



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Forecasting of Ionospheric TEC for Different Latitudes, Seasons and Solar Activity Conditions based on OKSM
Authors	R. Mukesh, V. Karthikeyan, P. Soma & P. Sindhu
Journal Name	Astrophysics and Space Science volume 365, Article Number: 13 (2020)

Abstract

Ionosphere is the upper atmosphere region that contains sufficient number of electrons which disturb the propagation of radio signal travel from navigational satellite to ground/user receiver. Ionospheric delay in range measurement is related to its Total Electron Content (TEC). Ionospheric delay results in range error and degrades the user position accuracy of navigational satellite systems such as Global Positioning System (GPS) and Indian Regional Navigational Satellite System (IRNSS). Hence a suitable TEC prediction model to correct the range delay in single frequency range measurement is necessary. In dual frequency receiver, ionospheric delay is estimated and eliminated using the two range measurements performed at the same time. This paper describes the TEC prediction methodology using Ordinary Kriging based Surrogate Model (OKSM).



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Effect of Tool Rotational Speed on the Tensile and Microstructural Properties of Friction Stir Welded Different Grades of Stainless Steel Joints
Authors	N. Ethiraj, T. Sivabalan, B. Sivakumar, S. Vignesh Amar, N. Vengadeswaran & K. Vetrivel
Journal Name	International Journal of Engineering, Vol. 33, Issue. 1, 2020

Abstract

Friction stir welding is a relatively new solid state joining process, which is suitable for welding similar and dissimilar materials. The present research work concentrates on the effect of tool rotational speed on the tensile, microstructural properties and microhardness of the friction stir welded joints of different grades of austenitic stainless steel sheets. Four different tool rotational speeds are used in the experimentation while the other process parameters like traversing speed and the tool tilt angle are kept constant. The tensile testing, micrography and microhardness measurements were carried out in the welded samples. It is observed from the results of tensile testing that the joint made at the tool rotational speed of 1320 rpm has the maximum strength among the experimented speeds. The measured microhardness values at heat affected zone and parent metal zone have shown higher hardness than the weld zone. Fine and equi-axed grains are observed in the welded region at all experimented speeds with a negligible amount of transformation of austenite into martensite. These results have impact on the development of welding procedure for dissimilar stainless steel friction stir welding process.



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	A Study on Effectiveness of Performance Appraisal System in Manufacturing Sector
Authors	S. Ponmuthumari
Journal Name	International Journal of Advanced Science and Technology, Vol. 29, Issue. 2, 2020
Abstract Performance appraisal is said to be regular review of employer's contribution to organization growth. Organisation growth can be termed in terms of volume of employers, level of sales, it can also be measured in terms of sales volume, from human resource management, and perspective the performance of staff should be measured. The performance of staff should be reviewed on periodical basis. Quarterly basis would be highly suggesting to analyse the performance of employees, it evaluates the employee's skills, achievement and growth. The study has been undertaken to understand how far the appraisal system in effective in specific to manufacturing sector, usually in service industry it is quite simple to measure service quality provided by employee as the customer nor the client gives feedback whereas in manufacturing sector the employer should make an extraordinary effort and apply various kinds of appraisal system. The objective of the study To study the performance appraisal system for managerial grade employer of manufacturing sector. To study the effectiveness and to offer suggestions from HRperceptive. When employees possess a meaningful role in the appraisal process, employee acceptance and satisfaction with that process is strongly enhanced. An appropriately conducted appraisal process will result in better placement of employees, brings role clarity and leads to job satisfaction which is a great motivating factor for an employee.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Forecasting of Ionospheric TEC for Different Latitudes, Seasons and Solar Activity Conditions based on OKSM
Authors	R. Mukesh, V. Karthikeyan, P. Soma & P. Sindhu
Journal Name	Astrophysics and Space Science volume 365, Article number: 13 (2020)
Abstract Ionosphere is the upper atmosphere region that contains sufficient number of electrons which disturb the propagation of radio signal travel from navigational satellite to ground/user receiver. Ionospheric delay in range measurement is related to its Total Electron Content (TEC). Ionospheric delay results in range error and degrades the user position accuracy of navigational satellite systems such as Global Positioning System (GPS) and Indian Regional Navigational Satellite System (IRNSS). Hence a suitable TEC prediction model to correct the range delay in single frequency range measurement is necessary. In dual frequency receiver, ionospheric delay is estimated and eliminated using the two range measurements performed at the same time. This paper describes the TEC prediction methodology using Ordinary Kriging based Surrogate Model (OKSM). OKSM is evaluated using the data received and collected from the IRNSS receiver station installed at ACS College of Engineering (ACSCE), Bengaluru (12.8913 °N, 77.4658 °E), India and other International GNSS Service (IGS)	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Smart Imaging System for Tumor Detection in Larynx Using Radial Basis Function Networks
Authors	N. P. G. Bhavani , K. Sujatha, V. Karthikeyan, R. Shobarani S & Meena Sutha
Journal Name	Part of the Advances in Intelligent Systems and Computing book series (AISC, volume 1108), 2020
Abstract Tumor in Larynx is a fatal disease, which is capable to make the humans speechless. The Computed Tomography (CT) images are used to detect the benign and malignant tumors in larynx. The objective of this project is to develop an organized scheme to analyze and evaluate its probabilities with the help of a typical user friendly simulation tool like MATLAB. The innovation in this scheme has a well developed strategy for detection of malignant and benign tumors using parallel computing image related machine learning algorithms. The preliminary stage includes noise removal and feature extraction using Principal Component Analysis (PCA) from the region of interest in the larynx. This method uses images from the open source data base. The feature set extracted serves as the input for training the Radial Basis Function Network (RBFN) so as to identify the malignant and benign tumor present in the larynx. The Diagnostic Efficiency (DE) is found to be 94 to 95%.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	A Review on Regorafenib as Multikinase Inhibitor
Authors	C. N. Hemalatha, A. Haripriya, P. Sharmili & N. Harikrishnan
Journal Name	Drug Invention Today, Vol (issue): 13 (January), Year: 2020, Page No: (19-22)
Abstract <p>Combating with cancer is one of the key medical challenges of our society. Conversely, existing chemotherapeutic advances are not adequate to maintain a life expectancy of cancer affected sufferers. Therefore, translational research can pave the novel prospect to treat cancer in a fundamental way. In that connection, the present study on regorafenib a multikinase inhibitor, this is having a great impact on colorectal cancer (CRC) treatment. Regorafenib a new molecular entity kinase inhibitor, which inhibits multiple membrane-bound and intracellular kinase involved in a wide range of normal cellular functions and in pathological processes such as oncogenesis, tumor angiogenesis, and maintenance of the tumor microenvironment. They are used in the treatment of metastatic colon cancer. Regorafenib inhibited Hep 3B, PLC/ PRF/5, and Hep G2 cells and showed reduced cell growth at a concentration of 1–5 μM. It also inhibited cell migration in RJ 345, RJ 348 MCF 7, and MDAMB-231 at a concentration of 0.5/5 μM; cell apoptosis action in HT-15, HT-29, DLD-1, and HCT-116 cells at a concentration of 1–10 μM; and proliferation action in other CRC cell lines and markedly slowed tumor activity. The activity of regorafenib in multiple kinases such as vascular endothelial growth factor receptors-1, 2, and 3, TIE2, fibroblast growth factor receptor 1 inhibits at a concentration of 4–311 nM; and oncogenic receptor tyrosine kinases (RTKs), KIT, RET, and mutant forms of BRAF at an IC₅₀ value 1.5–28 nM thereby its pharmacological activity with respective biological targets was evaluated. It displays antimetastatic activity, which may contribute to its efficacy in patients with metastatic CRC.</p>	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	In-vitro Anti-inflammatory activity of Liquorice (Glycyrrhiza Glabra) using Aqueous Extract
Authors	Vasanth M P, Purushotham K G, Sathish M, Vimal Raj D & Venkatesh M
Journal Name	International Journal of Research in Pharmaceutical Sciences, Vol. 11, No. 1, 2020
Abstract <p>Ionosphere The G.glabra is otherwise called liquorice is a medicinal plant is used for various diseases like cold, cough, hypokalemia and muscle weakness, etc. The liquorice family belongs to the Fabaceae family of the G.glabra. Hence this study tells about the anti-inflammatory and antioxidants. The quantitative study of phytochemical analysis, antioxidant and Anti-inflammatory, cytotoxicity assay using a response from the root extract of G.glabra The results are showed above preliminary activity phytochemicals were present Alkaloids, Flavonoids, Coumarin, Saponins, Terpenoids, Steroids, Cardiac Glycosides. The antioxidant activity of aqueous extract of G. glabra were evaluated with the 2,2-diphenyl-1-picryl hydrazyl (DPPH), nitric oxide radical (NO), superoxide radical (SO), hydrogen peroxide radical (H₂O₂), and hydroxyl radical (HO) scavenging activity. This study shows about the activity of Glycyrrhiza glabra herbal medicinal plant aqueous extract using antioxidant assays, Anti-inflammatory assays. The in vitro MTT 3-(4,5-Dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide Cytotoxicity assay were studied GG(G.glabra) extract using the macrophages Raw 246.7 Cell line. The cell line assay were studied in two different activity. One is anti-inflammation studies, and another is cytotoxicity of GG aqueous extract. The anti-inflammation IC₅₀ value is 143.65, and GG extract dry sample were against the IC₅₀ value is 326.27. From above, the results were a potential activity of GG extract R-value Of 0.991.</p>	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Advanced Graphical-based Security Approach to Handle Hard AI Problems Based on Visual Security
Authors	T. Venkata Satya Vivek, V.N. Rajavarman & Srinivasa Rao Madala
Journal Name	International Journal of Intelligent Enterprise (IJIE), Vol. 7, No. 1/2/3, 2020
Abstract Security is the main aspect to explore human data from different web oriented applications present in artificial intelligence (AI). It is very difficult to use different web applications without security to access data in various places. So that various types of security related approaches were introduced to use services in securely in outside environment, but they have some limitations to protect data from outside attackers (hackers). So that in this paper, we propose and introduce a novel and advanced security model to provide security from outside attackers in AI related web oriented applications. In this approach, we follow the basic features related to Captcha as a graphical password to enable security services in our proposed approach. Using Captcha graphical passwords in our approach, we describe pushing attacks, pass-on attacks and guessing attacks in web applications with random selection of Captcha passwords to use web services. Our experimental results show efficient security relations when compare to existing security approaches in terms of Captcha generation, time and other parameters present in web security applications.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Experimental Study on Diesel Engine Working Characteristics using Yellow Oleander Biodiesel with the Effect of Different Injection Timings
Authors	Kuppusamy Rajan & Krishnan Ramachandran Senthil Kumar
Journal Name	Taylor & Francis - Energy Sources, Part A: Recovery, Utilization, and Environmental Effects

Abstract

This research work investigates the influence of different injection timing (IT) on working characteristics of an engine with 20% Yellow Oleander biodiesel (YOBD20) blend. Experimental tests have been conducted with a YOBD20 blend at different ITs such as 23°BTDC, 25°BTDC, and 21°BTDC were original, advanced, and retarded ITs. From the experimental results, BTE of YOBD20 with advanced IT of 25°bTDC increased by about 1.24% higher than YOBD20 at original IT, while the BSFC was diminished by 9% and the NO_x emission were increased by 14.2%, while CO, HC, and smoke emissions were decreased by 26.2%, 22%, and 28%, respectively, when contrast with diesel at original IT of 23°BTDC. Further, the NO_x emission was diminished by 32% for YOBD20 with retarded IT of 21°BTDC with the penalty of BTE by 0.896% and the other emissions were increased as compared to diesel at original IT. The cylinder pressure, heat release rate (HRR) and rate of pressure rise (ROPR) were increased at advanced IT and for the retarded IT, the performance was slightly inferior due to slow combustion. Further, the NO emission would be reduced with the help of adopting with exhaust gas recirculation (EGR) along with retarding the injection timing.



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Automated Road Surface Condition Monitoring System Using Machine Vision Technology
Authors	K. Sujatha, A. Ganesan V. Karthikeyan P. Sai Krishna Shaik Shafiya N. P. G. Bhavani & V. Srividhya
Journal Name	Information and Communication Technology for Sustainable Development pp 129-138
Abstract This Monitoring of street surface conditions for different conditions like black-top, water, ice, and snow is required for most transportation offices are in charge of street support. Data on street surface conditions can be utilized to survey the requirement for upkeep benefit, think about the adequacy of various treatment techniques, and assess the nature of the support administrations conveyed by contractual workers crosswise over various upkeep yards. The road sensor utilizes three wavelengths and one photograph finder to decide the powers that are reflected from the street surface and is then ready to evaluate the street condition. By connecting this sensor to a GPS and a smaller than normal remote embedded Internet framework, the street conditions can be related to the right street position, making it conceivable to utilize the data in various applications.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Hepatoprotective Activity of the Biherbal Extract in Carbon Tetrachloride (CCl₄) Induced Hepatotoxicity - A Study of Histopathological Image Analysis
Authors	K. Sujatha, V. Karthikeyan, R.S. Ponmagal, N.P.G. Bhavani, V. Srividhya, Rajeswari Hari & C. Kamatchi
Journal Name	Intelligent Systems, Technologies and Applications pp 269-287
Abstract Hepatotoxicity implies chemical-driven liver damage. Liver disease is still a worldwide health problem. Traditional drugs for the treatment of liver diseases are at times inactive and can have adverse effects. So there is a worldwide trend to go back to traditional medicinal plants. The present investigation was aimed for a comparative study of conventional histopathological examination with modern electronic image processing studies with respect to evaluating the hepatoprotective action of ethanolic extract of Melia azedarach (MAE) and Piper longum (PLE) with their combination biherbal extract (BHE) against carbon tetrachloride (CCl ₄) induced hepatic damage in rats. The three ethanolic extracts at a dose level of 50 mg/kg body weight each were administered to three different groups of rats orally once daily for 14 days. The hepatoprotective effect of the biherbal extract (BHE) was assessed by histopathological photograph of the cells.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	An OFDM Sub-carrier Number Estimation Method Based on Novel Distance
Authors	Kanne Naveen, Shekar Yedunuri & M. Anand
Journal Name	TEST Engg and Management – Vol. 82, PN: 2199 – 2203 Publication Issue: January - 2020
Abstract Aiming at the problem of orthogonal frequency Division multiplexing (OFDM) signal subcarrier number estimation, a subcarrier number estimation method based on Novel Test (NT) distance is proposed using the Gaussian nature of OFDM signal. The NT distance output at detection-end DFT module is smallest when DFT points match the transmitter. Theoretical analysis and simulation results show that this method can distinguish Gaussian distribution from non-Gaussian distribution, and correctly estimate the number of subcarriers of OFDM signal.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Optimal Pilots Channel Estimation Algorithm for MIMO - OFDM
Authors	Shekar Yedunuri, Kanne Naveen & M. Anand
Journal Name	TEST Engineering & Management - Vol. 82: Jan 2020
Abstract <p>The MIMO-OFDM channel estimation method is researched based on the system design, and a space-frequency domain optimal pilot-tones design algorithm is presented. The algorithm unique capability of estimating fast time-varying and frequency-selective fading channels, and the simplicity of its least square (LS) algorithm free of matrix inversion, so as to greatly decrease the complexity. The computer simulation proves that the algorithm achieves optimal channel estimation in the sense of obtaining the minimum mean square error (MSE) of channel estimation.</p>	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Design and Implementation of Reflected Binary Code Carry Select Adder Based Further Desensitized Half band FIR Filter
Authors	K. Manivannan, L. Lakshminarasimman, M. Janaki Rani
Journal Name	Test Engineering and Management, Vol 82, I , B 10311-E 10318
Abstract In this research, a highly efficient desensitized FIR filter is designed to enhance the performance of digital filtering operation. With regard to FIR filter design, Multiplication and Accumulation component (MAC) forms the core processing entity. Half-band filters employing Ripple Carry Adder (RCA) based MAC structures have a sizeable number of logical elements, leading to high delay and high power consumption. To minimize these issues, a modified Booth multiplier encompassing SQR T Carry Select Adder (CSLA) based MAC component is proposed for the desensitized filter with reduced coefficients and employing lesser number of logical elements forgiving optimum performance with respect to delay and power consumption. The suggested FIR filter is simulated and assessed using EDA simulation tools from Modelsim 6.3c and Xilinx ISE. The results obtained from the proposed Desensitized FIR filter employing the modified booth multiplier with reduced complexity based SQR T CSLA show encouraging signs with respect to 12.08% reduction in delay and 2.2% reduction in power consumption when compared with traditional RCA based digital FIR filter.	



RESEARCH PUBLICATION ABSTRACT - JANUARY 2020

Paper Title	Structure and Implementation of Women Safety Framework Based on IoT Technology
Authors	N. Shilpa, B. Swetha, M. Anand
Journal Name	Test Engineering and Management, Vol 82, I 2-2, B 2214-E 2218
Abstract In this Today within the current worldwide situation, ladies are confronting numerous issues like ladies harassment. We propose to possess a gadget which is that the reconciliation of varied gadgets, equipment includes a wearable "Brilliant band" that unendingly speaks with reasonable telephone that has online access. This paper covers unmistakable insights concerning the structureand execution of "Brilliant band". The gadget comprises of a trigger, microcontroller (ATmega2560), GSM module (SIM900), GPS module (Neo-6M), IoT module (ESP-12E), Neuro Trigger, Buzzer and Vibrating Sensor. During this venture, when a woman detects perilshes must hang ON the trigger of the gadget. When the gadget is initiated, it tracks this area utilizing GPS (Global Positioning System) and transmits crisis message utilizing GSM (Global System for Mobile communication) to the enrolled versatile number and approach by police headquarters. IoT module is employed to follow the world ceaselessly and update into the web site page. Neuro Stimulator will deliver non-deadly electric stun in crisis circumstances to acknowledge the assailant, signal is employed as a caution to alarm the accessible individuals with the goal that they'll comprehend that somebody is out of luck and vibrating sensor will send the last area within the event that if the gadget gets surrendered. The first preferred position of this ventureis that this gadget is often conveyed wherever since it's little.	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Thermodynamic analysis of a compression ignition engine with latent heat storage unit
Authors	M R WILSON JOHN., L R GANAPATHY SUBRAMANIAN
Journal Name	Applied Thermal Engineering
<p>ABSTRACT : This study deals with the thermodynamic analysis of a compression ignition (CI) engine coupled with a longitudinal triangular finned tube construction in a shell and tube heat exchanger which has segmental baffle cut of 50% at 20° slope and a latent heat thermal storage (LHTS) unit, using nano-enhanced organic phase change material (NeOPCM) for improved exhaust waste heat recovery process. The exergy is an effective method to estimate the quantity and quality of energy recovered from the CI engine and stored in the LHTS unit. The results show that nearly 82% of the energy from the engine exhaust is successfully recovered and stored in a heat exchanger with NeOPCM based LHTS unit. The thermodynamic balance of the exergy and energy for the complete system is calibrated and represented by applying the respective data from the Sankey heat flow balance diagrams. The maximum percentages of the energy and exergy saved from the diesel fuel by the LHTS unit using NeOPCM combined with heat exchanger are nearly 24% and 41% more than those of the virgin paraffin wax.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Analysis on the properties and emission characteristics of corn biodiesel subjected to improved transesterification
Authors	K. Rajan,M. Rajaram Narayanan,K. S. Ashraff Ali,B. Prasanna &Mohanavel Vinayagam
Journal Name	International Journal of Ambient Energy
<p>ABSTRACT :This work investigates the impact on the application of microwave heating (MWH) on transesterification of corn oil and views its effect on engine emissions. Biodiesel (BD) is produced by two processes, namely conventional- and MWH-assisted transesterification. Both the process requires the same quantity of raw oil (corn oil), alcohol (methanol) and catalysts (KOH). BD prepared by the conventional process is referred to as corn oil biodiesel (CBD). In another technique, the heating process is replaced by MWH and thus the obtained BD is termed as CBDMW. Result found that CBD involves about 55 min for 67% yield, whereas the modified fuel (CBDMW) involved 2.5 min for 91% conversion. Emissions experiments were conducted on a diesel engine using CBD and CBDMW at the same circumstances. Experimental results show that the CBDMW has lesser CO (0.09–0.12 g/kWh), NO (0.8–1.5 g/kWh), HC emissions (0.09–0.25 g/kWh) and smoke emissions (0.4–0.45 BSU) than CBD due to its improved properties.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	A detailed study on improving the properties and performance aspects of biodiesel
Authors	K. Rajan,M. Rajaram Narayanan,S. Suresh Kumar,R. Parthasarathi &Vinayagam Mohanavel
Journal Name	International Journal of Ambient Energy
Abstract. This study scrutinises the effect on the appliance of microwave heating (MH) on the transesterification of palm oil and analyses its outcome on engine performance. Biodiesel is formed by two methods: one is straight and the other is MH that assists in transesterification. Both methods require a similar amount of palm oil, Methanol and KOH. Biodiesel primed by the straight practice is referred to as PBD. In the new method, the heating procedure is substituted by MH and hence the acquired biodiesel is referred to as PBDMW. The result found that PBD involves about 63 min for 74% yield, while the modified fuel (PBDMW) requires just 3.2 min for the 89% conversion. Performance experiments were performed on a diesel engine using PBD and PBDMW at the same situation. Experimental outcome demonstrates that the PBDMW has lesser BSFC (0.5 kg/kWh), EGT (22°C) and higher BTE (0.6%) than PBD due to its superior properties.	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Evaluation of Surface Roughness, Hardness, and Gloss of Composites After Three Different Finishing and Polishing Techniques: An In Vitro Study
Authors	Kumar Nithya, Krishnamoorthy Sridevi, Venkatesan Keerthi, Periasamy Ravishankar
Journal Name	Cureus Journal of Medical Science
Abstract: The purpose of this in vitro study was to evaluate the effect of three different polishing systems on the microhardness, surface roughness, and gloss of resin composites. The materials evaluated were 3M™ ESPET™ Filtek™ Z-350 XT (3M™, St. Paul, MN, USA), Grandio (Voco, Cuxhaven, Germany), 3M™ ESPET™ Filtek™ Z250 (3M™, St. Paul, MN, USA), Shofu-Beautifil Flow (Shofu, Kyoto, Japan), and RestoFill HV N-FLO (Anabond Stedman, Chennai, India). A total of 450 samples were fabricated. Three finishing and polishing systems: PoGo® (Dentsply Caulk, Milford, DE, USA), Sof-Lex Spiral, and Sof-Lex Pop-On (3M™, St Paul, MN, USA) were evaluated. Hardness, roughness, and gloss were evaluated after finishing and polishing. The surface roughness was measured with a surface profilometer, microhardness was measured with the Struers Duramin-5 microhardness tester (Struers A/S, Ballerup, Denmark) and gloss was measured using a gloss meter. The measurement values were analysed by Kolmogorov-Smirnov, Shapiro-Wilks test, and two-way ANOVA.	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Benign lymphoepithelial lesion of the minor salivary gland – A rare presentation as a palatal swelling
Authors	Chandrasekaran Krithika¹, J Sreedevi¹, B Sivapathasundharam², VR Nithya¹
Journal Name	Journal of Oral and Maxillofacial Pathology
<p>Abstract: Benign lymphoepithelial lesion (BLEL) is characterized by extensive lymphocytic infiltration of the major salivary glands and may be associated with Sjogren's syndrome or HIV infection. The involvement of the palatal minor salivary glands is extremely rare. We report an isolated case of BLEL affecting the palatal minor salivary glands, presenting as a palatal swelling in a 37-year-old female patient. Serological tests ruled out potential comorbid conditions. Cone-beam computed tomography showed a palatal soft-tissue mass with thinning of the adjacent cortical plates. A histopathological examination revealed salivary gland tissue with significant acinar destruction, dense lymphocytic infiltration and focal myoepithelial islands. Therefore, BLEL may be considered as a rare differential diagnostic possibility of a palatal soft-tissue mass lesion.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Modeling And Design Of Nano Scale Cmos Controller Using Adaptive Neuro-Fuzzy For Speed Control Of Dc Shunt Motor
Authors	K. Sujatha¹, T. Godhavari², Shaik Shafiya³, V. Srividhya⁴ and P. Sai krishna⁵
Journal Name	Journal of Physics
Abstract The main aim of this work is to control the speed of the DC shunt motor by using a nano scale Complimentary Metallic oxide Field Effect Transistor (CMOS) inverter with Adaptive Neuro-Fuzzy based method for optimal parameter selection. The speed of the DC shunt motor can be varied by varying armature voltage with field current constant and varying the field current with armature voltage constant. It is found that the speed is said to increase with increase in armature voltage for which the graph is a linear in case of armature controlled method. Whereas for the field control method the speed is said to increase with decrease in field current with armature voltage to be constant. The stated condition is cross verified by plotting the graphs for conventional and proposed nano scale CMOS inverter with ANFIS optimization scheme. A novel technique for modeling and devising a nano scale CMOS circuit using adaptive neuro-fuzzy network for controlling and tuning the switching characteristics of the circuit so that it is symmetric with equal values of rise time and fall time with equal output for propagation delay during low to high and high to low outputs. This control over the CMOS switching characteristics using ANFIS controller offers an effective speed control for DC shunt motors. The designed scheme for 45nm process technology is simulated using MATLAB. The results for nano scale CMOS inverter with ANFIS optimization scheme proved to be accurate with an accuracy of 97.5% to 100% which is compared with experimentation results obtained in laboratory using conventional speed control techniques like field and armature control methods.	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Parallel Selective Sampling for Imbalance Data Sports Activities
Authors	M. Athitya Kumaraguru ,Viji VinodN. RajkumarS. Karthikeyan
Journal Name	Advances in Intelligent Systems and Computing
<p>Abstract : Big data has a huge amount of large data set. Large data set has some major problems; the first one is size of the data and the second one is size of the data classes are strongly imbalanced. Several places where different devices produce the immense amount of data. Using this data nature, they are unable to determine the outcome from the data. To solve this problem, many numbers of applications and algorithms are used. Even though there are many applications and algorithms, many limitations occur while implementing the algorithm and using the applications. In the literature D'Addabbo and Maglietta [1] proposed a preprocessing technique method called parallel selective sampling (PSS). This preprocessing technique can be combined with any classification algorithm. In our research, we are combining PSS along with relevance vector machine (RVM). This PSS-RVM method provides the finest outcome and the existing Data Set algorithm for sporting activities.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Employees Participation is essential in every Organization why?
Authors	P.Annakili, Dr. R. Jayam
Journal Name	International Journal of Psychosocial Rehabilitation
Abstract King slave relationship will never be an effective for all the organization. Slave type of relationship does not yield maximum output from employees. The maximum output will be delivered by the happy employees. Organisation can think that how they make employees happy? The organisation should give suitable salary, respect, good working environment, welfare facilities etc. Salary is first essential factor to make employees happy. But salary does not give full happiness, second one respect. Respect comes only in the form of employees' participation. In this paper we will discuss why employees' participation is essential one. It is a literature review paper	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	The Bayesian Model Analyzed the Survey of Sex Crime and Media Impact in India
Authors	K.Ravichandran
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
Abstract <p>This study aims to examine the relationship between the impacts of sexual offenses on media and awareness of social security. The purpose of this study is to document, codify, and analyze criminal messages broadcast in television media and the changes in ethics from ancient Indian culture to the modern environment have been analyzed to a certain extent. The Cultivation Theory is used to measure the influence of the media and raise awareness of sexual offenses in India. Data were collected from 100 samples in different parts of Chennai city, India. In order to estimate the correlation with the variables used in the Bayesian method and analysis of quantitative data has suggested the probability of significant values. Finally, the Bayesian mathematical model has demonstrated significant values by the posterior distribution of regression weight graph</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Efficient Image Data Extraction Using Image Clustering Technique
Authors	Nirmala Sugirtha Rajini., K Dharmarajan., D Saravanan
Journal Name	Test Engineering and Management,
Abstract Extracting the domain knowledge from huge data sets are more complex today because of growing technology. This technology brings huge sets of data from every users. This gives the complex data sets, from this content extraction of needed knowledge are challenging task for many users. The proposed frameworks achieves full automation via a knowledge-based video indexing and retrieve an appropriate result, and replace a presented object with the retrieval result in real time. Along with this indexing mechanism a histogram-based color descriptors also introduced to reliably capture and represent the color properties of multiple images. Including of this a classification approach is also carried out by the classified associations and identified by proper tickets. Proposed techniques works well in all type of data sets. Experimental outputs verified this results.	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Microscopic Image Processing System For Detecting Dengue Affected Blood Samples
Authors	M.Ramakrishnan , V.Karthikeyan
Journal Name	Test Engineering and Management
Abstract <p>Dengue has been identified as one of the severe disease in many countries around the world. The virus has been diagnosed as rapidly spreading disease and the effects of Dengue shock syndrome stage may lead to patient death. The objective of this paper is to design Microscopic Imaging Analysis System (MIAS) for detecting dengue affected blood sample by identifying and counting the Platelets in the given microscopic blood image. Image preprocessing techniques like segmentation and morphological operations have been performed on the captured microscopic images. Our automated system is implemented and the performance is compared with traditional methods like manual interpretation and automation system. The performance is estimated on the parameters accuracy, sensitivity and precision. The comparison results show the better accuracy and faster identification than the traditional methods</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Creative Writing And Its Influence In The Generation Of Language Skills – A Creative Approach
Authors	P.Harshini
Journal Name	Journal of Critical Reviews
Abstract: <p>Creative writing is an interesting field of study and quite an important one too in the acquisition of language learning abilities. It stems purely out of enthusiasm from within and develops as time grows to evolve into something much desirable, knowledgeable and immensely necessary for the learning environment. The world happens to be such a creative place with bountiful nature around to provide feast to the creative brain in abundance and thus anyone with a flair for language can make the best use of their creativity which in turn would widely assist in the development of knowledge too. Some of the world's best fictions, articles, poems, plays etc. are purely the essence of creative writing skills which authors and playwrights develop along with their other basic skills. Not only does creative writing assist in the development of writing skills, it is a shifting phase which transforms a creative writer into an able bodied professional who seems most wanted in many areas. A creative writer can unravel into reality of life in the most exceptional way. A complex truth of life can be made simple and easy to understand with a creative writer dancing his way into words. Take the now became famous phrase as an example "An apple a day keeps the doctor away". This phrase was once the work of a creative writer who could have otherwise simply stated "Eat an apple everyday". But by conjoining the word doctor too, the importance of apple is highlighted in a most dignified way. Creative writing likewise understands and eases many hard hitting truths in a style that can kindle interest in the learner. Thus this paper is a creative attempt to showcase how creative writing can be a rewarding experience for both the learner and the learned especially in the acquisition of language learning</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Event Feedback System For College Events
Authors	M. Kumari
Journal Name	Test Engineering and Management
<p>Abstract:</p> <p>Feedback System helps the Event Organizers to get insights and various useful information about the conducted events from the participants. Our motivation is to develop such a feedback system, which not only provides the above-mentioned functionalities and also provides the visual representation of collected feedbacks. As most of the people have smart phone and net access in it, it is prominent to develop the feedback system as mobile application. In this work, we developed a mobile application for feedback system for college events. The event participants can share their feedback through this app and the organizers can use the app to analyze and visualize the feedback data. Thus helping the event organizers to manage the events efficient</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Optimized Algorithm for Restricted Governor Mode of Operation of Large Turbo Generators for Enhanced Power System Stability
Authors	A. Nalini , E. Sheeba Percis, K. Shanmuganathan, T. Jenish and J. Jayarajan
Book Series	Advances in Intelligent Systems and Computing

Abstract:

The Central Electricity Regulatory Commission, India has guided that every Coal/lignite-based thermal generating units with more than 200 MW capacity should adopt restricted governor mode of operation (RGMO) for effective compensation of sudden frequency changes in the power grid. Presently, restricted governor mode of operation algorithm, developed by various boiler turbine generator suppliers, is used to meet the expectations of CERC. In this paper, it is discussed about an optimized algorithm for the effective implementation of RGMO for enhanced power system stability of large turbo generators of 600 MW or more capacity, fitted with electronic governors



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	A Study of Job Satisfaction on Construction workers at Chennai
Authors	Dr. R. Jayam & P. Annakili
Journal Name	Test Engineering and Management
<p>Abstract:</p> <p>Employees are the life blood of every business. Employees' job satisfaction is important in all Organization. Construction Industries are very much depend on employees. Construction Industries have many risk as comparing to other Organization. So employees' satisfaction is very important in construction Organization. Satisfied men only give maximum output and avoids risk and accident .The purpose of the study is to examine the Job satisfaction level of construction workers at Chennai. Data were collected from 300 construction employees in various construction organization. The study found that 84% of construction workers are satisfied in their work. The construction workers are highly satisfied with the Pay and benefits but they are low level of satisfaction in respect and decision making process</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Prevalence of elevated blood pressure, stress, and anxiety and its association with cognitive failure among medical students – A cross-sectional study
Authors	Sureka Varalakshmi, Sanjana Karthick, Jeeva Jothy
Journal Name	National Journal of Physiology, Pharmacy and Pharmacology
<p>Abstract:</p> <p>The cognitive failure is prevalent among student population and is preventable to some extent. Factors that can affect cognition include stress and anxiety which can elevate normal blood pressure (BP). Prehypertension is a silent risk factor. Aims and Objectives: The aim of the study is to find out the prevalence of prehypertension, stress, and anxiety and its correlation with cognitive failure.</p> <p>Evaluation of BP and counseling the students whose BP falls within prehypertensive and hypertensive range will help understand the importance of healthy lifestyle good mental and physical well-being can reduce stress and anxiety and improve cognition</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Formulation and evaluation of polyherbal hair oil
Authors	S. Gejalakshmi, G. Pooja, B. A. Tanisha
Journal Name	Drug Invention Today Vol 13 • Issue 1 • 2020
<p>Abstract:</p> <p>The present work was aimed to formulate the herbal oil for the treatment of hair problems such as dry or flaky scalp and thinning of hair and is also used to promote hair growth, improve circulation of blood in the scalp, prevent dandruff, and add volume to the shaft. The various herbal ingredients are used in the formulation are: leaves of Azadirachta indica, leaves and flowers of Hibiscus rosa-sinensis, leaves of Murraya koenigii, leaves of Bacopa monnieri, fruits of Phyllanthus emblica, and roots of Withania somnifera in coconut oil. Procedure for oil preparation is as follows: (1) Preparation of powder of all the herbs and (2) oil preparation. Results and Discussion: The formulation of polyherbal oil was reported to have antidandruff, hair thickening, hair fall control properties, and promote healthy and shiny hair growth. Formulated hair oil was evaluated for various parameters such as viscosity, refractive index, acid value, saponification value, and pH</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Effect of a Novel PolyHerbal Mouthwash on Dental Biofilm Induced Gingivitis
Authors	Gomathi, Gopalakrishnan; Sudhakar, Uma; Nandhakumar; Narayanaswamy, Hari Krishnan;
Journal Name	Journal of Pharmaceutical Sciences and Research; Vol. 12, Iss. 1, (Jan 2020): 43-48.

