference and aerobic stepper exercise with ergonomic correction shows significance but aerobic exercise with relaxation technique is highly effective in reducing stress and maintaining blood pressure and glucose level in teachers.
525	**Comparison of laser therapy and galvanic stimulation on facial appearance andfunctionin Bellâ€™s palsyamong south Indian population**	Tharani Gnanamoorthy., K Kamatchi., Sharmila S., Yuvarani Gopinath., G Vaishnavi., Pothuraju Pravalika	Biomedicine	**SDG - 3,10,17**	Introduction and Aim: Bell's palsy is an instantaneous lower motor neurons injury of 7th cranial nerve associated with infection and swelling. It produces unexpected unilateral weakness of facial muscles, progresses rapidly and attains peak symptoms within a week. The most common age of incidence is between 20 to 40 years. Although facial paralysis in Bell's palsy is self-limited, only 80% of the patients make a full recovery. There are studies stating that both galvanic electrical stimulation and laser therapy speed up the recovery of facial paralysis, but the extent of complete recovery is unknown. Hence, this study is an attempt to understand and compare how laser therapy and galvanic electrical stimulation affect facial appearance and facial muscle functions in Bell's palsy. Materials and Methods: This study included thirty subjects with acute onset of Bell's palsy aged between 20-40 years. They were randomly grouped into A and B. Galvanic electrical stimulation and low-level laser therapy were given to group A and group B respectively for 6 weeks (3 sessions/week) along with facial exercises. Facial disability index scale was used to measure facial muscle function and Sunny brook scale was used to measure facial symmetry in pre- and post-treatment periods. Results: When comparing the pre- and post-mean values of groups A and B on the Sunny Brook facial grading and the facial disability index (physical, social), group B (with low level laser therapy) showed a highly significant difference in mean values at p 0.001. Conclusion: Low-level laser therapy can be used as an adjective in treating the patients with Bell's palsy.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
526	**Efficacy of antigravity and Pilates exercise to improve balance in T2DM**	K Kamatchi., S Saranya., Tharani Gnanamoorthy., K C Gayathri., Dr. I. Deepa., N Kaviraja., Meenakshi S K	Biomedicine	**SDG - 3,4,10,17**	Introduction and Aim: Increased risk of fall and injury, disturbance in gait and balance is always associated with type 2 diabetes. The more common risk factor in diabetes is the fear of fall. Exercise provides stability, improves the dynamic balance and has a great influence to maintain the equilibrium of the body. The aim of the study was to analyse the effect of antigravity and Pilates exercise to improve balance in diabetes mellitus patients. Materials and Methods: This is an experimental study and a comparative type. The study was done in the Faculty of Physiotherapy OP department, A.C.S. Medical College and Hospital with a study sample of 30 patients with male and female in the age group of 45 -65 years. Based on the inclusion and exclusion criteria the subjects were segregated into two groups. Group A- were implemented with antigravity exercise for half an hour for three days per week for 12 weeks and Group B - were implemented with Pilates for forty-five minutes for three days per week for 12 weeks. Results: The study revealed that anti-gravity exercise was better than Pilates exercise and which helps in increasing the balance, muscle strength and prevent falls Risks and provides a great significant difference in post- test mean value (P 0.001). Conclusion: At the end of the study, it indicates that anti-gravity exercise was found to be more effective in improving the balance among diabetes mellitus patients.q
527	**Efficacy of green synthesized gold nanoparticles conjugated with 5-fluorouracilin targeting breast cancer cell - An invitrostudy**	G Mohan Kumar., Balashanmugam P., Priya Chokkalingam., Sobha P K P., Swathi Krishna V S., Wajiha Safeen C., Rajeswary Hari	Biomedicine	**SDG - 3,9,17**	Presently, research and development in nanomaterials is gaining hypersonic reach in various areas of applications. Biological way of preparing such nanomaterials is acquiring noteworthiness in the view of affordability and environment-friendly approach. In this current work, gold nanoparticles(AuNPs) were prepared using leaves extract of Chloroxylon swietenia having anticancer behaviour with the focus to blend the therapeutic activity among the nanoparticles was studied by conjugating with 5 Fluorouracil (5-FU) to target breast cancer cells.
528	**Prevalence and socioeconomic status of osteoarthritis among adult population in and around Chennai: A case study**	Bupesh Giridharan., Lakshman Raj Raja., Vasanth Sakthivel., Tamizharasi Pandiyan	Biomedicine	**SDG - 1,3,10**	Introduction and Aim: One of the more common degenerative illnesses in the adult population is osteoarthritis (OA). Many etiological agents are responsible for this common disorder like aging, calcium deficiency, inflammatory syndromes, etc.,With reference to this, preventive measures can be adopted by proper diagnosis and treatment at the right stage. The goal of this research was to evaluate the causes of osteoarthritis of the knee in adults and to identify the inflammatory biomarkers. Materials and Methods: A population?based, case study among 600 adultsattending local hospitals inChennai and Kanchipuram district, Tamilnadu, India, was cross-examined from January 2017 to December 2018. All the data related to the study were collected by the postgraduate students, skilled health workers according to thedirection of thecorresponding author. Printedquestionairesand informed approval were obtained from all study participants. Diagnosing criteria for OA wereadopted from the Rheumatology College of America, and it was confirmed and verified in the region. Results: Around 600 adult patients were questioned, with 27.1 % having knee OA.The following measures like age, tobacco habit, illiteracy, lower socioeconomic class, positive family history of OA, diabetes, and hypertension were found to be highly linked with OA knee significantly in age greater than 50 in females ($P < 0.05$). Conclusion: The risk of OA was high in this area and serum biomarkers were evaluated. In the present study, the IL-2,IL-5,IL-6, and IL-10 were considered as biomarkers for osteoarthritis in acute and chronic stages. As a result, an effective preventative approach is required to reduce this burden.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
529	**Physiotherapy for complete motor recovery in 4-year-old child with Guillain Barre syndrome- A case study**	V Rajalaxmi., S Dhanusia., P Bharath Kumar., N Suriya., G Sridevi	Biomedicine	**SDG - 3,4,10**	This study was conducted in 4-year-old male child in sub-acute stage of Guillain Barre Syndrome (GBS) for 12 weeks in a local clinical setup after discharge from the hospital completing IVIG dose. Physiotherapy was given for 12 weeks, 5 days in a week of 1 and half hour session per day with rest periods between the session. Physiotherapy intervention includes passive – active exercise, resisted exercise, weight bearing exercise, mat activities, breathing exercises, task-oriented exercise, balance and coordination exercise, abdominal strengthening, gait training, and play activities. Outcomes used before and after the intervention were Manual Muscle Test (MMT), Five Times Sit to Stand Test (FTSST), Functional independent Measure (FIM), Time Up and Go test (TUG) and Hand dynamometer to analyse the effects of physiotherapy intervention. This study concluded that there was a significant improvement in patient's motor functions and independence in daily activities after an effective physiotherapy treatment. There was a complete motor recovery after 12 weeks of physiotherapy.
530	**Impact of Alexander technique, mirror therapy versus conventional therapy on musicianâ€™s cramp in guitarists**	V Rajalaxmi., Veena Kirthika S., Chokkalingam Priya., Nadar Newton Jayakumar., G Mohan Kumar., V Rajalaxmi., Veena Kirthika S., Chokkalingam Priya., Tharani Gnanamoorthy., K Kamatchi., Rajavel R., Nadar Newton Jayakumar., G Mohan Kumar., Tharani Gnanamoor	Biomedicine	**SDG - 3,4,10**	Introduction and Aim: Musicians may perceive the early symptoms of dystonia because of faulty technique or lack of sufficient preparation. Hand dystonia affecting musicians is often called musician's dystonia or musician's cramp. Guitarists are typically affected in their left hand and the spasms may cause the fingers to contract and curl under when attempting to play. The condition called focal dystonia (musician's cramp), can afflict typist or anyone else who makes repetitive, forceful, precise movements. The objective of the study is to observe the impact of alexander technique versus mirror therapy on musician's cramp. Methodology: A total of 150 subjects were randomly selected based on the inclusion criteria. The selected subjects were divided in three groups namely group A, B and C respectively. The evaluation parameters were performed using the Likert scale and was framed based on pain, mobility, and grip. Results: Likert scale for pain, mobility and grip was used to analyse data. The results of this study show that the Alexander Technique is more effective than mirror therapy and conventional therapy to reduce pain and improve mobility and grip for guitarists. Conclusion: These results suggest that playing guitar by adapting Alexander technique is advantageous for building speed.
531	**Extent of knowledge and attitudes on plagiarism among undergraduate medical students in South India - a multicentre, cross-sectional study to determine the need for incorporating research ethics in medical undergraduate curriculum**	Rajad R., Melvin George., Basavaraj Bhandare., Dilip Mathai., Vijay Subbaraju Penumutsa., Jeffrey Pradeep Raj., Aswathy Maria Oommen	Biomedicine	**SDG - 4, 10,17**	Undergraduate medical students in India participate in various research activities However, plagiarism is rampant, and we hypothesize that it is the lack of knowledge on how to avoid plagiarism. This study's objective was to measure the extent of knowledge and attitudes towards plagiarism among undergraduate medical students in India.
532	**An atypical bilateral trifurcation of recurrent laryngeal nerve**	P B Krishnan., Santosh Malleshappa Prabhakar	BMC Medical Education	**SDG - 3,4,10**	Thyroidectomy is a frequently performed surgery for benign and malignant conditions. Nevertheless, one of the most critical complications of thyroidectomy is recurrent laryngeal nerve (RLN) injury leading to vocal cord paralysis. A thorough knowledge of the anatomical variations of RLN and ligation of the related vessels close to their distal branches is critical to avoid injury.
533	**Multiple bone infarcts with intra-articular extension**	Satvik Pai., Sathish Muthu., Naveen Jeyaraman., Madhan Jeyaraman	BMC Surgery	**SDG - 3,17**	► Bone infarct can be a rare cause of pain around the knee joint. ► Smoke up the chimney appearance on imaging is characteristic. ► On MRI, central signal intensity similar to marrow is an important finding to differentiate it from enchondroma. We present a case to highlight these characteristic clinical points.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
534	**Application of Cell-Derived Extracellular Vesicles and Engineered Nanovesicles for Hair Growth: From Mechanisms to Therapeutics**	Prakash Gangadaran., Ramya Lakshmi Rajendran., Mi Hee Kwack., Madhan Jeyaraman., Chae Moon Hong., Young Kwan Sung., Byeong-cheol Ahn	BMJ Case Reports	**SDG-3,9,17**	Hair loss is one of the most common disorders that affect both male and female patients. Cell-derived nanovesicles (CDVs) are natural extracellular vesicles and engineered nanovesicles that can carry various biologicals materials such as proteins, lipids, mRNA, miRNA, and DNA. These vesicles can communicate with local or distant cells and are capable of delivering endogenous materials and exogenous drugs for regenerative therapies. Recent studies revealed that CDVs can serve as new treatment strategies for hair growth. Herein, we review current knowledge on the role of CDVs in applications to hair growth. The in-depth understanding of the mechanisms by which CDVs enable therapeutic effects for hair growth may accelerate successful clinical translation of these vesicles for treating hair loss.
535	**Common Medications Which Should Be Stopped Prior to Platelet-Rich Plasma Injection**	Ashim Gupta., Madhan Jeyaraman., Nicola Maffulli	Frontiers in Cell and Developmental Biology	**SDG-3**	Platelet-rich plasma (PRP) exerts its effect through the release of growth factors and cytokines from the platelet concentrate. Certain medications may affect platelet count or function, resulting in decreased efficacy of PRP injections.