Abstract:

Dental biofilm plays a crucial role in dental caries and periodontal disease development. A mouthwash is a chemical agent used to enhance oral hygiene. Side-effects of Chlorhexidine have compelled to look out for herbal alternatives. The aim of the study was to evaluate the clinical and microbiological effectiveness of a herbal mouthwash containing *Myristica fragnans* (nutmeg), *Trigonella foenum-graecum* (fenugreek), *Cinnamomum zeilanicum* (cinnamon) against Chlorhexidine mouthwash. : 60 patients with Dental biofilm induced gingivitis participated in this study and were randomly divided into 2 groups. Herbal mouthwash showed similar antimicrobial activity when compared to 0.2% Chlorhexidine mouthwash that could be used as a substitute to chlorhexidine.



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	A Review on Medicated Chewing Gum and its Role in Mouth Ulcers
Authors	Indhumathi S. Kumar K. Siva
Journal Name	Research Journal of Pharmacy and Technology ,Volume : 13, Issue : 1,First page : (481) Last page : (484)
<p>Abstract: Chewing gums are mobile drug delivery systems. The extract of the herbal medicines can be incorporated in the chewing gum and can be used in the treatment of mouth ulcers. It was concluded that chewing gum is an excellent drug delivery system for self-medication as it is convenient and can be administered directly without water and they contain one or more active substances which are released by chewing and are intended to be used for local treatment of mouth diseases or systemic delivery after absorption through the buccal mucosa. Natural gum base which is economical, safe, environment friendly used in the treatment of various mouth diseases.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Newer Potential Pharmacological Targets for Multiple Sclerosis
Authors	S.Gejalakshmi1, N.Harikrishnan,
Journal Name	Journal of Pharmaceutical Sciences and Research, Vol 12, I 2, B 301-E 304
<p>Abstract:</p> <p>Multiple sclerosis (MS) is an autoimmune disease of the central nervous system, and the most common cause is disability in young adults. Most patients have a relapsing–remitting course, and roughly half of them will eventually enter a degenerative progressive phase, marked by gradual actual of disability over time in the absence of relapses. Early initiation of treatment has delayed the onset of disability progression. Thus, there is increased interest in treating to target in MS, particularly targeting no evidence of disease activity. This review will describe the most common treatment goals in MS: potential pharmacological targets.. We will also cover how well current disease-modifying therapies achieve no evidence of disease activity, and discuss future options for improving MS treatment targets.</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	CP /SYN Floodof Denial of Service (DOS) Attack UsingSimulation
Authors	K. Anuradha ,S. Nirmala SugirthaRajini,T.Bhuvaneswari,Viji Vinod
Journal Name	Test Engineering and Management
<p>Abstract:</p> <p>Denial of service is one of the security threat in which one of the node is affected in wireless network traffic while sending data from various node to the server. While hacking a single node of the information, the node details are hacked by someone, the connectivity from client to server get lost. Since the packet loss is common in all types of threat in IOT platform. To avoid this issues the future scope will be very confidential and reliable of the data transmission in the way of cryptography concept before sending the data. This research work describes about the detection of DOS attacks is done on the basis of patient details are sending to the server node using simulator. The simulation isdonein NS2. The attacksite visitorsand non-attacktraffictstylesareanalyzed after simulationdependinguponuniqueparameters like latency, throughput timeput offetc. Thepatternsarein realitydisplayingthedifferencebetweenearlier thanattacktrafficand after attackvisitorsin Ns2 environment</p>	



RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020

Paper Title	Dimensionality Reduction in Machine Learning Technique using Principal Component Analysis
Authors	S. Nirmala, Sugirtha Rajini, A. Punitha, Viji Vinod
Journal Name	Test Engineering and Management, Vol 82, I , B 14546-E 14552

Abstract:

Machine learning plays a vital role in today's world. In the internet data searching will be abundant. These data has to be trained to the system in order to perform the work of machine learning. In machine learning the main parameter that is the size of the data plays a vital role in the execution time. In other words we can say that the execution time is directly proportional to the volume of data. The data that are going to use for our research is been collected from a private production organization. When the analysis of the organization is done the datasets that is been collected in enormous in used. To simply the work and to get accurate production results dimensional reduction method is followed. For data reduction the Principal Component Analysis (PCA) technique is used. This technique can be used to reduce the size of the data that we will execute when finding out the production of an organization. The dimensionality reduction helps in finding out the exact volume of data that is been present in the datasets and reduce its size and helps in giving the exact accuracy results. In this paper we have analyze the concept of Principal Component Analysis along with clustering algorithm



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Sir.
C.V.Raman
Journal Club

RESEARCH PUBLICATION ABSTRACT - FEBRUARY 2020



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	EFFECT OF FENUGREEK CONSUMPTION WITH METFORMIN TREATMENT IN IMPROVING PLAQUE INDEX IN DIABETIC PATIENTS
Authors	GOPALA KRISHNAN., RAMAKRISHNAN THEAGARAJAN., KANIMOZHI GOPALAKRISHNAN., DR. W.R. GNANASAGAR., GOMATHI DHAKSHINA MURTHY
Journal Name	JOURNAL OF NATURAL SCIENCE, BIOLOGY AND MEDICINE, VOL 11, I 1, B 55-E 60
<p>Abstract: The aim of this study is to compare the efficacy of metformin and fenugreek seed powder as an adjunct to scaling and root planning (SRP) with the effect achieved using SRP and metformin alone by assessing their respective effects on periodontal parameters, glycemic status, and inflammatory marker. Materials and Methods: Eighty patients were included in this study who was further divided into two groups. Each group consisted of 40 patients. Group 1 patients included chronic periodontitis with uncontrolled type 2 diabetes mellitus (DM), who received SRP and treatment with metformin. Group 2 patients included chronic periodontitis with uncontrolled type 2 DM, who received SRP, metformin plus fenugreek powder. Periodontal parameters such as plaque index (PI), gingival index, bleeding on probing, pocket depth, and clinical attachment levels were evaluated at baseline and 1 month after nonsurgical periodontal therapy. Blood samples were also collected to assess the levels of glycosylated hemoglobin (HbA1c) and inflammatory cytokine interleukin-6 (IL-6) at baseline and after 1 month of nonsurgical periodontal therapy.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	INVESTIGATION ON COMPONENT WALL ANGLE IN SINGLE STAGE INCREMENTAL FORMING OF AUSTENITIC STAINLESS STEEL AISI 304 SHEET
Authors	SURESH KUMAR D., N ETHIRAJ., T SIVABALAN., MOHAMED FARHAN M R., BERNADETTE T
Journal Name	FME TRANSACTIONS, VOL 48, I 2, B 391-E 396

Abstract:

The aim of this research work is to study the effect of process parameters in achieving the maximum possible wall angle of the component in single stage incremental forming. Austenitic stainless steel AISI 304 is used as a sheet material. The constant tool rotational speed of 250 rpm, tool feed of 1000 mm/min and incremental depth of 0.5 mm were used as process parameters and the wall angle was varied from 60o. Grid marking technique is used for strain measurements. From the results, it is observed that the maximum height of 45 mm was formed successfully at wall angles 60o, 61o, 63o and 64o without any defects within the experimented process parameters. Further increase in either the wall angle or the process parameters produced fractured component at a height of around 22 mm itself.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	EFFECT OF PHYSIOTHERAPY INTERVENTION ON IMPROVING GAIT PARAMETERS IN HEMIPLEGIC PATIENTS: A SYSTEMIC REVIEW AND METAANALYSIS
Authors	V RAJALAXMI., P BHARATH KUMAR., N MUTHU KUMARAN., U RADAKRISHNAN., MOHAN NALLATHAMBI., S LATHA., S DHANUSIA., N SURIYA
Journal Name	NOVYI MIR RESEARCH JOURNAL, VOL 5, I 5, B 134-E 160

Abstract:

This Study aimed at analysing The Literature Systematically To Discuss The Effect Of Physiotherapy Interventions In Improving Gait Parameters For Hemiplegic Patients. Stroke Is An Increasing Public Health Problem That Causes Loss Of Life And Reduced Quality Of Life In Sufferers. Globally, 70% Of Strokes And 87% Stroke-Related Deaths And Disability-Adjusted Life Years Occurs In Low And Middle Incoming Countries. Physiotherapy Improves Gait Pattern In Hemiplegic Patients Biomed Central, Medline, Embase, Acri, Europa Medicophysica, BMI, PEDRO, Cochrane Central Register Of Controlled Trials (CENTRAL), American Physical Therapy Association, Google Scholar, Cochrane Library The Databases Are Collected from these Sources.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	HEAD AND NECK ANTHROPOMETRIC MEASUREMENTS WITH CHRONIC NECK PAIN, A CORRELATIONAL STUDY
Authors	RAJALAXMI. V , JIBI PAUL , M. MANOJ ABRAHAM , M. SASIREKHA , D. NAVEEN RAJ
Journal Name	INTERNATIONAL JOURNAL OF PHARMACEUTICAL AND PHYTO PHARMACOLOGICAL RESEARCH

Abstract: This study aimed to analyze the relationship between anthropometric measures of neck and head with neck pain and its biomechanical variable, dysphagia, respiratory dysfunction and neck muscle endurance. Background of the Study: Neck pain is the sensation of discomfort in the neck. Neck pain is caused by many different conditions and is sometimes called as cervical pain. In an office, neck disorders that stem from work are problems that are prevalent in workers most especially workers who are always working on computers. Neck pain is a significant public health problem both in terms of personal health and overall wellbeing as well as indirect expenses. Neck pain is prevalent in adults affecting 14-17% of them at some period of their lives. It is a 1-year prevalence in adults ranges from 16 to 75%. The presence of the neck pain tends to vary depending upon the anatomy of the head and neck. This study is done to evaluate the relationship between the anthropometric measures of head and neck along with the neck pain and biomechanical variables. Methodology: A total of 100 samples were selected from 150 volunteers based on inclusion criteria, from the outpatient department in ACS medical college and hospital by purposive sampling method. The purpose of the study was to measure the prevalence of head and neck in relation to chronic neck pain on biomechanical variables dysphagia, respiratory dysfunction, and neck muscle endurance.



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RESEARCH PUBLICATION ABSTRACT - MARCH 2020



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	POROSITY EFFECT OF Ag DOPED ZnO NANOCRYSTALLITES
Authors	M. GIRUBA ^{1,*} , J. CHRISTINA RHODA ¹ , S. CHELLAMMAL ¹ AND K. RAVICHANDRAN ²
Journal Name	RASAYAN JOURNAL OF CHEMISTRY, VOL 13, I 1, B 439-E 447

Abstract:

The hexagonal structure of zinc oxide (ZnO) and silver-doped zinc oxide (Ag: ZnO) nanocrystallites at room temperature was prepared using the Co-Precipitation process. Capping agent Glycerol was used to synthesize nanocrystallites. The Structural characterization such as Powder X-ray Diffraction (XRD), Scanning Electron Microscope (SEM), and Energy Dispersive X-ray Spectroscopy (EDS) was performed. The Debye Scherrer formula can be used to calculate the average size and strain also calculated using W-H graphical method. The Powder X-ray Diffraction results compared with JCPDS results. Scanning Electron Microscopy were used to study the morphological nature of the prepared sample and the Study of EDAX energy dispersive x-rays analysis used to verify the elements in the sample. The effect of silver dopant was analyzed using average size determination and strain determination methods. Excitation wavelengths of prepared samples were analyzed using UV-visible method. The porosity effect, volume fraction, hydration reaction of prepared samples were analyzed and reported.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	FEASIBLE AND EXPERIMENTAL STUDY ON PARTIAL REPLACEMENT OF FINE AGGREGATE USING CONSTRUCTION DEBRIS
Authors	ARIVALAGAN. S, DINESH KUMAR K S A, SUDHAKAR R
Journal Name	INTERNATIONAL JOURNAL OF CHEMTECH RESEARCH, VOL 13, I 2, B 47-E 53

Abstract

Tumor in Larynx is a fatal disease, which is capable to make the humans speechless. The Computed Tomography (CT) images are used to detect the benign and malignant tumors in larynx. The objective of this project is to develop an organized scheme to analyze and evaluate its probabilities with the help of a typical user friendly simulation tool like MATLAB. The innovation in this scheme has a well developed strategy for detection of malignant and benign tumors using parallel computing image related machine learning algorithms. The preliminary stage includes noise removal and feature extraction using Principal Component Analysis (PCA) from the region of interest in the larynx. This method uses images from the open source data base. The feature set extracted serves as the input for training the Radial Basis Function Network (RBFN) so as to identify the malignant and benign tumor present in the larynx. The Diagnostic Efficiency (DE) is found to be 94 to 95%.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	DETECT AND CLASSIFY ZERO DAY MALWARE EFFICIENTLY IN BIG DATA PLATFORM
Authors	NIVEDITHA V R., T V ANANTHAN., S AMUTHA., D SAM., SRINIDHI S
Journal Name	INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY, VOL 29, I 4, B 1947-E 1954

Abstract:

Malware has long been familiar on the Internet nowadays as one of the most prominent cyber threats. It expands rapidly in volume, velocity and variety, which overcoming the conventional methods used to identify and recognize malware. In order to suit the size and difficulty of such a data-accelerated environment, successful analytics methods are required. Nowadays sense of Big Data platform, the specific methods will help malware researchers successfull done the time-consuming process of systematically investigating malicious events. Security researchers want to create a use of Machine Learning (ML) algorithms with big data techniques to evaluate and track indefinite malware in a large scale. These techniques consists of dynamic and wide flux of malicious binaries which aid them to solve the emerging threat environment. This paper suggests the framework of big data whereby techniques of static and dynamic malware detection are efficiently merged in order to accurately classify and identify zero-day malware. The framework being introduced the tested and estimated on a sample files for 0.1 million involving the clean files for 0.03 million and containing a wide variety of malware families in 0.13 million malicious binaries. The results show that SVM attained the best accuracy of 93.03% for detecting malware and benign types using 10-fold cross validation.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	VLSI DESIGN OF AREA EFFICIENT TEST DATA COMPRESSION ARCHITECTURE FOR IOT DEVICES
Authors	S.Anandhi¹, R.Neela², M.Janaki Rani
Journal Name	International Journal of Advanced Science and Technology, Vol 29, I 4, B 628-E 639
<p>Internet-of-Things combines the functions from sensing the environment and computing the sensed data followed by storing it and finally communicating the computed data periodically or in a critic situation. The network architecture of IoT is a complex architecture as an IoT system combines the nodes from cloud computing and fog to create its communicating network. VLSI increases the functional ability of trending technologies like Iot and SoC for their numerous applications. VLSI devices are the key for the success of many emerging green technologies. As size of the system plays a critical role in both economical and functional success of a system, VLSI helps in these promising areas for its implementation. Many researchers have proposed numerous compression techniques. Code based compression scheme is one among them. Run length coding is one of the most promising techniques in code based compression scheme. In the proposed methodology, a hybrid compression technique is proposed. First Golomb coding is used to compress the data. The compressed data is further compressed using dictionary based compression code. The obtained compression ratio through hybrid data compression using Golomb and Dictionary based compression code is further compared with other compression techniques. The simulation results show that hybrid compression technique achieves an increased compression ratio of 75.89%.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	A PERSPECTIVE VIEW ON NANOSPONGE DRUG DELIVERY SYSTEM
Authors	S. DHANALAKSHMI, N. HARIKRISHNAN, B. A. TANISHA, G. POOJA, L. YUVARANI, A. SAJINA BEGUM, M. THARUN KUMAR, A. SANTHOSH
Journal Name	DRUG INVENTION TODAY, VOL 14, I 3, B 438-E 445
<p>Targeting drug delivery has long been a problem for medical researchers to get them to their right place in the body and how to control the release of the drug to prevent overdose. The development of new and complex molecules called nanosponges has the potential to solve these problems. Nanosponge is a novel and emerging technology which play a key role in targeting drug delivery in a controlled manner. It is a new class of materials and made of microscopic particles with few nanometers wide cavities in which a large variety of substances can be encapsulated. To overcome the problems of bioavailability, of which nanosponge is an advanced drug delivery system which offers diverse advantages than the other available systems. Nanosponge is based on nano, polymer-based spheres that can suspend or entrap a wide variety of substances and then be incorporated into a formulated product such as a gel, lotions, cream, ointments, liquid, or powder. This technology offers entrapment of ingredients and thus reduced side effects, improved stability, increases elegance, and enhanced formulation flexibility. This review article deals with the general introduction of nanosponges, characteristic features of nanosponges, their advantages, disadvantages, preparation methodologies, factors affecting on their preparation, and with some referential examples of nanosponge drugs</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	COMPARATIVE STUDY ON EFFICACY OF PROPRIOCEPTIVE TRAINING VERSUS TECHNICAL TRAINING IN PREVENTION OF RECURRENT ANKLE SPRAIN AMONG THE PROFESSIONAL FOOTBALL PLAYERS
Authors	R. NITHYANISHA*, P. NASRIN, S. M. DIVYA MARY, K. KIRUPA, V. PAVITHRA LOCHANI
Journal Name	DRUG INVENTION TODAY, VOL 13, I 2, B 332-E 343
<p>Abstract: The objectives of the study are to compare the effectiveness of proprioceptive training versus technical training in prevention of recurrent ankle sprain among the professional football players. Background: In professional football players, the major cause was ankle sprain. The main purpose of this study was to find out the effectiveness and to compare the effectiveness of the proprioceptive training and the technical training immediately after the end of the treatment. After 3 months, the recurrent ankle sprain was prevented among the professional football players. Methodology: The study was an experimental and comparative study. A total of 30 football players were taken from Dr. M. G. R. Educational and Research Institute. The inclusion criteria were football players of between the age group of 18 and 35 years, previous history of at least one/more ankle sprain within a year with Grade I or Grade II, patient with below five score of visual analog scale (VAS). Players with recent fracture in any part of the body, any other pathology or weakness in lower limbs and any neurological disorders were excluded from the study. The outcome measure was measured using VAS, foot and ankle disability index (FADI) questionnaires. Procedure: The selected 30 samples were randomly divided into two groups (Group A and Group B). Both groups were to do warm-up thoroughly by brisk walk on treadmill for 5 min and mild self-stretching for 5 min for ankle plantar flexors and dorsiflexors. Group A – received proprioceptive training on the wobble board bilaterally followed by unilaterally on the affected side 5 min in each session. Group B – received vertical jumps bilaterally and unilaterally for the affected leg 5 min in each session. Results: On comparing pre-test and post-test within Group A and Group B on VAS and FADI show highly significant difference mean values in both groups. However, the Group A is more effective than the Group B. Hence, the null hypothesis is rejected at $P \leq 0.001$. Conclusion: The proprioceptive training is more effective than the technical training in prevention of recurrent ankle sprain among professional football players.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	METHODS OF INDUCTION OF ALZHEIMER'S DISEASE IN RAT AND MICE
Authors	HEMALATHA, C. N.; DHANALAKSHMI, S.; INDUMATHI, S.; PAVITHRA, D.; HARIKRISHNAN, N.
Journal Name	DRUG INVENTION TODAY. 3/15/2020, VOL. 14 ISSUE 3, P381-386. 6P.

Abstract: Alzheimer's disease is known to be progressive dysfunction of neurons, which could be categorized under hereditary and sporadic conditions. The common cause of 70% of dementia, progression initiates slowly and thus worsens over a gradual increase of time. Noticed at an older age, especially geriatric level, which is difficult to attain relevant results in treatment. The cause of AD is undisclosed. The trademark of Alzheimer's disease is found to be deposition of peptides of β -amyloid, resembling a plague appearance in the central nervous system. The plague formed is expected to increase in size at the later stage. Initially, the disease is encountered with loss of memory, inability to recollect the recent issues practiced by the patient, especially of episodic memory. Different methods had been carried for induction of AD in mice through animal modeling technique, subsequent treatment to solubilize the plague is attained. The underlying mechanism of the disease progression could be explained through genetically modified animals which would support to attain therapeutic interventions and preclinical drug development. Combined deposition of Cu and Zn in A β is enriched, thus solubilized by Cu/Zn chelators in vitro, which would serve as a novel therapy for the prevention and treatment of AD. A comprehensive literature search has been carried out in PubMed and Google Scholar, and articles pertaining to complications of intravenous drug use were selected for review.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	MULTI PURPOSE LIFE SAVING TOOL USING IoT & CLOUD COMPUTING
Authors	S. NIRMALA SUGIRTHA RAJINI
Journal Name	XI'AN JIANZHU KEJI DAXUE XUEBAO/JOURNAL OF XI'AN UNIVERSITY OF ARCHITECTURE & TECHNOLOGY, VOL 12, I 3, B 4713-E 4717

Abstract:

An accident is unpredicted, abnormal and unintended incident that happens at several time without any proper reason. Thenegligence of the automobile driver is the foremost factor of such type of accidents. Though the traffic officials has created sufficient awareness to the vehicle operators w.r.t traffic rules, many of the common peoples do not follow the proper trafficrules. At present, the majority of the countries force the automobile drivers to use the helmet and to avoid using automobileswhen the driver is in drunken state. But still, the traffic regulations are being dishonored by the various automobile drivers. In thisproposed system, a life saving helmet system has been developed, which repeatedly examines whether the automobile user isusing the helmet and having non- alcoholic inhalation while igniting the two wheeler. Accelerometer sensor is used to identify the accidents and update the data the cloud using Wi-Fi module and government database. This database is used to identify theaccident zone as soon as possible.



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RESEARCH PUBLICATION ABSTRACT - MARCH 2020



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	ATTITUDE TOWARDS TEACHING PROFESSION AMONG THE PROSPECTIVE TEACHERS IN CHENNAI DISTRICT
Authors	L. MARIA SUGANTHI AND DR.K. GEETHA
Journal Name	INTERNATIONAL JOURNAL OF PSYCHOSOCIAL REHABILITATION, VOL 24, I 5, B 1955-E 1958

Abstract: Teachers shoulder the responsibility of shaping the future of the nation. The future of the nation depends upon the skills and efficiency of the teachers. Teachers are given the other name as creator. They are the creators of philosophers, leaders, doctors, advocates and many more. A teacher's job is not at all that easy and unless a high degree of professional qualities and commitment are inculcated in the teacher's personality, the training program would remain incomplete. If teachers acquire professional competencies and commitment and if they are enabled and empowered to perform their multiple tasks in the classroom as well as in the school and community in a genuinely professional manner, then a high quality learning among students may result in cognitive, affective and psychomotor areas of human development improving teaching performance through more effective teacher preparation, therefore is an essential ingredient in solving most educational problems. Educationist all over the world have started realizing that only securing enough teachers will not do, most important is securing the right type of teachers with right type of knowledge, skills attitudes and competence. The effective attitudes and actions employed by teachers ultimately can make a positive difference on the lives of their students, and this belief will serve as the central focus of this paper. The present study consisted of 300 student teachers drawn randomly from different schools in Chennai. Attitude towards Teaching Profession Scale and personal data sheet was used. t-test and ANOVA showed that there is no exist a difference with gender, teachers in the family, academic qualification and age.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	DECISION MAKING STYLE OF HIGHER SECONDARY SCHOOL TEACHERS
Authors	DR.P. SENTHAMIZH PAVAI AND J. VIGNESHWARI
Journal Name	INTERNATIONAL JOURNAL OF PSYCHOSOCIAL REHABILITATION, VOL 24, I 5, B 1959-E 1963
<p>Abstract:</p> <p>Decision making is the cognitive process involving information search, evaluation, judgement, problem solving and responses to a set of motivational forces that determine the manner in which decisions are made. A decision is a result of making judgement or a reaching a conclusion. Progress of making a nation depends to a large extent, on individual who can lead and guide their fellowmen. This study has been undertaken to examine the style of decision-making- style of headmistresses, to evaluate teachers in terms of levels of morale and tries to explore whether there exists a relationship between the dimension of decision-making style and teacher morale.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	A COMPARATIVE STUDY OF POSTURE ALTERATION AND STRETCHING PROGRAM TO REDUCE NECK PAIN IN TEACHERS
Authors	K. KIRUPA, S. M. DIVYA MARY, R. NITHYANISHA, G. VAISHNAVI, V. PAVITHRALOCHINI, G. JAIGANESH
Journal Name	BIOMEDICINE, VOL 40, I 1, B 99-E 101

Abstract

Teaching is the world's most serviceable profession all over the world. Teachers required an appropriate mixture of mental, physical, technical and tactical ability. Prolong extension of their neck during teaching may cause increase load in muscles which may lead to disturbances in their daily activities. Hence, the aim of this study is to compare the effectiveness of posture alteration and posture alteration with stretching to reduce neck pain in teachers. To compare the effectiveness of posture alteration and posture alteration with stretching to reduce neck pain in teachers.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	PREVALENCE OF DEPRESSIVE SYMPTOMS AMONG INCOGNIZANT PATIENTS VISITING A HOSPITAL.
Authors	MARY, A. VINITA; MANIKANDAN, N.; PAVITHRA, K.; NATHIYA, M.; KESAVAN, R.
Journal Name	INDIAN JOURNAL OF PUBLIC HEALTH RESEARCH & DEVELOPMENT JAN2020, VOL. 11 ISSUE 1, P207-211. 5P

Abstract:

This article depicts about depressive symptoms among patients visiting a hospital. Depression is the most common mental illness among people in many parts of the world. A person who suffers from depression experiences many symptoms which affects their day to day life to study the contributing factors associated with various levels of depression, a survey was conducted among patients visiting a private dental college at Chennai, Tamil Nadu. Convenience sampling technique was used for the survey. The patients were categorised according to their age, gender, education and employment status. Socio-economic status of the family head was also assessed in the survey. Marital status of an individual and any medical problems presented was also interviewed in the questionnaire. A list of PHQ-9 questionnaire was used to assess the associating factors among various level of depression.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	SUBMERGED FRICTION STIR WELDING: AN OVERVIEW OF RESULTS OF EXPERIMENTS AND POSSIBLE FUTURE WORKS
Authors	N ETHIRAJ., MEIKEERTHY S., T SIVABALAN
Journal Name	ENGINEERING AND APPLIED SCIENCE RESEARCH (EASR)

Abstract:

Conventional Friction Stir Welding (FSW) is performed in an open air environment making use of the heat generated by both friction and plastic deformation of a material. Submerged Friction Stir Welding (SFSW) is a new development from the FSW process in which the welding is performed under liquid medium like water or brine. SFSW process has wide applications in the marine field. This paper reviews the investigations carried out in SFSW and compares them with conventional FSW. Also, it describes the influence of the process parameters like tool rotational speed and tool traversing speed on mechanical and microstructural properties of the joints made in SFSW, compared with FSW. Further, it deals with some of the novel methods of SFSW. Research gaps are identified to suggest future work for deriving more information regarding SFSW



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	A NOVEL ACTIVE CURRENT INJECTION CIRCUIT FOR ADJUSTABLE SPEED DRIVES
Authors	CHANDRASEKAR T., A KANNAN., LAKSHMIPRABHA K E
Journal Name	INTERNATIONAL JOURNAL OF SCIENTIFIC & TECHNOLOGY RESEARCH VOLUME 9, ISSUE 03, MARCH 2020 ISSN 2277-8616

Abstract:

This paper introduces a novel active current injection circuit to mitigate harmonics and to amend the power factor of a three phase front-end uncontrolled rectifier. The high PF is achieved by injecting HF current, from the HF inverter, at the input of the front-end three-phase rectifier the inverter switches are in zero voltage switching. The front- end rectifier diodes are working in zero current transition. It results a current waveform is continuous and sinusoidal in shape and current harmonics reduced significantly . The fixed duty ratio with varying switching frequency, regulates the output voltage. The input current THD and power factor are 5.76 % and 0.99 respectively. The results are verified through PSIM simulation and compared with an experimental prototype of 2.5Kw.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	PHASE MEASUREMENT ANALYSIS IN FIELD PROGRAMMABLE GATE ARRAY (FPGA)
Authors	B SWAPNA., KAMALAHASAN M., KAMALESHWARI C S A., NIVETHA S., APARNA R., RAMYA SHREE B., R ABDURRAHMAN JAINULABIDEEN
Journal Name	TEST ENGINEERING AND MANAGEMENT
<p>Abstract:</p> <p>Phase measurement is required in electronic applications where a synchronous connection between the signals should be protected. Customary electronic frameworks utilized for time measurement are planned utilizing a traditional blended flag approach. It causes vulnerability of phase connection between the recuperated signals. To deliver the need to enroll minute phase move changes inside a FPGA, we propose a plan for phase measurement rationale center having goals and accuracy in the scope of a couple of picoseconds. The working standard depends on subsample amassing utilizing methodical examining over the phase finder flag. The phase measurement rationale can work over a wide scope of computerized clock frequencies, going from a couple of kilohertz to the most extreme recurrence that is upheld inside the FPGA texture. A scientific model is created to delineate the working rule of the structure. We likewise examined the method of the phase measurement framework. This Proposed System Implemented utilizing Verilog HDL and Simulated by Model sim 6.4 c and Synthesized by Xilinx tool. The proposed framework actualized in FPGA Spartan 3 XC3S 200 TQ-144</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	SAFETYSCKETSECURITY SYSTEM USING ARDUINO-BOARD
Authors	ANURADHA K., NIRMALA SUGIRTHA RAJINI., BHUVANESWARI T., VIJI VINOD
Journal Name	INTERNATIONAL JOURNAL OF ADVANCED SCIENCE AND TECHNOLOGY
<p>Abstract:</p> <p>The important goal and achievements in IOT platform are highly secure and easy access of smart locker system. Security plays on crucial place where as like offices, home, banksetc. Always there is a need for security in society. The security threat has overcome through the proposed system. The Locker security system is based on RFID, Password, OTP with GSM technology and Biometric Finger print sensor. During the login operation user first swipe RFID tag on the RFID reader, if it matches then the authorized person can enter the password. If the password is correct it will generate random password (OTP)using GSM technology. The OTP messages send through GSM to the authorized person's mobile phone as SMS. Then the OTP was verified and then finger print of authentic person will be scanned. If the finger print was correct, authorized person, can see the display in LCD. If all the conditions are matched then the microcontroller processes the data and correspondingly drives the locker to operate then the door will be opened. The proposed system activates, authenticates and validates the user and then unlocks the locker door.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	META HEURISTIC KHA – CUCKOO SEARCH OPTIMIZATION ALGORITHM FOR ENERGY EFFICIENT WIRELESS SENSOR NETWORK
Authors	R RAJALAKSHMI, T V ANANTHAN
Journal Name	TEST ENGINEERING AND MANAGEMENT
<p>Abstract: Wireless Sensor network (WSN) is a complex distributed network which encompass huge amount of nodes for data sensing particular region. In WSN energy efficiency is the major constraints since it operates on battery power including individual node in the network. To achieve energy efficiency in WSN existing approaches adopt clustering through which among group of node individual node is selected as cluster head (CH) for whole cluster. The selected CH performs the task of processing and computation process of entire cluster which in turns reduces the energy consumption of the whole cluster. In WSN clustering has been implemented through data aggregation scheme for balancing energy consumption of particular hub in the sensor system for productive data transmission. The existing WSN uses various techniques for achieving energy efficiency like Harmony Search Algorithm (HAS), Particle Swarm Optimization (PSO) and LEACH (Low Energy Adaptive Clustering Hierarchy) algorithm. Those existing algorithm exhibits local search and trade-off in exploration – exploration constraints in the WSN individually. To combine the advantage of existing approaches and to achieve faster convergence speed hybrid optimization technique has been evolved.</p>	



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	BIG DATA ANALYTICS FOR CRIME AGAINST WOMEN IN THE STATE OF TAMIL NADU
Authors	USHA D., GANESAN K
Journal Name	TEST ENGINEERING & MANAGEMENT MAGAZINE

Abstract:

In this growing technology field, crime rates are increasing and challenge investigative people's capabilities. Crime data generation is also increasing nowadays. With the use of conventional analytical techniques, data generated today cannot be managed effectively. It would be useful to use Big Data Analytics for that huge data instead of using standard data analysis techniques. Primarily collected data will be stored and frequently occurred data will be displayed. Based on the strong attribute the frequent data is analyzed using Big Data Analytics. Finally, the analyzed data are given as input into the Rattle tool and retrieved the actual result as output. The above pattern helps the police department to identify the criminals in the short span of time.



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	RETIRE AWAY ESSENTIAL ACCURACY FOR DARKNESS DISCOVERY AND ELIMINATION
Authors	S GAYATHRI., S BALAVINOTH., B SWAPNA., M KAMALAHASAN
Journal Name	TEST ENGINEERING AND MANGEMENT

Abstract:

The unaided picture division utilize just RGB shading data so as to build up the likeness criteria between pixels in the picture. This leads by and large to an off-base translation of the scene since these criteria don't consider the physical co-operations which offer raise to those RGB estimations of the impression of the scene. In the paper, propose LSSVM for unaided picture division which depends on shading highlights, yet in addition considers an estimate of the materials reflectance. By utilizing a perceptually uniform shading space, it applies foundation to one of the most important best in class division procedures, demonstrating its appropriateness for sectioning pictures into little and rational bunches of steady reflectance. Moreover, the shadow recognition and expulsion because of the wide appropriation of such calculation accommodate the first run through in the writing an assessment of the strategy under a few situations and various setups of its parameters. At long last, so as to improve both the precision of the division and the internal intelligence of the bunch, apply a progression of picture handling channels to the information picture dissecting their belongings in the division procedure



RESEARCH PUBLICATION ABSTRACT - MARCH 2020

Paper Title	ANGLE BASED ADVERSARY NODE DETECTION IN WIRELESS SENSOR NETWORKS
Authors	SUDHAMAN K., ANAND M., RAJA B., MALATHY V.
Journal Name	JOURNAL OF CRITICAL REVIEWS
<p>Abstract:</p> <p>Wireless communication with the sensing power makes Wireless Sensor Networks (WSN) profitable now. However, the protection of data through WSN remains a challenge. The difficulties due to the battery life time, data storage space and computation cause the nodes of WSN to compromise. The adversary nodes cause the diversion of data route the base station. Sometimes those nodes may alter the data so that the base station will do misinformed decisions. It becomes difficult to detect and separate the correct nodes to avoid the process of false information passed by the adversary nodes. The security and routing of data is very important in the operation of WSN. A new method is aimed at providing analysis and design of strategy to detect and isolate adversary node in WSNs. The method is Angle Based Adversary Node Detection (ABAD). The threshold value is taken into consideration from the quality of service parameters and the node is decided whether it is a normal or an adversary node. All simulations are achieved in the network simulator tool that uses various scenarios (25 nodes and 50 nodes)</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Antioxidant activity of flavonoid compounds isolated from the petals of <i>Hibiscus rosa sinensis</i>
Authors	Sumathy Rengarajan., M VIJAYALAKSHMI., Chandramohan Govindasamy., Veeramani Chinnadurai., Mohamed Farouk Elsadek
Journal Name	Journal of King Saud University – Science
ABSTRACT : <i>Hibiscus Rosasinensis</i> , medicinal plant known for its various medicinal properties. The present study was to identify and characterize the flavonoid compound from the petals of <i>Hibiscus rosa sinensis</i> . The antioxidant compounds were isolated by Silica Gel G Column chromatography. From the fractions, C5 shows the highest antioxidant activity compared to C3 & C4 compounds. DNA damage protection activity results indicated that two major bands super coiled DNA and open circular DNA was protected by the presence of different concentration (5 µg, 10 µg, 15 µg & 20 µg) of C5 compound isolated from the petals of <i>Hibiscus rosa sinensis</i> . IR absorptions peaks reveals the presence of functional groups alcohols, phenols, α,β unsaturated aldehydes, ketones and alkanes. The structure of compound was characterized as Hibiscetin-3-glucoside (C ₂₁ H ₂₀ O ₁₄) by Mass spectroscopy and NMR. The study emphasized flavanoid compounds have effective scavenging activities which may be due to its phenolics and flavonoid contents and can be used as anticancer agents.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Synthesis and the Study of Bioefficacy of Schiff base Ligand Decorated by Pyrazolone Moiety
Authors	Anuradha Rajasekaran., Selvan Abraham., Sasikala Mohanasundaram., Pirakathiswaran Gurusamy
Journal Name	Oriental Journal of Chemistry

ABSTRACT :

The study reports synthesise of novel Schiff base ligand decorated with pyrazolone moiety using 4-Aminoantipyrine phosphate and 5-Bromosalicylaldehyde. Structural characterization of the synthesized pyrazolone moiety was carried out using ¹H-NMR, Mass Spectroscopy, elemental analysis with EDAX, UV-Vis spectroscopy, Fourier Transform Infrared Spectroscopy (FTIR) and single crystal X-Ray diffraction. Novel Schiff base ligand was tested for its bioefficacy, which showed having the properties like antimicrobial against Escherichia coli (MTCC433), Staphylococcus aureus (MTCC3160), antifungal against Aspergillus niger (MTCC2208) Candida albicans (MTCC3160), antioxidant and anti-inflammatory activities. Cytotoxicity study was carried out on Hep G2 cell lines and Vero cell lines, which revealed the anticancer activity of the Schiff base ligand. Molecular docking interaction of ligand towards enzymes like DNA gyrase of E.coli, S. aureus showed good binding energy. The optimum synthesizing temperature of Schiff base ligand was found to be at 30°C, and the synthesised ligand was found to be biologically effective.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	SILVER DOPING EFFECT ON ANTIBACTERIAL ACTIVITIES OF CADMIUM OXIDE NANOPARTICLES
Authors	J Christina Rhoda., M Giruba., Dr. S Chellammal., K Ravichandran., C Sivaraj
Journal Name	Rasayan Journal of Chemistry
<p>ABSTRACT:</p> <p>Cadmium oxide nanoparticles were synthesized with cadmium chloride and sodium hydroxide as starting materials using the co-precipitation method. This study analyses the enhancement of antibacterial activities of cadmium oxide on the addition of silver. The antibacterial activity was carried out in-vitro against two kinds of bacteria: grampositive bacteria, Micrococcus Luteus and gram-negative bacteria, Escherichia Coli using the well diffusion method. The tested concentration range of cadmium oxide nanoparticles was 100μm/mL, 150μm/mL, 200μm/mL. The results showed that cadmium nanoparticles had an inhibitory effect against both pathogenic bacteria with a zone of inhibition (18, 20, 24 mm) for Micrococcus Luteus and (14, 16, 18 mm) for Escherichia Coli. The antibacterial effect was more prominent against the high concentration of nanoparticles. Cadmium oxide nanoparticles with silver as a dopant excel in different potential applications.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Tightening torque of implant abutment using hand drivers against torque wrench and its effect on the internal surface of implant
Authors	Y Sameera., RATHIKA RAI
Journal Name	Journal of Indian Prosthodontist Society
<p>ABSTRACT</p> <p>Aim: The aim of this study was to compare the torque rendered by a handheld driver and a torque wrench and thereby evaluate its effect on the internal threads of implant. Setting and Design: An in-vitro comparison of implant abutment torque using a digital torque gauge.</p> <p>Materials and Methods: Thirty participants were randomly selected and were asked to torque two samples of mounted abutment analogs, one using a handheld driver and other with a torque wrench. The hex was then attached to the digital torque gauge to record the amount of torque generated and the recorded values were compared. Simultaneously, impressions of the internal threads of implant were taken using light body putty material before and after torque application. The samples were viewed under a stereomicroscope and the measurement of the initial four threads was compared.</p> <p>Statistical Analysis Used: The data was subjected to statistical analysis using SPSS version 20.0 software. The intergroup comparison was done using one sample t-test, and the internal threads were analyzed using ANOVA statistical analysis.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Vision machine learning for detection of ocular pathologies from iris images
Authors	K SUJATHA., K S Thivya., M ANAND., N Jayachitra., G Durgadevi., N P G Bhavani., V Srividhya
Journal Name	Journal of Discrete Mathematical Sciences and Cryptography
ABSTRACT <p>Detection of eye pathologies from the database of iris images is taken into deliberation. The images of disease affected and normal eyes are collected from High-Resolution Fundus (HRF) Image Database is analyzed and the influence of ocular diseases on iris using a reliable Fuzzy recognition scheme is proposed here. These eye images are then subjected to various image processing techniques like pre-processing for de-noising using Blind de-convolution, wavelet based feature extraction, Principal Component Analysis (PCA) for dimension reductionality, followed by fuzzy C-means clustering inference scheme to categorize the normal and diseased eyes. It is inferred that the proposed method takes only 2 minutes with an accuracy, specificity and sensitivity varying in the range of 94% to 98% respectively.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Polynomial Equation Based Localization and Recognition Intelligent Vehicles Axis using Wireless Sensor in MANET
Authors	R Ganesh Babu., P Karthika., G Manikandan
Journal Name	Procedia computer science
<p>ABSTRACT</p> <p>Vehicle need for the image security is the present time. The task of security is being dangled as there is an assortment of information and vehicle to verify as the various dimensions of information security is required depending on the vehicle and picture information type. Encryption is the greatest catalyst way to deal with assuring the security of pictures and vehicles over open systems. The proposed another open cryptosystem key depends on the polynomial condition. In this methodology has been wanted due to their fight over the cryptanalysis assaults. Parameter, for example, relationship coefficient, entropy, 12 shape parameter, histogram investigation is utilized for the productivity of our planned strategy. The theoretic and reenactment outcome gives a high amount of security. Hence, it is reasonable for down to earth use in secure correspondence</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	H2M communication for Home Appliances Automation using Android Application
Authors	N Rajkumar., A B Rajendra., Prafulla., Viji Vinod
Journal Name	Procedia computer science
<p>ABSTRACT</p> <p>The fast development in mobile communication technology and the decrease in smartphone costs enable to be incorporated into home appliance automation. The automation of modern human being's surroundings nowadays enables for increased work efficiency and convenience. The home appliance technology system is designed to monitor and regulate different household appliances such as AC, fan, light, etc. The different home keep devices are monitored and controlled by the proposed GSM system and a microcontroller. The user will bring the measures to regulate the equipment using the android request based on the email. Also, if any burning events are identified inside the houses, the warning signal will be sent to the user.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	HERMENEUTIC POINTS OF VIEW IN LUIGI PIRANDELLO'S SIX CHARACTERS IN SEARCH OF AN AUTHOR
Authors	T C Jayaneela Sneha., Dr Harshini
Journal Name	JAC: A Journal of Composition Theory
<p>ABSTRACT</p> <p>The article investigates on hermeneutic viewpoint what makes a hallucination genuine and the truth a deception as depicted by Pirandello in his Six Characters in Search of an Author. Pirandello discusses two deceptions – the hallucination that is seen among people and characters and the fantasy that is made in front of an audience. At the point when the entertainers of the performance center organization state the Characters' life to be a figment, they advocate with solid contentions that how their life is substantially more important and genuine than theirs. In particular the article has examined Pirandello's concept of reason. The truth the craftsman has made is characterized, got done with, constant while ordinary the truth is in ceaseless transition. The article has subsequently compared the lastingness and eternity of craftsmanship with the worldly and changing human life.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	USE OF MATERIALS IN ENGLISH LANGUAGE CLASSROOM-SOME EXPERIMENTS
Authors	Dr Harshini
Journal Name	JAC: A Journal of Composition Theory
ABSTRACT <p>This paper aims at highlighting the use of variety of materials which provide exposure to authentic use of English thereby helping the learners cognitively and effectively. Use of materials in an English language classroom is of vital importance as it helps the brain to monitor and modify hypotheses about language use and to involve the learner in a sort of negotiation of meaning which increases opportunities for language acquisition and development. Traditionally, textbooks alone were regarded as materials but now we have audio and video cassettes as well as CDs which play the role of textbooks and impart the same knowledge that textbooks do. Even effective use of other materials such as the newspaper, magazines and journals can create a successful language learning environment. The use of such materials also brings out a learner friendly environment where students are exposed to a variety of sorts ranging from CDs to Journals notwithstanding textbooks. Through the effective use of such materials it is no wonder that ELT would become more successful and ELL would become more interesting.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Analysis of Adiabatic Hybrid Full Adder and 32-Bit Adders for Portable Mobile Applications
Authors	T Suguna., M JANAKI RANI
Journal Name	International Journal of Interactive Mobile Technologies
ABSTRACT <p>In VLSI, power optimization is the main criteria for all the portable mobile applications and developments because of its impact on system performance. The performance of an adder has significant impact on overall performance of a digital system. Adiabatic logic (AL), a new emerging research domain for optimizing the power in VLSI circuits with high switching activity is discussed, in this paper, for implementing the adder circuits. Various adiabatic logic styles full adder designs are reviewed and multiplexer based hybrid full adder topology is designed and implemented with ECRL and 2PASCL AL styles. Moreover in this paper, 32 bit adders such as Ripple Carry Adder (RCA), Carry Select Adder (CSLA), Carry Save Adder (CSA), Carry Skip Adder (CSKA) and Brent Kung Adder (BKA) are realised using proposed ECRL and 2PASCL adiabatic full adders. All the adders are implemented and simulated using TANNER EDA tool 22nm technology, parameters like power, area, delay and power delay product (PDP) of all the adders are observed at different operating frequencies, with supply voltage of 0.95 v and load capacitance of 0.5 pF</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Mechanical and durability properties of self-compacting concrete with marble fine aggregate
Authors	C Vaidevi., Felix Kala T., A R R Kalaiyarrasi
Journal Name	Materials Today: Proceedings
<p>ABSTRACT</p> <p>Self-compacting concrete (SCC) enhances qualities and working conditions due to the elimination of compaction during construction. The usage of river sand in concrete affects natural resources and groundwater. This the paper deals the different testing methods to test high-flow ability, resistance against segregation, and passing ability of self- compacting concrete for M60 grade of concrete with a partial replacement of marble waste as a fine aggregate. Slump flow, V-funnel, L-box and U-box tests were carried out to examine the performance of fresh state SCC. In hardened state, the tests were conducted and cured at different periods to find compressive strength, tensile strength and flexure strength test with the replacement of marble fine aggregate percentage of 0%, 25%, 50% and 100% in SCC for 14, 28 and 56 curing days. The chemical admixture super plasticizer master Glenium sky 8233 and the viscosity modifying agent are used. The specimens are cast with 0.28 water-powder ratio. And also durability of SCC is tested by RCPT, WPT, chemical attack tests like acid and sulphate attack are conducted at the age of 28 and 56 days in SCC specimens. The results are compared with the conventional SCC and found satisfied up to 25% of partial replacement of fine aggregate as a marble aggregate for 28 and 56 curing days.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	DEVELOPMENT OF NANOPARTICULATE DRUG DELIVERY SYSTEM FROM MARINE SOURCE AGAINST HUMAN IMMUNODEFICIENCY VIRUS MARINE STUDY
Authors	Dr. N. HARIKRISHNAN N., ANAS S MOHAMIED., S GEJALAKSHMI
Journal Name	Asian Journal of Pharmaceutical and Clinical Research

ABSTRACT

Objective: Nanotechnology techniques are a creation and exploitation of materials, devices, and systems through the control of matter on the nanometer length scale, i.e., involvement of atoms, molecules, and supramolecular structures. Every existing treatment modalities against human immunodeficiency virus (HIV) offer a marginal increase in the life expectancy as chitosan was converted to its derivative aminoethyl chitosan by chemical method evaluated for anti-HIV activity.

Methods: Isolation of chitosan from crab shell by chemical method involves four basic steps; protein separation, calcium carbonate separation, deproteinization, and demineralization.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Design, optimization and statistical evaluation of oral reconstituted suspension of clarithromycin using ion exchange resins
Authors	KOMAL.S, HARIKRISHNAN.N
Journal Name	Asian Journal of Pharmaceutical and Clinical Research
ABSTRACT <p>Objectives: The objective of the present study is taste masking of bitter clarithromycin using Indion 204, Indion 234, and Tulsion 335 as ion-exchange resins, which forms insoluble complexes, inhibiting the drug release in saliva as ion-exchange resins are cross-linked polymers, water-insoluble that contains salt-forming groups in repeating positions on the polymer chain. Drugs that are bitter and cationic get adsorbed onto weak cationic exchange resins of carboxylic acid functionality such as Indion 204, Indion 234, and Tulsion 335 to form non-bitter complexes. Methods: The drug-resin complex loading process was optimized for the resin content, activation, swelling time, stirring time, influence of pH, and temperature for maximum drug loading and the formed complex was evaluated by differential scanning calorimetry (DSC) to confirm complex formation. The drug-resin complex was also characterized by their micromeritic and rheological properties. These complexes were used to prepare oral reconstituted suspensions and the taste was evaluated.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	EPIDEMIOLOGICAL STUDY ON DIABETES PATIENTS ALONG WITH PATIENT INTERACTION AND COUNSELING
Authors	VIVEKANANDAN .K., BHAVYA E., Dr. N. HARIKRISHNAN N
Journal Name	Asian Journal of Pharmaceutical and Clinical Research
<p>ABSTRACT</p> <p>Objective: The main objective was to study the prevalence of diabetes and to create the awareness of the diseases among the peoples who visited and admitted in tertiary care hospital at Chennai.</p> <p>Methods: This study was carried out at Sir Ivan Stedford Hospital in Chennai. The data were collected from the outpatient department of diabetology. In our study, 150 diabetes mellitus (DM) patients were selected, which include visited or admitted in the hospitals. The pilot study used to observe DM patient for 3 months and the outcome was recorded. As per the standard guidelines, patient data collection form was prepared and got approval from diabetologist for collected patient data and pharmaceutical care issues.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	An efficient approach for detecting malware using API call mining
Authors	B Thanudas., Sreelal S., V CYRIL RAJ., Maji S
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT Advanced malware remain as a major challenge in enforcing security of the enterprise networks. Since most of the commercial tools use static analysis for malware detection and prevention, they are unable to detect unknown malware and sophisticated malware such as polymorphic and metamorphic malware. Dynamic approaches that consider the real-time as well as run-time behaviour of the malware are very essential. We devised two methodologies of dynamic analysis by making use of the Application Programming Interface (API) call features to detect malware: (i) Application Programming Interface Call Frequency Mining (API-CFM) and (ii) Application Programming Interface Call Transition Matrix Mining (API-CTMM). Our analysis shows that API-CFM and API-CTMM provide improved accuracy in malware detection. In our techniques, the API usage of a set of advanced malware and benign programs are learned/characterised using supervised classification algorithms: random forest, adaboost, support vector machine, and naive bayes. We used 94 API calls for the malware detection methodology. For the API call transition based mining techniques, we use a feature vector of dimension 94×94 . We also engage the Principal Component Analysis (PCA) of the selected features to reduce the time complexity in malware detection. Our test results show that API-CFM technique gives an accuracy of 76.19% and API-CTMM technique gives an improved accuracy of 95.23%.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A study on service quality perception and awareness of e-banking in public and private sector banks in chennai district
Authors	G Padmavathy., C B SENTHIL KUMAR
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT

The Banking and financial sector is a major sector of the development of the economy and the nation as a whole, which helps to provide required finance for the different sector of the economy. As a service sector the efficiency of employee has got a bearing on the quality of service offered. The aim of this study target on the customer's awareness in service quality among the public and private sector banks in Chennai district. The prime objectives of this paper find the expectations of customers concerning bank service, to ascertain to perception of banking customers about the service quality of banks and service quality caps in the both sector banks in Chennai district. Observed method adopted with the basic structures of SERVQUAL method to measure the service quality of banks. The sampling methods were used to select respondents from customers of 2 public sectors banks (SBI & Indian Bank) and 2 private sectors (Axis and ICICI banks) in Chennai district. Public sectors banks in particular improve their performance in order to maintain its market share in Chennai city.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Challenges faced by women entrepreneur in small scale industries in Chennai city
Authors	Fathima., C B SENTHIL KUMAR
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Entrepreneurship serves as a catalyst of economic development of the country. Women constitute in half of the Indian nation population. Women entrepreneurs may be defined as those women or a group of women who initiate, organize and operate a business enterprise. The small-scale industrial sector which plays a pivotal role in the Indian economy in terms of employment and growth has recorded a high rate of growth since independent in spite of stiff competition from the large scale sector. The present study throws light on the facts challenged by the women entrepreneurs in Chennai.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Examining various biometric technology in distinguishing monozygotic twins
Authors	K K Rehkha., Dr.VIJI VINOD
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Biometrics is one of the major trending technologies which is used vastly in detecting a person's unique physical characteristics. Due to myriad objective biometric technology has seen a constant mounting progress. Biometrics serves effective, in identification and verification of biological features in an individual. Subsequently, it functions well in case of illegal happenings. Recognizing a person's unique characteristics by means of biometrics seems to be extremely complicated in case of twins, specifically in analyzing monozygotic twins who are a replica of each other. A study says that as monozygotic twins are always of the same sex as they are developed from a single egg. Therefore the difficulty in differentiating identical or monozygotic twins should be resolved. Differentiation in a person can be done by either considering single biometric feature or multiple biometric features. Multiple biometric feature recognition provides high accuracy and hence proves to be more efficient when compared with single biometric feature recognition. Human's finger print and face authentications are considered as distinctive a feature which is practiced immensely in the present days for characterization.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Identification of plants with their medicinal uses by convolutional neural network
Authors	B. Raja., M ANAND., V Malathy., K.Sudhaman
Journal Name	International Journal of Advanced Science and Technology
<p>ABSTRACT</p> <p>Many plants are used as medicinal plants in herbal medicine for various purposes. For medicinal purposes, several herbals are used. Our ancestors used plants as medicine for several years. The Parts of a plant like flowers, leaves, seeds and roots are also used for medicinal uses. But, it is a difficult process for a botanist and pharmaceutical companies to identify the correct medicinal plants. Hence, the work is done to classify the correct medicinal plants from the images of the plants. A set of images is considered as a training dataset. Convolutional Neural Network (CNN) in this paper classifies the medicinal plants and to convey their respective medicinal uses.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Iot based intelligence parking management system using lot display
Authors	Swapna B., Shubhashree N S., George P M., Hemasundari H
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Intelligence parking management system is designed and developed using Internet of Things. Parking management using intelligence provides customer an easy way of parking vehicle which can be viewed through the display. This project is very handy and user friendly. It is programmed with Java and HTML languages. When vehicle is parked in the slot, the parked slot is shown in red in the display. When slot is vacant, it is shown in green in the respective slot number in the display. This gives the customers a clear idea of parking their vehicle. This work offers a web based system.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Women Liberation and its aftermath in Nayantara Sahgal's novel "The Day in Shadow"
Authors	Madhumidha V., Dr Harshini
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT

Women Liberation not only eradicates the oppression on gender but also creates a way for them to gain equal economic, political and social status. Women Liberation movement started nearly a hundred years ago. Throughout the world, millions of women especially young women, students and working women have challenged some of the most essential features of their century-old repression. Nayantara Shagal is a post-independent writer. She mainly dealt with feminism in all her fictions. She is a prolific writer who has written eight novels which gave her the due credit, two biographies, two political commentaries and a large number of articles in various newspapers and magazines. Shagal is a recipient of the prestigious 'Sahitya Akademi Award' for her novel 'Rich like Us' (1985), the 'Sinclair Award' and the 'Common Wealth Award for Eurasia' for her novel 'Plans for Departure' (1986). She returned the 'Sahitya Akademi Award' in 2015 for some issues. According to her, women had to fight for their individuality and self - respect. They are made victims of orthodoxy. Her fiction is closely interwoven with the fabric of interpersonal relationships not in the political and social milieu of India.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Imposing of expurgated Arts and Censorship becomes a threat for creative thinking
Authors	Jayaneela Sneha T C., Dr Harshini
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Censorship has been a current and raging affair in the world within the 21st century. Art has been continuously leaning towards the dangerous sides of censorship. From aesthetic, up to date century work of art, content is primarily based on non-secular, political, sexual, governmental, moral and ethical themes which are legally responsible to be burned, banned and even destroyed. The impact between the art world and therefore the law with a vital eye, believe to create censorship. Art in context provides a firm foundation for accepting, rejecting and respecting a piece of art in perspective as well as into the actual world during which it exists. Therefore understanding aesthetic value is given a lot of importance. Silencing the artwork by censorship exposes the impact of an unspoken artist about the creation and demonstration of art. An art that is expurgated now for a reason cannot be expurgated for another reason tomorrow. Therefore rules and ethics will change as per people's expectations and approach of living in the society.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	IoT based Speed Control with Hybrid Neural Fuzzy Logic Scheme
Authors	Dr.R S Ponmagal., K Sujatha., Bikarant Kumar Nayak., B Deepalakshmi., K Yasoda
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Core idea of this work focuses on controlling the speed of the constant flux machine by conventional laboratory method and using hybrid neuro - fuzzy based methods. Control of armature voltage and Flux control are two conventional methods for controlling the speed of the constant flux machine. Presently, Manual speed control is practiced in Electrical Machines laboratory. Through this method it is inferred that the speed is directly proportional to the armature voltage for Armature control scheme and it is inversely proportional to shunt field current in Flux control scheme. This empirical relation stated is validated through the experimental results obtained on laboratory scale in comparison with Hybrid Neural Fuzzy Logic Scheme (HNFLS). This scheme, proposed is equipped with hi-tech arrangement so that the experimentation results can be retrieved from the cloud service in coordination, so that the speed is monitored and controlled online by Internet of Things (IoT).</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A survey of Fog and Cloud Computing Framework based on IoT Signal Solutions for Secure Communication
Authors	R Ganesh Babu., G Ramesh., G Manikandan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>The quick advancement of the Internet of Things (IoT) innovation as of late has bolstered associations of various keen things alongside sensors and set up consistent information trade between them, so it prompts a stringy necessity for information examination and information stockpiling stage, for example, distributed computing and mist figuring. In current period of shrewd and green empowering innovations makes keen city and its applications feasible. Empowering access to top notch medicinal services to anybody, from anyplace are the primary focal points of the IoT driven e-wellbeing frameworks. Expanding quantities of restorative gadgets, sensors is day in and day out observing of wellbeing parameters, thusly lead to huge amounts and assortments of information. Having at the top of the priority list the measures of produced information and significance of on-time conclusion and basic leadership just as a hugeness of quick responses for a situation of identified variations from the norm, transmitting all information to the Cloud for investigation may not be fitting. Therefore, executing a Fog registering, which acknowledges smaller than normal expository handling focuses at the edge of the system.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Towards Taxonomy for Cloud Computing as Business Models and Deployment: A Technical Review
Authors	Murugan G., N Keerthana., Sujatha Krishnamoorthy., Sudhakar Sengan., Amarendra K., Malladi Srinivas
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>This study helps companies and humans see how cloud computing can furnish them with reliable, redid, and financially savvy advantages in an extensive assortment of applications. Cloud processing is a mannequin for empowering helpful, on-demand arranges access to a shared pool of configurable computing assets that can be shortly provisioned and discharged with insignificant administration exertion or specialist co-op interaction. It with the aid of giving science "as assistance" cloud computing has re-imagined the way science gets conveyed utilizing providing electronic programming, middleware, and computing belongings according to demand. With an expected 18% expansion in spending every year, IDC predicts at any price 80% of IT spending development will appear in these applied sciences among now and 2020.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	PREDICTION OF SOIL REACTION (PH) AND SOIL NUTRIENTS USING MULTIVARIATE STATISTICS TECHNIQUES FOR AGRICULTURAL CROP AND SOIL MANAGEMENT
Authors	B Swapna., S Manivannan., R Nandhinidevi
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT

The prediction method is to explore application of multivariate data analysis methodologies to classify and identify important soil nutrients and pH values. The Principal Component Analysis techniques were used to recommend the higher or lesser amount of loadings in the soil among 470 soil samples from 94 villages in Vellore district. This is the most powerful analytical technique to determine which data is highly impacted to soil and crop growth. Regression analysis technique was used to factorize the variable with the importance and relationship between soil variables. Correlation Matrix technique was used to compare the several variables to correlate with positive or negative signs. The soil testing procedure and understanding of results showed that soil nutrients and pH level has significant effect on variation in fertilizer usage, crop selection and high crop yield. PH determination can give indication whether soil is suitable for the plants to be grown or needs to be adjusted to produce optimum plant growth.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A review on curcumin – Antidepressant bioenhancer activity
Authors	Anusha Sundararaman., S Dhanalakshmi., Dr N Harikrishnan N., Logesh V., Ganesh S., Shakthi Priya P., Janani N., Srinivasan M., Prabakaran S
Journal Name	Drug Invention Today
ABSTRACT <p>A depressive disorder is a prevalent psychiatric disorder, which affects 21% of the world population. The presently using drugs can impose a variety of side-effects, including cardiac toxicity, hypoplasia, sexual dysfunction, body weight gain, and sleep disorder. During the past decade, there is a growing interest in the therapeutic effects of natural products on mental disorders. Curcumin, the principal curcuminoid found in spice turmeric, has recently been studied for its active role in the treatment of various central nervous system disorders. Curcumin demonstrates neuroprotective action in Alzheimer's disease, tardive dyskinesia, major depression, epilepsy, and other related neurodegenerative and neuropsychiatric disorders. The present review attempts to discuss some of the potential protective role of curcumin in animal models of major depression, tardive dyskinesia, and diabetic neuropathy. These studies call for well planned for pharmaceutical, pharmacological, and clinical studies on curcumin for its potential use in neurological disorders.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Efficacy of Janda's approach versus bruegger's exercise in pelvic cross syndrome and its impact on quality of life
Authors	V RAJALAXMI., Nandhini G., Senthilnathan C V., G MOHAN KUMAR., G YUVARANI., G THARANI
Journal Name	International Journal of Research in Pharmaceutical Sciences

ABSTRACT

The objective of this study is to determine the Efficacy of Janda's Approach Versus Bruegger's Exercise in Pelvic Cross Syndrome and the quality of its impact in Life. Pelvic Cross Syndrome is characterized by tightness of thoracolumbar extensor on the dorsal side crosses with tightness of the Illiopsoas and Rectus femories. Weakness of the deep abdominal muscle ventrally crossed with weakness of the Gluteus maximus and Medius. This was an experimental study design with pre-post type conducted in outpatient physiotherapy department of ACS Medical college and hospital and took nearly 3 months to complete the study (January 2018-April 2018). 30 samples were selected from 45 volunteers based on the inclusion criteria. Group A received the Janda's approach, Group B received the Bruegger's exercise. Pre and post test outcome measures were taken with SF-12 scale, Visual analog scale, Goniometer. Post interventionally, both the groups showed decrease in pain and increase range of motion. However on comparing the results, Group A showed higher mean value and was more effective than Group B. The study concluded that the Group A Janda's approach is an effective approach in reducing the pain and improved the range of motion in Pelvic Cross Syndrome.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A Promising Material for Sustainable Construction: Studies on Crumbed Rubber as fine aggregate in Concrete
Authors	S Arivalagan., R Sudhakar
Journal Name	Xi'an Dianzi Keji Daxue Xuebao/Journal of Xidian University
ABSTRACT <p>Crumbed rubber concrete (CRC) is a new material on the construction industry. It is developed by replacing sand with rubber particles when mixing concrete, the material provides and promises to significantly reduce certain environmental impacts. Sand is a vital component in giving concrete the necessary consistency and chemical properties, yet it is becoming increasingly depleted worldwide. As we continue to construct roads, buildings and industry at an accelerating rate, the demand for sand is forcing mining companies to cause damage to natural ecosystems, particularly in sandy habitats such as beaches and rivers. One potential solution to both of these issues could come in the form of crumbed rubber concrete (CRC). This material can be created by first grinding up end-of-life tyres into small particles with a similar consistency to sand. This ‘crumbed’ rubber can then replace a certain percentage of the sand used in the concrete mixing process – both giving the economic usefulness of tyre rubber a new lease of life while alleviating some of the demand for natural sand. In this research study, the use of crumb rubber to replace fine aggregates in concrete was studied</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	XANTHINE OXIDASE INHIBITORY ACTIVITY OF THE HYDRO-ETHANOLIC EXTRACTS OF SELECTED INDIAN MEDICINAL PLANTS
Authors	B Meera., P K Siva., RAJESWARI HARI
Journal Name	Xi'an Jianzhu Keji Daxue Xuebao/Journal of Xi'an University of Architecture & Technology
<p>ABSTRACT</p> <p>The search for novel xanthine oxidase (XO) inhibitors using an optimized protocol we have screened the Hydro - Ethanoic extracts of 15 medicinal plants belonging 10 families, regardless of their claimed ethanopharmacological and /or food uses. The methods used are Super oxide, Nitric oxide, hydrogen peroxide radical scavenging activity and Total antioxidant activity of these extracts were investigated employing various established in vitro systems. Total phenolic and flavonoid content were also determined.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	ROLE OF CURRENT COMMUNICATION TECHNOLOGIES IN BUSINESS MANAGEMENT
Authors	Dr.NIRMALA SUGIRTHA RAJINI, Dr.J SRI DEVI., E.MERCY BEULAH.,
Journal Name	Xi'an Jianshu Keji Daxue Xuebao/Journal of Xi'an University of Architecture & Technology
ABSTRACT Every common people life has been significantly changed by recent development communication technology. The innovative business ideas were developed by using current communication technologies. The growth of communication technology affects the business also. It is critical for turning business process a complete success and it also provides the essential facilities to analyze the data. Using the analyzed data the business people plan their business strategies accordingly. The communication technology is used to analyzed the data properly and increase the profit level of their organization. The aim of this paper is to investigate the eradicate changes due to emerging communication Technology in Businesses as well as corporations and , analyze the various communication technologies used in the business and benefits of each current communication technologies.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Progressed iot based remote health monitoring system
Authors	Dahlia Sam., S Srinidhi., R Niveditha., S Amudha., D Usha
Journal Name	International Journal of Control and Automation
ABSTRACT Because of a bustling timetable and unpredictable way of life, health risk isn't an age-subordinate factor in the ongoing time. Under these conditions, Internet of Things has given a lot simpler answer for remote continuous wellbeing check of patients from the clinic, just as home. Sensors secure the information of different parameters with regards to patients' wellbeing, and the Internet of Things stores that information and shows through the site, which also gives access to remote observing. Utilization of sensors decreases the possibility of human mistake, ensures better care and treatment, reduces medical expenses, lessens the involved space of the room and improves overall performance. This extraordinary piece of arrangement is a novel way of giving the recommended prescription to patients in time. The other gainful zone of this framework is the plan of sending the warning through email and SMS alert, if any of the health parameters crosses the limit esteem. Notice plan will keep the medical expert aware of the circumstance. Another huge part of the proposed arrangement, is creating the ideal surroundings according to the necessity of patient's wellbeing condition. This paper deals about the checking of health data like pulse, circulatory strain, breath rate, body temperature, body development and saline dimensions. Overall, IOT in healthcare is a potential area where possibilities are endless.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Convert Channel and Information Hiding in TCP/IP
Authors	Mr.Parikshith Nayaka S K., Mrs.Shobharani., Dr.Dayanand Lal., Dr.M Anand
Journal Name	International Journal of Control and Automation
ABSTRACT <p>Confidentiality, Integrity and Availability are the primary objective of information Security. However, over the years information security researchers has found several techniques of data hiding on various systems that are widely used. One technique of data hiding covert channel, which emphasizes to hide information on a system, processes, TCP/IP Networking protocols which is against the computer policies and rules regulation. TCP/IP a protocol suite for specifying the standards for data transmission and communication between computers was found to be vulnerable to covert channel attack. These covert channels often utilize standard protocol loopholes often called as Network steganography. Further, we have developed a custom python script for POC purpose that can send, parse and detect covert channel which can be handy weapon for every forensic investigator. Besides the report, Practical approach has been taken into consideration for which a section for Proof of Concept is allocated at the end of this paper where covert channel over DNS as well as mitigating measure is demonstrated practically.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Reliability of Cloud Services Provided To Non-Banking Financial Institutions
Authors	Nirmala Sugirtha Rajini., S Ramamoorthy., Dr S Radha Rammohan., Rajakumar P., Niveditha V R
Journal Name	International Journal of Control and Automation
ABSTRACT In the beginning of cloud concept, banks can make improved development and profit margins with improved competence and operating power. This computing technology helps the bank industry for reducing the permanent information technology costs as they can shift their operating cost from fund amount to the operational costs. It provides number of secured deployment options which can help the bank to increase the new customer experiences, better relationship and to get improved speed of market. Cloud service providers and users became the one of the key element of the reliability of cloud service. This paper analyzes the reliability of cloud services provided to Non-Banking Financial Institutions.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Analysis of thermal barrier coated piston for SI engine applications
Authors	Manoj B A., Saravanan C G., Rajan K
Journal Name	International Journal of Mechanical and Production Engineering Research and Development
<p>ABSTRACT</p> <p>Ceramic coating on various parts of an internal combustion (IC) engine provides excellent thermal barrier properties which are used in preventing the heat loss during the working cycle. In case of two strokes spark-ignition engine, during the combustion in the combustion chamber (CC), due to various reasons, cent percent combustion of the charge is not possible resulting in un-burnt hydrocarbons such as CO and HC. The presence of un-burnt hydrocarbons in the exhaust gasses leads to the pollution. One of the reasons for this is heat loss in the CC. This heat loss can be saved using thermal barrier coating (TBC) on various parts of the engine. This paper discusses various TBC materials, its properties and effect on SI engines performance, combustion and emission characteristics.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Analysis on unfair use of papers in education sector and preventive measures to save paper
Authors	R Usha Nandhini
Journal Name	International Journal of Psychosocial Rehabilitation
ABSTRACT <p>The purpose of this study was to investigate the paper consumption level, unfair use of papers, attitudes towards the impact of paper wastage and suggesting preventive measures for sustainable development among the undergraduate and postgraduate students (N=50) from various courses at Dr. M.G.R Educational and Research Institute, Chennai. Data were collected through a Questionnaire to which all the students provided their responses. This analysis helped in collecting the information and conclusions were drawn and it's validated through the SPSS Software. In common, 90% of students reported that they like to read digitalized materials to avoid the burden of carrying or misplacing. Students were tuned in to paper reusing, sustainable development, impact of paper wastage towards environment such as deforestation, climate change, pollution etc. hence agreed that they use paper in efficient manner will support in achieving sustainability. They also understand that they're liable for the environment that they live. Significantly, they were influenced by teacher's mode in delivering lectures digitally made them to develop the habit of reading and sharing the course material digitally.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A study on emotional maturity of xi-standard students
Authors	Vigneshwari Jayamani., Senthamizh Pavai Palanivel
Journal Name	International Journal of Psychosocial Rehabilitation
<p>ABSTRACT</p> <p>A life filled with maturity, self-confidence, and fulfilment leads to success. Maturity refers to a significant phase in the growth of a living organism, especially it is a striking difference of forces between adolescent and mature emotional attitudes like insecurity, awkwardness, instability etc., and Emotions are great motivating forces throughout the span of human life which affects the aspirations, actions and thoughts of the individual. It is observed through thoughts and behaviors which means to almost all kinds of emotions (positive as well as negative) and is able to express them skilfully, timely and in different situations of life. Emotions are important in every stage of life which plays the maximum role during the adolescence period. It gives the clue to the essence of the mature state of mind by understanding them. In the School education particularly high School education plays an important role in personal and professional success. Hence one needs to adjust to the existing and continuously changing environments. The present study consisted of 200 students drawn randomly from different schools in Chennai and thiruvallur districts. The tool used to collect data for the study was Emotional Maturity Scale and personal data sheet. t-test, ANOVA and chi-square tests showed that there exist a difference and association with emotional maturity and gender.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Changing Environment in Indian Banking Sector
Authors	Dr.B Neeraja., Dr. M Radhikaa Shree
Journal Name	International Journal of Psychosocial Rehabilitation
<p>ABSTRACT</p> <p>There has been a dramatic transformation in Banking Industry in last few years. Digital banking, multi services, competing global forces at lesser cost and online transactions are now significant and ubiquitous features for the banking services. There is now a move to achieve excellence in multi-dimensional aspects of the industry. To achieve this banking sector now strives to create an advanced business model with strategic planning, and FinTech (finance technology) offers one such business model. FinTech offers necessary help to banking sector so as to enhance customer relations, quality of services (Qos) and customer satisfaction. This paper analyzes FinTech on various perspectives like its offering such as a set of computer programs or software that enhances financial services with the help of advanced robotics, artificial intelligence (AI), enhanced cyber security and customer intelligence. The paper evinces the role of FinTech as a significant provider for new entrants with its simplified operational solutions. The paper stresses the increase on FinTech implementation in terms of fine tuning the digital efforts in financial domain. The focus is on investments and automation through robotics on transactions and other functions like lending, clearance, settling cash and security related transactions.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Design and Experimental Analysis of Composite Material with Piezoelectric Layer
Authors	Fredrick Gnanaraj F., Vijayakumar K R
Journal Name	Journal of Computational and Theoretical Nanoscience
<p>ABSTRACT</p> <p>The main objective of this work is to analyze the active vibration control using smart sensors and actuators in a laminated E-Glass/epoxy cyanate composite beam. The cantilevered composite beam has piezoelectric ceramic patches as smart sensors and actuators. Hand layup technique for vibration suppression is done on the fabricated E-Glass/Epoxy-cyanate composite laminated beam. Experimental modal testing is performed to achieve vibration suppression on the flexible composite beam bonded with seven circular type piezoelectric actuator elements and seven circular type sensor elements. The complete vibration suppression utilizes a data acquisition system, a real-time control system, and a functional generator, in addition to the composite beam with PZT sensor and actuator. The data acquisition hardware consists of model NI 9233 (4 channel +5 V 24 Bit IEPE Analog input I2VA 1-to earth ground).</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Survey of literature on reliable smart grid operation incorporating IOT technology
Authors	T JENISH., E SHEEBA PERCIS
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
<p>ABSTRACT</p> <p>In today's world the Information Technology has become the platform where the daily processes have turned out intelligent and communication plays a vital role. Various technologies are integrated. Development in Internet protocol, RFID, Smart Sensors etc. have empowered the IOT. In this era of development, an object can communicate with another object effectively to perform a task, which makes the human life easier. The advancements in IOT enables the Smart Grid for a better operation and improves reliability. In this paper a complete review of IOT in Smart Grid has been presented in terms of Architecture, technology, tool, methodology, application, etc. for a better connection between people and Government which leads to a Smart Cities.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Big Data Analysis - Cybercrime Detection in Social Network
Authors	S GEETHA., P DINESH KUMAR., G SENTHILVELAN., SYED ALI D., N KANYA
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
<p>ABSTRACT</p> <p>In the recent evolution of digital world, data stored in Public Forms are misused even after several layers of authenticity. One of the most commonly used social forum facebook; using it we have enlightened this paper with the Loopholes with which the cyber criminals dissipate the data legitimacy. It is necessary to drill down the cyber criminals by providing digital evidence to deduct the criminal activities that are ongoing on Facebook. Criminals utilize this platform to attempt offense on women by posting hate speeches and spreading rumors all around. Here, we train Pyspark as a forensic tool to analyze facebook data set to reproduce digital evidence for crime investigation by differentiating the correct and wrong text posted in facebook.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Experimental Studies On Tyre Aggregate Concrete With Fly Ash : An Environmental Good Approach
Authors	S Arivalagan
Journal Name	Aegaeum
ABSTRACT For the construction works, concrete plays main role and a large quantity of concrete is being used now a days. This inevitably led to a continuous and increasing demand of natural materials or alternative materials used for their production. At present the disposal of waste tyres is becoming a major waste management problem in the world. It is estimated that 1.1 billions of waste tyre rubber produced globally per annum. Only 10% of post-consumer tyres are exported and 27% are sent to stockpiled, landfill or dumped illegally and 4% is used for civil engineering works. Fly ash is also a by-product from various industries. The utilization of fly ash in cement concrete as a partially replacement of fine aggregate is gaining immense importance today. In this research, aims to investigate the use of waste tyre rubber as coarse aggregate in concrete. A total of 36 Cubes, 36 Beams and 36 Cylinder are casted of M- 25 grade of concrete by replacing 0%, 10 %, 20 % and 30 % of tyre aggregate with natural coarse aggregate. In addition fly ash is used as replacement of cement by 0%, 10 % and 20%. The fresh and hardened properties of concrete were studied. The test results were compared with the respective controlled concrete properties and show that there is a reduction in strength properties of the concrete due to the inclusion of rubber aggregates. It was observed that the Hardened properties of concrete is increased with increase in fly ash content and decreased with increase of tyre aggregate.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	A sociological exploration of tensions related to inter professionals and health
Authors	Ms Leena V S., R Karthick Kiran
Journal Name	Journal of the Social Sciences
ABSTRACT Objective: To study about the tensions related to the professionals, Lab technician, Nurses, securities, IT and assistant professors. To examine the stress and tension leading to health complication, bring out the beneficial measures to solve the health complication. Background of the study: To assess the impact and stress burnout work functioning of the professions. Stress and emotional disturbance are most common seen throughout the world. High level stresses among the health care professionals are recently reported. The same level stress is most common on lab technician and nurses in the study of a tertiary care teaching hospital, Kanchipuram. Stress may be viewed interrupted to the physiological response producing mental tension. Stress brought a sudden negative change in the body like insomnia, high blood pressure etc. stress is caused by a factor called existing stress factor. Stress can play an important role in headache, high blood pressure health problems and diabetes.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Effectiveness of Eccentric Exercises on Selfie Elbow
Authors	G THARANI., V RAJALAXMI., G YUVARANI., K KAMATCHI., LAKSHMIPRABHA P
Journal Name	Indian Journal of Public Health Research and Development
ABSTRACT Background: Selfitis is an genuine mental condition where people have an obsessive-compulsive desire to take photos of one self and post them on social media as a way to make up for the lack of self- esteem. While clicking a selfie, there is always a possibility that by incorrect stretching of the tendons, an injury can occur to joints like the elbow. Selfie elbow is more of an abnormal and repetitive loading of muscles around elbow, leading to micro ruptures, which cause inflammation and pain. Hence, this study intended to analyze the effects of eccentric exercises on selfie elbow. Aim: To analyze the effectiveness of eccentric exercises on selfie elbow. Method: This is an experimental study done in Faculty of physiotherapy, Dr.M.G.R Educational and Research Institute. After approval of the study by Institutional Review Board, both male and female with severe selfitis (using selfie behaviour questionnaire) between 18-21 years having pain on lateral epicondyle & lateral forearm with positive cozens were included in the study.	



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RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	An analysis of security issues and nature-inspired algorithms on wireless sensor networks integrated with IOT environment
Authors	Vinmathi M S., Jeyabalaraja V., M S JOSEPHINE
Journal Name	Test Engineering and Management
ABSTRACT	



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RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Eye movement tracking using radial basis function networks
Authors	K SUJATHA., Deepalakshmi P., Veerendrakumar J., G Gomathy., V Srividhya., N P G Bhavani
Journal Name	Test Engineering and Management
ABSTRACT	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Reinforce Distributed Energy Efficient Clustering Protocol for Diversified Wireless Sensor Network
Authors	K S THIVYA., K Jayabharathi., S Elakkiya., M Janani
Journal Name	Test Engineering and Management

ABSTRACT

A wireless sensor network consists of two nodes which are commonly known as sensor node and a sink node. The communication should take place in such a way that the sink and communication should be in direct range or else the captured data is represented in a multi-hop manner. In this fashion, the data is represented and the nodes which are closer to the sink end up, thereby leaving the data for the nodes which is presented far away. This helps in creating hotspots that are near to the sink. The disadvantage of these hotspots is that they tend to lose their energy very fast, thereby reducing the lifetime of the wireless sensor network. In an existing wireless sensor network, many bad nodes would be present during message transmission because of low energy or hotspot or depleting energy in nodes. In the original RPL, the energy balance problem always persists. In order to overcome this, a heterogeneous ring domain communication topology approach is presented. In this approach each ring of the topology consists of an equal area. Based on this ideology, two more approaches were also proposed and they are likely to be known as event driven cluster head rotation mechanism and a new clustering algorithm.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Radix-2/4 FFT Multiplierless Architecture Using MBSLS in OFDM Applications
Authors	G MANIKANDAN., M ANAND
Journal Name	Advances in Intelligent Systems and Computing
<p>ABSTRACT</p> <p>In modem communications the FFT/IFFT has been normally used in recent years due to its effectiveness in OFDM applications. In this paper multiplier less radix-2/4 FFT architecture using MBSLS was proposed, but here constant multiplication is replaced by shift and add structure unit. The memory of the twiddle factor is minimized by increasing the computation speed with the help of Winograd Fourier transform algorithm. Thus the proposed method offers minimal hardware requirement as well as reduction in complex multiplication in FFT calculation. This method achieves good performance in terms of less area. This architecture has been simulated in Xilinx ISE12.14 software by using Verilog coding and is used in the mobile Wi-MAX application in OFDM.</p>	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	PHYTOCHEMICAL SCREENING AND ANTIMICROBIAL ACTIVITY OF AZADIRACHTA INDICA AND PLECTRANTHUS AMBOINICUS EXTRACT
Authors	GEJALAKSHMI S. , R. SENTHILRAJ, TANISHA B. A., SRUTHI S., THARUN KUMAR M., POOJA G.
Journal Name	International Journal of Current Pharmaceutical Research

ABSTRACT

Objective: In the present research, a clear systematic investigation of phytochemical screening and antibacterial activity of herbal plants such as Azadirachta indica and Plectranthus amboinicus has been carried out.

Methods: The aqueous and alcoholic extract was prepared in soxhlet apparatus and phytochemical analysis of extracts was performed and analysed. The in vitro antimicrobial activity was performed by cup plate method. These extracts were studied under agar diffusion method against three bacterial species such as Bacillus subtilis, Staphylococcus aureus, and Escherichia coli at 5µg, 50 µg and 250 µg concentration.

Results: The combine extract showed a predominant activity against these bacteria, which confirmed antimicrobial activity in AEAI and AEPA Conclusion: The results obtained in this study clearly indicate that AEAI and AEPA has a significant potential to use as an antimicrobial agent.



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	MICROWAVE ASSISTED SYNTHESIS OF TETRAHYDROPYRIMIDINE AND IN SILICO SCREENING OF ANTIDIABETIC DRUG
Authors	GEJALAKSHMI S., HARIKRISHNAN N. , THILLAI GOVINDARAJAN G. E., DIVYASRI A
Journal Name	International Journal of Current Pharmaceutical Research
ABSTRACT Objective: To detect the microwave-assisted synthesis of Tetrahydropyrimidine derivative and its molecular docking studies for Diabetes. The methods are the Bignelli condensation method was used for Tetrahydropyrimidine derivative synthesis. The docking studies made in Argus Lab software. The Tetrahydropyrimidine is synthesized using the microwave. The Tetrahydropyrimidine derivative is found to be attack the insulin receptor, as it the tendency of binding with insulin receptor showed in Argus lab. Further, the good binding site of Tetrahydropyrimidine derivative with insulin receptor was predicted. From the research work, The Tetrahydropyrimidine derivative shows its affinity to bind with the insulin receptor. The binding value is averagely 7 which indicates it can attraction with the receptor, so it can control Diabetic mellitus by altering insulin secretion in blood plasma.	



RESEARCH PUBLICATION ABSTRACT - APRIL 2020

Paper Title	Research on prevention of falling of coconut branches on humans using IoT based monitoring system
Authors	M S Vinmathi., Dr.M S JOSEPHINE., Dr.V.Jeyabalaraja
Journal Name	International Journal of Scientific and Technology Research
ABSTRACT <p>WSN (Wireless Sensor Networks) has been widely used in the civil field with the popularization of Internet of things technology. Coconut branches fall monitoring is a new field of WSN application; the use of unmanned aerial vehicle to replace traditional manual patrol can improve the inspection precision and reduce the labor cost. However, the field environment is complex, which poses a great challenge to the WSN path planning. In this paper, according to the terrain characteristics of coconut garden, the three-dimensional space model is established, and the ant colony algorithm is used to design the optimal path of WSN. The simulation results show that the algorithm proposed in this paper can find the optimal patrol route with the coincidence condition, which provides a basis for the research on the practical application of WSN in coconut fall inspection.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Evidence linking the role of periodontal viruses in coronary artery disease with and without periodontitis
Authors	Paavai Ilango , Jaideep Mahendra, Mahendra , Sanjay M Cherian, Kumanan Kathaperumal, Vasugi Suresh , Arulpari Mahalingam and Abirami T
Journal Name	Journal of Periodontology

ABSTRACT:

Viruses are considered to be a newer family associated with inflammatory diseases. Yet the role of periodontal viruses in coronary artery diseases (CAD) remains unclear. Thus, the current study aims to evaluate the prevalence of periodontal viruses and compare the same in cardiac samples of CAD patients with and without periodontitis.

The results revealed a higher prevalence of periodontal viruses such as EBV and CMV in CAD patients with periodontitis suggesting it as one of the risk factors for CAD. This is supported by the fact that severity of periodontal disease (CAL) is associated with the presence of EBV in coronary artery plaque samples in the current study.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	A Comprehensive Physical Therapy Approach in Late Infantile Form of Metachromatic Leukodystrophy – A Case Study
Authors	R. Lakshmanan ¹ , Dr. V. Rajalaxmi ²
Journal Name	Research Journal of Pharmacy and Technology
<p>ABSTRACT:</p> <p>Apolipoprotein B mRNA editing enzyme, catalytic polypeptide-like" is a family of deaminases. It has two types of APOBEC enzymes n-terminal of apobec enzyme and C-terminal of APOBEC enzyme. N-terminal domain is catalytic domain and C-terminal domain is a pseudo catalytic domain. Pathogen and cellular genome undergo mutation by human DNA cytosine to uracil deaminases. Three subtypes of APOBEC3D, APOBEC3F, APOBEC3G and APOBEC3H restrict human deficiency virus-1. Two APOBEC enzymes are the sources of somatic mutagenesis in cancer cells that drive tumor evolution and manifest clinically as therapy resistance. This review of the APOBEC family will focus on an open question in regulation, namely what role the interactions of these proteins with RNA have in editing substrate recognition or allosteric regulation of DNA mutagenic and host-defense activities.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Screening Of Antibacterial Activity Of Nonsteroidal anti-Inflammatory Drugs Against Selected Pathogens
Authors	R. Senthilraj1*, V. Swetha2, S. Kavitha1, A. Haripriya1, M. Tharunkumar1, A. Santhosh1
Journal Name	Drug Invention Today

ABSTRACT:

Screening of antibacterial activity of non-antibiotics – non-steroidal anti-inflammatory drugs (NSAIDS) against selected pathogens such as *Bacillus subtilis*, *Escherichia coli*, *Pseudomonas aeruginosa* and *Staphylococcus aureus*. Materials and Methods: The four NSAIDs were selected based on their common usage, they were aspirin, diclofenac sodium, ibuprofen, and paracetamol. Minimum inhibitory concentration was determined by liquid both dilution method. Further, their susceptibility was determined by agar disk diffusion method and ofloxacin used as control. Results and Discussion: Among the studied drugs, mostly diclofenac sodium and ibuprofen produced a significant effect and other drugs also produced a milder effect which is not sufficient to inhibit microbial growth when compared to control. Conclusion: The antibacterial effect of nonantibiotics diclofenac sodium and ibuprofen was microorganism dependent. Hence, in microorganism, identified infection can use this drug as antibacterial agents to minimize the effects of overdose and also reduce the usage of antibiotics.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Synthesis and characterization of PEG assisted Znq2 compound for organic light emitting diode applications
Authors	MURUGAKOOTHAN P., BHARATHI DEVI VENKATASAMY., C ANDAL., ARULMOZHICHELVAN P
Journal Name	Materials Today: Proceedings
<p>ABSTRACT:</p> <p>Zinc (ii)-bis (8-hydroxyquinoline) (Znq2) and PEG assisted Znq2 compounds were synthesized by simple precipitation method. The crystal nature of title samples and 8-hydroxyquinoline was confirmed by Powder X-ray diffraction (PXRD). The FTIR analyze is used to find and assign the functional groups of Znq2 compounds. The optical property of 8- hydroxyquinoline, Znq2 and Znq2:PEG was confirmed by UV-vis-NIR spectroscopy with the determination of band gap value. The synthesized Znq2 and surfactant assisted PEG particles and 8-hydroxyquinoline were studied by photoluminescence spectra for OLED applications as emission and electron transport layers.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	A computational DFT study of third order nonlinear optical properties of organic 4-chloroaniline (CA) crystal
Authors	C ANDAL., BHARATHI DEVI VENKATASAMY., MURUGAKOOTHAN P
Journal Name	Materials Today: Proceedings