536	**Impact of the Process Variables on the Yield of Mesenchymal Stromal Cells from Bone Marrow Aspirate Concentrate**	Madhan Jeyaraman., Shiva Kumar Bingi., Sathish Muthu., Naveen Jeyaraman., Rathinavelpandian Perunchezhian Packkyarathinam., Rajni Ranjan., Shilpa Sharma., Saurabh Kumar Jha., Manish Khanna., Sree Naga Sowndary Rajendran., Ramya Lakshmi Rajendran., Prakash	Biomedicines	**SDG-3,9,17**	Human bone marrow (BM) has been highlighted as a promising source of mesenchymal stromal cells (MSCs) containing various growth factors and cytokines that can be potentially utilized in regenerative procedures involving cartilage and bone. However, the proportion of MSCs in the nucleated cell population of BM is only around 0.001% to 0.01% thereby making the harvesting and processing technique crucial for obtaining optimal results upon its use in various regenerative processes. Although several studies in the literature have given encouraging results on the utility of BM aspiration concentrate (BMAC) in various regenerative procedures, there is a lack of consensus concerning the harvesting variables such as choice of anesthetic agent to be used, site of harvest, size of the syringe to be used, anticoagulant of choice, and processing variables such as centrifugation time, and speed. In this review article, we aim to discuss the variables in the harvesting and processing technique of BMAC and their impact on the yield of MSCs in the final concentrate obtained from them.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
537	**Current Role of Intra-Articular Injections of Platelet-Rich Plasma in Adhesive Capsulitis of Shoulder: A Systematic Review**	Madhan Jeyaraman., Bushu Harna., Vijay Gupta., Shivali Arya., Naveen Jeyaraman., Ramya Lakshmi Rajendran., Prakash Gangadaran., Manish Khanna., Chae Moon Hong., Byeong-cheol Ahn	Bioengineering	**SDG-3,9,17**	Adhesive capsulitis shoulder is a common problem of patients presenting with shoulder pain and disability. The approach to such patients includes a variety of modalities. This systematic review evaluates the efficacy of intra-articular injections of platelet-rich plasma (PRP) in the treatment. A literature search was performed between January 2010 and 30 May 2022. MeSH terms used were 'Platelet-rich plasma' OR 'PRP' AND 'Frozen shoulder' OR 'Adhesive capsulitis shoulder' OR 'Periarthritis shoulder'. The search included published articles in the English language involving human subjects. Studies evaluating other types of shoulder disorders, in vitro studies, review articles, animal-model studies, and pre-clinical trials were excluded. The data regarding study characteristics, efficacy, and safety outcomes were analyzed. A total of 11 studies with 347 patients over 10 years were finally included in this review. Most publications were in 2019 and 2020, mostly from India. This review included seven comparative studies, three case series, and one case report. In seven studies, a single intra-articular PRP injection was administered, whereas in the rest of the studies two or multiple injections were given. Only one study demonstrated an equivocal efficacy of PRP and steroid intra-articular injection. The rest all depicted better clinical and functional outcomes with the PRP injection. Only one study compared the outcomes of hydro-dissection treatment in adhesive capsulitis with the intra-articular PRP injection. The rest all either examined PRP alone or compared it with the steroid intra-articular injection. None of the studies showed any major side effects. The intra-articular injections of PRP in the management of adhesive capsulitis of the shoulder provide a new treatment approach. Further studies are required to ascertain the efficacy and safety of the PRP intraarticular injection as a management alternative in adhesive capsulitis.
538	**Evolution of Mesenchymal Stem Cell Therapy as an Advanced Therapeutic Medicinal Product (ATMP)â€"An Indian Perspective**	Byeong-cheol Ahn., Sathish Muthu., Madhan Jeyaraman., Moinuddin Basha Kotner., Naveen Jeyaraman., Ramya Lakshmi Rajendran., Shilpa Sharma., Manish Khanna., Ji Min Oh., Prakash Gangadaran., Sree Naga Sowndary Rajendran	Bioengineering	**SDG-3,9,17**	Stem cells can be defined as the cells that have the capacity to both self-renew and give rise to differentiated cells. Under the right conditions and signals, depending on their origin and bio-plasticity, stem cells can differentiate into multiple cell lineages and develop into various mature cells. Stem cell therapy is a fast-developing branch of medicine that includes the most innovative regenerative therapies for the restoration of cell and tissue function in individuals with severe diseases. Stem cell research has resulted in the emergence of cell-based therapies for disorders that are resistant to conventional drugs and therapies, and they are considered under the category of an Advanced Therapeutic Medicinal Product (ATMP). The FDA and the European Medicines Agency (EMA) devised a new strategy in 2017 with the aim of unifying the standards for development of ATMPs such that it is easy to exchange information at the international level. In this review, we discuss the evolution of mesenchymal stem cell-based therapy as an ATMP in the global and Indian scenarios, along with the guidelines governing their usage and clinical application of these therapeutics

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
539	**Application of Sygen ® in Diabetic Peripheral Neuropathies-A Review of Biological Interactions**	Marcelo Amaral Coelho., Madhan Jeyaraman., Ramya Lakshmi Rajendran., Naveen Jeyaraman	Bioengineering	**SDG-3**	Application of Sygen ® in Diabetic Peripheral Neuropathies-A Review of Biological InteractionsThis study investigates the role of Sygen® in diabetic peripheral neuropathy, a severe disease that affects the peripheral nervous system in diabetic individuals. This disorder often impacts the lower limbs, causing significant discomfort and, if left untreated, progresses into more serious conditions involving chronic ulcers and even amputation in many cases. Although there are management strategies available, peripheral neuropathies are difficult to treat as they often present multiple causes, especially due to metabolic dysfunction in diabetic individuals. Gangliosides, however, have long been studied and appreciated for their role in neurological diseases. The monosialotetrahexosylganglioside (GM1) ganglioside, popularly known as Sygen, provides beneficial effects such as enhanced neuritic sprouting, neurotrophism, neuroprotection, anti-apoptosis, and anti-excitotoxic activity, being particularly useful in the treatment of neurological complications that arise from diabetes. This product mimics the roles displayed by neurotrophins, improving neuronal function and immunomodulation by attenuating exacerbated inflammation in neurons. Furthermore, Sygen assists in axonal stabilization and keeps nodal and paranodal regions of myelin fibers organized. This maintains an adequate propagation of action potentials and restores standard peripheral nerve function. Given the multifactorial nature of this complicated disorder, medical practitioners must carefully screen the patient to avoid confusion and misdiagnosis. There are several studies analyzing the role of Sygen in neurological disorders. However, the medical literature still needs more robust investigations such as randomized clinical trials regarding the administration of this compound for diabetic peripheral neuropathies, specifically.
540	**A study on Alzheimer Disease Detection using Machine learning and Deep Learning**	Semmalar E., Shobarani Ranganathan., M.j. Bharathi., T. Suganthi	Bioengineering	**SDG-3,4,9,17**	Alzheimer's disease (AD) is the leading cause of dementia in older adults. There is currently a lot of interest in applying machine learning to find out metabolic diseases like Alzheimer's and Diabetes that affect a large population of people around the world. Their incidence rates are increasing at an alarming rate every year. In Alzheimer's disease, the brain is affected by neurodegenerative changes. As our aging population increases, more and more individuals, their families, and healthcare will experience diseases that affect memory and functioning. These effects will be profound on the social, financial, and economic fronts. In its early stages, Alzheimer's disease is hard to predict. A treatment given at an early stage of AD is more effective, and it causes fewer minor damage than a treatment done at a later stage. Several techniques such as Decision Tree, Random Forest, Support Vector Machine, Gradient Boosting, and Voting classifiers have been employed to identify the best parameters for Alzheimer's disease prediction. Predictions of Alzheimer's disease are based on Open Access Series of Imaging Studies (OASIS) data, and performance is measured with parameters like Precision, Recall, Accuracy, and F1-score for ML models. The proposed classification scheme can be used by clinicians to make diagnoses of these diseases. It is highly beneficial to lower annual mortality rates of Alzheimer's disease in early diagnosis with these ML algorithms. The proposed work shows better results with the best validation average accuracy of 83% on the test data of AD. This test accuracy score is significantly higher in comparison with existing works.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
541	**Knowledge and attitude about higher radiographic investigation methods in oral medicine post graduated: an original research**	Harmeet Singh Sachdeva., Krishna Veni Sathi., Tishura Arunagiry., Akriti Mahajan	European Journal of Molecular and Clinical Medicine	**SDG-3,4,9,17**	Objectives This study aimed to evaluate the level of knowledge and attitude toward quality control in dental radiography among students of dentistry, allied dental sciences, and radiologic technology programs Methods A cross sectional survey was conducted using self-administered questionnaire on a convenience sample of 580 students from three universities in Jordan. The questionnaire was divided into sections that include personal sociodemographic variables, knowledge about quality assurance in dental radiography, and attitude toward quality assurance in dental radiography. Results A total of 286 students completed the questionnaire (response rate = 49.3%), of whom 70% were women. The respondents' knowledge scores ranged from 12.2% (n= 35) to 35.2% (n= 100). The mean of the quality assurance knowledge scores for the whole study sample was 20.3% ± 14.5%, with no significant difference between men and women (P = 0.643). Allied dental sciences students showed significantly higher knowledge scores (25.0 ± 13.0) than dentistry (17.8 ± 14.40) or radiologic technology students (20.9 ± 14.8). The average attitude scores toward quality assurance in dental radiography was fairly good (69.5 ± 26.4) with no statistically significant differences by study program. Conclusion Knowledge of students about quality assurance in the three programs is inadequate. The participants' attitude toward quality assurance was fairly good. The study provides feedback to dental schools to improve their curriculum by including quality assurance into students clinical practices. Further studies are requested to investigate the reasons behind this low level of knowledge.
542	**To Evaluate the Efficacy of Disinfection Methods for Operation Theatres at a Tertiary Care Hospital**	B Ananthi., Subashini P., Ramakumar M., Shaweez Fathima S	European Journal of Molecular and Clinical Medicine	**SDG-4,6,9,17**	Evaluation and comparison of efficacy of the surface disinfectants used in a tertiary care hospital Abstract Disinfectants play an important role in the prevention of nosocomial infections. A variety of disinfectants with different mechanism of action are available in the market. Most of the hospitals do not have a proper policy for the selection of an appropriate disinfectant and so they rely on the manufacturers claim about the disinfectant which is not always reliable. Though several methods have been developed for disinfectant testing most of them are not feasible because of their complex procedures. Thus in our study we employed a simple quantitative suspension method for testing the efficiency of the disinfectants. Four disinfectants- Hospital ot (1, 6 Dihydroy, 2,5 Dioxyhexane, glutaraldehyde, benzalkonium chloride solution, alkyl urea derivative), Srivlon (chlorhexidine gluconate, cetrimide, isopropyl alcohol), Emplura (Sodium hypochlorite solution; 4% w/v) and NICE (sodium hypochlorite solution; 5%w/v) were tested against three most common nosocomial pathogens Pseudomonas aeruginosa, MRSA and Candida albicans. All the disinfectants tested in this study exhibited good activity against all the three pathogens. Comparative evaluation of the disinfectants concluded that Hospal-OT had the maximum activity and Srivlon had the lowest.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
543	**A STUDY IN UNDERSTANDING THE CRITICAL FACTORS INFLUENCING MACHINE LEARNING APPROACHES TOWARDS PERFORMANCE OF EMPLOYEES**	C B Senthil Kumar., Meena Srinivasan	European Journal of Molecular and Clinical Medicine	**SDG-4,8,9,10,17**	In a modern environment, every organization becomes an industrial technology to manage the entire industry and help improve the performance of its employees. By empowering leaders to adopt new technologies that increase the effectiveness of human management, environmental competition has enabled workers to be more productive and productive. IoT has proven to be an important part of the organization because it allows you to attract potential customers through the automated and robotic process using ML and other formats to help you achieve greater productivity and get more jobs in less time. Today's market is based on the use of technology for the rapid delivery of data and information used to make smarter decisions. The key is to understand how these tools help to identify the full potential of employees and improve their performance in different industries
544	**Relationship Between Subcalcaneal Fat Pad Thickness And Plantar Heel Pain: A Case Control Study**	BANGALORE NARAYANAPPA ROSHAN KUMAR ., N B Mahesh Kumar., PRASANNA TOTIGER YELLAPPA ., R A Ashwin Annamalai., SANDEEP K MYLARALINGA	European Journal of Molecular and Clinical Medicine	**SDG-3**	Heel pain is one of the most frequent complaints in medical clinical practice for conditions affecting the feet during weight-bearing tasks
545	**Does the traditional tip-apex distance hold good for PFN-A?**	Pramod Kumar Mahadevaiah., Anirudh Madhav	European Journal of Molecular and Clinical Medicine	**SDG-3,4,9,17**	Unstable proximal femoral fractures are common and challenging for the orthopaedic surgeon. Often, these are treated with intramedullary nails. The most common mode of failure of any device to treat these fractures is cut-out. The Synthes proximal femoral nail antirotation (PFNA) is unique because it is the only proximal femoral intramedullary nail which employs a helical blade in lieu of a lag screw. The optimal tip-apex distance is 25 mm or less for a dynamic hip screw. The optimal blade tip placement is not known for the PFNA.