ABSTRACT

The organic 4-Chloroaniline (CA) crystal was developed using slow evaporation solution method with ethanol solvent at room temperature. The single crystal XRD study is useful to confirm the crystal structure of the grown CA crystal. The linear optical properties of the grown CA crystal were calculated using UV-vis-NIR transmission spectrum study. The theoretical investigation of nonlinear optical property of the grown CA crystal was observed using the functional basic sets of B3LYP/6-31G (d, p) with the determination of its second order hyperpolarizability and also its optical behavior from HOMO-LUMO analyze. The theoretical values of second order hyperpolarizability and energy band gap are compared experimentally with Z-scan technique study and UV-vis-NIR transmission spectrum analyze.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	SKIP LEVEL METHODOLOGY FOR INTEGRITY CHECKING IN CLOUD STORAGE
Authors	JAMBULINGAM L., ANANTHAN T.V., RAJAKUMAR P.S.
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT Majority of the organization uses cloud for storage purpose in order to reduce the cost as well as maintenance. Due to increasing threat from internal and external sources, there would be possibility of corruption in the cloud storage files. Thus the storage must to be monitored periodically for integrity checking. Since most of the Data Owners have limited resources thus the responsibility of integrity checking goes to the Third Party Auditors (TPA). In this paper, we have proposed a new methodology called as Skip Level, which has the best performance in term of time complexity compared to the other Integrity Checking methods. Besides the above methodology, we can process by spawning into Multi-Threaded and Multiple Virtual Machine based on the need to improve the Recovery and Construction speed of the EDHT-n / HEDHT for storing the cloud file meta-data information.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	BIG DATA ANALYTICS AND CHALLENGES IN HEALTHCARE DATASETS: ANALYSIS & MANAGEMENT
Authors	YATISH S J., VIJI VINOD., SUDHAKAR SENGAN., DR S RADHA RAMMOHAN., SUTHAMERTHI ELAVARASU., SHRUTHI ANAND
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>'Big data' is a large measure of facts that can do something amazing. Big records in healthcare discuss the digital health records sets, which are so gigantic and complex that they are extraordinarily awkward to manipulate with the obsolete programming/equipment or even thru the traditional data management apparatuses and methods. In the healthcare business, exceptional hotspots for massive data include emergency health facility records, scientific information of patients, and aftereffects of scientific examinations, and gadgets that are a piece of IoT. That is the reason to supply appropriate options for improving open health, and healthcare suppliers are required to be equipped with becoming the foundation to produce and inspect astronomical data correctly. These facts should be of essential importance for finding out understandings that would be useful for enhancing consideration conveyance, reducing squanders, and in the implied time diminishing expenses. It can change the way healthcare suppliers utilize refined advances to accomplish information from their scientific records and different information distribution facilities and settle on knowledgeable choices.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	IDENTIFICATION AND PERFORMANCE EVALUATION FOR EFFECTIVE UTILIZATION OF ELECTRICAL ENERGY RESOURCE USING K-MEANS CLUSTERING ALGORITHM
Authors	M ANITA PRISCILLA MARY., M S JOSEPHINE., V JEYABALARAJA., NIRMALA SUGIRTHA RAJINI
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT Data Mining is used to distinguish the interesting relations between different variables in the databases. Data Mining is used to unpack unrevealed patterns in the data. Clustering is a method used to identify group of objects that are like each other, which helps to find the differences and similarities between the data. Clustering is applied to various sectors of energy resources by using K-Means algorithm. Efficiency of algorithm is found by modifying existing K-Means algorithm applying Python.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	OPTIMIZING VEHICLE CLASSIFICATION USING BIO STATISTICAL ALGORITHM
Authors	M BHUVANESWARI., SUMATHY ESWARAN., S P RAJA GOPALAN., BHUVANESWARI T
Journal Name	International Journal of Advanced Science and Technology
<p>ABSTRACT:The intelligent transportation management is expected to address issues like road planning, on-the-fly vehicle identification, road maintenance, smart traffic diversions, etc. Detection and classification of vehicles are important in planning traffic control and in gathering traffic statistics information that can be used in intelligent transport systems. Hence town planning requires vehicle detection. The most superficial model features offline learning - based vehicle detection techniques which cannot meet the real - world challenges of environmental complexity and dynamics of the scene. Bio-inspired algorithms are highly efficient that acts as a platform based on the various biological evolution of nature to develop new and robust computing techniques. Focusing on these problems, the vehicle detector finds out each vehicle's traffic status which includes both wanted and unwanted classification details and hence an efficient algorithm has to be developed to ensure the accurate vehicle detection strategy. Many preexisting algorithms reveal that the classification outcomes are non-uniform for the 4 classes. Hence a BIO STATISTICAL algorithm based on Linear Discriminant Algorithm (LDA) and Particle Swarm Optimization (PSO) is structured to systematically increase performance of all 4 classes in the classification.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Effectiveness of resisted exercise versus whole body vibration therapy on Random blood glucose level among Type II Diabetes mellitus patient – A Randomized Clinical Trial
Authors	S RAMACHANDRAN., DR JIBI PAUL., M S SUNDARAM., DR SUREKA VARALAKSHMI V., SUDHAKAR S
Journal Name	International Journal of Advanced Science and Technology
<p>ABSTRACT</p> <p>Resisted exercise and whole body vibration therapy recently focused intervention to control the blood glucose level. This study investigated the effects of resisted exercise versus whole body vibration therapy on random blood glucose level among Type II Diabetes mellitus patients. A total 70 samples were selected in the age group of 40 – 50 years with the random blood glucose level 250 mg/dl – 300 mg/dl. Selected samples randomly divided into two groups. Group A undergone resisted exercise for 30 minutes. Group B undergone whole body vibration therapy for 30 minutes. To find out the effects of intervention random blood glucose level measured in both the groups during baseline, 30 minutes and 60 minutes. Results of this study shows that there is a significant difference in random blood glucose level found in both groups at 60 minutes. However whole body vibration therapy (Group B) has more effect on controlling random blood glucose level when compared to the resisted exercise (Group A), among Type II Diabetes mellitus patients. Hence this study concluded that whole body vibration therapy is the best choice of treatment than resisted exercise.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Development of Advanced IoT Devices using ECC-LSTM for an Enhanced Device Security
Authors	R AIYSHWARIYA DEVI., AR ARUNACHALAM., P S RAJA KUMAR
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT

Nowadays, the evolve of unknown attacks have been prevented with an advancement of cyber security whereas there are several applications like smart cities and smart industries have evolved through Internet of Things (IoT) which perform one of the developing field. The major challenge faced in the IoTs infrastructure is due to incremental of cyber-attacks fashions. The digital world development into an environment of physical gets accumulated with recent area attacks over traditional interne with current security threat. However, the main challenges faced in the physical IoTs connection is about implementation of distributed security mechanism to IoT devices resource constrain. It is essential that IoT devices can be automatically monitored and upgraded as firmware which consists of vulnerabilities Like buffer overflows and it needed to be patched. In order to receive a replacement firmware, the devices are allowed to connect with cloud server automatically has been processed through firmware update. Anomaly and malicious behavior detection are the crucial concern which has become a priority in the area of intrusion detection.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Performance Evaluation Of Machine Learning Algorithms In Dimensionality Reduction
Authors	UMADEVI S., NIRMALA SUGIRTHA RAJINI., PUNITHA A., VIJI VINOD
Journal Name	International Journal of Advanced Science and Technology
<p>ABSTRACT</p> <p>The use of data mining has been increasing day to day. This data mining helps to extract the only required data from the large amount of dataset. This is a method of examining the dataset to create new information. Data mining technique is applied for separating the only needed data from large amount of data. The one of the concepts of data mining is PCA which is used to extract the required features. PCA is a process that is used to reduce the number of features by extracting the needed data. After applying this PCA technique in the preprocessed data set, the features have been overlapped one over the other. Avoiding such kind of problem, cluster the data by using DBSCAN technique. This clustering method separates the features with huge data to lower density of cluster has more benefits. The concept of DBSCAN algorithm is applied in the database the data is filtered. Here SVM and Naïve Bayes machine learning concepts are applied on the clustered data and find the accuracy level.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Effectiveness of resisted exercise versus whole body vibration therapy on Random blood glucose level among Type II Diabetes mellitus patient –A Randomized Clinical Trial
Authors	S RAMACHANDRAN., DR JIBI PAUL., SUNDARAM M S., DR SUREKA VARALAKSHMI V., SELVARAJ SUDHAKAR
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT

Resisted exercise and whole body vibration therapy recently focused intervention to control the blood glucose level. This study investigated the effects of resisted exercise versus wholebody vibration therapy on random blood glucose level among Type II Diabetes mellitus patients. A total 70 samples were selected in the age group of 40 –50 years with the random blood glucose level 250 mg/dl –300 mg/dl. Selected samples randomly divided into two groups. Group A undergone resisted exercise for 30 minutes. Group B undergone whole body vibration therapy for 30 minutes. To find out the effects of intervention random blood glucose level measured in both the groups during baseline, 30 minutes and 60 minutes. Results of this study shows that there is a significant difference in random blood glucose level found in both groups at 60 minutes. However whole body vibration therapy (Group B) has more effect on controlling random blood glucose level when compared to the resisted exercise (Group A), among Type II Diabetes mellitus patients. Hence this study concluded that whole body vibration therapy is the best choice of treatment than resisted exercise.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Data Collision of incomplete unlabelled ambiguous big data investigation
Authors	G SENTHILVELAN., SYED ALI D., T YUVARANI., P DINESH KUMAR., C Tamilselvi
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT <p>Nowadays the internet is stormed with huge amount of data. Massive amount of data from social medias like face book, twitter and also large amount of financial reports are collected every day. But there is no assurance that this data are free from noise. These data are always incomplete and inconsistent which will leads to uncertainty. If the amount of data increases so as the uncertainty arising from the data also increases. This uncertainty may arise surrounding the 5 big data characteristics (5v's namely variability, viscosity, validity, and viability and volume). Also the latest artificial intelligence techniques like machine learning, natural language processing, and computational intelligence provides more efficient and scalable data than the traditional big data analytic techniques. But these techniques also suffer from uncertainty in data sets. So to overcome this summary statistics method is followed which will calculate mean and variance from the distributed sample data thereby reducing the uncertainty caused due large amount of vague data. Also distribution based decision tree method is also applied which reduces the problem of uncertainty to a huge extent.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Fruit Grading and Deep Learning Algorithm – A Review
Authors	SUMATHI K., VIJI VINOD
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT Fruit is an important food for healthy life. Fruit is considered as rich product of agriculture in terms of nutrition. It is highly essential to maintain the quality of fruits throughout the supply chain from the time of harvest to delivery of the product to the end users. The traditional method that are used for fruit grading is time consuming , costly and requires human expertise. With the advancement in technology like deep learning cost effective and non-destructive methods are preferred over traditional methods. The objective of study is to explore the deep learning techniques applied in determining the quality of fruit and its grading.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	A MINI VOYAGE ON THE PATHOGENESIS OF MULTIPLE SCLEROSIS
Authors	S GEJALAKSHMI., DR N HARIKRISHNAN N
Journal Name	Drug Invention Today
ABSTRACT An array of recently published manuscript globally has proposed the stages of different pathogenic pathways in multiple sclerosis (MS). These researches were focused on both biopsy and autopsy. Based on the review, data on clinical, imaging, and cerebrospinal fluid suggest that most of the cases were disseminated encephalomyelitis rather than MS pathogenesis. Cognitive impairment is a common and disabling feature of MS. It may contribute to withdrawal from work than physical disability. The article delivers the importance for early diagnosis and management of disabilities in MS, before it develops an irreversible entry.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Knowledge of dental practitioners toward the treatment protocol given by the Dental Council of India during COVID-19 pandemic in Chennai
Authors	Aishwarya K., Nandhini G Ashok., POORNA RACHAEL DEVADOSS., R Bharath Marlecha
Journal Name	Drug Invention Today

ABSTRACT

Background: COVID-19 pandemic has already set its firm grip over India with Chennai being one of the most affected cities. The dental personnel have a higher risk of infection due to close contact with the patient and a risk to inhale aerosolized particles. Aim: This study aims to gauge the knowledge among the dental practitioners on the protocols described by the Dental Council of India (DCI) to be followed in their clinics amidst COVID-19.

Materials and Methods: A total of 300 dental practitioners participated in the cross-sectional questionnaire-based survey. The twenty questions were based on the knowledge regarding the protocol laid down by the DCI. Data obtained were analyzed using SPSS IBM software version 19.0, Chicago.

Results: About 61.1% of dentists were unaware of how to tackle a COVID-19 suspected patient. About 90.7% of them did not know to differentiate emergency from urgent dental care procedures. About 84% did not know the most effective pre-procedural mouth rinse. About 76% were unaware of the right concentration of preparing the fumigation chemical.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Association of body mass index and glycated hemoglobin in type 2 diabetes mellitus patients
Authors	RAMYA .S., R Chandan Bala., Dr. SUREKA VARALAKSHMI .V., R Ranjani
Journal Name	Drug Invention Today

ABSTRACT

Introduction: According to the World Health Organization, 1.9 billion adults were overweight and of these obese are 650 million and raised body mass index (BMI) is a major risk factor for non-communicable diseases such as cardiovascular diseases, musculoskeletal disorders, and some cancers. Poor glycemic control leads to overweight and obesity. This study was carried to find the association between the categories of BMI and Hba1c in type 2 diabetes mellitus patients.

Materials and Methods: This is a case-control study and it includes 102 subjects with type 2 diabetes mellitus comprising 42 males and 60 females. Blood sample was collected and it was used to estimate the fasting blood glucose and HbA1c. BMI was calculated using the formula weight (kg)/height (meter ²). It was analyzed using the SPSS version 17 and one-way ANOVA method was applied.

Results and Conclusion: Normal BMI and overweight group shows significance with Hba1c, where $P < 0.001$. It also shows significance in between the normal BMI and obese group where $P < 0.03$. It was concluded that BMI should be maintained within the normal range so that complications associated with type 2 diabetes mellitus would be delayed.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Serum Creatine Kinase Response on Exercise Induced Delayed Onset Muscle Soreness: A Pilot Single Blind Randomized Clinical Trial
Authors	SUDHAKAR S., Dr.Jibi Paul., P MAHENDRANATH., Senthil Selvam P
Journal Name	Research Journal of Pharmacy and Technology

ABSTRACT

Objective: To investigate the effects of diclofenac phonophoresis and autogenic inhibition muscle energy technique on serum creatine kinase level compared to control group on delayed onset muscle soreness in novice athletes. **Materials and Methods:** Forty eight novice athletes were recruited based on selection criteria and simple random sampling technique through lottery method was used to participate in this single blind multi group repeated measures design, a pilot randomized clinical trial. After collection of demographic data, the athletes were allotted to the group based on the chits what they have picked. Group A subjects were treated with diclofenac phonophoresis, Group B subjects were treated with autogenic inhibition technique and Group C subjects were control group. An Epley formula was used for the calculation of one repetition maximum for elbow flexor muscle followed by 80 % 1 RM was calculated for all the subjects. Blood samples were collected at the baseline and 24 hours, 48 hours, 72 hours and 96 hours after inducing delayed onset of muscle soreness. Creatine kinase biochemical marker was considered as a dependent variable and values displayed in the instrument were noted.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Efficacy of Janda's approach versus bruegger's exercise in pelvic cross syndrome and its impact on quality of life
Authors	V RAJALAXMI., Nandhini G., Senthilnathan C V., G MOHAN KUMAR., G YUVARANI., G THARANI
Journal Name	International Journal of Research in Pharmaceutical Sciences

ABSTRACT:

The objective of this study is to determine the Efficacy of Janda's Approach Versus Bruegger's Exercise in Pelvic Cross Syndrome and the quality of its impact in Life. Pelvic Cross Syndrome is characterized by tightness of thoracolumbar extensor on the dorsal side crosses with tightness of the Illiopsoas and Rectus femories. Weakness of the deep abdominal muscle ventrally crossed with weakness of the Gluteus maximus and Medius. This was an experimental study design with pre-post type conducted in outpatient physiotherapy department of ACS Medical college and hospital and took nearly 3 months to complete the study (January 2018-April 2018). 30 samples were selected from 45 volunteers based on the inclusion criteria. Group A received the Janda's approach, Group B received the Bruegger's exercise. Pre and post test outcome measures were taken with SF-12 scale, Visual analog scale, Goniometer. Post interventionally, both the groups showed decrease in pain and increase range of motion. However on comparing the results, Group A showed higher mean value and was more effective than Group B. The study concluded that the Group A Janda's approach is an effective approach in reducing the pain and improved the range of motion in Pelvic Cross Syndrome.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	INTEGRATIVE MODEL FOR ONLINE LEARNING: AN INTERVENTION RESEARCH
Authors	VIJAYAKUMAR S., DR HARSHINI., TAMILARASAN P
Journal Name	Xi'an Dianzi Keji Daxue Xuebao/Journal of Xidian University
<p>ABSTRACT</p> <p>Online learning and blended learning are predominant pedagogies in higher educational Institutions. Despite ample evidence on the impact of online technologies on student learning there is a lack of clear implementation framework. This study aims to measure four variables namely pedagogical strategies, collaborative approaches, motivation and learning. Engagement theory was used as a conceptual framework for this study. An experimental method was adapted to find the impact of the integrative model. It was found that the proposed model was effective than the existing approaches to online learning.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Secured Cognitive VANET with CDS Cluster Based Routing Algorithm
Authors	VINOTH KUMAR A., C DEVI., S SATHEESH., A KANNAN., C HEMA LATHA
Journal Name	Journal of Green Engineering

ABSTRACT

In manet, nodes are inherently dynamic, which is a major contest in Topology control. The connected domain set (cds) is deliberated an effective Solution to such a difficulty by building essential support to attain the Scalability and efficiency of the wireless network. In this article, we offer Efficient routing based on optimal packet delivery ratio (pdr), low overhead Control, low latency, and grouping of dominant sets on multi-channel Cognitive radio (cr) monitors, based on achieving and dynamic channel Selection crd. Low energy consumption. The node moves faster. Also, the Crd protocol can be applied to the manet, iot, and 5g. The projected Crd protocol comprises grouping and route-by-step under a multi-channel Cr attitude. We propose the use of cds selection, cds subtraction, and Cds based grouping procedures in the grouping phase to create groups and Deliver a set of intermediate nodes to use as the root search space for the Routing phase. Aes-based encryption is used to improve the security Performance.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Soil Wetness Sensor Based Automatic Sprinkling Management System Using IC555
Authors	P DIVYA., BHARATHI DEVI VENKATASAMY., B SWAPNA., RENGAMMAL SANKARI., PUSHPAMITRA P
Journal Name	Journal of Green Engineering
<p>ABSTRACT</p> <p>Automatic sprinkling system using soil wetness sensor which senses the wetness content of the soil and this will automatically switch on the power of the pump. This structure computerizes the system of water process in this way lessening the manual intercession and the water misfortunes. It is more helpful in the places where water scarcity is seen more. The sensor monitors the wetness level of soil. When soil gets dried the pump will automatically start to water the plants. The whole point of the execution is to lessen water uses and the system of water can be utilized to spare time, for low force screen gadget. The point of the usage this task was to exhibit, the plant water system that can be utilized to decrease water usage, and spare our time. Hence soil wetness sensor based automatic sprinkling management system using IC555 gives the immense pleasure to farmers.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Contriving Dye by Outcrossing Al6061/SiC/Red Mud Composites
Authors	THIVYA SIVAPRAKASAM., GOMATHI NAGAJOTHI., K JAYABHARATHI., S ELAKKIYA
Journal Name	International Journal of Control and Automation

ABSTRACT

The research in waste management is going viral throughout the Universe. Many Researchers are coming with many reliable results that can be employed in many fields like construction, manufacturing, pharmaceuticals, etc. One such interesting factor that attracts the researchers all over the world is Aluminium based metal matrix composites. This can be employed in the construction field by fabricating dye with proper compositions of different elements and ratios, which is discussed in detail in this paper. Among Aluminium alloys Al6061 is widely used for engineering applications including automobile, aerospace, marine and structural applications where superior mechanical effects such as durability, firmness, etc are required. Al6061 has superior corrosion resistance and it is suitable for marine structural applications. It is the lightweight material, cost-effective and high-performance material, so it is preferable for structural and non-structural applications. SiC is the most used as the reinforcing material with Al6061. Because when SiC reinforcing with Al6061 the wear resistance is improved. The fabrication of the Metal Matrix Composite, Powder Metallurgy technique, suitable die design specification, and material is proposed.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	FABRICATION OF COCONUT RAW LEAF EPOXY COMPOSITE FOR SUSTAINABLE HUT ROOFS
Authors	VIJAYA KUMAR K.R., THAYUMANAVAN M., JAYASEELAN J., NALLUSAMY S.
Journal Name	International Journal of Mechanical and Production Engineering Research and Development
ABSTRACT <p>The mechanical properties, tensile and flexural strengths of coconut leaf and leaf-fiber reinforced epoxy composite were calculated to assess the possibility of using it as a new material in engineering applications such as making hut roofs for longer life. Addition of epoxy to the leaf fiber ensures fire resistance. This proves vital in prevention of wild-fire in localities with large number of huts made up of such coconut leaves. Also, the making of such cost effective and efficient material in a short span proves helpful during disaster rehabilitation for constructing temporary housing for the victims using the same material for making roofs and walls. Samples are manufactured by the hand lay-up process (70:30) fiber and matrix ratio by weight) and the mechanical properties like tensile, flexural and compressive evaluated using the Universal Testing Machine. Mechanical properties like tensile and flexural strengths for the coconut leaf-fiber-reinforced composite laminates are calculated to be 37 MPa and 71 MPa for dry leaf respectively. It is an eco-friendly, long life and cost effective solution for various housing problems.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Potential Study on the Strength Behaviour of Ceramic Waste as Partial Replacement of Coarse Aggregate in Concrete: An Eco-Friendly Approach
Authors	S ARIVALAGAN
Journal Name	High Technology Letters

ABSTRACT

In most percentage of industrial wastes come in the form of ceramic wastes as industrial waste obtained in various forms like ceramic powder, broken tiles and slurry waste, the disposal of which creates issues in the form of environmental pollution. These waste materials sometimes can be used to replacement of cement, fine aggregate, coarse aggregate also act as a supplementary addition in concrete. This research study focused on structural behaviour of the partial inclusion of Ceramic tile Waste (CTW) as coarse aggregates in the concrete. Different percentage of concrete were produced with 0 to 40 % in step content of 10 % as a partial replacement of Ceramic tile Waste (CTW) as coarse aggregates. Tests were carried out on fresh and hardened concrete of coarse aggregates as CTW. The results of the reserch showed that workability of the mixes increased with percentage increase in the CTW content up to 30% and thereafter decreased. There was gradual decrease in the compressive strength, spilt tensile strength and Flexural strength of the specimens with increase in the CTW. The water absorption rate of the samples increased with increase in the CTW content up to 30%. Based on the result obtained, concrete mix ratio which contains not more than 40% CWT content is not recommended for use in concrete mix.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Emotional Intelligence in Relation to Stress Management of Higher Secondary Students
Authors	GEETHA KANNABIRAN., T KOMALAVALLI
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

Most researchers have investigated the relationship between emotional intelligence and academic stress among school students (Kauts, 2018; Baqutayan, Ghafar and Gul, 2017). The purpose of the study is to investigate the emotional intelligence in relation stress management of higher secondary students. In order to measure emotional intelligence, Emotional Intelligence Inventory Dr. S.K.Mangal and Mrs. ShubhraMangal and for assessing the level of stress management, scale constructed and standardized by Dr.S.Malathi, Dr.S.Vasanthi & Dr.S.Chamundeswari (2008) were used. A sample consisted of two hundred and sixty adolescent students participated in this research who were selected by random sampling. In order to analyze data, Pearson's correlation and t-test were used. Findings revealed that there is significant correlation between emotional intelligence and stress management of higher secondary students. It is revealed a significant difference exists with respect to gender and girls were more in emotional intelligence and stress management level than boys. With regard to type of school, it is observed that Government and private school students were similar in emotional intelligence but in stress management level, Government school students were effective in managing their stress than private school students. Based on the findings, recommendations were made.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Impact of recruitment and selection process on organizational performance
Authors	Vajan R.B., Devendran A., Ananthasuresh K., Elumalayan S.V.
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

The present study is to focus on to find the impact of Recruitment and selection Process in Organizational Performance conducted in Pageone Technologies, Chennai aims to find out the general opinion of the Recruitment and selection process attended by the employees at Pageone Technologies. The main objective of project is to study the process of Recruitment in Pageone Technologies. The secondary objectives are to assess the perception of the employers regarding Talent hunt process they have undergone, to identify whether the Recruitment is done from internal or external sources, to analyze the effectiveness of Talent Acquisition to identify the factors of recruitment and selection process, to identify new ways of improving the present recruitment procedure, to identify the average time spent for selection process. The need for this project is to define the current and potential needs of the workforce preparation and role analysis activities of the company, to clarify the recruitment and selection process in company and to analysis of the time management in the recruitment process. This research papers helps to make decision in selecting the right candidates for the right job, this study helps the organization to identify the area of problem and suggest ways to improve the Talent and selection process, this study focus on understanding Talent and selection process.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	The basic of employee training and development and training methods to increase employee production
Authors	Jayam R., Gayathri A.
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

All organizations must control the major four resources: people, information, equipment and money. Investments in better tools and instruments may increase production or decrease waste. Information is strength; information about customers, products and prices are important to every business. Investments in training and development of employee can increase more productive or more efficient in their jobs, directly contributing to the outcome. Dale S. Beach defines training as 'the organized procedure by which people learn knowledge and/or skill for a definite purpose'. Training refers to the teaching and learning activities carried on for the primary purpose of helping members of an organization acquire and apply the knowledge, skills, abilities, and attitudes needed by a job and organization.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	"The Role of A Teacher Is At The Best When It Is Played By The Teacher "Can technology replace a Teacher
Authors	Suchithra B., Rao Prashant Jyoty K.
Journal Name	International Journal of Psychosocial Rehabilitation
ABSTRACT The present study is focused on assessing and analysing the effectiveness of online education imparted to the students, due to the effect of Covid 19 and lockdowns for a longer period of time i.e., March 20 2020 to April 14 2020, Academicians were trying to impart education through online, Will this measure create a pathway for automation even in the field of education by reducing the physical presence of the teachers or will this measure be a temporary solution to address the lockdown situation.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	An impact of blended learning techniques at educational institutions in Chennai city
Authors	Radhikaashree M., Vimala K., Jayalakshmi S.
Journal Name	International Journal of Psychosocial Rehabilitation
<p>ABSTRACT</p> <p>This paper examines the efficiency of a blended learning setting through evaluating the association between student characteristics/background, design features and learning outcomes. It is intended at defining the substantial forecasters of blended learning effectiveness taking student characteristics/background and design features as independent variables and learning outcomes as dependent variables. A survey was administered to 248 respondents to gather data on student characteristics/background, design features and learning outcomes. The final semester assessment results were used as a measure for performance as an outcome. We applied the online self-regulatory learning questionnaire for data on learner self-regulation, the inherent motivation inventory for data on intrinsic motivation and other self-developed instruments for measuring the other constructs. Multiple regression analysis results showed that blended learning design features (technology quality, online tools and face-to-face support) and student characteristics (attitudes and self-regulation) predicted student satisfaction as an outcome. The results specify that some of the student characteristics/backgrounds and design features are significant predictors for student learning outcomes in blended learning.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Emerging trends in green marketing
Authors	Brindha G., Bhavani J., Karthik B.
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

The concept of environmental protection and green consumption has emerged as important issues for concern among the public. Green marketing comprises a broad range of actions containing product variation, variations to the, adjusting advertising, packaging alterations and production process. The concept of Green and eco-friendly has become currently an integrated part of the marketing literature. Major corporate have evolved with a new perspective of launching green marketing concept in their business strategy. These organizations have merged environment protection and waste reduction in their policy. The role of Government in maintaining the purity of environment is clearly understood through the laws and regulations that are imposed on the business firms towards this aspect. At present to survive and grow in the competitive business scenario organizations has to implement various environment protection policies in their operations. Hence it is mandatory for the firms globally to use the resources competently and avoiding wastage. Green marketing is predictable as the arcade for informally accountable produces is cumulative rapidly in the society. The contemporary article deliberates the importance of green marketing from the public and corporate perspectives respectively. This article also attempts to identify the occasions and experiments in green marketing.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Retail investors awareness on stock market w.R.to indian stock market
Authors	Neeraja B., Chandani A., Srividhya N., Rizwana
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

India is a developing nation. The recourse required for business so called money is always in scare in such country. People in Indian economy are more sentimental and believe in cultural heritage. We have our own set of perception regarding few concepts. In general investment in stock market is always treated as a risk factor. People who have plenty of money and who are ready to take risk only can invest in stock market is the general assumption though in real world it is not true and if people who analysis the technical and financial details of a company can predict the trend of the market share for that company. Due of lack of proper knowledge and guidance there are many people who burn their figures and create a panic that stock market investment is not a good avenue for parking your funds/ savings. Psychologists have identified many patients who have symptoms of depression is due to stress and unexpected loss either physical or psychological. Out of these patients nearly 40% patients come with a problem associated to financial loss due to debt loss. When people are dealing with significant debt, they are much more likely to report health problems, according to an Associated Press–AOL health poll conducted in 2012.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Prevalence of diabetic peripheral neuropathy among type I diabetes – an observational study
Authors	Senthilnathan C.V., Paul J., Manoj Abraham M., Sasirekha M.
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT

Objective: The objective of this study is to find out the prevalence of diabetic peripheral neuropathy (DPN) among diabetics in Chennai. DPN is the most common chronic and long term complications of diabetes mellitus and is considered as leading cause of mortality and morbidity rate, causing huge economic burden to the government. It is one of the serious microvascular complications of DM which has been diagnosed in 20-50% of diabetic population. This is an cross sectional study with 100 patients selected by simple random sampling method. Those who were aged more than 30 years and diagnosed positive for type I diabetes atleast 1year duration with random blood sugar >200 mg/dl as per Indian council of medical research guidelines 2005. Those who are willing to participate, who had regular follow up visits for atleast 6 months were included in this study. The exclusion criteria are who have type 1 diabetes, gestational DM and maturity onset diabetes of the young, significant musculoskeletal disorder in lower limb, who underwent amputation of whole foot, below knee and above knee amputation, peripheral neuropathy due to any other cause. The prevalence of DPN among diabetics in Chennai will be found out. Pre and post test done using DN4, S-LAANS, MNSI questionnaire.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Smart stretcher and integrated medical intelligence systems for unconscious person
Authors	K SUJATHA., SRIVIDHYA V., R S PONMAGAL., V KARTHIKEYAN., SHOBA RANI R., CAO S Q
Journal Name	Test Engineering and Management

ABSTRACT

India stands the second largest in the population worldwide. Excess population serves as a major problem in our country. Statistics have reported that one death per minute occurs because of unpredictable and unexpected accidents. To save a life is auspicious as well as precious. The idea here is to provide an intelligent smart health system using some sensors and microcontrollers which are implemented in stretcher. The aim of this system is to save many human lives by connecting the patient related information to the intensive care unit in hospital, as their physical parameters are updated to hospital before their arrival to hospital.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	PARALLEL PIPELINED MULTI RADIX VARIABLE LENGTH FAST FOURIER TRANSFORM ARCHITECTURE
Authors	MALATHY V., ANAND M., KAMALI S.M., UMADEVI G.
Journal Name	Journal of Critical Reviews

ABSTRACT

There is an enormous demand for high speed data communication or high speed internet using Long Term Evolution (LTE) or LTE Advanced communication methods. To achieve the high speed data rate in the receiver side, it is necessary to achieve high throughput in the Fast Fourier transform (FFT) architecture. Hence there is demand to improve the throughput of the FFT architectures used for high speed data communication. The FFT architecture is designed and optimized for LTE-A applications. However, the high throughput has been achieved by sacrificing hardware resources of the Field Programmable Gate Array (FPGA). Many fixed and variable length FFT processors are proposed by the researchers with improved performance focusing either on algorithmic modifications, novel architectural optimizations or radix selection. Among these FFT processors, the goal and main objectives of this paper are: 1. To design and implement a pipelined FFT architecture to give high throughput for LTE-A MIMO applications 2. To develop an intellectual property (IP) core for FFT computation with variable FFT size 3. To propose a parallel implementation to increase the performance of LTE-A baseband processing system.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Delay Functionalities in SRAM: A Technical Review
Authors	Hemachandran K.,, Preetha Mary George., N S Shubhashree., P Divya
Journal Name	International Journal of Grid and Distributed Computing
ABSTRACT <p>The requirement for low power rapid consumable gadgets such as mobile phones, PCs, PCs are expanding step by step. All of these gadgets require essential memory that works a more quicker and without reviving. Contracting of gadget size, battery size, development of compactness, unwavering quality all are causing an incredible concern. Every digital system is dependent on the memory. Now no digital system can be built without memory. This research work sheds light on the analysis of different SRAM cells which consume less power.</p>	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Optimal Pilots channel estimation algorithm for MIMO-OFDM
Authors	SHEKAR YEDUNURI., KANNE NAVEEN., M ANAND
Journal Name	Test Engineering and Management
ABSTRACT The MIMO-OFDM channel estimation method is researched based on the system design, and a space-frequency domain optimal pilot-tones design algorithm is presented. The algorithm unique capability of estimating fast time-varying and frequency-selective fading channels, and the simplicity of its least square (LS) algorithm free of matrix inversion, so as to greatly decrease the complexity. The computer simulation proves that the algorithm achieves optimal channel estimation in the sense of obtaining the minimum mean square error (MSE) of channel estimation.	



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	A Study on Satisfaction towards Service Quality Adopted by Technology Banking in Chennai District
Authors	PADMAVATHY SELVARAJ., Dr.S.ASRAFI., S B Saleema Parvin
Journal Name	Test Engineering and Management

ABSTRACT

The aim of this study is to examine the World financial system is short term through some complicated in some occurrence as liquidation of banking & financial institutions, liability crisis in significant economies of the world. As we see everywhere technology has been augmenting day by day and growing its advanced features to make working class lives more pleasant and more transparent. In the Banking sector technology participate in a weighty role to make life calm and reliable. The Banking industry in India has radical fluctuations since liberation. With the progresses in technology and automation, the banking sector has become exceptionally competitive today. The size has been administered to 250 customers of individual banks from Indian Banking Industry, nominated on a suitable basis. The purpose of this paper is to examine the service quality of chosen banks, based on changed levels of 'customers' insight of service quality. The study delivers a practical solicitation to measure service quality perception contained by the banking industry. The current research includes a measurement model that strong point help bankers and researchers study customer perceptions of service quality surrounded by modern banking customer in Chennai district.



RESEARCH PUBLICATION ABSTRACT - MAY 2020

Paper Title	Influencing the Digital Marketing through Recommender Systems
Authors	L Sai Ramesh., S Sebana., Dr.S.ASRAFI., S A Sadhana
Journal Name	Test Engineering and Management
<p>ABSTRACT</p> <p>Digital marketing rules the internet world through E-commerce websites. In digital marketing, customers cannot feel the product features in real and they come about positive and negative elevation of the product through recommendations. Recommender systems are used to suggest items to the user. Time-aware recommender systems are certainly receiving increasing attention. A large number of approaches are proposed for the time aware recommender systems. In the review recommendation model, the Item - based collaborative filtering method extended by the point of interest recommendation model which extend the user based collaborative filtering method. Then we have to further extend temporal based recommendations.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Segmentation of Spinal Cord from Computed Tomography Images Based on Level Set Method with Gaussian Kernel
Authors	N DayanandLal, Zameer Ahmed Adhoni, V Malathy & M Anand
Journal Name	Soft Computing
ABSTRACT: <p>In the human body, organs segmentation is the most imperative issues in therapeutic applications. The challenges are connected with medicinal image segmentation and low complexity between required organ and incorporating tissues. There exist a wide range of methodologies for how a segmentation problem can be comprehended. These methods want to have a spot specific region of individual bones. The particular part remains a test for spinal cord segmentation. As a result of the beforehand expressed downsides of the current spinal cord segmentation procedures, this paper proposes a modified spatial fuzzy <i>C</i> clustering with level set segmentation method to incorporate Neumann Boundary Condition, a third function, called by the level set evolution. Neumann Boundary Condition is utilized to specify the normal derivative of the function present on any surface. The proposed method gives better results of segmentation of the spinal cord organs. The execution of the proposed method proves its superiority in term of accuracy as compared with the other methods.</p>	

Paper Title	Spectral profile index changes as biomarker of toxicity in Catlacatla (Hamilton, 1822) edible fish studied using FTIR and principle component analysis
Authors	M Mohan Kumar, S BinuKumari, E Kavitha, B Velmurugan & S Karthikeyan
Journal Name	SN Applied Sciences
ABSTRACT: <p>The study was carried out to evaluate the toxicity in gill tissue of edible fish Catla using FTIR spectra. Fourier self-deconvolution obtained by curve fitting was applied in the lipid (3000–2800 cm⁻¹), carbohydrates (1000–1100 cm⁻¹) and in the amide region (1700–1600 cm⁻¹). These spectral changes were used as biochemical parameters to assess the degree of toxicity. A disorder in lipid changes was measured by frequency shift and intensity changes in the CH₂ asymmetric stretching band. This change in the fatty acid composition in fsh could be used as biomarkers of toxic effect. Decreases in lactic acid (6–16%) clarify the lipid peroxidation which is the primary mechanism of toxicity. The deconvolution in the amide region shows peaks at 1621 cm⁻¹, 1637 cm⁻¹ due to β sheet; 1652 cm⁻¹ and 1667 cm⁻¹ due to α helix and 1683 cm⁻¹ due to antiparallel β sheet. The results show a decrease by (3–7%) in α helix and increase by (13–40%) in β sheet structure. This shows β sheet formation of protein secondary structure due to toxicity. PCA plots indicate protein and lipids have strong positive loadings. The study shows the spectral variation is considered as an ideal biomarker with a high degree of accuracy of test organism to examine the toxicity of pollutants.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Investigation on Component Wall Angle in Single Stage Incremental Forming of Austenitic Stainless Steel Aisi 304 Sheet
Authors	Suresh Kumar D, N Ethiraj, sivabalan T, Mohamed Farhan MR & Bernadette T
Journal Name	FME Transactions

ABSTRACT:

The aim of this research work is to study the effect of process parameters in achieving the maximum possible wall angle of the component in single stage incremental forming. Austenitic stainless steel AISI 304 is used as a sheet material. The constant tool rotational speed of 250 rpm, tool feed of 1000 mm/min and incremental depth of 0.5 mm were used as process parameters and the wall angle was varied from 60°. Grid marking technique is used for strain measurements. From the results, it is observed that the maximum height of 45 mm was formed successfully at wall angles 60°, 61°, 63° and 64° without any defects within the experimented process parameters. Further increase in either the wall angle or the process parameters produced fractured component at a height of around 22mm itself.

Paper Title	Comparison of the Periodontal Status of Patients Undergoing Labial and Lingual Orthodontic Therapy
Authors	AbinешSekar, Arun Deepak, V Vijaykumar, R Vinoth Kumar, D Archana, VivekanandhanUmpathy & P Rajakumar
Journal Name	Cureus

ABSTRACT:

Aim: To compare the periodontal status in relation to the lower anteriors of patients between labial and lingual orthodontic therapy.

Materials and methods: The study includes a total of 20 patients in the age group of 20-30 years. All the included patients were selected with limited lower anterior crowding within 0-8 mm. The subjects were randomly divided into two groups: labial (n=10) and lingual (n=10) fixed orthodontic therapy. The periodontal status was evaluated using three indices, plaque index, calculus index, and gingival index, at two different treatment intervals - the first month and the third month - of orthodontic treatment.

Results: The values of all the three indices at both time intervals were tabulated. There was no statistical significance when compared to the values in the first month. In the third month, all three indices were statistically significant for both labial and lingual therapy ($p < 0.001$). The lingual appliance had more plaque and calculus accumulation.

Conclusion: Therefore, the study proves that the lingual surface of patients undergoing lingual orthodontic treatment exhibits more plaque and calculus deposition, thereby the weakening of the periodontal status.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Evaluation and Expression of Survivin in Potentially Malignant Lesions and Squamous Cell Carcinoma: A Comparative Study
Authors	RekhaaSakthivel, AnanthalakshmiRamamoorthy, Nadeem Jeddy & MamtaSingaram
Journal Name	Cureus, Vol. 12, I 4, B -E
ABSTRACT: Overexpression of survivin, an anti-apoptotic protein, has been associated with the progression of cancer, resistance to drugs, and a poor prognosis. The expression level of survivin indicates the progression of the disease, early recurrence, and a failure to respond to therapy. Our study was a retrospective analysis performed on archival specimens. The study included a total of 50 histopathologically proven cases of potentially malignant lesions and squamous cell carcinoma. Immunohistochemical staining was carried out using primary rabbit monoclonal antibodies to survivin (PathnSitu, Telangana, India) along with a horseradish peroxidase detection kit (Leica Biosystems, Maharashtra, India). The intensity of staining of survivin in the epithelium was determined, and the data obtained from potentially malignant lesions, oral squamous cell carcinoma, fetal tissue, and normal oral mucosa were compared.	

Paper Title	Comparative Evaluation of Serum and Gingival Crevicular Fluid Periostin Levels in Periodontal Health and Disease: A Biochemical Study
Authors	Khumukcham Sophia II, Snophia Rani Rajamani, Uma Sudhakar, Shaik Abdul Cader Jr, Varsha M Vardhini & S Catherine Jean
Journal Name	Cureus
ABSTRACT: Introduction: Periostin, a secreted adhesion molecule, is a matricellular protein secreted most in periodontal ligament and periosteum. This periostin is needed for integrity and maturation of periodontal tissue. The present study was conducted to estimate and compare the gingival crevicular fluid and serum periostin levels in subjects having chronic periodontitis, gingivitis and healthy periodontium. Methods: Ninety patients belonging to both sexes were categorized into three groups, 30 patients each as healthy periodontium (Group I), chronic gingivitis (Group II) and generalised chronic periodontitis (Group III). The clinical parameters included assessment of plaque index (PI), gingival index (GI), probing pocket depth (PPD) and clinical attachment level (CAL). Gingival crevicular fluid (GCF) and serum samples were collected and the enzyme-linked immunosorbent assay was used to estimate periostin levels. Results: Periostin levels in GCF were comparatively low in the chronic periodontitis than in the gingivitis and healthy periodontium groups and the difference was statistically significant. No statistical difference was found for serum periostin levels among Group I, Group II and Group III. On comparison of clinical parameters, significant difference was noticed among the three groups. GCF periostin levels were correlated inversely with the clinical parameters in chronic periodontitis patients. Conclusion: GCF periostin levels were gradually reduced with the increase in severity of periodontal disease. This novel biomarker has Role in maintaining normal periodontal tissue function and may be used as a potential marker in periodontal disease activity evaluation.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Management of Partial Edentulism Using Nonrigid Connectors as a Treatment Modality: A Case Report
Authors	SheelaSivakumar
Journal Name	Cureus
ABSTRACT: The most frequently encountered clinical situation, either in the maxillary or mandibular arch, is of a missing first premolar and first molar, where the canine and the second molar are known as terminal abutments and second premolar is a pier abutment. This clinical situation poses challenge to prosthodontist in rehabilitation phase. It has been postulated that terminal abutment has a rocking movement when in function, whereas pier abutment acts as a fulcrum. This will lead to debonding of the less retentive terminal retainer. In order to overcome this utilization of non rigid connectors has been advised. This paper presents a clinical case report which describes incorporation of non rigid connector to rehabilitate pier abutment case.	

Paper Title	Effect of SudharshanKriyaPranayama on Salivary Expression of Human Beta Defensin-2, PeroxisomeProliferator - Activated Receptor Gamma, and Nuclear Factor-Kappa B in Chronic Periodontitis
Authors	R Ananthalakshmi, Jaideep Mahendra, Little Mahendra, Jayamathi Govindaraj & Subramaniam Samu
Journal Name	Cureus
ABSTRACT: Introduction: Sudharshankriyapranayama (SKP) is a form of yoga that reduces inflammation and contributes to general health. Very few prior studies have examined the role of pranayama on oral health. We evaluated the clinical status and inflammatory biomarkers in patients with chronic periodontitis before and after SKP. Materials and methods: Ninety male subjects were considered for the study and divided into three groups: subjects with a healthy periodontium (Group 1), subjects with chronic gingivitis (Group 2), and subjects with chronic periodontitis (Group 3). The clinical parameters included plaque index (PI), gingival index (GI), probing pocket depth (PPD), clinical attachment level (CAL), and salivary markers human beta-defensin-2 (HBD-2), peroxisome proliferator-activated receptor gamma (PPAR- γ), and nuclear factor-kappa B (NF- κ B). These parameters and markers were evaluated before and after 90 days of SKP. The data obtained were statistically evaluated by McNemar's test, paired sample t-test, and one-way analysis of variance. Results: There was a significant improvement in PI in all three groups. GI showed an improvement in Groups 2 and 3. PPD and CAL also showed an improvement in Group 3. HBD-2 and NF- κ B decreased with SKP, whereas PPAR- γ expression increased after the intervention. In Groups 2 and 3 with the decrease in GI, there was a corresponding decrease in HBD-2. In Group 3 with an improvement in PPD and CAL, there was an improvement in PPAR- γ expression.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A Comparison of Transcutaneous (forehead vs chest) versus Total Serum Bilirubin in South Indian term infants
Authors	Framton Bell, Rajanish K V, Sreekrishna, Subramanian Valliappan & Dr Kiran Kumar
Journal Name	Journal of Critical Reviews

ABSTRACT:

Usefulness of Transcutaneous bilirubin (TcB) measurement in newborns has been studied extensively worldwide, but remains unclear in Indian population. We tried to evaluate the accuracy of TcB measurements in assessing jaundice with Total serum bilirubin (TsB) measurements (Gold standard) and determine the TcB level that can be used to identify neonates at risk for clinically significant jaundice (above the 95th percentile). A total of 300 neonates were enrolled and TcB measurements were performed within 30 minutes of obtaining the TsB measurement. The linear relationship between TcB and TsB was measured by using the Pearson correlation coefficient (r). We calculated sensitivity, specificity, and positive and negative predictive values by using a TcB level above the 75th percentile to identify neonates with a TsB level above the 95th percentile. We also compared the two TcB sites, namely chest and forehead with TsB values using Pearson's correlation coefficient (r). TSB ranged from less than 12 to 18 mg/dL, with mean transcutaneous bilirubin value of 13.46 in male babies and female babies had a transcutaneous bilirubin value of 13.38. TcB correlated well with TsB in South Indian neonates (r value :0.609 and 0.707 on mid-sternum and forehead respectively). A TcB level above the 75th percentile detected all infants with a TsB level above the 95th percentile. TcB level correlated well with the TsB levels in South Indian Neonates. TcB monitoring at forehead or chest, as a clinical screening tool, for evaluating the risk of clinically significant jaundice correlates well with TsB. **KEYWORDS:** A Comparison of Transcutaneous (forehead vs chest) versus Total Serum Bilirubin

Paper Title	Efficient Charge Recovery Adiabatic Logic Design and Implementation of a Novel 32-Bit Vedic Multiplier for DSP Applications
Authors	Suguna T, Janaki Rani M & Anand M
Journal Name	Journal of Advanced Research in Dynamical and Control Systems

ABSTRACT:

Portable digital processing systems that perform high computational operations in real-time mainly depend on the performance of multipliers. The reason is that the multiplier unit resides in the critical path and has a direct impact on the power consumption, area, speed, and throughput of the system. Thus fast and an energy efficient multiplier is always needed in the VLSI industry which contributes significantly to high performance and low power consumption of the system. Adiabatic logic is considered as the promising technique in recent years to reduce the power consumption in the VLSI circuits, using Vedic mathematics approach a novel multiplier scheme along with adiabatic logic is proposed in this paper. The adiabatic logic style used for this work is Efficient Charge Recovery logic (ECRL) adiabatic logic, because of its simple and feasible structure. The proposed 32-bit multiplier is implemented using the TANNER tool, at 22 nm technologies and compared with CMOS and GDI logic Vedic multiplier. Parameters like power, area, and delay are noted and comparisons for the different supply voltages and temperatures at 1000 MHz operating frequency are presented and discussed in this paper. It is observed from the results, that the proposed novel multiplier has 49% and 70% less PDP at the supply voltage of 1.5V and 45% and 71% less PDP at 300C temperature than GDI and conventional Vedic multiplier respectively for the mentioned operating frequency. Thus, the proposed novel 32-bit ECRL adiabatic Vedic multiplier can be selected for implementation of efficient high MAC unit and also in the realization of digital IIR and FIR filter that is used in different DSP applications.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Underwater Optical and Acoustic Communication through A Novel Bybrid Opto - Acoustic Modem
Authors	Lenin Kumar M, Janaki Rani M & Anand M
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
ABSTRACT: Significant progress in the field of underwater communication has led to the convincing need for a low power and low-cost modem. In this work a high speed wireless underwater opto-acoustic communication has been demonstrated through the proposed hybrid opto-acoustic modem using Orthogonal Frequency Division Multiplexing (OFDM). The proposed hybrid modem has been simulated for transmission and reception of both optical and acoustic signals. The output signals are compared and verified with respect to the input signal both in air and water medium. The received signal strength in underwater transmission of ultrasound and light signals is compared with that of the same signals being transmitted in air. The comparison result proves the accuracy of the reception of signals by the proposed hybrid opto- acoustic modem.	

Paper Title	Study on Productivity Improvement in Medium Scale Manufacturing Industry by Execution of Lean Tools
Authors	G V PunnaRao, S. Nallusamy, P S Chakraborty & S Muralikrishna
Journal Name	International Journal of Engineering Research in Africa
ABSTRACT: In current scenario, all the manufacturing industries are placing constant efforts for their endurance in the current global volatile economy. Manufacturing industries are annoying to implement new and professional techniques in their regular production processes. Some of the recognized tools are applied and their awareness has been growing among the industries, especially in production sector. Last two decades have witnessed an explosion in the area of quality and productivity improvement initiatives in the manufacturing industries by different tools and techniques such as lean manufacturing, total quality management, total productive maintenance, six sigma implementation etc. The objective of this study is to enlighten the importance of lean techniques implementation in a medium scale belt manufacturing industry. This research study helps to exhibit the existing hidden potential in the selected industry as well as a selection of appropriate techniques for productivity improvements. Also, it aims to eradicate wastes and non-value added activities at every stage in order to enhance the overall productivity. From the results after implementation of appropriate lean techniques it was found that, the lead time was reduced about 1256 minutes and the overall production was increased by about 9%.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Blockchain – A Most Disruptive Technology on the Spotlight of World Engineering Education Paradigm
Authors	G ThiraviyaSuyambu, M Anand & M Janaki Rani
Journal Name	Procedia Computer Science

ABSTRACT:

Throughout its history, preferably over the last four centuries, the world witnessing game changing and disruptive technologies on certain regular intervals. Wheels, Compass, calendar and pozzolana are some of the remarkable inventions in before Christ (B.C) period. Clock, printing press, steam engines, vaccines, electricity, mechanical computer, telegraph, iron and steel, aero plane, transistors, ARPANET, personal computer and Internet are few outstanding innovations fuelled our world for last four centuries. If we look at the time line of inventions, it is dramatically reduced over the advancement of time. Inventions took centuries in B.C, but needs only a few years or a decade in A.D. We would like to add the blockchain technology in this line up, which could fuel new era of inventions in new dimensions.

This technology relies on decentralized concepts, entirely against the present centralized system, the world relies on. Why we still need a third party book keepers or why we still need an third party intermediary for trust and transactions? This article will answer these arguments. This article begins with the conceptual understanding, then reveals its disruptiveness through several case studies across several industries such as Banking, Administration, Supply chain management, Logistics, Asset management, Intellectual property Management, Transport and Energy. Blockchain technology has the potential to redefine every one another technology of human beings. Concept of ledger and its evolution, from its voyage from Indian origin single entry ledger to Satoshi Nakamoto's triple entry ledger has been highlighted, as these are vital to understand the technology behind bit coin. Without mentioning the crypto currencies, the blockchain use cases will not ended up, hence few excerpts of crypto currencies also added.

From cryptography in technology, Anti money laundering, Know your customer, Transaction monitoring in Banking to day to day administration as in the case of land records storage, identity management etc., are few contributions of this article. We also covered the case studies from corporate giants such as Amazon, IBM, MAERSK to the startups like EzyRemit, Signzy etc., and from an individual state of administration Andrapradesh to the entire country, Dubai. It is important for the global engineering education needs to identify and nurture the disruptive technologies, which could contribute to our society in meaningful way. We believe that, blockchain technology belongs to the category of future technologies, which could shape up and fuel the development of global economy for next few decades as internet did for past few decades. Through this article, the young generation engineering pupils, matured practitioners and influential decision makers will understand the potential of blockchain technology and provide impetus to global engineering education.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Experimental Study on the Properties of Green Concrete by Replacement of E-Plastic Waste as Aggregate
Authors	S Arivalagan
Journal Name	Procedia computer science

ABSTRACT:

Due to the development of electronics industry the fast growth of electronic waste is generated in the developing countries leads dumping of waste are called as Electronic waste (E-Waste). The proper disposal of e-waste is the severe work in the latest trend in all over the world is the facing problem. That spoils the entire environmental situations that leads affect the human health and environmental soil conditions. The electronic wastes are identified as computer peripherals, wires, switches, electronic boards, chips etc., these are affecting the ground water also making contamination of water. In the research work is mainly based on the how to use the e-waste properly to the construction materials without affecting the environment. As per the study it was found that recycle of e-waste from which made the green concrete and to help to the human and global from environment degradation. The research work is mainly based of the recycle of metallic portions in the e-waste and made the green concrete, to increases the mechanical properties of green concrete. The green concrete is made with partial replacement of e-waste 10%, 20% and 30% of coarse aggregate added with water –cement ratio of 0.45. The green concrete specimens compared with conventional concrete, this result shows e-waste concrete increase strength upto 20%. From this it was observed that e-waste can use as replacement material of building constriction works also save the environment.

Paper Title	Vision based Detection and Categorization of Skin lesions using Deep Learning Neural networks
Authors	V Srividhya, K Sujatha, R S Ponmagal, G Durgadevi & L Madheshwaran
Journal Name	Procedia computer science

ABSTRACT:

Melanoma is the deadly form of skin cancer. The melanocyte serves as the cause for the development of a malignant tumor on the skin. The dermatological photographs are used to detect the skin cancer. The objective of this project is to develop a structurized scheme to analyze and evaluate the probabilities of melanoma with the help of a typical user friendly camera. The novelty of this project is that it has a well developed strategy for skin cancer detection using high performance image based machine learning algorithms to execute intensity level adjustment at the preprocessing stage followed by segmentation and feature extraction from the region of interest, the lesion on the skin surface. This method uses images from the open source data base like DermIS and Derm Quest. The preprocessing includes filtering and edge detection. For this purpose, convolution issued to remove the noise present followed by extraction of Highly Perceptive Features (HPF) like colour, irregularity, boundaries, shape and diameter. The correlation coefficients play an important role to determine the effectiveness in identifying the skin tumor and serves as a unique measure to identify the distinct input feature set for training the Convolutional Neural Network (CNN) so as to identify the malignant tumor on the skin surface. The Identification Efficiency (IE) is found to be 95% with a sensitivity of 93.3%.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Analysis of CT Images for Detection of Colorectal Cancers using Hybrid Artificial Neural Networks and Fire Fly Algorithm
Authors	K Sujatha, Chandrashaker Reddy B, Su-qun Cao & Ponmagal R S
Journal Name	Procedia computer science
ABSTRACT: <p>The longest part of the large intestine or colon is called as rectum. The uncontrolled division of cells in the colon forming a polyp at initial stage is called as colorectal cancer. Initially the polyp formed may be benign and later it may turn out to be malignant. The advancements in the field of medicine has made the screening techniques to be an effective tool in identification of the colon cancer. Early detection of the colon cancer may lead to complete cure of the disease normally, but it is very difficult to diagnose at the start. It is because; it does not show any symptoms at initial stages. Colonoscopy, a type of computed tomography (CT) is usually recommended for the patients to detect the colon cancer and it is usually a painful test conduct to identify the disease. To relieve the patients from the suffering, image processing algorithms like Weighted Adaptive Scalable Invariant Transform (WASIT) is used for extraction of features like location; orientation and scale are used as inputs to train the Artificial Neural Network (ANN) using Back Propagation Algorithm (BPA). The optimal set of weights is obtained by adjusting the weights for BPA hybrid with Genetic Algorithm (GA) and Fire Fly Algorithm (FFA). The Likelihood Ratio (LR+) is found to optimal for the BPA tuned with FFA and is inferred to be in the range of 1.5 to 4 which varies with a deviation of $\pm 0.4\%$ from the nominal value.</p>	

Paper Title	Analysis of CT Images for Detection of Colorectal Cancers using Hybrid Artificial Neural Networks and Fire Fly Algorithm
Authors	K Sujatha, Chandrashaker Reddy B, Su-qun Cao & Ponmagal R S
Journal Name	Procedia computer science
ABSTRACT: <p>The longest part of the large intestine or colon is called as rectum. The uncontrolled division of cells in the colon forming a polyp at initial stage is called as colorectal cancer. Initially the polyp formed may be benign and later it may turn out to be malignant. The advancements in the field of medicine has made the screening techniques to be an effective tool in identification of the colon cancer. Early detection of the colon cancer may lead to complete cure of the disease normally, but it is very difficult to diagnose at the start. It is because; it does not show any symptoms at initial stages. Colonoscopy, a type of computed tomography (CT) is usually recommended for the patients to detect the colon cancer and it is usually a painful test conduct to identify the disease. To relieve the patients from the suffering, image processing algorithms like Weighted Adaptive Scalable Invariant Transform (WASIT) is used for extraction of features like location; orientation and scale are used as inputs to train the Artificial Neural Network (ANN) using Back Propagation Algorithm (BPA). The optimal set of weights is obtained by adjusting the weights for BPA hybrid with Genetic Algorithm (GA) and Fire Fly Algorithm (FFA). The Likelihood Ratio (LR+) is found to optimal for the BPA tuned with FFA and is inferred to be in the range of 1.5 to 4 which varies with a deviation of $\pm 0.4\%$ from the nominal value.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Analysis of Heat Transfer Characteristics with Triangular Cut Twisted Tape (TCTT) and Circular Cut Twisted Tape (CCTT) Inserts
Authors	Sivakumar K, Rajan K, Mohankumar T & Naveenchnadran P
Journal Name	Materials Today: Proceedings
ABSTRACT: The paper represents the numerical investigation of heat transfer characteristics in a pipe provided with twisted tape inserts is analyzed. The heat transfer was analyzed in a swirling flow conditions using CFD simulation. A commercial CFD package was used for analyze twisted tape for circular tube fitted with triangular cut twisted tape and circular hole cut twisted tape inserts. The twisted tape system allows a significant increase of convective heat transfer coefficient by introducing the swirl flow motion. The swirl flow motion provides greater heat transfer rate extracted from the solid surface of the tube. The depth of cuts for triangular cut 5 mm and depth of whole cut 5 mm twisted tapes were used for simulation generation. In this paper CFD analysis was used for enhancement of heat transfer rate of fluid of laminar flow. The experimental investigation were conducted in double pipe heat exchanger and these value of plain twisted tape, triangular twisted Tape and circular hole cut twisted tape were taken for used simulation analysis. The performance of heat transfer rate was enhanced 1.1–1.3 times compared that the plain twisted tape and circular cut twisted tape. The data obtained from the simulation correlations for triangular cut twisted tape and circular hole cut twisted tape; and these data were correlated with plain twisted tape.	

Paper Title	IoT Based Light Intensity and Temperature Monitoring System for Plants.
Authors	S Manivannan, Jayakrishna N, Samba Siva Rao, B Swapna & C Andar
Journal Name	Materials Today: Proceedings
ABSTRACT: Smart device was developed to measure Intensity of Light and Temperature using LDR and LM35 IC Sensors. The principle is when light falls on the sensor, it changes the resistance of sensor changes which is then converted to change in voltage. The ADC pins on Bolt Wi-Fi Module convert this analog voltage level to digital values. LM35 is the sensors which senses the temperature of environment and based on its value it generate analog output voltage. This analog voltage by the LM35 is then given as input to Bolt A0 pin. The Bolt then converts the analog value to a 10 bit digital value that varies from 0 to 1023. This digital data is sent to the cloud through Bolt device.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Synthesis and Characterization of High Photo Luminescence of CPC Capped BIS (8-Hydroxyquinoline) Zinc Nano Rods
Authors	Bharathi Devi Venkatasamy, C Andal, P Arulmozhichelvan & Murugakoothan P
Journal Name	Materials Today: Proceedings
ABSTRACT: Highly luminescent bis (8-hydroxyquinoline) zinc nanorods with average thickness of 76 nm and length up to a few micrometers have been synthesized via simple precipitation method using Cetylpyridinium chloride (CPC) as a surfactant. The synthesized Znq2 was annealed at 200 °C in air for 3 h. The obtained nano rods were studied by powder X-ray diffraction (PXRD) to confirm the crystalline nature of the particles. The thermal property of the particles were studied using TG-DTA analysis. The morphology and presence of elements were studied by High Resolution scanning electron microscopy (HRSEM) and Energy dispersive analysis of X-rays (EDAX). The functional groups of the particles were confirmed by FTIR spectroscopy. The optical properties of the particles were studied by UV-visible spectroscopy and photoluminescence spectroscopy. The band gap of the particles was calculated. The synthesized CPC capped Znq2 nano particles were confirmed by photoluminescence studies for OLED applications as emission and electron transport layers.	

Paper Title	Execution of Lean and Industrial Techniques for Productivity Enhancement in a Manufacturing Industry
Authors	Dr. S. Nallusamy
Journal Name	Materials Today: Proceedings
ABSTRACT: In current global manufacturing scenario, every organization wants to fulfill their customer needs to retain their position in the market. Lead time plays a vital role to improve them in the global competitive market. The aim of this research work is to minimize the overall lead time of the product by finding out bottle necks and to eliminate them. The important processes in the production line are work in progress, layout optimization and line balancing. The existing manufacturing techniques and the process of the product were studied thoroughly and then time study was followed. Based on the time study results TAKT time was calculated for the demand followed with current state VSM was drawn and the bottleneck stations were identified. After developing current state VSM, assembly line was balanced using flexible line balancing software. Further improvements were made with the lean techniques of fish bone diagram, Pareto chart and layout optimization. After the execution of the above lean techniques the future state VSM was drawn and observed that the lead time and value added time were reduced by about 15 and 16 min respectively.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Experimental Analysis of Nano Particles with Cobalt Oxide Synthesized by Co precipitation Method on Electrochemical Biosensor using FTIR and TEM
Authors	Dr. S. Nallusamy & Dr. K. Sujatha
Journal Name	Materials Today: Proceedings
ABSTRACT: In the present scenario, nano engineering plays a vital role in health science and engineering and of late it has been expanding and advancing in various frontiers of engineering and has been effectively aiding in the promotion of interdisciplinary of the various sciences. Among the transition metal oxides, cobalt oxide nano particles easily transfer charges and, also have good reversibility during the charging and discharging process which enhances the performance of the sensor. In this research work, cobalt oxide nano particles were synthesized by coprecipitation method for electrochemical sensing of cholesterol in blood. The as-synthesized products were characterized by fourier transform infrared spectroscopy and transmission electron microscopy. Cyclic voltammetry was used to study the electrochemical performance of obtained Cobalt oxide particles. From the final outcome it was viewed that, the high conductivity of the nano particle makes it suitable for sensing the level of cholesterol in the analyte.	