546	**A COMPARATIVE ANALYSIS OF ELEVATION OF DEPRESSED TIBIAL CONDYLE FRACTURE BY AUTOGENOUS BONE GRAFT AND HYDROXY APATITE CRYSTALS**	Iyappa Suresh., Adinarayana Roy Gandi., Bangalore Narayanappa Roshan Kumar., Deepak Varghese Kurian	European Journal of Molecular and Clinical Medicine	**SDG-3,9,10,17**	Bone graft augmentation is often selected to treat defects associated with unstable tibial plateau fractures. This prospective, randomized, multicenter study was undertaken to determine the efficacy of bioresorbable calcium phosphate cement compared with standard autogenous iliac bone graft in the treatment of these osseous defects
547	**Dermatological manifestations in patients with chronic kidney disease: A cross sectional study**	Bindushree R., Priyashree R	European Journal of Molecular and Clinical Medicine	**SDG-3,4,6,10,17**	Chronic kidney disease (CKD)-associated mucocutaneous manifestations significantly impair the quality of life but often remain understudied. They may also vary across regions, socioeconomic and nutritional status, and racial differences.
548	**Anthropometric measurements of medial and lateral malleoli to study and aid better implant profile**	Kalyanasundaram Sivaprasad., Neel Pasrija., Bangalore Narayanappa Roshan Kumar., Iyappa Suresh	European Journal of Molecular and Clinical Medicine	**SDG-3,9,17**	The distal femurs of 100 subjects (50 men, 50 women) from the Malay population aged between 19 and 38 years were scanned to measure the anterior-posterior (AP) and medial-lateral (ML) width. The mean AP values were 64.02 ± 3.38 mm and 57.33 ± 3.26 mm for men and women, respectively, and the mean ML values were 74.91 ± 3.52 mm and 64.53 ± 3.07 mm. We compared our data to that published previously for the Chinese and Indian populations. It was found that the Malay population had smaller distal femur than that of the Chinese but was larger than that of the Indian population ($P < 0.05$). In conclusion, although it is well established that Asians have a smaller distal femur size than that of the Western population, the variations in different Asian ethnicities may need to be considered when designing the appropriate knee implant.
549	**Assessment of Efficacy of High versus Lowâ€“Medium Prednisone Doses for the Treatment of Systemic Lupus Erythematosus Patients**	ARUN KUMAR ., Rachel Oommen Joseph., Sabu Augustine	European Journal of Molecular and Clinical Medicine	**SDG-3,4,10,17**	To compare the efficacy and safety of high vs. low-moderate oral doses of prednisone to treat patients with highly active lupus at diagnosis.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
550	**Performance of alpha-blockers in distal ureteral calculus ejection**	PRATHVI., Karthik Are., Rajasekhar Undavalli	European Journal of Molecular and Clinical Medicine	**SDG-3,9,10,17**	Medical expulsive therapy (MET) has been described as an effective conservative treatment option in the initial management of small distal ureteral stones. Therapies that have been investigated include alpha-blockers, calcium channel blockers, corticosteroids, and most recently phosphodiesterase-5 inhibitors (PDE5) inhibitors. While alpha-blockers are currently the only recommended monotherapy, corticosteroids have received increased attention as a potential useful adjunct in the medical management of distal stones. PDE5 inhibitors are a novel treatment alternative, requiring further investigation. This review provides an overview of recent MET best practices, with a focus on novel therapies beyond alpha-blockers.
551	**A CLINICAL STUDY OF MATERNAL AND PERINATAL OUTCOME IN PREECLAMPSIA**	Preethi Y., Prithvi Shankar., Shravan Kumar	European Journal of Molecular and Clinical Medicine	**SDG-1,5,10,17**	Hypertensive disorders in pregnancy are one of the common causes for perinatal and maternal morbidity and mortality in developing countries. Pre-eclampsia is a condition which typically occurs after 20 weeks of gestation and has high blood pressure as the main contributing factor. The aim was to study the effects of pre-eclampsia on the mother and the fetus in rural South Indian population.
552	**TO STUDY THE ELECTROCARDIOGRAPHIC FINDINGS IN PATIENTS OF CHRONIC KIDNEY DISEASE UNDERGOING HEMODIALYSIS**	Krithika T T., Vikas Yadav., O P Jatav., Balwant Singh Patle	European Journal of Molecular and Clinical Medicine	**SDG-3,4,6,10,17**	Cardiovascular disease is the leading cause of mortality among patients on dialysis. When considering all causes of death, about 30% are classified as cardiac arrest, death of unknown cause or cardiac arrhythmia. The increasing time of ventricular depolarization and repolarization, measured non-invasively by measuring the QT interval on the electrocardiogram at rest, has emerged as a predictor of complex ventricular arrhythmias, a major cause of sudden cardiac death.
553	**PREOPERATIVE PULMONARY EVALUATION FOR POSTOPERATIVE PULMONARY COMPLICATIONS IN PATIENTS UNDERGOING ELECTIVE**	Vivek Gundappa., Parinita S., K N Mohan Rao	European Journal of Molecular and Clinical Medicine	**SDG-3,4,10,17**	Post-operative pulmonary complications (PPCs) are recurring causes of rising morbidity and mortality in surgeries. This study sought to evaluate pre-operative risk factors for PPCs in abdominal surgerypatients in Nigeria.
554	**A Study of Music with Lyrics and Music Without Lyrics on Concentrating Ability of Medical Students**	Deepthi Hoskatti., Sachin Hoskatti., Pooja Shashidharan	European Journal of Molecular and Clinical Medicine	**SDG-3,4,10,17**	People often listen to music while doing cognitive tasks. Yet, whether music harms or helps performance is still debated. Here, we assessed the objective and subjective effects of music with and without lyrics on four cognitive tasks. College students completed tasks of verbal and visual memory, reading comprehension, and arithmetic under three conditions: silence, instrumental music, and music with lyrics. Participants judged their learning during and after each condition. Music with lyrics hindered verbal memory, visual memory, and reading comprehension ($d \approx –0.3$), whereas its negative effect ($d = –.19$) on arithmetic was not credible. Instrumental music (hip-hop lo-fi) did not credibly hinder or improve performance. Participants were aware of the detrimental impact of the lyrics. Instrumental music was, however, sometimes perceived as beneficial. Our results corroborate the general distracting effect of background music. However, faulty metacognition about music's interfering effect cannot fully explain why students often listen to music while studying.
555	**A PROSPECTIVE STUDY OF FUNCTIONAL OUTCOME OF TOTAL KNEE REPLACEMENT IN OSTEOARTHRITIS OF KNEE**	Karpenahalli Maranna Gopinath., Ravi N Bavalatti., Bangalore Narayanappa Roshan Kumar., Iyappa Suresh	European Journal of Molecular and Clinical Medicine	**SDG-3,8,10,17**	Total knee arthroplasty (TKA) is presently a dependable treatment modality for osteoarthritis. The purpose of this study was to explore the clinical and functional outcome of total knee arthroplasty using knee society score, WOMAC Score, Oxford knee score and SF-36 Questionnaire and to correlate between functional score and clinical score.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
556	**Effect of Partial Sleep Deprivation on Audio-Visual Reaction Time in Taxi Drivers of Bangalore City: A Pilot Study**	Deepa H S., Pradeep B E., Rekha Kadabagere Ningappa., Prajwaal Manjunath	European Journal of Molecular and Clinical Medicine	**SGD-3,8,11,17**	The aim of this study was to investigate the effects of the partial sleep deprivation on the cognitive performances of the handball's goalkeeper (GK) in term of attention and reaction time (RT). Twelve healthy males volunteers (18.5±1.7 years; 8.3±2.4 years of experiment) took part in the protocol. They performed three cognitive tasks, i.e., the RT-test, the Stroop-test, and the barrage test, respectively to evaluate the RT, the selective, and constant attention following two situations of partial sleep deprivation, i.e., in the beginning (SDB) and the end (SDE) of the night, and a control situation (RN) which is a full-night of habitual sleep. Our results showed a significant effect of the partial deprivation of sleep on the studied parameters which is translated into an increased RT
557	**Relationship of C-reactive protein, erythrocyte sedimentation rate and knee skin temperature after total knee arthroplasty: A Prospective study**	Puneeth K., Prasanna Totiger Yellappa	European Journal of Molecular and Clinical Medicine	**SDG-4,9,10,17**	Knee osteoarthritis is a common cause of severe pain and functional limitation. Total knee arthroplasty is an effective procedure to relieve pain, restore knee function, and improve quality of life for patients with end stage knee arthritis. The aim of this study was to investigate the inflammatory process in patients with primary knee osteoarthritis before surgery and in subsequent periods following total knee arthroplasty. A prospective study of 49 patients undergoing primary total knee replacements was conducted. The patients were evaluated by monitoring serum interleukin-6 (IL-6), C-reactive protein (CRP), erythrocyte sedimentation rate (ESR), knee skin temperature, and clinical status. Measurements were carried out preoperatively and postoperatively on day one and at two, six, 14, and 26 weeks during follow-up review in the knee clinic. The serum IL-6 and CRP were elevated on the first postoperative day but fell to preoperative values at two weeks postoperatively. Both returned to within the normal range by six weeks postoperatively. In addition, the postoperative ESR showed a slow rise with a peak two weeks after surgery and returned to the preoperative level at 26 weeks postoperatively. The difference in skin temperature between operated and contralateral knees had a mean value of +4.5°C at two weeks. The mean value decreased to +3.5°C at six weeks, +2.5°C at 14 weeks, and +1.0°C at 26 weeks. The difference in skin temperature decreased gradually and eventually there was no statistically significant difference at 26 weeks after surgery. A sustained elevation in serum IL-6, CRP, ESR, and skin temperature must raise the concern of early complication and may suggest the development of postoperative complication such as haematoma and/or infection.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
558	**Magnitude of Edema and Proteinuria and its Impact on Pregnancy Outcome in Pre-Eclampsia**	Preethi Y., Leelambika C., Shravan Kumar., Prithvi Shankar	European Journal of Molecular and Clinical Medicine	**SDG-3,4,5,6,10,15, 17**	Proteinuria is a frequently detected symptom, found in 20% of pregnancies. A common reason for proteinuria in pregnancy is preeclampsia. To diagnose preeclampsia clinically and to get new insights into the pathophysiology of the disease it is at first essential to be familiar with conditions in normal pregnancy. Animal models and biomarkers can help to learn more about disease conditions and to find new treatment strategies. In this article we review the changes in kidney function during normal pregnancy and the differential diagnosis of proteinuria in pregnancy. We summarize different pathophysiological theories of preeclampsia with a special focus on the renal facets of the disease. We describe the current animal models and give a broad overview of different biomarkers that were reported to predict preeclampsia or have a prognostic value in preeclampsia cases. We end with a summary of treatment options for preeclampsia related symptoms including the use of plasmapheresis as a rescue therapy for so far refractory preeclampsia. Most of these novel biomarkers for preeclampsia are not yet implemented in clinical use. Therefore, we recommend using proteinuria (measured by UPC ratio) as a screening parameter for preeclampsia. Delivery is the only curative treatment for preeclampsia. In early preeclampsia the primary therapy goal is to prolong pregnancy until a state were the child has an acceptable chance of survival after delivery.
559	**A PROSPECTIVE STUDY- COMPARSION OF DISTAL UNLOCKED VERSUS LOCKED PROXIMAL FEMORAL NAILS IN STABLE INTERTROCHANTERIC FRACTURES**	Shiva Shankaran G B., Mahesh Kumar N B., Bangalore Narayanappa Roshan Kumar., Iyappa Suresh	European Journal of Molecular and Clinical Medicine	**SDG 3 ,SDG 9**	The findings of this prospective study suggest that both distal unlocked and locked proximal femoral nails demonstrate efficacy in treating stable intertrochanteric fractures. The choice between the two approaches should be based on individual patient factors, surgeon preference, and specific fracture characteristics. Further long-term follow-up and larger-scale studies are recommended to validate these preliminary results.
560	**SARS CoV 2- specific Serological status of Health Care Workers in a Covid Tertiary Care Hospital in Bangalore, Karnataka**	Sadaf Idris., Setty Muthihar Ramachar Usha., Manjula Kodapi Srinivasamurthy., Sumantara Navale Srinivasamurthy	European Journal of Molecular and Clinical Medicine	**SDG 3, SDG 4,SDG 10**	Serosurvey is a salient method for estimating infection rates and monitoring the progression of a pandemic. This study was done to determine the extent of seroprevalence of SARS-COV-2 antibodies among health care personnel of a tertiary care hospital.
561	**Study of correlation between stress and risk factors of hypertension: An original research**	Faziljot Singh., Rahul V C Tiwari., Heena Dixit Tiwari., MONICA KRISHNAPPA ., Sachin Yadav., Kaila Sidhardha Ambedkar	European Journal of Molecular and Clinical Medicine	**SDGV 3,SDG 4, SDG 10**	This original research provides compelling evidence for a correlation between stress levels and established risk factors of hypertension. The findings underscore the importance of addressing psychological well-being as an integral component of hypertension management and prevention strategies. Implementing stress-reducing interventions alongside conventional risk factor modification may yield more comprehensive approaches to mitigate the burden of hypertension and its associated complications.
562	**Curve Fitting Model Analysis of Cyber Crimes, Cyber Bullying and Online Sexual Exploitation in India**	T R R Gopalakrishnan., K Ravichandran., Senthilkumar Ilango	Social Science Journal	**SDG 4, SDG 16**	The findings of this study shed light on the complex dynamics of cyber threats in India. Understanding the underlying patterns and determinants is imperative for crafting effective policies, implementing targeted interventions, and enhancing digital safety measures. Furthermore, the application of curve fitting models provides a valuable analytical framework for monitoring and mitigating cyber-related offenses, ultimately contributing to a safer digital environment for individuals across the nation.
563	**Security threats and approaches in E-Health cloud architecture system with big data strategy using cryptographic algorithms**	G Dhanalakshmi., George Victo Sudha George	Materials Today: Proceedings	**SDG 9, SDG 16**	The adoption of cloud architecture and big data strategies in E-Health systems offers immense potential for improving healthcare outcomes. However, the security of patient data remains a paramount concern. Utilizing cryptographic algorithms, implementing robust access controls, and staying vigilant against evolving threats are essential steps in securing E-Health cloud systems and safeguarding sensitive patient information.In this ever-evolving landscape, staying updated with the latest security practices and technologies is critical to ensure the confidentiality, integrity, and availability of E-Health data.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
564	**A comparative flexural performance of an over-reinforced high strength concrete beam with normal strength beam**	D Zealakshmi., Vijaya Bhoopathy	Materials Today: Proceedings	**SDG 9, SDG 11, SDG 13**	The comparative study of an over-reinforced high-strength concrete beam and a traditionally reinforced normal-strength concrete beam highlights the distinct mechanical behavior and performance characteristics of these materials under flexural loading. The over-reinforced HSC beam demonstrated superior ultimate load capacity but reduced post-peak ductility, while the NSC beam exhibited more ductile behavior. These findings provide valuable insights for structural engineers and designers when selecting and specifying concrete materials for specific applications, taking into account both strength and ductility requirements.
565	**Optimization and analysis of Machined surface on synthesized cobalt â€“ Chromium composite**	D Raguraman., R Vinoth., K Kesavaraj., S Sathish., M Kalil Rahiman., Revathy., S Ram	Materials Today: Proceedings	**SDG 7, SDG 9, SDG 12**	This study presents a comprehensive analysis of the optimization of machined surfaces on synthesized cobalt-chromium composites. The research identifies critical machining parameters and their optimal values, leading to improved surface quality. The microstructural and phase analyses provide valuable insights into the material's behavior under machining conditions. These findings contribute to the advancement of precision machining techniques for Co-Cr alloys, enhancing their applicability in critical industries like aerospace and biomedical engineering. Future research may explore further optimization strategies and investigate the performance of components manufactured using the optimized machining parameters.
566	**Study of mechanical properties on Nano metal matrix Composites: Duralcan process**	A Balajikrishnabharathi., Vijayananth Suyamburajan., S Kaliappan., Pravin P Patil., D Jayabalakrishnan., M Sathya Prakash., T Sivabalan	Materials Today: Proceedings	**SDG 9, SDG 13**	This study provides a comprehensive analysis of the mechanical properties of Nano Metal Matrix Composites produced through the Duralcan process. The research highlights the potential of this fabrication technique in tailoring material properties to meet specific application requirements. The findings offer valuable insights for engineers and material scientists in designing and optimizing Nano MMCs for a wide range of industries, including aerospace, automotive, and advanced manufacturing. Future research may further explore the influence of additional parameters and investigate the performance of Nano MMCs in practical applications.
567	**A review on heat treated bearing steels for aerospace applications**	T Srinivasan., C Anil Kumar Reddy., B Nageswara Rao	Materials Today: Proceedings	**SDG 7,SDG 9, SDG 13**	Bearings play a critical role in aerospace applications, where reliability, durability, and performance are paramount. Heat treatment is a pivotal process in enhancing the mechanical properties of bearing steels to meet the stringent demands of aerospace environments. This review provides a comprehensive overview of the advancements and challenges in the heat treatment of bearing steels for aerospace applications.
568	**Face Identification based on Informative Knowledge Distillation using Morphological Model**	M Shanmuganathan., T.nalini	Materials Today: Proceedings	**SDG 9, SDG 16**	Face identification is a critical component of modern security systems and biometric authentication methods. This paper introduces a novel approach to face identification leveraging Informative Knowledge Distillation (IKD) in conjunction with a Morphological Model. The proposed method aims to enhance the efficiency and accuracy of face recognition systems by distilling informative features from a deep neural network to a more lightweight model. The Morphological Model, inspired by human facial perception, aids in extracting discriminative facial features. Experimental results demonstrate the effectiveness of this approach in achieving superior performance compared to existing methods
569	**Traffic flow prediction in inland waterways of Assam region using uncertain spatiotemporal correlative features**	Venkatesan Muthukumaran., Rajesh Natarajan., Amarakundhi Chandrasekaran Kaladevi., Gopu Magesh., Dr. B. Swapna	Acta Geophysica	**SDG 9,SDG 11, SDG 13**	Inland waterways play a pivotal role in the transportation network of the Assam region, serving as vital conduits for goods and passenger traffic. Accurate prediction of traffic flow in these waterways is crucial for optimizing logistics, managing resources, and enhancing safety. However, the inherently dynamic and uncertain nature of spatiotemporal factors, such as weather conditions, water levels, and vessel movements, presents a formidable challenge to conventional prediction models. This study proposes a novel approach utilizing uncertain spatiotemporal correlative features to address this challenge.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
570	**Optimizing random forest classifier with Jenesis-index on an imbalanced dataset**	Joylin Zeffora., Shobarani Ranganathan	Indonesian Journal of Electrical Engineering and Computer Science	**SDG 8, SDG 9,SDG 10**	our study showcases the efficacy of utilizing the Jenesis-Index in tandem with a Random Forest Classifier to address class imbalance in imbalanced datasets. The proposed approach not only demonstrates superior performance in accurately classifying the minority class but also provides valuable insights into feature importance. This research contributes to the advancement of machine learning techniques for handling challenging imbalanced data scenarios and holds promise for applications in various domains requiring robust classification methods.
571	**Unified power quality control based microgrid for power quality enhancement using various controlling techniques**	Mythreyee Madhavan., Nalini A	Indonesian Journal of Electrical Engineering and Computer Science	**SDG 7, SDG 9, SDG 11**	With the increasing integration of renewable energy sources (RES) into the power grid, maintaining high-quality power becomes imperative. This paper presents a unified power quality control (UPQC)-based microgrid system designed to enhance power quality within the microgrid environment. The proposed system integrates various controlling techniques to effectively mitigate power quality issues, including voltage sag, voltage swell, harmonics, and reactive power fluctuations.
572	**Analysis on Fabricated Basalt Reinforced Composites by Finite Element Method**	Akshay Kandaswamy Uday., T Felixkala	International Journal of Integrated Engineering	**SDG 9,SDG 11, SDG 12, SDG 13**	The increasing demand for sustainable and high-performance materials has led to the exploration of novel composite materials in engineering applications. This study presents a comprehensive analysis of fabricated basalt reinforced composites utilizing the Finite Element Method (FEM). Basalt fibers, renowned for their exceptional tensile strength and resistance to environmental factors, have emerged as a promising alternative to conventional reinforcement materials such as glass or carbon fibers
573	**Renewable Energy powered Autonomous Smart Ocean Surface Vehicles (REASOSE)**	Kamalahasan Murugan., T Raghu., Dr. B. Swapna., Saravanan Kumarasamy., D Manjula	International Journal of Integrated Engineering	**SDG 7, SDG 9, SDG 14**	the development and deployment of Renewable Energy powered Autonomous Smart Ocean Surface Vehicles (REASOSE) mark a significant milestone in sustainable marine technology. With their capability for extended missions, comprehensive data collection, and versatile applications, REASOSE vehicles hold the promise of transforming ocean exploration and contributing to the attainment of global sustainability goals. This paper underscores the importance of continued research, development, and collaboration to advance the REASOSE platform and unlock its full potential for the betterment of our oceans and maritime industries.
574	**Thyroid Dysfunction: An Alternate Plausibility in Perimenopausal Women!**		Journal of Mid-Life Health	**SDG 3, SDG 5, SDG 10**	Perimenopause, the transitional phase leading to menopause, is characterized by a multitude of physiological changes in women's bodies. These changes, including hormonal fluctuations, can often mask or mimic symptoms of thyroid dysfunction. This abstract explores the alternate plausibility that thyroid dysfunction may frequently be misdiagnosed or overlooked during perimenopause due to overlapping symptoms.
575	**Comparison of Hemodynamics and Opioid Sparing Effect of Dexmedetomidine Nebulization and Intravenous Dexmedetomidine in Laparoscopic Surgeries Under General Anesthesia**	Shankar K., Rangalakshmi S., Kailash P., Priyanka D.	Asian journal of anesthesiology	**SDG 3**	Dexmedetomidine, whether administered through nebulization or intravenously, effectively attenuated hemodynamic response during laparoscopic surgeries. Nebulized dexmedetomidine demonstrated a notable opioid sparing effect, suggesting its potential as an adjunct in multimodal analgesia strategies for such procedures. The choice between nebulization and intravenous administration should be based on patient-specific factors and clinical preferences. Further research with larger sample sizes and longer follow-up periods is warranted to validate these findings.
576	**INFLUENCE OF IPNS (VINYLESTER / EPOXY / POLYURETHANE) ON THE MECHANICAL PROPERTIES OF GLASS / CARBON HYBRID COMPOSITES**	Santhoshpriya Karjala., Vijayakumar K R., Gopi Suresh., Rajesh Ravi., Chockalingam Devanathan., Chinathambi Muthukaruppan Meenakshi	IIUM Engineering Journal	**SDG 9**	The present study investigates the effect of Interpenetrating Polymer Networks (IPNs) comprised of Vinylester, Epoxy, and Polyurethane on the mechanical properties of glass/carbon hybrid composites. This research addresses the critical need for enhanced understanding of polymer interactions in composite materials, aiming to optimize their mechanical performance for a wide range of applications.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
577	**PREDICTION OF HEART DISEASE USING HYBRID DC-LG ALGORITHM**	Gayathri R., Rajavarman Veeramalai Natarajan	Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)	**SDG 3**	the Hybrid DC-LG Algorithm presents a powerful and innovative approach to heart disease prediction, leveraging the strengths of both Deep Learning and Genetic Algorithms. This research not only contributes to advancing predictive healthcare models but also holds significant promise for enhancing early diagnosis and intervention in cardiovascular health, ultimately leading to improved patient outcomes.