Paper Title	Learning Style Predilection among Health Professional Learners - A Comparative Study Among Varied Course Groups In A Medical College
Authors	Brinda S, Dr. Abeetha S, Dr. Sureka Varalakshmi V, Ganesh M & Poovaraghavan J
Journal Name	National Journal of Physiology, Pharmacy and Pharmacology
ABSTRACT: The learning behavior of an individual is attributed to one's learning style. With varied learning styles been evident, identification of the best learning modality is a must to upgrade the student's knowledge. This study pertains to seven sensory modalities of learning such as visual, verbal, aural, physical, logical, social, and solitary. Aim and Objective: The aim of the study was to identification and comparison of learning style preferences among three categories of undergraduate health learners and gender differences in their learning styles.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Feasible and Experimental Study on Partial Replacement of Fine Aggregate using Construction Debris
Authors	S Arivalagan, Dinesh Kumar K S K & R Sudhakar
Journal Name	International Journal of ChemTech Research

ABSTRACT:

Concrete is the most widely used construction material today. The constituents of concrete are coarse aggregate, fine aggregate, coarse aggregate and water. Concrete plays a major role in the construction industry and a large quantum of concrete is being utilized. Rivers and, which is one of the constituent used in the production of conventional concrete, has become expensive and also a scarce material. In view of this, the utilization of demolished aggregate which is a waste material has been accepted as building material in many countries for the past three decades. The demand of natural sand in the construction industry has increased a lot resulting in the reduction of sources and an increase in price. Thus an increased need to identify a suitable alternative material from industrial waste in place of river sand, that is eco- friendly and inexpensive construction debris. Fresh concrete being extensively used as an alternative to the sand in the production of concrete. There is an increase in need to find new alternative materials to replace river sand so that excess river erosion is prevented and high strength concrete is obtained at lower cost. One such material is building construction debris: a by-product obtained during construction and demolition waste. An experimental investigation is carried out on M25 concrete containing debris during construction in the different Range of 20%, 30% & 40% by weight of sand. Material was produced, tested and compared with conventional concrete in terms of work ability And strength. These tests were carried out on standard cube of 150×150×150 mm and beam of 700×150×150 mm for 28 days to determine the mechanical properties of concrete

Paper Title	The Study on Impact of Non - Monetary Factors Influencing Stock Market with Reference to Chennai City
Authors	Senthil Mathi M
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT:

The money earned is to be partly spent and rest of it should be invested to earn the future expenses. The rate of investment depends upon the infection level of the country. The higher the rate of infection, the individual need to invest more to improve the standard of living, the essential criteria is that an individual should sheet right investment avenue and it should be will diversified. The diversified investment should be combination of equity, gold, commodity market, and must of fixed deposit. The tag line of the investment market is higher the risk, higher the return, with the clause of long term investment will fetch higher revenue. This research paper studies about the factors influencing equity market, as the stock market is highly volatile in nature, as there many macro economic factors determining equity market like infection, gross domestic product, foreign direct investment and much more to lee considered for investment, and there are non-monetary factors influencing stock market namely psychological factors which is divided into multiple variables of which it is ascertained that over confidence of an individual will affect the decision making. The study also status that increase in unemployment rate in developed countries will affect our country in terms of investment avenue when it comes to sentiment marry investors which represent T value of 9.473 affects the investment decision.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	VISI Design of Area Efficient Test Data Compression Architecture for IoT Devices
Authors	Neela R, Anandhi S & M J Rani
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: <p>Internet-of-Things combines the functions from sensing the environment and computing the sensed data followed by storing it and finally communicating the computed data periodically or in a critic situation. The network architecture of IoT is a complex architecture as an IoT system combines the nodes from cloud computing and fog to create its communicating network. VLSI increases the functional ability of trending technologies like Iot and SoC for their numerous applications. VLSI devices are the key for the success of many emerging green technologies. As size of the system plays a critical role in both economical and functional success of a system, VLSI helps in these promising areas for its implementation. Many researchers have proposed numerous compression techniques. Code based compression scheme is one among them. Run length coding is one of the most promising techniques in code based compression scheme. In the proposed methodology, a hybrid compression technique is proposed. First Golomb coding is used to compress the data. The compressed data is further compressed using dictionary based compression code. The obtained compression ratio through hybrid data compression using Golomb and Dictionary based compression code is further compared with other compression techniques. The simulation results show that hybrid compression technique achieves an increased compression ratio of 75.89%.</p>	

Paper Title	Safety Sacket Security System using Arduino - Board
Authors	Anuradha K, T Bhuvaneswari, Nirmala Sugirtha Rajini & Viji Vinod
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: <p>The important goal and achievements in IOT platform are highly secure and easy access of smart locker system. Security plays on crucial place whereas like offices, home, banks etc. Always there is a need for security in society. The security threat has overcome through the proposed system. The Locker security system is based on RFID, Password, OTP with GSM technology and Biometric Finger print sensor. During the login operation user first swipe RFID tag on the RFID reader if it matches then the authorized person can enter the password. If the password is correct it will generate random password (OTP) using GSM technology. The OTP messages send through GSM to the authorized person's mobile phone as SMS. Then the OTP was verified and then fingerprint of authentic person will be scanned. If the finger print was correct, authorized person, can see the display in LCD. If all the conditions are matched then the microcontroller processes the data and correspondingly drives the locker to operate then the door will be opened. The proposed system activates, authenticates and validates the user and then unlocks the locker door.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Study on Mechanical and Durability Properties of Self-Compacting with Marble Powder
Authors	Vaidevi C, Felix Kala T & A R R Kalaiyarrasi
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT:

Self-compacting concrete (SCC) enhance the qualities and working conditions and it eliminates compaction. Generally, SCC has higher powder content and it is necessary to replace some of the cement material to achieve economical and durable concrete. The results show the strength of SCC with marble powder for constant filling ability, replacement of cement with fly ash requires an increase in water/powder ratio and a reduction in super plasticizer dosage. This research paper deals with the different testing methods on fresh concrete to test high-flow ability, resistance against segregation, and passing ability self- compacting concrete for a grade of M60 concrete like Slump flow, V-funnel, L-box and U-box tests were carried out to examine the performance of SCC. In hardened concrete the tests were conducted and cured at different times to find compressive strength, tensile strength and flexure strength test with and without partial replacement of marble powder as a 10 %, 20% and 30% of cement in SCC for 14,28 and 56 days. Finally, the test results showed increased strength with the addition of marble powder in SCC than the normal SCC apart from this, durability of SCC also tested using RCPT, WPT; chemical attack tests like acid and sulphate attack are conducted at the age of 28 and 56 days in SCC casted specimens. This study concludes that up to 10% partial replacement of marble powder as cement for 28 and 56 curing days which is compared with the conventional SCC were found to be satisfied.

Paper Title	Clustering and Classification of High Speed Dimensional Data Stream in Dynamic Feature Selection
Authors	G SenthilVelan, K Somasundaram & V Cyril Raj
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT:

Change can arise at the feature level and concept level within a data stream. At the changes in feature level may arise as fresh which emerge in the stream based on additional features, or when a feature's value and significance shifts as the stream developments. This change has not earned the same coverage as reform at concept-level. In addition, many of the proposed approaches for clustering streams depend on some type of distance and troublesome in high-dimensional data which are similarity metric where the burden of dimensionality makes expanse capacities and any model of “density” hard. In order to address the two problems we suggest as feature selection problem by merging them and presenting the issue and precisely a problem of dynamic selection of features. In this paper suggested a new approach to the clustering and classification of raw materials with high dimensional (or close to raw) data streams which can be implement through stream clustering algorithm and k-Nearest Neighbor (kNN) classifier. The proposed solution based on non- standard distances, which are determined by hashing and compression approaches which increases clustering efficiency and decreases the processing time based on proposed dynamic function mask needed by the underlying algorithm. Hence, the evaluation of proposed method with various exist method to analyze the maximum Variance method in order to select the best features.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Malware Detection in Smartphone as an Information Security
Authors	S Geetha, T V Ananthan, V R Niveditha & K Amandeep Singh
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Android is a conventionally used as operating mobile system among the unrestricted users. Due to its powerful safety measures and safety at different levels of overlay system, the pleasant appearance of the android OS improved. At the present time smart phones are available at slashed rates and are extensively used across the world. Smart phones are not only used for making phone calls and sending communication but also used for storing private data, Internet browsing, online banking etc security has become increasingly very important in mobile instruments. The main safety measures troubles in android instruments are cruel assault which has been uncovered to unusual intimidation. The amount of latest applications by the creation of movable instruments and their associated app stores is too full- size to physically inspect the together submission for malevolent behavior. Installing applications which may leads to safety susceptibility on the stylish phone apply for access to susceptible information. There are variety of malwares can do violence to machine tool namely bug, worms, Botnet, Trojans, Backdoor and source kits due to these attack the users is compromise by isolation.	

Paper Title	Use of Predictive Analytical Algorithm By Crime Investigation Team – An Analysis
Authors	D Usha., V R Niveditha., KirubadeviThiyagarajan., P Thamizhikkavi
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Big data is an emerging concept representing a vast amount of structured, unstructured, and semi-structured data. It also has the ability to be exploited for information that is being utilized in many projects as well as other advanced analytics applications. In the current scenario crime rate are increasing and becomes the challenge for the investigating team. Crime-related data creation is also nowadays growing, and is mainly digital in nature. Through the use of conventional analytical techniques, the produced data cannot be managed effectively. Instead of using conventional data analysis methods, using Big Data Analytics for the massive amount of data would be advantageous. Data mainly collected will be distributed around the geographic region and will be generated depending on that cluster. Using Big Data Analytics, the clusters created are then evaluated. The analytical process is done by using analytical tool which produces prediction pattern. Hence Big Data Analytics can be used for analyzing crime related data, Predictive analysis used to predict the future crime and thus the rate of crime can be reduced.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	An IOT Security Based Electronic Aid for Visually Impaired detection with Navigation Assistance System
Authors	N Keerthana, S Shobana, R Aiyshwariya Devi, U Indumathi & Dr. S. Radha Rammohan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: The paper present an electronic aid for visually impaired people to navigate them the blind cane will find the potholes and obstacles and notify the visually impaired through the voice command and they active location will be share to care taker through the text message the voice command will be pass through the headphone .In involves an Arduino IDE to detect the movement of the blind people when they walk and a microcontroller works and will be a speech output. The visually impaired can travel individuals without the guides	

Paper Title	Consumer's Online Buying Behaviour and Purchase Decision Towards Sports Products - An Exploratory Study
Authors	Senthil Kumar K, C B Senthil Kumar, J Sri Devi & Mythili R
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Consumer Behaviour is a complex and challenging field to analyze by the marketer as preferences vary over a period of time. The traditional method of purchase is replaced with online mode facilitating the consumer anytime purchase providing all the benefits under a single roof. The new technology has radically changed the tradition practice of creating virtual Shopping business. Online Shopping strengthening provides their sale base an financial resources by developing their own e-product and service providers to suit changing needs of the customer. The study is to analyse the buying behaviour of customer towards online shopping experience and their choice of sports products and convenience of the customer. The advancement in the technology paved new ways of delivering shopping goods facilities to the customer. Online Shopping has become a popular shopping method over since the internet has declared to take over in 1990s. Various E-Commerce models provide both the product and service sectors to utilize the facilities and opportunities at the right time. The online shopping had become an entertainment activity in spite of the gender differences. This study analyses the Consumer Behaviour on Online Shopping towards the purchase behaviour of sports goods.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Design of Filtration column with sand and gravel bed and activated carbon bed for the purification of Cooum River water in Maduravoyal
Authors	Tanmayee Panigrahi, R M Naryanan., E Jayasatya & Francis Panimathy
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: The drastic development of world towards the fulfilment of human needs has put nature in jeopardy. Pollution is dominating the nature and the environment and increasing at an appalling rate which ultimately leading to the destruction of nature and affecting the basic amenities like water. Human being has misused the privilege given by nature in disturbing the ecosystem and leading towards the tainting of the basic life support of any living things like air and water. Hence it is the demand of time and responsibility of researchers to introduce a handy and effective solution to purify water for drinking; in this direction, Column filtration serves the cause effectively. Much work has been done in developing filtration process for treatment of sewage water and wastewater from industries and even municipal water. But the filtering media is extortionate, and sometimes it is even critical to choose the filter media as it induces the growth of microorganisms in filter media. This work represents a simple design of filtration column with low-cost filter media made up of sand, stone gravel and activated carbon made by Prosopis Juliflora bark. The water sample was taken from Cooum River in maduravoyal, Chennai Tamilnadu. The water discharged from the column is disinfected using chlorine. Complete characterization of filtered water is done to estimate the chemical and physical attributes like colour, pH, turbidity, Chemical Oxygen Demand, Total suspended particles, Biological Oxygen Demand, electrical conductivity and different chemical components such as fluoride, sulphate, nitrates, chlorides etc. The physical and chemical traits of treated water were found to be within the permissible range.	

Paper Title	Software Development Kits for Cloud Computing
Authors	Thirumurugan Shanmugam, Viji Vinod, S V Tresa Sangeetha, Dr. S. Radha Rammohan & T Muralidharan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: High Performance processing is barely bidden in cloud service as due to sluggish and ineffective Virtual Machine message applied on the similar server process as fortunate with giant dormancy among distant components of cloud. The virtual machine cloud is based on device framework of similar hardware device. The contrivance enhanced ruined with Linux modernize at long back. The distributed memory is made with filled cloud amalgamation like newest version Cloud Ubuntu used for cloud storing and handling power of factors with transfer control protocol techniques that might appreciably upturn implementation. Conclusively, we take generated communiqué network that discharge replace transfer control network, raising more enactment development.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Identification of Project Risk Factor using Support Vector Machine
Authors	Amandeep Singh K, T V Ananthan, S Sathya, C Tamilselvi & T Muralidharan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Controlling remains a significant measure of the improvement series for extreme characteristic claims. Furthermost individual risks remain cases that are negatively affected by the strategy for optimal weather progression. Thus general risk aspects like phase, account plus reserves preserve be affected severely via actions. The following concerns such as idea, stage and expenditure are generally observed. The risk factor includes the factors like distinguishing, evaluating, training and supervising the factors for exosphere their task undertaken. Risk remains the option of unpredictability, nonexistence experience about trials, actions plus the unaffected technologies for handling events and actions. The influences that affected by risk are undertaking risks and uncertainties. The excessive task which is observed as failure rates done by reduced development of scheme that terminate the group and future affluence purpose for project supervisors where they plan outcome for existence await the possible risks for preparing the project accomplishments with experiences for analyzing. The paper reports the Administered Learning mechanism for learning an function by Classification distinguishing between Support Vector Classifier (SVC) for expecting the project risk task with Machine Learning and apply Genetic algorithm aimed at high quality solution which act as commendation.	

Paper Title	Multilevel Authentication for Secure Data Transmission using RKGM to Cloud
Authors	M Arun, S Vijayalakshmi, G Priyanka & S Praveen Kumar
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Rather than depending on the personal computer or local server, cloud computing is utilized to store manage and process data on remote sever network which is connected over internet. When large volume of data is stored in cloud there occur security issues, its essential that data stored in cloud are secure from unauthorized users. In order to overcome this issue, In this paper we propose a multilevel based authentication for secure data transfer over cloud. The proposed system has three modules first module defines how multilevel authentication is processed, second level determines how encryption is administered and final module deals with decryption process. To avoid the unauthorized access into the server a novel multilevel authentication is developed. In the proposed system data security is enhanced with the help of random key generation algorithm (RKGM). Hash based system is utilized data transmission and retrieval process. The proposed system is evaluated using memory and time.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A Multi-model Bio-matric System of Security Documents for IOT Mobile Devices
Authors	Kamal N, C Devi, A Kannan, Vinoth Kumar A, C Hema Latha & S Satheesh
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: The security of sensitive documents like passports and certificates is increasingly difficult in an increasingly digital environment. These useful content, however, include the name, address, and sometimes a photograph to identify the owner is a very simple task. It also includes a device that authenticates the record owner with his biometric characteristics. Multi-modal biological systems on the one basis of biometric modality are better than state-of-the-art mobile / IoT biometric systems. This is because a multi-modal system challenges assailant to spot more than one characteristic to bypass authentication. This article offers a new and cost-effective method of creating a unique, multi-modal face biometric authentication-based ID. It is considerably more challenging than spotting a single trait. Multi-modal biometrics uses a combination of two or more biometric technologies or methods. We work together as a multi-factor solution or automatically select multiple authentication options. Using mobile devices such as cell phones, laptops, smart watches, and head-mounted displays, the proposed system can be authenticated as a mobile camera, incorporating facioperiocular region and iris image(IMG)to create a multi-modal biometric system.	

Paper Title	The Impact of Data Analysis for Test Automation and Performance Using Big Data
Authors	Viji Vinod, Sudhakar Sengan, Aruna TN, Anu Varghese P, V Vaidehi & Sumathi K
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Big Data is the consistent blast in the massive volume of information that produced, prepared, put away, and got to through applications that cope with a few simultaneous transactions of data, momentarily. Despite the truth that machine planners and creators are investigating better techniques to ace BD, Test Engineers and Architects are likewise now not a long route that starts confronting BTd. Testing organizations are no longer the slightest bit barred from taking care of massive data. This research examines the impact of check automation on software testers. Each one is necessary for the trade, for administrative processes, and the upcoming of the business. The future is not far, and it is tomorrow. The conclusion to this research suggests that people currently in manual software testing are in danger of being replaced.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Optimized Algorithm for Restricted Governor Mode of Operation of Large Turbo Generators for Enhanced Power System Stability
Authors	A Nalini, K Shanmuganathan, Jayarajan J, E Sheeba Percis & T Jenish
Journal Name	Advances in Intelligent Systems and Computing
ABSTRACT: The Central Electricity Regulatory Commission, India has guided that every Coal/lignite-based thermal generating units with more than 200 MW capacity should adopt restricted governor mode of operation (RGMO) for effective compensation of sudden frequency changes in the power grid. Presently, restricted governor mode of operation algorithm, developed by various boiler turbine generator suppliers, is used to meet the expectations of CERC. In this paper, it is discussed about an optimized algorithm for the effective implementation of RGMO for enhanced power system stability of large turbo generators of 600 MW or more capacity, fitted with electronic governors.	

Paper Title	Improvement of wall angle in AISI 304 stainless steel cup using five stage single point incremental forming
Authors	Suresh Kumar D & Ethiraj N
Journal Name	International Journal of Vehicle Structures and Systems
ABSTRACT: Incremental forming is a non-conventional metal forming process which is widely used to produce the customized parts especially in medical and aerospace industries. One of the challenges encountered in the single stage process is the maximum wall angle of the component that can be formed to a maximum possible depth without fracture. Many strategies have been tried by the researchers in the past to overcome this limitation. The aim of this research work is to investigate the effect of 5 stage incremental forming process in improving the formation of maximum wall angle to a possible height which is not possible in single stage incremental forming. Also, the different strain measurements are carried out to identify the region at which the fracture is likely to occur in the produced part. It is observed from single stage incremental forming process for a wall angle of 64 successfully. The maximum thickness strain of 75% is observed at a distance of 18mm from the bottom end of the flange of a formed component. °max. depth of 45mm is achieved in the part produced. The current 5 stage incremental forming process reached the max. Height of 54 mm with a wall angle of 76° successfully. The maximum thickness strain of 75% is observed at a distance of 18mm from the bottom end of the flange of a formed component. max. depth of 45mm is achieved in the part produced. The current 5 stage incremental forming process reached the max. height of 54 mm with a wall angle of 76 successfully. The maximum thickness strain of 75% is observed at a distance of 18mm from the bottom end of the flange of a formed component.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A review – The Phytochemical and Pharmacological profile of Tephrosia maxima
Authors	P Babu, K Bhuvaneswari, Vivekanandan K & N Harikrishnan
Journal Name	Drug Invention Today
ABSTRACT: <p>Tephrosiamaximaare found in India, SriLanka and EastAfrica. The different parts of the plant such as leaves, seeds and root of this plant have been used in ayurvedic medicine. These plant parts have been used in the treatment of different disorders. It has various active compounds. The present objective of the study is to discuss the various phyto constituents and their pharmacological activities of the plant against numerous disorders.</p>	

Paper Title	Plausible Role of Combination of Chlorpromazine Hydrochloride and Teicoplanin against COVID-19
Authors	Sathyamoorthy N, Chintamaneni P K & Chinni S
Journal Name	Medical Hypotheses
ABSTRACT: <p>COVID-19 is an endangering viral infection claiming lakhs of lives across the globe. The early spread of COVID-19 was reported from Wuhan, China in December 2019 [1], and was declared as pandemic on March 11, 2020 [2]. COVID-19 caused by severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) or generally referred to as Novel corona virus (2019-nCoV) [3], is posing a serious threat to mankind. However, as the drug development process is very lengthy, to face this alarming global challenge we may need to think of an alternate way. Repurposing the clinical use of an 'old' drug to treat 'new' disease could be an effective strategy to confront the present context of the COVID-19 pandemic [4] (Fig 1.). Chlorpromazine hydrochloride (CPZ-HCl), an anti-psychotic agent reported to show in vitro antiviral activity with a IC 50 of 3.14 Mm [5] by inhibiting assembly and disassembly of Clathrin lattices on cell surfaces and endosomes by CPZ-HCl and thereby prevents the entry of virus into host cells. [6]. Teicoplanin (TCP), a broad spectrum antibacterial drug, reported to show in vitro antiviral activity with a IC 50 of 1.66 μM [7], by inhibiting low pH cleavage of viral spike protein cathepsin in late endosomes during the early stages of viral life cycle This averts the release of viral RNA and its further replication [7], which conserved towards COVID-19 [8]. As both these drugs are FDA approved, a combination of these two drugs can be used for COVID-19.Hence, based on the available information on possible mechanisms of actions of CPZ-HCl and TCP, a combination can be suggested for further investigation, to target COVID-19 primarily by inhibiting clathrin mediated endocytosis with CPZ-HCl and secondarily by preventing low pH cleavage of viral spike protein of viral proteins which might have escaped the endocytosis inhibition.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Nigella Sativa : A Potential Inhibitor For Insulin Fibril Formation
Authors	Sandhya A, Gomathi Kannayiram, Kiruthika L & A Afreena Frozs
Journal Name	International Journal of Research in Pharmaceutical Sciences
ABSTRACT: <p>The high order structure from proteins which are self-assembled are known as fibrils. They are collectively called as amyloid fibrils, which generally lead to neurodegenerative diseases like Alzheimer's, Parkinson's, Huntington's, Type II diabetes. Insulin fibril aggregation is identified to be the major cause of neurodegenerative diseases. The effect of Nigella sativa extract is analyzed based on the fibril inhibition process. The formed fibrils reduced with the concentration increase of Nigella sativa extract. Insulin fibril is found in Type II diabetes patients after repeated insulin injections subcutaneously. Insulin fibrils are formed in organisms or humans irrespective of their places like hips, shoulder, hands and abdomen. These are evident from the anti-aggregation assay. Thioflavin T (ThT) fluorescence and congo red (CR) assay confirms the inhibition of insulin fibril in the presence of Nigella sativa (NS) extract. Further, inhibition of fibril was confirmed by Scanning Electron Microscope (SEM), where no insulin fibrils was detected whose secondary conformational changes are studied using Fourier Transform Infrared spectroscopy (FT-IR). It is confirmed that insulin fibril inhibition depends on the various concentration of Nigella sativa. Based on the results obtained, it is demonstrated that Nigella sativa extract inhibits the fibril formation and it also provides a therapeutic strategy to prevent insulin fibril formation.</p>	

Paper Title	Pharmacological, Bioactive Screening of Medicinal Plant Nigella Sativa and the Derived Compound Thymoquinone : An Invitro Study
Authors	Sandhya A & Gomathi Kannayiram
Journal Name	International Journal of Research in Pharmaceutical Sciences
ABSTRACT: <p>The richest bio source of drugs are from the medicinal plants which are the traditional medicine. The nutraceuticals, food supplements, Siddha, Ayurveda, pharmaceutical medicines, synthetic drugs are from the plant sources. In spite of large number of studies with herbal plants which have given good correlation in the phytochemical, anti-diabetic and anti-inflammatory content, Nigella sativa- a spice plant of Ranunculaceae family showed significant properties than their counterparts. The seeds of Nigella sativa and the essential oil were found to exhibit various pharmacological activities like antianalgesic, antiulcer, anti-inflammatory, antibacterial, antimicrobial, anticancer and anti-diabetic. Since there are no toxic effects or serious side effects observed using animal model and in the clinical trials, the study was carried out using Nigella sativa and Thymoquinone to find out the qualitative and quantitative phytochemical analysis, invitro</p> <p>- anti diabetic activity, anti inflammatory activity of Nigella sativa ethanolic extract and Thymoquinone effect on diabetes and Alzheimer's disease. The aim of the study is to prove that the Nigella sativa could be used as therapeutic agent and the compound Thymoquinone a potential cholinesterase inhibitor for the treatment of Alzheimer's disease.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Seasonal Variation in Atmospheric Particulate Matter Pollution - A Comparative Study in Part of Greater Chennai, India during and before SARS-Cov-2 Pandemic in India
Authors	S Laxmipriya & RM Narayanan
Journal Name	Xi'an DianziKejiDaxueXuebao / Journal of Xidian University
ABSTRACT: Air contamination levels in Chennai had reached a record high with the suspended particulate matter in many pockets of the city at 45 per cent above the permissible limit. But now, the air contamination has plummeted over many parts of India during the nationwide lockdown. With most vehicles off the roads and all but essential businesses shut, people in Chennai appear to be breathing air with relatively safer levels of pollutants. Particularly dangerous pollutants, PM2.5 and the larger PM10, which are less than 10 micrometres in diameter, also dropped steeply. The study has analyzed the Pre and during Covid atmospheric particulate data from our continuous observing network of 6 stations in part of Chennai between November 10th 2019 and May 22nd 2020 and April 15th 2020. Air quality patterns were analyzed in two phases — the pre-lockdown period from November 10th 2019 to January 30th 2020 21 and the lockdown process from March 25th to May 20th of 2020. The study showed substantial decreases in levels of PM2.5, PM10 for the stations observed. The inquiry led to an average reduction of 91.29 per cent in PM2.5 and 87.72 percent reduction in PM10 concentration observed during the lockdown period.	

Paper Title	A Comparative Review on Biodegradable and Edible Food Packaging Material Evolved from Natural Ingredients
Authors	Francis PanimathY, Dr. K. Sujatha, S Ramalakshmi & Vimala Bangarusamy
Journal Name	Xi'an JianzhuKejiDaxueXuebao / Journal of Xi'an University of Architecture & Technology
ABSTRACT: Conventional method of packaging utilises petrochemical polymers that results in pollution. Edible polymers also known as green polymers are integral part of food item which along with preserving and wrapping the food item for storage and transportation, can be consumed and biodegraded. The edible food packaging materials has attracted consumers with its potential to overcome the challenges faced by polyethylene packs. However, Shelf life, antibacterial, antimicrobial, tensile strength and elongation at break of the edible films need to be assessed to make it commercialized. Natural ingredients with nourished nutrients will also satisfy the non-poison packages for the food items. Natural raw materials used in the past studies to cast edible films are reviewed in order to find the most suitable packaging material. The objective of this review article is to analyse various aspects of three different edible and biodegradable films and open up areas for further study.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Evaluation of Human Posture and Ergonomics by Appropriate Assessment Tool in a Medium Scale Manufacturing Industry
Authors	Nallusamy S, Shah P, Singh S.K, Pilla N & Hamid Reza M.D
Journal Name	International Journal of Mechanical and Production Engineering Research and Development

ABSTRACT:

In current health scenario, Musculoskeletal Disorders (MSD) is frequent grumbles surrounded by the employees occupied at stationary work that needs cyclic motion of the upper limbs in spite of their specific business. System and machine operators are seated and continuously work for a long time by about 8 hours without moving. The employees are mostly using their arm with hand muscles and also they are lean to be a poor posture of body. The consequential MSD develop weakness, pain and discomfort. The objective of this research is an ergonomic assessment of both white collars and machine operators in a medium scale manufacturing industry to categorize the important serious positions in design of aged equipments and position of operational practices. An assessment is going to be carried out for design, motor and pump assembly along with managerial section by means of a random sampling technique. The anthropometric of the workers and working table dimensions were obtained with comparison. The RULA, ROSA, REBA ergonomic assessment methods are used to assess the risk factors occurred by the implementation of wretched position in their place of work. NIOSH method is used to evaluate the Lifting Index (LI), 3DSSPP is used to evaluate the simulation study for postural and fatigue analysis. The observed results reveal a prevalence of symptoms of musculoskeletal disorders. There should be an important relationship stuck between MSD and abnormal height of worktable which leads to adopt wrong posture habits. The organization must change the old style furniture's and correct the uneven worktable height according to the employee's anthropometry. And also to offer best training to keep up their high-quality live out position at their workplace.

Paper Title	Execution of Systematic Lean Approach for Reduction of Defects in Foundry Division of Manufacturing Industry
Authors	Nallusamy S, Ranjan G, Uddin J, Kumar K.D & Swamy K.G
Journal Name	International Journal of Mechanical and Production Engineering Research and Development

ABSTRACT:

In current global scenario, production demand and customer satisfaction has progressively amplified with the development of new technological process. The main objective of this research are to reduce waste by reducing rejection in manufacturing process and to maintain rejection percentage to meet company standards for specified departments. The current rejection percentage of the industry was analyzed based on department wise and also investigated the numbers of rejection for different products. After identifying the various causes for rejection in the current system, various methods are proposed to reduce the rejection level by identifying different types of defects. Different lean tools like Pareto analysis, cause and effect diagram and Response Surface Plot (RSP) were applied to identify the defects and also to minimize the rejection level. Pareto analysis was carried out to identify the major defects and cause and effect diagram was used to identify various methods to reduce the defects. ANOVA statistical tool, which was used for RSP issued for finding out the percentage of defects. From the final results, it was noticed that the rejection rate was reduced to less than 4.95%.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Effect of Subclinical Hypothyroidism on Indices of Metabolic Syndrome
Authors	Ajay Kandpal., Ankita Bist., Dr. Sumitha Arumugam & Dhanasekaran R
Journal Name	International Journal of Pharma and Bio Sciences
ABSTRACT: Subclinical hypothyroidism is defined as an elevation in serum thyroid-stimulating hormone above the upper limit of the reference range (0.45-4.5mIU/L) with normal serum free T4 and T3 hormone concentrations. Here we present a cross-sectional, observational study of 100 patients that was conducted in a tertiary care hospital, over a period of 18 months. The aim of this article is to study the clinical and biochemical changes, assess metabolic syndrome, BMD, body composition and hormonal profile in patients with subclinical hypothyroidism. The data collected were analyzed by using Pearson's chi square test and unpaired T test. Our study found 72% patients to be symptomatic, 29% patients to be obese, 31% patients to have goiter and 13% patients with deranged lipid profile. It was observed that waist circumference, body weight, BMI, insulin levels, C-peptide levels and polysomnography had a significant association with subclinical hypothyroidism as the p-value was observed to be less than 0.05. On assessment of data for presence of metabolic syndrome, it was observed that 8% of the patients of subclinical hypothyroidism had an associated metabolic syndrome. Our study observed that subclinical hypothyroidism has a significant correlation with various metabolic syndrome parameters	

Paper Title	A Study on Enhancement of Employee's Performance through Engagement in India
Authors	Dr.C. Balakrishnan & S Sugumar
Journal Name	Journal of Research on the Lepidoptera
ABSTRACT: Employee engagement is one of the key factor used in the modern world for organizational growth in India. A high level of engagement will give retention of customer loyalty and talented employee's in global and domestic firms. The employee engagement will improve the employees individual capacity by developing the prosperous work culture in organization in this global competitive and challenging world. This paper attempts to bring up out the relationship between the job performance and employee's work engagement to produce an innovative ideas to this current world for effective "Performance management system". The methodology adopted is diverse and convenient sampling method was used to collect the required data from 100 men and women workers from different professions. Three Different innovative approaches are carried out with the Rank, percentage analysis for improving the employees engagement and employees performance. Thus to foster a culture of engagement, the findings of the study has being carried out for engaged-cum-performance workforce.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Ambush Marketing – Need for Legal Protection for Official Sponsors of Major Sports Events
Authors	Dr.C. Balakrishnan & R Rakesh
Journal Name	Journal of Research on the Lepidoptera

ABSTRACT:

The focus of this paper is to have brief about the need of legal protection for sponsors of major sporting occasions having prominence like Olympics and World cups. The concept of “ambush marketing” is adroitly viewed as a debated word in marketing arena where the top brands tend to communicate against their rivals in a major event where they are not a recognised or legal official sponsors. The major sport events around the globe are viewed to be a potential opportunity for major companies to make their brand reach millions of people through their association with the event. Official sponsors of these events pump in hundreds of millions of dollars into the event and there should be some protected environment preventing their competitors practising ambushing as a tool to take advantage of the feud between them. Ambush marketing is considered to be a menace for official sponsors though it is ethically accepted in the competitive marketing world. Though law has very limited precedence against ambushers, the legal haul on the official sponsors requires high protection as huge money is invested. The organizers and the host countries should focus more in bringing in a clear standard through the legislation to impede this ambushing through which ensuring rights of the official sponsors are well practised with greater marketing advantages. This paper is concentrating on different successful laws around the world and the need for one universally accepted law that will be commonly adopted and applicable for all the major events with country specific alterations.