578	**EARLY DIAGNOSIS OF ALZHEIMERâ€™S DISEASE: A HYBRID DEEP LEARNING FRAMEWORK WITH MODIFIED CLASSIFICATION ALGORITHMS**	Rajiv K M., Rajavarman Veeramalai Natarajan	Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)	**SDG 3**	this study presents a pioneering hybrid deep learning framework augmented by modified classification algorithms for early diagnosis of Alzheimer's Disease. The promising results and potential for widespread applicability hold significant promise for improved clinical outcomes and furthering our understanding of neurodegenerative diseases.
579	**VIDEO-BASED GAIT ANALYSIS AND CUMULATIVE FOOT PRESSURE IMAGES FOR HUMAN IDENTIFICATION IN VIDEO SURVEILLANCE SYSTEMS**	Swapna Pavan G., Nataraj Kanya., Rajavarman Veeramalai Natarajan	Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)	**SDG 3,9,11,16,17**	the integration of video-based gait analysis and cumulative foot pressure imaging presents a significant advancement in human identification within video surveillance systems. This approach not only addresses limitations of traditional methods but also upholds privacy standards, contributing to the evolution of secure and responsible surveillance technology.
580	**A NOVEL APPROACH FOR EARLY DETECTION OF COVID-19 USING HYBRID TRANSFER LEARNING METHOD USING CHEST X-RAY IMAGES**	Rajavarman Veeramalai Natarajan., Rajiv Kuberappa Malladada	Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)	**SDG 3 , SDG 9**	the hybrid transfer learning approach using chest X-ray images offers a novel and effective means for the early detection of COVID-19. This research not only serves as a critical tool in the current pandemic but also paves the way for innovative diagnostic methods in future global health emergencies.
581	**AUTOMATIC FRUIT CLASSIFICATION AND IMAGE RESIZING USING CONVOLUTIONAL NEURAL NETWORK WITH BICUBIC INTERPOLATION ALGORITHMS**	K Sumathi., Viji Vinod	Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)	**SDG 2**	the integration of a Convolutional Neural Network with Bicubic Interpolation algorithms presents a powerful solution for automatic fruit classification and image resizing. The synergistic approach addresses crucial challenges in modern agriculture, offering substantial benefits for both industry and sustainability efforts.
582	**AN ANALYSIS ON TURMERIC GROWTH DETECTION BY USING VARIOUS MACHINE LEARNING ALGORITHM**	S Revathy., Stephen Kevin Andrews., Palamadai Subramanian Rajakumar	Gongcheng Kexue Yu Jishu/Advanced Engineering Science	**SDG 1, SDG 2**	the analysis on turmeric growth detection using various machine learning algorithms provides valuable insights into the potential applications of technology in agriculture. The results hold promise for improving turmeric cultivation practices and contribute to broader efforts in achieving sustainable and efficient food production systems.
583	**ENERGY OPTIMIZATION USING SCHEDULING APPROACHES FOR IOT ENVIRONMENT**	Revathi Lekkala., Stephen Kevin Andrews	Gongcheng Kexue Yu Jishu/Advanced Engineering Science	**SDG 7, SDG 9**	his study endeavors to make a substantial contribution to the sustainable operation of IoT environments by introducing a sophisticated scheduling approach for energy optimization. The research outcomes are expected to pave the way for more efficient and resilient IoT systems, aligning with the global pursuit of sustainable and innovative technological solutions.
584	**Elucidating the power of human resource practices and policies on employee attrition**	R George Leslie Davidson., G Brindha	AIP Conference Proceedings	**SDG 10, SDG 11**	this study contributes to the body of knowledge on HR management by providing empirical insights into the impact of HR practices and policies on employee attrition. The research outcomes serve as a valuable resource for organizational leaders, HR practitioners, and academics aiming to create sustainable, high-performing work environments. Ultimately, the study aligns with the broader goal of fostering organizational success and employee well-being in today's competitive business landscape.
585	**Employee expectation to ease employee attrition in hotel industry**	R George Leslie Davidson., G Brindha	AIP Conference Proceedings	**SDG 8, SDG 9**	The hotel industry, renowned for its dynamic and service-driven nature, faces significant challenges in retaining skilled and motivated employees. High attrition rates not only incur substantial costs for recruitment and training but also impact the quality of guest experiences. This study aims to delve into the expectations of hotel employees with the objective of formulating strategies to mitigate attrition
586	**Vehicle to vehicle congestion control using controller area network communication**	V Malathy., Sreedhar Kollem., Ch Rajendra Prasad., M Anand	AIP Conference Proceedings	**SDG 9, SDG 11, SDG 13**	this study aims to revolutionize congestion control through the integration of CAN communication technology and intelligent traffic management. The research outcomes have the potential to contribute to more efficient and sustainable urban transportation systems, aligning with the global pursuit of smart and eco-friendly cities.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
587	**Low cost, small and high resonating frequency patch for wireless applications**	V Malathy., Ch Rajendra Prasad., Sreedhar Kollem., M Anand	AIP Conference Proceedings	**SDG 7,SDG 9, SDG 13**	this study presents a pioneering approach to patch antenna design, offering a compelling solution for wireless applications. Its small form factor, high resonating frequency, and cost-effectiveness position it as a promising candidate for the next generation of wireless communication systems, with the potential to empower communities worldwide through enhanced connectivity.
588	**Conversion of gesture from the deaf people into text messages**	M Anand., V Malathy., A Chakradhar	AIP Conference Proceedings	**SDG 4, SDG 9**	the development of a system for converting gestures from deaf individuals into text messages represents a crucial step towards fostering inclusivity and accessibility in communication. This research not only showcases technological innovation but also exemplifies a commitment to advancing social equality and empowering individuals with diverse communication needs.
589	**Mean square cordial labeling of subdivision of some graphs**	S Dhanalakshmi., Rengarajan Nagarathinam., N Parvathi	AIP Conference Proceedings	**SDG 4, SDG 9**	the study on mean square cordial labeling of subdivisions of certain graphs contributes to the ongoing advancement of graph theory and its practical applications. The findings provide valuable groundwork for further research in this area and open avenues for the implementation of mean square cordial labeling in diverse technological domains.
590	**Analyzing B-Continuity for Some Inflated Graphs**	Rengarajan Nagarathinam., S Dhanalaksmi	AIP Conference Proceedings	**SDG 4, SDG 9**	this research contributes to the broader field of graph theory by providing a detailed analysis of B-continuity in a specific class of graphs. The insights garnered hold potential applications in network design, optimization, and resilience, with implications for various domains including telecommunications, transportation, and social sciences.
591	**Aloe leaf extract and microwave assisted green synthesis of gold nanoparticles and its catalytic activity on reductive degradation of methyl red**	L Parimala., Ramapriya Lakshmi Narasimhan., J Santhanalakshmi	AIP Conference Proceedings	**SDG 3, SDG 6 , SDG 12**	The utilization of natural resources for the synthesis of nanoparticles has gained significant attention due to its eco-friendly and sustainable approach. This study presents a novel method for the green synthesis of gold nanoparticles (AuNPs) using Aloe leaf extract under microwave irradiation
592	**A novel hybrid approach for phishing website detection using artificial intelligence**	V Harsha Shastri., B Jhansi Vazram., B Tirupathi Kumar., Prathipati Rathna Kumar., Kirubadevi Thiyagarajan., Girija Rani Suthoju	AIP Conference Proceedings	**SDG 16**	this novel hybrid approach for phishing website detection using artificial intelligence presents a significant advancement in cybersecurity. By harnessing the power of AI, this research contributes to the protection of individuals and organizations from malicious online activities, ultimately promoting a safer and more secure digital environment.
593	**Experimental Study on Reinforced Aluminium Metal Matrix Composites with B4C through Different Techniques**	S Nallusamy., R T Chander., Gunji Venkata Punnarao	Materials Science Forum	**SDG 9, SDG 12, SDG 13**	this research endeavors to enhance our understanding of the fabrication and characterization of reinforced aluminium metal matrix composites with B4C, opening avenues for the development of advanced materials with superior mechanical and thermal properties. The potential applications of these composites align with the broader goals of technological advancement and sustainable industrialization.
594	**Analyzing the Fatigue Behaviour of E-Glass Fiber Reinforced Interpenetrating Polymer Networks (EP/VP/EV) Leaf Spring**	K Santhosh Priya., Vijayakumar K R., G Suresh., R Ganesamoorthy., R Ravi., C M Meenakshi	Materials Science Forum	**SDG 9, SDG 12, SDG 13**	this research advances our understanding of the fatigue behavior of E-Glass Fiber Reinforced Interpenetrating Polymer Networks leaf springs. The promising results underscore the potential for widespread adoption of such composites in automotive applications, aligning with the global efforts towards more sustainable and efficient transportation systems.
595	**Minimizing the Frequency Deviations in the Interconnected Microgrids considering Renewable Energy Sources**	Ranjit Singh., Dr. L. Ramesh	EAI Endorsed Transactions on Energy Web	**SDG 7, SDG 9**	this study represents a significant step forward in optimizing the operation of interconnected microgrids with a high penetration of renewable energy sources. The research outcomes contribute to the development of more resilient, sustainable, and efficient energy systems, thereby supporting the transition towards a greener and more sustainable future.
596	**Fabrication and Mechanical Behaviour Investigation on Aluminium 7075 Boron Carbide and Inconel Alloy 625 Metal Matrix Composite Using Ultra Sonic Stir Casting Method**	K R Vijaya Kumar., Thayumanavan Mahendran	Annales de Chimie: Science des Materiaux	**SDG 9, SDG 12, SDG 13**	The study focuses on the fabrication and mechanical behavior analysis of metal matrix composites (MMC) using the ultra sonic stir casting method. The materials under investigation include Aluminium 7075, reinforced with Boron Carbide (B4C), and Inconel Alloy 625.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
597	**Comparative study on consumer buying behavior during Covid-19through Ebusiness and direct to market place towards government regulation and policy in Tamil Nadu (India)**	M Shalini., Dr.m Radhikaa Shree	International Journal of Early Childhood Special Education	**SDG 3, SDG 9, SDG 11**	The outbreak of the Covid-19 pandemic has significantly altered consumer behavior, particularly in the realm of commerce. This study aims to conduct a comprehensive comparative analysis of consumer buying patterns in Tamil Nadu, India, during the Covid-19 pandemic, focusing on E-business platforms and direct-to-marketplace channels. Additionally, it seeks to evaluate the influence of government regulations and policies on these consumer behaviors.
598	**A STUDY ON CONSUMER PROFILES AND THEIR OPINION ABOUT INFLUENCERS OF DURABLE PRODUCT PURCHASE WITH SPECIAL REFERENCE TO CHENNAI**	Ila.nakkeeran., C B Senthil Kumar	International Journal of Early Childhood Special Education	**SDG 9, SDG 11, SDG 12**	In the rapidly evolving landscape of consumer behavior and marketing strategies, the influence of social media influencers on purchasing decisions has garnered significant attention. This study delves into the dynamics of consumer profiles and their perspectives regarding the impact of influencers on the purchase of durable products, focusing on the vibrant city of Chennai.
599	**A Study to Evaluate the Audience's Satisfaction Towards the Changes of the Television Programs during the Lockdown**	Noblin David Visuvasam Packianathan., Ravichandran Kamalakannan	International Journal of Early Childhood Special Education	**SDG 3 , SDG 4 , SDG 9**	The COVID-19 pandemic induced a global lockdown, significantly impacting various aspects of daily life, including entertainment consumption patterns. This study aims to assess the audience's satisfaction with alterations made to television programs during the lockdown period. The research employs a mixed-method approach, combining quantitative surveys and qualitative interviews, to gather comprehensive feedback.
600	**CLINICAL AND MRI PROFILE OF KNEE INJURIES AND CORRELATION OF MRI WITH ARTHROSCOPIC FINDINGS.**	Janani M., Thangam Vinoth., Balasubramanyam	International Journal of Early Childhood Special Education	**SDG 3, SDG 4,SDG 10**	The clinical and MRI profiles of knee injuries presented in this study provide valuable insights into the diagnostic accuracy of MRI in assessing knee pathologies. The strong correlation between MRI and arthroscopic findings supports the use of MRI as a primary imaging tool for evaluating knee injuries. This comprehensive approach contributes to more effective treatment strategies and better outcomes for patients with knee injuries.
601	**CLINICAL AND MRI PROFILE OF KNEE INJURIES AND CORRELATION OF MRI WITH ARTHROSCOPIC FINDINGS**	Balasubramanyam., Vignesh Gadupudi., Janani M., Dr. Vinoth .t	International Journal of Early Childhood Special Education	**SDG 3, SDG 9, SDG 10**	The comprehensive assessment of clinical and MRI profiles of knee injuries presented in this study offers valuable insights into the diagnostic utility of MRI in evaluating knee pathologies. The robust correlation between MRI and arthroscopic findings advocates for the preferential use of MRI as the primary imaging modality for knee injury evaluation. This integrated approach contributes to more effective treatment strategies and improved prognoses for patients afflicted with knee injuries.
602	**EMOTIONAL INTELLIGENCE: THE ROLE OF GENDER AND THEIR RELATIONSHIP AMONG COMMUNICATION EFFECTIVENESS AND JOB SATISFACTION IN IT SECTOR**	Dharani Haribabu	International Journal of Early Childhood Special Education	**SDG 5,SDG 8**	This study underscores the importance of emotional intelligence in the IT sector, emphasizing its positive impact on communication effectiveness and job satisfaction. Recognizing and nurturing emotional intelligence, regardless of gender, can contribute to a more harmonious and productive work environment in the IT industry.
603	**Artificial Intelligence Method Using Fast Enhanced Image Quality Evaluation**	R Ganesh Babu., L Saravanan., N Kanniyappan., G Manikandan., N Poornisha	Cognitive Science and Technology	**SDG 4, SDG 9**	The artificial intelligence method for fast enhanced image quality evaluation presented in this study represents a significant advancement in the field of computer vision. This approach not only achieves remarkable accuracy in image quality assessment but also addresses the computational inefficiencies associated with traditional IQA methods. The proposed method holds great promise for applications requiring rapid and reliable image evaluation.
604	**STUDY AND IMPLEMENTAION OF JUST - IN - TIME PHILOSOPHY IN INDIAN CONSTRUCTION INDUSTRY**	T Stephen Devaraj	Ymer	**SDG 9, SDG 12**	The study concludes that the application of Just-in-Time philosophy holds great promise for revolutionizing the Indian construction industry. By eliminating waste, minimizing inventory, and optimizing workflows, JIT principles can lead to improved project outcomes, including reduced costs and timely project delivery. However, successful implementation requires a concerted effort from all stakeholders and a cultural shift towards lean construction practices.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
605	**EXPERIMENTAL INVESTIGATION ON CELLULAR LIGHT WEIGHT CONCRETE BLOCK USING IRONITE POWDER FOR REPLACEMENT OF CEMENT**	R Felecia Beulah	Ymer	**SDG 9, SDG 12 , SDG 13**	The experimental investigation underscores the viability of using Ironite powder as a partial replacement for cement in the production of CLC blocks. The resulting blocks exhibit favorable properties, making them a promising alternative for sustainable construction practices. The study's findings contribute to the advancement of eco-friendly construction materials and support the broader goals of sustainable development.
606	**Review of the Intelligent Reflecting Surface for 5G and beyond technologies**	Salil P., S Manivannan	Ymer	**SDG 4, SDG 9**	The Intelligent Reflecting Surface emerges as a transformative technology with profound implications for 5G and beyond wireless communication systems. Its ability to enhance signal propagation, coverage, and capacity positions it as a key enabler for the next generation of wireless networks. However, several technical and practical challenges must be addressed to fully unlock the potential of IRS in real-world deployments.
607	**Effect of GRIT on Self esteem of Women**	Jai Chandhru P., Manoj Raghavan., Aditi Ganesh Gowri Athreya	Ymer	**SDG 3, SDG 4, SDG 5**	The findings of this study contribute to a growing body of research on the psychological factors that influence self-esteem, particularly among women. Cultivating GRIT may serve as a valuable intervention for enhancing self-esteem and fostering resilience in the face of challenges. Recognizing and harnessing the potential of GRIT can have positive implications for personal development, mental health, and overall well-being among women.
608	**Relationship between Body Image and Self-Esteem among Females**	Saranya R., Manoj Raghavan., Bharathi Venkatesan	Ymer	**SDG 3, SDG 5, SDG 10**	This study examines the intricate relationship between body image and self-esteem among females. Body image, defined as the subjective perception and evaluation of one's own physical appearance, plays a crucial role in shaping an individual's self-esteem, which encompasses feelings of self-worth and overall self-evaluation. The research aims to explore the various factors influencing body image and how they, in turn, impact self-esteem in female populations.
609	**RELATIONSHIP BETWEEN PSYCHOLOGICAL WELL-BEING ON RESILIENCE IN ADOLESCENCE AND ADULTS**	Sanjana Sivakumar., Manoj Raghavan., Divya Devi Muruganandam	Ymer	**SDG 3, SDG,16**	This study investigates the intricate relationship between psychological well-being and resilience in individuals spanning adolescence through adulthood. Psychological well-being encompasses an individual's overall mental health, including aspects such as emotional stability, life satisfaction, and a sense of purpose. Resilience, on the other hand, refers to the capacity to adapt and bounce back from adversity, maintaining mental and emotional equilibrium.
610	**A Study on the Effects of Human Resource Management Practices on Employee Performance in Pharmaceutical Companies**	G Padmavathy., C B Senthil Kumar., E Kandeepan	Ymer	**SDG 3, SDG 8, SDG 9**	This research investigates the impact of Human Resource Management (HRM) practices on employee performance within the context of pharmaceutical companies. HRM practices encompass recruitment, training, performance appraisal, compensation, and employee relations, which collectively influence the productivity and job satisfaction of employees. Understanding this relationship is critical in an industry where knowledge-intensive work and innovation play pivotal roles
611	**Fetal Blood Sampling: Indications, Outcome and Complications**	Raksha M., Sudha H C., Mukherjee S., Varadaraj R	Journal of SAFOG	**SDG 3, SDG 4, SDG 10**	Fetal blood sampling is a valuable diagnostic tool in managing high-risk pregnancies. When performed judiciously, it provides crucial information for guiding clinical decision-making and interventions. While complications are rare, they should be considered in the overall risk-benefit assessment. A thorough understanding of the indications, outcomes, and potential risks associated with FBS is essential for healthcare providers involved in perinatal care.
612	**Engineered Nanovesicles from Fibroblasts Modulate Dermal Papillae Cells In Vitro and Promote Human Hair Follicle Growth Ex Vivo**	Ramya Lakshmi Rajendran., Prakash Gangadaran., Mi Hee Kwack., Ji Min Oh., Chae Moon Hong., Madhan Jeyaraman., Young Kwan Sung., Jaetae Lee., Byeong-cheol Ahn	Cells	**SDG 3, SDG9, SDG 11**	Hair loss is a prevalent concern affecting individuals worldwide, with limited efficacious treatments available. In this study, we explore a novel approach utilizing engineered nanovesicles derived from fibroblasts to target dermal papillae cells and promote human hair follicle growth.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
613	**Evaluation of Anti-Venom Potential of Areca catechu Seed Extract on Bungarus caeruleus Venom**	Veena More., Sunil S More., G Shekar Latha., Abdulfattah Yahya M Alhazmi	Separations	**SDG 2, SDG 3, SDG 9**	Snakebite envenomation is a significant public health concern in many tropical regions, often leading to severe morbidity and mortality. The present study aimed to assess the anti-venom properties of Areca catechu seed extract against Bungarus caeruleus (common krait) venom, a snake species responsible for a considerable number of fatalities in South Asia.
614	**The Role of Socio-Cultural Factors in (Trans)formation of Dwellings: A Reference Palette for Theories, Methods, Tools and Techniques**	Indra Chelliah Thevar., Dr.kumudhavalli Sasidhar	Civil Engineering and Architecture	**SDG 3, SDG 4, SDG 10 ,SDG 11**	this study offers a nuanced and interdisciplinary perspective on the (trans)formation of dwellings, highlighting the pivotal role of socio-cultural factors. The reference palette presented herein provides a valuable resource for scholars, practitioners, and policymakers engaged in the fields of anthropology, sociology, architecture, and urban planning, offering a framework for designing more culturally-grounded and socially-inclusive living environments.
615	**Evaluation of different agitation techniques on smear layer formation and potential dentin erosions- An in vitro study**	Deepa Mereen Mathew., Archana Durvasulu., Dr.sandhya.s., A R Pradeep Kumar	European Endodontic Journal	**SDG 3, SDG 4, SDG 9, SDG 12, SDG 17**	This in vitro study highlights the influence of agitation techniques on smear layer formation and potential dentin erosions. Ultrasonic agitation appears to offer a more conservative approach, potentially minimizing dentin surface alterations. These findings provide valuable insights for clinicians in selecting the most appropriate instrumentation techniques, emphasizing the importance of tailored approaches in dental procedures. Further clinical studies are warranted to validate these outcomes in a real-world context.
616	**A Fast and Effective Method for Intrusion Detection using Multi-Layered Deep Learning Networks**	A Srikrishnan., Arun Raaza., Ebenezer Abishek B., V Rajendran., Anand M., S Gopalakrishnan., Meena M	International Journal of Advanced Computer Science and Applications	**SDG 9, SDG 16**	In today's digitally interconnected world, ensuring the security of computer networks is of paramount importance. Intrusion detection systems (IDS) play a critical role in safeguarding network integrity by identifying and responding to unauthorized or malicious activities. This paper presents a novel approach to intrusion detection using multi-layered deep learning networks, designed to enhance the speed and effectiveness of intrusion detection processes.
617	**Implementation of Electronic Health Record and Health Insurance Management System using Blockchain Technology**	Lincy Golda Careline S., Thiagarajan Godhavari	International Journal of Advanced Computer Science and Applications	**SDG 3, SDG 9, SDG 10, SDG 12**	the implementation of an EHR and Health Insurance Management System using Blockchain Technology signifies a transformative leap towards a more efficient, secure, and patient-centric healthcare ecosystem. By leveraging the potential of blockchain, this system has the potential to revolutionize the way healthcare information is managed and shared, ultimately leading to improved health outcomes and a more sustainable healthcare industry.
618	**Effects of Endocrine Disorders on Bone Mineral Density - A Narrative Review of Literature**	T Ranjani., Vetriselvan Abiram., Ponsekar Abraham Anandapandian	International Journal of Current Research and Review	**SDG 3, SDG 4, SDG 9, SDG 10**	Endocrine disorders play a pivotal role in regulating bone metabolism and mineralization. This narrative review synthesizes current literature to provide a comprehensive understanding of how various endocrine disorders affect bone mineral density (BMD). The aim is to shed light on the intricate interplay between hormonal imbalances and bone health.
619	**Comparative Evaluation of Haemodynamic Changes in Patients Undergoing Surgical Removal of Bilateral Impacted Lower Third Molars using 2% Lidocaine vs 4% Articaine with 1:100000 Epinephrine Concentration: A Double Blind Randomised Study**	K Vandana Shenoy., Dutta Ron., G Gayathri., Dr. K.mohamed Afradh., K Senthil Kumar	International Journal of Current Research and Review	**SDG 3, SDG 4, SDG 10**	This double-blind randomized study aimed to compare the haemodynamic changes in patients undergoing surgical removal of bilateral impacted lower third molars using 2% Lidocaine versus 4% Articaine with 1:100,000 Epinephrine concentration. The study enrolled [number of participants] participants who required extraction of bilateral impacted lower third molars.
620	**Electrochemical performance of various activated carbon-multi-walled carbon nanotubes symmetric supercapacitor electrodes in aqueous electrolytes**	Dhanapal Thillaikkarasi., Srinivasan Karthikeyan., Rajendran Ramesh., Prabhu Sengodan., Kavitha Dhamodaran., Malarvizhi Muthubalasubramanian	Carbon Letters	**SDG 7, SDG 9**	this research provides valuable insights into the design and optimization of activated carbon-MWCNT composite electrodes for high-performance symmetric supercapacitor applications. The findings contribute to the advancement of energy storage technologies with potential applications in portable electronics, renewable energy systems, and electric vehicles.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
621	**Efficacy of capacity building educational interventions in the management of obstetric complications: A systematic review**	Santhoshkumari Mohanraj., Dr. Hepsibah Sharmil	Journal of Education and Health Promotion	**SDG 3, SDG 4, SDG 17**	this review underscores the pivotal role of capacity-building educational interventions in improving the management of obstetric complications. By enhancing the skills and knowledge of healthcare providers, particularly in underserved regions, these interventions have the potential to significantly impact maternal health outcomes. The findings herein provide a robust foundation for the development and implementation of effective educational strategies within maternal healthcare systems globally.
622	**Tracking and Monitoring of Soldiers Using IoT and GPS**	Adlin Sheeba., Vinora A., Ananth P., K.nithya., Nisha Jenipher V., Surya Udhaya Suriyan	Lecture Notes in Networks and Systems	**SDG 16**	The integration of Internet of Things (IoT) and Global Positioning System (GPS) technologies has revolutionized various sectors, and the military domain is no exception. This study focuses on the development and implementation of a comprehensive tracking and monitoring system for soldiers, leveraging the capabilities of IoT and GPS technologies.
623	**A Feature Extraction Based Ensemble Data Clustering for Healthcare Applications**	D. Karthika., Nagasubramaniam Jayashri	Lecture Notes in Networks and Systems	**SDG 3, SDG 4, SDG 9**	the Feature Extraction Based Ensemble Data Clustering approach represents a significant advancement in healthcare data analysis. By harnessing the power of feature extraction and ensemble clustering, it offers a robust framework for uncovering valuable insights from complex healthcare datasets. This has the potential to revolutionize decision-making processes in healthcare, ultimately leading to improved patient outcomes and resource allocation.
624	**ANFIS Coupled Genetic Algorithm Modelling for MIMO Optimization of Flat Plate Heat Sink**	S Prasanna Devi., S Manivannan., J Arunnehru	Lecture Notes in Networks and Systems	**SDG 7, SDG 9**	The study presents an innovative approach, coupling Adaptive Neuro-Fuzzy Inference System (ANFIS) with Genetic Algorithm (GA), to optimize the Multi-Input Multi-Output (MIMO) performance of a flat plate heat sink. The heat dissipation efficiency of electronic devices is crucial for their reliable operation and longevity. This research addresses the challenge by employing ANFIS, a powerful computational tool for system modeling, and GA, a robust optimization algorithm.
625	**Efficient Authenticated Key Agreement Protocol for Cloud-Based Internet of Things**	V Muthukumaran., V Vinoth Kumar., Rose Bindu Joseph., Meram Munirathnam., I S Beschi., V R Niveditha	Lecture Notes in Networks and Systems	**SDG 3, SDG 7, SDG 9**	The proliferation of the Internet of Things (IoT) and the widespread adoption of cloud computing have ushered in a new era of connectivity and convenience. However, ensuring secure and efficient communication between IoT devices and cloud platforms remains a critical challenge. This paper proposes an efficient authenticated key agreement protocol tailored for cloud-based IoT environments.
626	**THE EFFICACY OF STRUCTURED SPATIAL SKILLS VIDEO GAME FOR CHILDREN - PARENTS AND PHYSIOTHERAPIST PERSPECTIVE**	Madhumathi., Senthilselvam., Subramanian., Dr.jibi Paul	Suranaree Journal of Science and Technology	**SDG 3, SDG 4, SDG 10**	this study highlights the potential of structured spatial skills video games as a valuable tool for children's development, supported by the positive perceptions of parents and physiotherapists. Further research is needed to explore the long-term effects and scalability of this intervention, but the initial results are promising for the integration of video games into therapeutic practices for children's spatial skills enhancement.
627	**SLEEP QUALITY AND ITS RELATIONSHIP ON DEPRESSION, ANXIETY AND STRESS**	Zhakia Fathima M., Manoj Raghavan., Divya Devi Muruganandam	Zeichen	**SDG 3, SDG 4, SDG 10**	Sleep quality is a crucial aspect of overall well-being, and its relationship with mental health has been a subject of increasing interest. This study investigates the association between sleep quality and symptoms of depression, anxiety, and stress. A diverse sample of individuals participated in this research, and their sleep quality was assessed using standardized measures. Additionally, they completed self-report questionnaires to evaluate their levels of depression, anxiety, and stress.
628	**A STUDY ON THE LEVEL OF NYCTOPHOBIA AND ITS IMPACT ON INSOMNIA AMONG YOUNG ADULTS**	Bhavadharani Jaya Janani., Manoj Raghavan., Nivedha K	Zeichen	**SDG 3 , SDG 10**	This study investigates the prevalence and impact of nyctophobia (fear of the dark) on insomnia among young adults. Insomnia is a pervasive sleep disorder that can significantly affect an individual's physical and mental health. Nyctophobia, although commonly associated with childhood, may persist into adulthood and exacerbate sleep disturbances.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
629	**EVALUATION OF ACUTE TOXICITY STUDY OF THE HYDROALCOHOLIC EXTRACT OF CLITORIA TERNATEA IN ALBINO RATS**	Gejalakshmi Subramanian., Dr. N. Harikrishnan N	Zeichen	**SDG 2, SDG 3, SDG 15**	The hydroalcoholic extract of Clitoria Ternatea, when administered orally to albino rats in acute toxicity studies, demonstrated a high level of safety, with no observed adverse effects or mortality. These findings support the potential use of this extract for further therapeutic and pharmacological investigations. However, additional studies, including sub-chronic and chronic toxicity assessments, are warranted to comprehensively evaluate its safety and efficacy for therapeutic applications.
630	**Bioactivity prediction and molecular docking of phytocompounds from Drynaria quercifolia against osteoarthritis receptors**	Raja Lakshman Raj., Giridharan Bupesh., Vaidya Gayatri., Tamizharasi Pandiyan	Journal of Applied Biology and Biotechnology	**SDG 2, SDG 3, SDG 15**	Osteoarthritis (OA) is a debilitating joint disorder characterized by the progressive degradation of articular cartilage, resulting in pain and reduced joint function. The search for effective and safe therapeutic agents from natural sources has gained momentum. In this study, we aimed to predict the bioactivity of phytocompounds from Drynaria quercifolia and assess their potential interactions with OA-related receptors through molecular docking simulations.
631	**Catalytic cracking of M-100 fuel oil: relationships between origin process parameters and conversion products**	Tatyana V Shakiyeva., Larissa R Sassykova., Anastassiya A Khamlenko., Ulzhan N Dzhatkambayeva., Albina R Sassykova., Aigul A Batyrbayeva., Zhanar M Zhaxibayeva., Akmaral G Ismailova., S Sendilvelan	Chimica Techno Acta	**SDG 7, SDG 9**	The catalytic cracking of M-100 fuel oil is a complex process that plays a crucial role in the petroleum industry. Understanding the relationships between the origin process parameters and conversion products is essential for optimizing this process and improving the efficiency of fuel production. In this study, we conducted an in-depth investigation into the catalytic cracking of M-100 fuel oil, with a focus on elucidating the connections between the various process parameters and the resulting conversion products.
632	**The Effectiveness of Educational Video game on Mathematical Skills Among the Typically developing and Spastic Diplegic Palsy Children â€“ A Pilot Study**	Madhumathi K., Jibi Paul., P Senthil Selvam., S.s. Subramanian	International Journal of Mechanical Engineering	**SDG 4, SDG 9, SDG 10**	This pilot study investigates the effectiveness of an educational video game in improving mathematical skills among typically developing children and those with Spastic Diplegic Cerebral Palsy (SDCP). Mathematics education is a fundamental component of a child's development, and children with SDCP often face unique challenges in their learning process. This study explores the potential of an educational video game as an inclusive tool to address these challenges and enhance mathematical skills.
633	**Membranes, Microbial Fuel Cell and Nanomaterials in Water and Wastewater Treatment**	Sangeetha D., Vijay Samuel G., Govindarajan R., Gajalakshmi B., Sakthidasan J., Francis Panimathy Anthoni Savory Muthu., Sundeep L., Anitha A., Nandan A	International Journal of Mechanical Engineering	**SDG 6, SDG 12, SDG 14**	The integration of membranes, microbial fuel cells (MFCs), and nanomaterials in water and wastewater treatment represents a promising approach to address the global challenges of water scarcity and pollution. This abstract provides an overview of the key aspects and potential benefits of this innovative and sustainable technology.
634	**THE VALIDATION OF NOVEL GAME FOR CHILDREN â€“ STRUCTURED SPATIAL SKILL EDUCATIONAL VIDEO GAME**	Dr.jibi Paul., Madhumathi K., P Senthil Selvam., S S Subramanian	International Journal of Mechanical Engineering	**SDG 4, SDG 5, SDG 10**	The validation of a novel educational video game designed for children, termed the "Structured Spatial Skill Educational Video Game," is the focus of this study. Spatial skills are integral for a child's cognitive development, and they play a crucial role in various aspects of learning, including mathematics, science, and problem-solving. However, there is a need for innovative and engaging tools to enhance spatial skills in children. In response, this study presents the development and validation of a novel educational video game designed to improve spatial skills in children.
635	**A Secure dynamic Multilevel Intrusion Detection System using Machine Learning**	B Senthil Kumar., V Jeyabalaraja., Maria Susai Josephine	International Journal of Mechanical Engineering	**SDG 9, SDG 16**	In an increasingly interconnected digital world, the need for robust and adaptive cybersecurity solutions has become paramount. This paper presents a novel approach, a Secure Dynamic Multilevel Intrusion Detection System (SDMIDS), that leverages the power of machine learning to protect against evolving cyber threats. Traditional intrusion detection systems often struggle to keep pace with the dynamic nature of modern attacks. SDMIDS addresses this challenge by combining multilevel security mechanisms with machine learning algorithms.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
636	**Online Covid-19 Risk Analysis System for Early Detection of Possible Infection**	Dahlia Sam., Kameshwaran Ananthu., S Arunkumar., M Charumathi., K N Mithilesh	EAI/Springer Innovations in Communication and Computing	**SDG 3, SDG 4, SDG 9, SDG 11**	The "Online COVID-19 Risk Analysis System for Early Detection of Possible Infection" is a digital tool designed to assess and analyze an individual's risk of COVID-19 infection based on various parameters and symptoms. This system utilizes data analysis and machine learning techniques to provide early warnings and recommendations to users, aiming to mitigate the spread of the virus and facilitate timely medical interventions.
637	**Synthesis, Characterization of Magnetic Composites and Testing of Their Activity in Liquid-Phase Oxidation of Phenol with Oxygen**	Binara T Dossumova., Tatyana V Shakiyeva., Dinara Muktaly., Larissa R Sassykova., Bedelzhan B Baizhomartov., S Sendilvelan	ChemEngineering	**SDG 6, SDG 12, SDG 14**	The synthesis, characterization of magnetic composites, and testing of their activity in the liquid-phase oxidation of phenol with oxygen were conducted in this study. Magnetic composites, consisting of magnetic nanoparticles incorporated into a matrix, have gained significant attention for their potential applications in environmental remediation and catalysis. In this research, we aimed to explore the catalytic performance of these composites in the oxidation of phenol, a common and persistent organic pollutant in wastewater.
638	**A Hybrid RFOA-DDAO Based Voltage Transfer Gain Enhancement through Ultra Lift Luo Converter and Cockcroft-Walton Multiplier**	Merlin Suba Gabriel., M Kumerasen	International Journal of Intelligent Systems and Applications in Engineering	**SDG 7, SDG 9, SDG 12**	The research appears to have implications for multiple Sustainable Development Goals, particularly those related to sustainable energy, innovation, reduced inequality, climate action, and partnerships for sustainable development. By improving voltage transfer gain in energy conversion systems, this work may contribute to the broader global agenda of sustainable development and clean energy access.
639	**Understanding the Neurolinguistic Technique of communicative English Language from the learners aspect**	P.sasirekha., S Revathi., V Jayalakshmi., Rajani Thota., Garima Diwan	Central European Management Journal	**SDG 4, SDG 10**	Effective language learning involves not only linguistic competence but also an understanding of how language is processed in the brain. This study delves into the neurolinguistic technique of communicative English language learning, focusing on the learners' perspective. The aim is to investigate how learners perceive and engage with this technique, shedding light on its effectiveness and relevance in language education.
640	**A Secured and Decentralized Medical Document Management Methodology using a Private Block Chain**	Shanmugaraja P., Senthil Mahesh P C., Vanitha K., Dr.g.soniya Priyatharsini., Chokkanathan K	International Journal of Computer Science and Network Security	**SDG 4, SDG 5, SDG 8, SDG 10**	understanding the neurolinguistic technique of communicative English language learning from the learners' perspective can contribute to several Sustainable Development Goals, particularly those related to education quality, reduced inequality, gender equality, decent work, innovation in education, and partnerships for sustainable development. Effective language learning empowers individuals with valuable skills for personal and professional growth, fostering a more inclusive and equitable society
641	**Effect of Resistance and Flexibility Exercise Intervention on Balance in Older Adults**	C V Senthil Nathan., Akash Kumar A., G Vaishnavi., V Rajalaxmi., Geethalakshmi S., Premvenkatesan	International Journal of Life Science and Pharma Research	**SDG 3, SDG 4, SDG 9, SDG 10**	the study on the effect of resistance and flexibility exercise intervention on balance in older adults can have implications for several Sustainable Development Goals, particularly those related to health and well-being, education, reduced inequality, innovation, and partnerships for sustainable development. It aims to enhance the quality of life and independence of older individuals, contributing to a more inclusive and equitable society.
642	**Effects of Dual Task Training Versus PNF Pattern on Balance and Cognition in Geriatric Population**	V Rajalaxmi., Arthi J., G Mohan Kumar., N Muthukumaran., K Balathandayutham., K Saraswathi., Kavitha Esakimuthu	International Journal of Life Science and Pharma Research	**SDG 3, SDG 4, SDG 9, SDG 10**	he investigation into the effects of dual task training versus PNF patterns on balance and cognition in the geriatric population has implications for multiple Sustainable Development Goals, including those related to health and well-being, education, reduced inequality, innovation in healthcare infrastructure, and partnerships for sustainable development. The study's findings can contribute to improving the health and quality of life of older adults, fostering a more inclusive and equitable society.
643	**Effectiveness of Virtual Reality Training for Hand Dexterity in Parkinsonâ€™s Subjects**	G Vaishnavi., Saranya P., C V Senthil Nathan., K Kamatchi., V Pavithralotchani., Dr. I. Deepa., K Pradeepa., Dr.sumitha Arumugam	International Journal of Life Science and Pharma Research	**SDG 3, SDG 4, SDG 9, SDG 10**	investigating the effectiveness of virtual reality training for hand dexterity in Parkinson's subjects has implications for multiple Sustainable Development Goals, including those related to health and well-being, innovation in healthcare infrastructure, reduced inequality, education, and partnerships for sustainable development. The study's findings can contribute to improving the quality of life and functional abilities of individuals living with Parkinson's disease, fostering a more inclusive and equitable society.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
644	**Correlation Between Neck Strength and Heading Performance in Male Football Players**	Benji Kakkudiyil Abraham., P Sathya., Dr.jibi Paul., M Vijaya Kumar	International Journal of Life Science and Pharma Research	**SDG 3, SDG 4, SDG 9, SDG 10**	while the study on the correlation between neck strength and heading performance in male football players may not directly link to specific SDGs, it indirectly contributes to broader goals by enhancing player health and safety, promoting innovation in sports medicine, providing educational insights, and reducing inequalities in sports-related injuries. Ultimately, this research can contribute to a safer and more sustainable sports environment.
645	**Effectiveness of Suboccipital Soft Tissue Inhibition Technique Versus Neurodynamics On Tension Type Headache for Female Physiotherapy Students**	V Rajalaxmi., Shady Abdullah Alshewaier., L Nazrin., Radhakrishnan Unnikrishnan., Omana Shinuja Gopala Krishnan	International Journal of Life Science and Pharma Research	**SDG 3**	Both the Suboccipital Soft Tissue Inhibition Technique and Neurodynamics were effective in reducing tension-type headache symptoms among female physiotherapy students. However, the SSTI technique showed superior efficacy in reducing headache intensity. These findings suggest that SSTI may be a valuable adjunct therapy for managing tension-type headaches in this population. Further research with larger sample sizes and long-term follow-up is recommended to confirm these results and explore the mechanisms underlying these interventions' effects.
646	**Effective of Hippotherapy and Balance-Based Torso-Weighting to Improve Standing Stability and Postural Balance in Children with Down Syndrome**	K Kamatchi., V Shalini., Tharani Gnanamoorthy., G Vaishnavi., Yuvarani Gopinath., K C Gayathri., Carlin Jersha Rachel. J., N Kaviraja	International Journal of Life Science and Pharma Research	**SDG 3, SDG 4, SDG 10, SDG 17**	This study investigates the effectiveness of two interventions, namely Hippotherapy and Balance-Based Torso-Weighting, in enhancing standing stability and postural balance among children diagnosed with Down Syndrome. The research aims to assess the impact of these interventions on the participants' overall stability and balance, contributing to a better understanding of therapeutic approaches for individuals with Down Syndrome.
647	**Kaposi's sarcoma: An interesting case report in a human immunodeficiency virus-positive heterosexual male**	Harshitha K Reddy., BELLIAPPA PEMMANDA RAJU ., VISHAL METHRE ., Akshay Samagani	Indian Journal of Sexually Transmitted Diseases and AIDS	**SDG 3, SDG 10, SDG 17**	This case report highlights the need for healthcare providers to remain vigilant for the development of KS in HIV-positive individuals regardless of sexual orientation. Early diagnosis and appropriate management are essential for improving outcomes in such cases. Moreover, understanding the varied presentations of KS can contribute to a more comprehensive approach to HIV-related healthcare.
648	**Prevalence of premature canities among college students studying in a private medical college, Chennai: A cross sectional study**	P Padmavati., V Sathiya Priya., Patrisyaa Jos., V Sudha	International Journal of Health Sciences-IJHS	**SDG 3, SDG 10, SDG 17**	This study highlights a noteworthy prevalence of premature canities among college students in the private medical college in Chennai. It underscores the importance of early detection and intervention, and suggests the need for further research to explore underlying genetic and environmental determinants. Implementing lifestyle modifications and stress management strategies may be crucial in preventing and mitigating premature canities in this demographic.
649	**Anti-Gout arthritic activity of ethanolic and methanolic seed extracts of Pedalium Murex**	P.s. Deepa Lakshmi., Rajeswari Hari., Jayaraman Sandhiya., Pruthiv Rajan K	International Journal of Health Sciences-IJHS	**SDG 3, SDG 10, SDG 15**	The study investigates the anti-gout arthritic activity of ethanolic and methanolic seed extracts of Pedalium murex. Gout is a type of arthritis caused by the buildup of uric acid crystals in the joints, resulting in pain and inflammation. This research aims to assess the potential of Pedalium murex seed extracts as a natural remedy for gout.

Sl No	Title of Paper	Author	Journal Name	Linked SDG Goals	Abstract
650	**Liver tumor prediction by data mining and machine learning techniques in health care environment**	C Geetha., A R Arunachalam	International Journal of Health Sciences-IJHS	**SDG 3, SDG 9, SDG 10, SDG 17**	Liver tumors are a significant health concern worldwide, with varying degrees of severity and treatment options. Early detection and accurate prediction of liver tumors play a crucial role in effective clinical intervention and patient outcomes. In this context, the application of data mining and machine learning techniques has garnered considerable attention for their potential to enhance diagnostic accuracy and prognostic capabilities.
651	**A study on analyzing the service quality in the outpatient services at Apollo Hospitals, Vanagaram, Chennai**	Marisha Ani Das., G Brindha	International Journal of Health Sciences-IJHS	**SDG 3, SDG 8, SDG 10**	The study contributes valuable insights that can inform strategic initiatives aimed at optimizing service quality in the outpatient department. Recommendations for enhancements in operational processes, staff training, and patient communication will be provided based on the research findings. These recommendations are anticipated to not only elevate patient experiences but also strengthen the hospital's reputation for quality healthcare delivery.
652	**Expression of VEGF in breast cancer**	Divya J., Prathipaa R., Keerthini Ganesan	International Journal of Health Sciences-IJHS	**SDG 3, SDG 9, SDG 10, SDG 17**	this comprehensive analysis highlights the diverse expression patterns of VEGF in breast cancer, underscoring its potential as a prognostic biomarker. Understanding the role of VEGF in breast cancer progression may facilitate the development of targeted therapeutic interventions aimed at disrupting angiogenesis and inhibiting tumor growth. Further research is warranted to elucidate the mechanistic underpinnings of VEGF-mediated angiogenesis in specific breast cancer subtypes.
653	**Fascin expression in breast cancer**	Prathipaa R., Divya J., Ashutosh Jha., Dr. Muthukrishnan .r	International Journal of Health Sciences-IJHS	**SDG 3, SDG 9, SDG 10, SDG 17**	our study highlights the significance of Fascin as a potential biomarker in breast cancer progression and prognosis. Its association with aggressive tumor phenotypes and adverse clinical outcomes underscores its clinical relevance. Targeting Fascin-associated pathways may hold promise as a therapeutic approach in breast cancer management. Further prospective studies are warranted to validate these findings and explore the full potential of Fascin as a diagnostic and prognostic marker in breast cancer.
654	**Knowledge and Attitude toward Dental Stem Cells among Dental Professionals: A Questionnaire Study**	L J Sailakshmi., Dr T Radhika., Dr. Nadeem Jeddy., Dr.amutha., Dr. W.r. Gnanasagar	Journal of the Scientific Society	**SDG 3, SDG 4, SDG 9**	This questionnaire-based study provides valuable insights into the knowledge and attitudes of dental professionals towards dental stem cells. While a foundation of knowledge exists, targeted educational initiatives could help bridge identified knowledge gaps and foster a more comprehensive understanding. Furthermore, the positive attitudes observed indicate a readiness among dental professionals to embrace and integrate dental stem cell technologies into their clinical practice. This study underscores the importance of continued education and awareness-building efforts in the field of dental stem cell research and applications.
655	**Correlation of Liver and Myocardium Iron Concentration Determined by Magnetic Resonance Imaging With Serum Ferritin in Non-Transfusion-Dependent Thalassemia Patients**	Gayathri Nagenthran., Vasantha Kumar M., Vinoth Thangam., Prabhu Radhan Radha Krishnan	Cureus Journal of Medical Science	**SDG 3, SDG 10**	This study demonstrates a strong correlation between serum ferritin levels and iron concentrations in both the liver and myocardium as determined by MRI in NTDT patients. These findings underscore the clinical utility of serum ferritin as a biomarker for monitoring iron overload in NTDT patients, providing a non-invasive and readily available tool for assessing iron burden. Early detection and management of iron overload in NTDT patients are crucial in preventing associated complications and ensuring optimal health outcomes.
656	**Effect of Î²-sitosterol on insulin resistance & protein expression of insulin signalling molecules in quadriceps muscle of high fat diet-induced type-2 diabetic rats**	Gayathri Sekar., Merlin G., Madhan Krishnan., Shyamaladevi Babu., Konduru Pushpa., S Mangai	Bioinformation	**SDG 2, SDG 3, SDG 10**	our study demonstrates the potential of β-sitosterol as a therapeutic agent for improving insulin resistance and signaling in the quadriceps muscle of high-fat diet-induced type-2 diabetic rats. These findings warrant further investigations to elucidate the underlying mechanisms and assess the translational potential of β-sitosterol in the management of T2DM.
657	**Association of interleukin 6 and uric acid levels in patients with type 2 diabetes mellitus**	RAGHAV GOWNIPALLI NAGARAJAIAH SETTY ., Somashekar Pallavi., Hareesh Rangaswamaiah., Veluri Ganesh	Bioinformation	**SDG 3, SDG 10**	This study provides evidence of a positive association between IL-6 and uric acid levels in patients with T2DM, particularly in those with poor glycemic control. These findings suggest a potential interplay between inflammation and metabolic dysregulation in the pathogenesis of T2DM. Further research is warranted to elucidate the underlying mechanisms and explore the clinical implications of this association.