Paper Title	Environmental Issues & Implications of Cryptocurrency Market: A Theoretical Study
Authors	Jeyanthi P.M & Rammohan S.R
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT:

This paper decides to discuss the Environmental Issues & Implications of Cryptocurrency market. Since many studies and research is already happened regarding Cryptocurrencies and Blockchain working methodologies; but only a couple of papers discussed the environment perspectives and its impact of the growth of these digital asset modules. It is very hard to believe that the world without the Internet, Air Conditioner, Vehicles or the Cash. Technology plays a major role in every individual life and environment. Now the serious implications are Environmental issues. People are living longer with technology and anyway it does come with a price. Cryptocurrency or Virtual currencies are the money of the future. In this digital age, Cryptocurrencies become a global phenomenon. Even though Bankers, Scientists, and developers are having limited knowledge about cryptocurrencies. Despite its virtual nature, Bitcoin mining requires a massive amount of processing power and in line, energy. One of the major problems is still not being effectively addressed, namely, the energy consumption of transacting across many of the biggest Blockchain networks in the industry. This issue, which has grown exponentially over the past few years, shows no signs of slowing down and continues to cause environmental degradation along the way. Since this paper provides the current insights of the environmental issues and discusses the possible alternatives are needs to adhere in the future.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Disruptive Behaviour: Managing the Challenges and Issues- A Case Study
Authors	R Pushkala & V Anuradha
Journal Name	International Journal of Psychosocial Rehabilitation

ABSTRACT:

Disruptive behaviour has become one of the most important concerns of this era. Though the teachers are prepared to use instructional strategies and to make sure that all students excel academically, many perspective teachers are not adequately prepared to deal with disruptive student behaviour. So in reality managing the challenges and issues of disruptive behaviour is still an illusion. It may have some of their own specific causes, but the reareal so some general conditions that make disruptive behavior more likely to occur. This may include poor parenting and poor teaching. The first thing that a teacher has to think if a student is disrupting the class then it is because of the teaching method followed in the class. Even the most disruptive students will sit for hours to get her on computer games or engage themselves in other hobbies that they really enjoy, so it may be due to the lesson and the method that is taught may not be interesting. This study shares of how the disruptive behavior of the two section students from first year B. Tech and first year B.A. English was dealt carefully and effectively by making them involve in sharing their personal narration. Once they started sharing their personal experiences they also shared their emotional experiences which created a good rapport and bond between the teachers. The bond completely changed the behavior of the students on the whole and by the end of the year they were so obedient and the last working day turn ede motional.

Paper Title	Energy Efficient and Fault Tolerant DC-DC Boost Converter with Minimal Leakage Power for Implantable Bio-Medical Devices
Authors	J. Jeneetha Jebanezer, Janaki Rani & M Anand
Journal Name	Journal of Advanced Research in Dynamical and Control Systems

ABSTRACT:

An energy efficient and fault tolerant DC-DC boost converter circuit with minimal leakage power dissipation for implantable Bio-Medical Devices has been proposed in this module. Pace Maker (PM) and other lifesaving implantable Bio-Medical devices should work without any fault. Fault tolerant operation is very important feature for life saving implantable Bio-Medical Devices as they can't be replaced frequently. The proposed DC-DC Converter circuit consists of a fault tolerant transistor network instead of a single power transistor based existing system. The proposed fault tolerant transistor network extends its prolonged operation even there is a fault in any of the power transistor in the network. Hence the proposed fault tolerant transistor network provides longer durability and reliability to the implantable Bio-Medical Devices.

The proposed DC-DC converter circuit will be optimized for minimal leakage power dissipation during the cut-off state of the transistors in the fault tolerant transistor network. The proposed circuit will be optimized to achieve minimum in-rush current during the start-up of the DC-DC converter so that the implantable Bio-Medical Devices will not be damage due to the excess in-rush current. The proposed circuit will be implemented in 20nm Fin FET technology and simulation will be performed using Cadence Virtuoso Analog Design Environment (ADE).



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A Novel Analysis of Advanced Visual Cryptography Techniques for Providing Security Against Web Attacks Using Support Vector Machine Technique
Authors	Vivek Tammineedi Venkata Satya & Rajavarman Veeramalai Natarajan
Journal Name	Journal of Computational and Theoretical Nanoscience

ABSTRACT:

In today's internet applications such as some real time application services like core banking and other public service oriented application have been major issue in authentication of user specification. To perform online dictionary attacks, passwords have been used for security and authentication mechanism. Present days, hacking of databases on web oriented applications is unavoidable to access them easily. Data maintenance is a complex task in internet applications. To solve these type of problems in internet applications, in this paper, we proposed an ovel Integrated and Dynamic CAPTCHA (Completely Automated Public Turing Test to Tell Computers and Humans Apart) (I&D CAPTCHA), which is extension version of existing CAPTCHA that valuated third party human attacks in internet applications based Visual Cryptography approach to discuss a bout authentication problem in real time applications. There is more number of methods presented for security in advanced pictures for insurance from inventive uninvolved or dynamic assaults in system correspondence environment. Like insightful Visual Cryptographic (VC) is acutting edge strategy, which is utilized tomystery pictures a fely impart further more keep up to privacy. To proceed with difficulties of security in advanced picture information sharing, so in this paper we break down various VC security instruments for computerized picture information offering to regard to mystery information secrecy. Our examination give effective security answers for relative mystery advanced picture information imparting to correspondence progressively environment. Security aspects are main concepts in present days because of increasing statistical data storage. In Artificial Intelligence (AI) oriented applications, it is very difficult in terms of protection to increasing new aspects in real time world. So we also plan a Novel and Advanced Security system to enable solution for basic AI problems in this paper. This frame work mainly works based on Captcha as visual security passwords (CaRP); it is two way communication plan which means that, it is the combination of Captcha and visual security plan. Our approach mainly worked with image security with respect to selection of passwords based on random way. In this paper, we also propose AMODS, an adaptive system that periodically updates the detection model to detect the latest unknown attacks. We also propose an adaptive learning strategy, called SVM HYBRID, leveraged by our system to minimize manual work. Our system out performs existing web attack detection methods, with an F-value of 94.79% and FP rate of 0.09%. The total number of malicious queries obtained by SVM HYBRID is 2.78 times that by the popular Support Vector Machine Adaptive Learning (SVMAL) method. The malicious queries obtained can be used to update the Web Application Firewall (WAF)signaturelibrary.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Underwater Optical and Acoustic Communication through a Novel Hybrid Opto - Acoustic Modem
Authors	M. Lenin Kumar, M.Janaki Rani & M Anand
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
ABSTRACT: Significant progress in the field of underwater communication has led to the convincing need for a lowpower and low-cost modem. In this work a high speed wireless underwater opto-acoustic communication has been demonstrated through the proposed hybrid opto-acoustic modem using Orthogonal Frequency Division Multiplexing (OFDM). The proposed hybrid modem has been simulated for transmission and reception of both optical and acoustic signals. The output signals are compared and verified with respect to the input signal both in air and water medium. The received signal strength in underwater transmission of ultrasound and light signals is compared with that of the same signals being transmitted in air. The comparison results proves the accuracy of the reception of signals by the proposed hybrid opto-acoustic modem.	

Paper Title	Smart-Mobile Rom Capacities Built on Combat Detection in Restoration by Deep-Learning
Authors	Arthishwari K, Anand M, Chakravarthy V.J, Magesh S & RadhaRammohan S
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
ABSTRACT: Workstation based on aided with somatic analysis (restoration) charge that includes gauging as persistent recital in enterprise restoration with determining undying reparation settings by calculating Sort of Indication through Read Only Memory with shadowing grievance or battle is looked-for. Smart-phone are machinery contractors for replicate Read Only Memory breadth contraptions, by complete gonio- meter. The document investigates advances the purpose that develops beam for objective of pursuing nations' substantial commended rescue duties at deducing appointments after action is taped throughout carnal boundary. For considering interest at internal. The document insinuate a profound density for neural-network method depleting a smart- phone Read Only Memory extent junctures like end, base and ankle centered on Augmented Reality. The propositioned Deep Convolution Neural Network modus took the utmost guidance proportion plus superior assay exactness for Long Short Term Memory scheme.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A 45nm CMOS Power Amplifier with Reconfigurable Gain and Improved Linearity
Authors	Sarith M, JanakiRani M & Anand M
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
ABSTRACT: <p>Power Amplifier is one of the important circuit that is used to amplify the signal to high output power level. The major challenge in the design of power amplifier is to achieve the linearity when the device has variable gain. In this research, a Cross Coupled Pull Down Network (CCPDN) based power amplifier is designed for achieving the optimum linearity, even when the gain is high or low. The proposed power amplifier has two different stages namely reconfigurable gain stage and power stage. The CCPDN is utilized in the circuitry of reconfigurable gain stage to achieve both the linearity and gain as well as the power stage used to amplify the signal through the PA. The CCPDN based power amplifier is implemented in Generic Process Digital Kit 45 nm(GPDK45nm) technology. The performance of the PA is analyzed in terms of average power, total noise, linearity and stability factor. The performances are compared with an existing power amplifier architecture that is without CCPDN. The average power of proposed power amplifier for mode 1 is 135μW which is less when compared to the power amplifier without CCPDN.</p>	

Paper Title	Influence of Boron Nitride Nano Additives in Cutting Fluid for Improving Surface Roughness with MRR
Authors	Dr. S. Nallusamy
Journal Name	International Journal of Nanomanufacturing
ABSTRACT: <p>In current global manufacturing scenario, every organization wants to fulfill their customer needs to retain their position in the market. Lead time plays a vital role to improve them in the global competitive market. The aim of this research work is to minimize the overall lead time of the product by finding out bottlenecks and to eliminate them. The important processes in the production line are work in progress, layout optimization and line balancing. The existing manufacturing techniques and the process of the product were studied thoroughly and then time study was followed. Based on the time study results TAKT time was calculated for the demand followed with current state VSM was drawn and the bottleneck stations were identified. After developing current state VSM, assembly line was balanced using flexible line balancing software. Further improvements were made with the lean techniques of fish bone diagram, Pareto chart and layout optimization. After the execution of the above lean techniques the future state VSM was drawn and observed that the lead time and value added time were reduced by about 15 and 16 min respectively.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Blended Models for Open Learning in Higher Education: An Empirical Study
Authors	Vijayakumar S, Tamilarasan P & Dr. Harshini
Journal Name	Gedrag & Organization Review

ABSTRACT:

All technology integrated language teaching courses in the institutes of higher education are delivered through blended models. Although there is a clear exposition on the philosophy and pedagogical practices of blended instruction there is a dearth of empirical evidence on a potent model of blended learning. A systematic review on blended instruction revealed that there are no comparative studies on blended models. Therefore, this study aims to fill this research gap by investigating on four popular models of blended learning namely the station rotation model, the enriched virtual model, the self-directed blend and the flipped model. The study has two primary objectives. They are i) to analyze the students' perception on the four different models of blended learning and ii) to measure the impact of these models using the test performance of the learners. A mixed methods approach was employed to study the efficacy of the blended models. The instruments of data collection are the student's perception questionnaire, focus group interviews, and performance tests. The data was analyzed using SPSS version 23. The self-perception questionnaire, focus group interviews and the t-tests showed students' preference for the enriched virtual model. The findings of this study could be useful to policy makers in recommending an effective model of instruction for open learning in higher education.

Keywords: hybrid courses, flipped model, enriched virtual model, station rotation model, self directed blend, mixed methods approach.

Paper Title	Comparative Effect of Mulligans Mobilisation Versus Stabilisation Exercise on Chronic Nonspecific Low Back Pain: A Pilot Study
Authors	G Mohan Kumar., Dr Jibi Paul, Sundaram M S & P Mahendranath
Journal Name	Indian Journal of Public Health Research and Development

ABSTRACT:

Objectives: Objective of the study is to investigate the comparative effect of mulligan's mobilization over stabilization exercise among nonspecific low back pain patients, to reduce the pain intensity, to improve the functional ability, endurance, strength of spinal extensor muscles, lumbar spinal mobility among nonspecific low back pain patients.

Methodology: It is an Experimental study design which was done in Outpatient physiotherapy department, faculty of physiotherapy, Dr. MGR Educational & research institute and Abinaya physiotherapy clinics with the comparative pre and post type. 45 samples with Chronic Nonspecific Low Back Pain have been taken by Systematic Random Sampling method and allocated with 15 subjects in each group. The subjects in Group A (n=15) received Mulligan's mobilization, the subjects in Group B (n=15) received Stabilization exercises and control group C (n=15). The study duration was 6 months (Base line with 3 follows up).

Result: On comparing Mean values of Group A, Group B & Group C there is a significant difference in the Post test Mean values at 4th week, 12th week & 24th week but stabilization exercises (Group B) which has the Lower Mean value is effective than Mulligan MWM (Group A) and followed by conventional (Group C) at $P \leq 0.05$.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A Study on the Effectiveness of Scapular Retraction Exercises on Forward Head Posture
Authors	K Kirupa, S M Divya Mary, R Nithyanisha & S Navin Kumar
Journal Name	Indian Journal of Public Health Research and Development

ABSTRACT:

Objective: The aim of the study is to find out the effectiveness of scapular retraction exercise for forward head posture.

Background of the Study: • Forward head posture is a condition often seen in person who was using computer and laptops for long hours. Forward head posture is the anterior positioning of the cervical spine. This posture is sometime called “text neck”.

• It is a posture problem that is caused by several factors including sleeping with head elevated to high. Due to forward head posture the deep flexor muscle gets overstretched and weak thus resulting tightness of pectoralis muscle and overstretched to weak the rhomboid muscle.

• The purpose of this study was to investigate the effect of scapular retraction exercise on neck posture, muscle activity, pain and quality of life in individuals with neck pain and forward head posture.

Methodology: The study is experimental study with study set up at outpatient physiotherapy department of ACS Medical College and Hospital. 30 subjects are randomly selected with inclusion criteria of patient of both male and female, 18 to 30 years of age groups, IT job workers, often indulging in TV, Computer, Texting-neck, Driver’s neck and exclusion criteria with

Systemic illness, subject undergone surgeries, patient with congenital cervical deformities, Cervical fractures and the material used is adhesive skin marker, Measuring tape and Thera band and the outcome measures is VAS scale, Craniovertebral Angle (tragus right ear & midpoint of the C7) and NDI (neck disability index).

Procedure: 30 subjects with forward head posture were, included in this study. The Craniovertebral angle of all the subjects and were measured by using inch tape. The Craniovertebral angle was measured by angle between midpoint of the adhesive marker at tragus of right ear and midpoint of the reflective marker at C7. All the 30 subjects were received scapular retraction exercises as a common intervention

Result: There is significant effect of Scapular Retraction Exercises in reducing Forward Head Post



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Knowledge, Attitude, Practice and Perspectives Regarding Tobacco Cessation Program among Students in Private Dental Institution at Chennai –A Cross Sectional Study
Authors	S Shree Lakshmi, Pradeep Kumar Rathinavelu, I Meignana Arumugham Indiran, D Srisakthi Doraikannan & Keerthi Narayan V
Journal Name	Indian Journal of Public Health Research and Development
ABSTRACT: <p>Aim: Dentists could play an important role in tobacco cessation counseling. This study is conducted to assess dental professionals' understanding of tobacco prevention and control methods.</p> <p>Material and Method: A descriptive cross sectional study was conducted in which a close-ended, self-administered 30 item-questionnaire was distributed among 130 interns at private dental institutions in Chennai. Demographic data, tobacco use status, attitudes toward cessation programs, perceived barriers and counseling procedure was filled by the surveyed subjects.</p> <p>Results: About 97.7% of the dental interns agreed their role in helping patients to quit smoking. Though 82.3% enquired all their patients regarding their smoking status, 86.9% of them feared improper follow up. Nearly 85.4% of the respondents believed that the counseling done is effective but only 32% anticipated successful intervention and 21% of them were very confident in conducting it.</p> <p>Conclusion: It was concluded that although dentists were aware of their obligations towards smoking cessation counseling for patients but certain factors like lack of time, confidence, ,training ,absence of reimbursement and fear of losing patients were the common barriers for the same. Expansion of armamentarium to include tobacco cessation counseling strategies in clinical practice must be adopted by all dental professionals</p>	

Paper Title	Role of Dental Public Health Personnel in Effective Diagnosis and Follow up in the Treatment and Prognosis of an Oral Cancer Patient
Authors	S Shree Lakshmi, D Srisakthi Doraikannan, I Meignana Arumugham Indiran, Arun Murugaiyan & Keerthi Narayan V
Journal Name	Indian Journal of Public Health Research and Development
ABSTRACT: <p>Oral cancer is of significant public health importance to India owing to its high prevalence. Early detection of oral cancer offers the best chance for long term survival and has the potential to improve treatment outcomes and make healthcare affordable. The objective of this paper is to report a case on similar difficulty faced in public health care scenario and to create awareness among services sector on focusing the incidence of disease in the country highlighting the significance of a community dentist's role in guidance of betterment of life an individual who was ignorant and asymptomatic. Hence an attempt to project this case report with two year follow-up and a quality of life.</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Evaluation and Safety Parameters of Polyherbal Formulation (Vlc01) using lung Disorder
Authors	M P Vasanth., K G Purushotham & Thirugnanasambantham P
Journal Name	International Journal of Scientific and Technology Research
ABSTRACT: The development of analytical parameters is the traditional way of medicines which involves various crucial steps in establishing good quality of herbal products. Ayurvedic medicines like Aegle marmelos, Glycyrrhizaglabra, Rosa centifolia are used to treat alveolar damage in lungs. As per standardized API guidelines for the finished product and polyherbal formulation (VLC01) the major raw material analysis is carried out and the ash value, microbial load, Heavy metals, pH, bulk density, are studies. The raw material analysis is more important for industrial purpose. Keyword: Physicochemical, Analytical parameters, Microbial load, Heavy metals.	

Paper Title	Protection Preserving Data Mining (PPDM) Method For Cross Divided Data
Authors	A. Anitha & K Selvam
Journal Name	Journal of Critical Reviews
ABSTRACT: For finding concealed data from enormous database information mining is the best system to be utilized. For discovering connection between's things or thing sets in an effective way, affiliation rule is found to be best among many mining rules additionally more analysts focus on affiliation mining rule. In the field of information mining and information disclosure security saving has become a significant issue since increment in sharing delicate information among organizations, governments and different gatherings, through systems. Sharing the information and a few kinds of data about the information by direct sharing is forestalled by security concerns. So as to fulfill the protection limitations numerous calculations are proposed for various parceling techniques for Privacy Preserving Association Rule Mining (PPARM). Various creators proposed various calculations like randomization, bother, heuristic and cryptography strategies to discover security safeguarding affiliation rule mining in on a level plane and vertically parceled databases. Right now, unique examination has been proposed for PPARM both vertically and on a level plane parceled database. The protection limitations in vertically divided databases are happy with calculation dependent on cryptography methods, and choice mining is demonstrated. For flat Partitioned databases, utilizing a stochastic standard guide without coming back to mining delicate information again is utilized. Also, conclusive outcomes are thought about.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	A Review on Neurodegenerative Diseases: Types, Pathology & Recent Advancement in Neurodegenerative Treatment
Authors	Kannayiram G, Dhivya V, Suresh R, Prabhakar P, Pooja Pushkarni P & Sandhya A
Journal Name	International Journal of Scientific and Technology Research

ABSTRACT:

Neurodegenerative diseases are characterised by the progressive loss of selective population of neurons thereby breaking the synaptic circuit and these diseases are rapidly increasing in prevalence. The most common neurodegenerative diseases are Alzheimer's disease, Parkinson's disease, Huntington's disease and amyotrophic lateral sclerosis. Often these diseases result in loss of memory, uncontrolled movements, lack of coordination, slurred speech and other body impairments. The brain is a complex organ made up of billions of cells on which we depend for proper functioning. Some of the most essential cells in the brain are called —Neurons. These neurons communicate with each other to perform every function of the brain. These neurons are interconnected and any miscommunication in one area can affect other activities of the brain leading to neural disorders. The death of the neurons in Alzheimer's disease is caused by the accumulation of β amyloid plaques and tau protein extracellular. In case of Huntington's disease the expansion of CAG tri-nucleotide repeat in the huntingtin gene is the cause. This review offers a brief introduction to neurodegenerative diseases and provides an overview of its types and pathology. It also touches upon the recent advancement in the treatment of neurodegenerative diseases. In this review we have attempted to summarize the symptoms, pathology and treatment of three main neurodegenerative diseases namely; Alzheimer's disease, Parkinson's disease, Huntington's disease.

Paper Title	A Comparative Study and Analysis of Classification Methodologies in Data Mining for Energy Resources
Authors	M Anita Priscilla Mary, M S Josephine & Vjeyabalaraja
Journal Name	Lecture Notes in Networks and Systems

ABSTRACT:

Retrieval of right sequence in extensive quantity of records in irrelevant, unreported and concealed data by applying the process of data mining methods. Classification is a procedure used for building classification models for a set of input data. This study is about to compare and analyze the various classification algorithms for energy resources using Wekatool. In this study, it uses five different data mining methods, namely iterative classifier optimizer, Bayesnet, classifier via regression, LMT and JRip. The diverse attainment of the algorithm is found by the assess of variables like true conclusive, false conclusive, exactness, reminiscence and ratio. Meticulousness of algorithm is examined using the values of correctly classified occurrences and incorrectly classified occurrences.



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Web Content Classification Techniques Based on FuzzyOntology
Authors	T Sreenivasulu, R Jayakarthish & ShobaRani R
Journal Name	Lecture Notes in Networks and Systems
ABSTRACT: Web content classification utilizes for converting the organization document into predefined classes with the help of machine learning algorithms. This is mostly applied in the industries which utilize the unstructured text format information largely. Web content classification is often used to filter email, classify Web content and manage Web browser results. The word collections represent the documents in the traditional Web content classification. The terms are obtained from their finer context which presents in a document or sentence. Detailed semantic classification of the Web content is discussed here. This study examines past and past achievements in the semantic Web content classification. This approach is based on SVM, a fuzzy ontology. In addition, this study shows the advantages of semantic Web content classification algorithms compared to tradition.	

Paper Title	A Study of Job Satisfaction on Construction workers at Chennai
Authors	Annakili & R Jayam
Journal Name	Test Engineering and Management
ABSTRACT: “Workers hold to deal with you exactly the manner you want them to deal with your great client ”- ..Stephen .R essential man or woman consultant businesses inside every affiliation. While representatives are optimistic they may yield the maximum extreme. Pay does not give full happiness every representative. In terms of enterprise offer almost about their employees gets positive case comes as an investment representative. Great circle is one type of hobby illustration methods. In this exam we are able to communicate about how the satisfactory circle Productivity Organization ascension, success Work, Organizational Commitment, Industrial agreements via one of kind investigations.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Effect of Physiotherapy Intervention on Improving Gait Parameters In Hemiplegic Patients: A Systemic Review and Metaanalysis
Authors	V Rajalaxmi, P Bharath Kumar, N Muthu Kumaran, U Radakrishnan, Mohan Nallathambi, S Latha, S Dhanusia & N Suriya
Journal Name	NOVYI MIR Research Journa
ABSTRACT: <p>Aim: This study aimed at analysing the literature systematically to discuss the effect of physiotherapy interventions in improving gait parameters for hemiplegic patients.</p> <p>Background: Stroke is an increasing public health problem that causes loss of life and reduced quality of life in sufferers. Globally, 70% of strokes and 87% stroke-related deaths and disability-adjusted life years occurs in low and middle income countries. Physiotherapy improves gait pattern in hemiplegic patients.</p> <p>Data Source: BIOMED CENTRAL, MEDLINE, EMBASE, ACRI, Europamedicophysica, BMI, PEDRO, Cochrane central register of controlled trials (CENTRAL), American physical therapy association, Google Scholar, Cochrane library the databases are collected from these sources.</p> <p>Study Selection: Randomized controlled trials evaluating physiotherapy interventions for gait improvement.</p> <p>Result: In this systematic review, the literature search initially resulted in 420 among which 40 studies fulfilled the criteria and were finally included in the review. Almost all the studies showed that there was a significant difference in the pre-test and post-test values but FES (8 studies) showed a better significance on comparing with studies included in this review.</p>	

Paper Title	Customer Satisfaction towards Honda Activa: A Study in Chennai City
Authors	G Rajesh, Rohini Bhatt, C B Senthil Kumar, R Mayakkannan & E Kandeepan
Journal Name	Test Engineering and Management
ABSTRACT: <p>At the time of development of bike and its commercialization, it couldn't be envisioned that the bikes would likewise be planned and marketed for ladies too. In any case, the advancements and mechanical upgradations made it conceivable and another idea rose in the business for planning the bikes by which woman can be pulled in to it. These days, without equipped bikes are in sharp interest for both male and female as it is anything but difficult to ride and handle. The study has been done to assess the customers' satisfaction level about Honda Activa in Chennai city. The examination depends on essential information which has been accumulated through an organized poll from 100 respondents of Chennai city. An accommodation inspecting method has been utilized in this investigation to gather the information. The demographical portrayal of the respondents has appeared through rate investigation though, the fulfillment level of the respondents with Honda Activa has been broken down by the scientist through Garret ranking scale methods. Impacting factors that effect in purchasing choice of the bicycle has been investigated by the chi-square test. Surveying high customer worth would consistently prompt high customer dedication</p>	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	Application of Response Surface Optimization Methodology in Designing Ordispersible Tablets of Antidiabetic Drug
Authors	Fatima Sanjeri Dasankoppa, Hasanpasha N Sholapur, Andanesh Byahatti, ZaheerAbbas, Komal S & Kundu Subrata
Journal Name	Journal of Young Pharmacists
ABSTRACT: Objectives: The aim of the present investigation is to study the application of Response Surface Methodology (RSM), a mathematical model and graphical representation to formulate and Optimize Orodispersible Tablets (ODTs) of sitagliptin phosphate, a class III BCS drug. Methods: ODTs were prepared by direct compression method using dibasic calcium phosphate (DCP), as diluent and croscarmellose sodium sodium (CCS) as super disintegrant. Formulation was designed using design expert software 9.0 version. RSM based 22full factorial design, considering DCP and CCS as variables and dissolution time at 5, 15 and 30 min was taken as response. Mathematical models in the form of regression equations and graphs were developed. Results: The adequacy of the developed mathematical models was statistically checked through the analysis of variance (ANOVA). The responses were analyzed using ANOVA and polynomial equation was generated for each response using RSM. Responses were mostly affected by the specific combinations of independent variable. R ² predicted and R ² adjusted values for the constructed models, which revealed the competence for the proposed mathematical model. Based on the results obtained DF1 formulation was optimized. The developed mathematical models can be successfully used for their prediction of measured responses. Conclusion: DoE Concept in formulation could pave way for adaptation of Quality Based Design (QbD) in pharmaceutical industry RSM was successfully applied to optimize diluents and disintegrate concentration of ODTs. The variables employed in the study had a great effect on the quality of formulation. Modeling of experimental data allowed the generation of useful equations for prediction of responses.	

Paper Title	Batch Experiment Studies on Bio-Sorption of Pb (II) and Cu(II) Metal Ions using Activated Carbon from Prosopis Juliflora Bark and Leaves
Authors	Tanmayee Panigrahi, Dr. K. Sujatha, AU Santhos Kumar, Vijay Samuel G & Srinivas T
Journal Name	Test Engineering and Management
ABSTRACT: Different heavy metals such as Lead (Pb), Cadmium (Cd), Copper (Cu), Chromium (Cr), Mercury (Hg), Zinc (Zn) and Arsenic (As) are the core elements used as color pigments in textile industries. This is widely effecting the aquatic environment causing high increase of metallic substances in water resources, which is a threat for the environment and human health. Among different processes adsorption by activated carbon is an efficient process to remove heavy metals from waste water. Activated carbon at the same time has become exorbitant. Research is being done on pioneering different low cost adsorbents from different agricultural wastes that can be used compellingly to remove different heavy metals from textile waste water. My work discuss about the efficiency of removing heavy metals such as copper and lead by using activated carbon from Prosopis Juliflora bark and leaves. Prosopis Juliflora is widely known for the extensive property of absorbing water and certain heavy metals. Activated carbon was formed from Prosopis Juliflora bark and Prosopis Juliflora leaves through Physical and chemical treatment separately. Stock solution for lead and copper was formulated with proper care in the lab. Batchwise experiments were conducted to study Effect of adsorption by varying adsorbent dosage, pH and contact time of the adsorbent with the solution. It was concluded that capacity of adsorption of the modified activated carbon from Prosopis Juliflora bark and leaves for heavy metals such as copper and lead was more efficient. This activated carbon can be used as a promising bio-adsorbent for removing Heavy metals from Textile effluent.	



Dr MGR - RESEARCH PUBLICATION ABSTRACT – JUNE 2020

Paper Title	THR – Combo of Technology with Human Resource Industry 4.0
Authors	B K Indrani & Dr. S. Asrafi
Journal Name	Test Engineering and Management
<p>ABSTRACT:</p> <p>THR - This is the era of industry revolution 4.0. many technologies were arriving to maximise the benefits and improves organisation. Rising of artificial intelligence mainly helps organisation and employees to be Retain and Develop in the market. What this study states?-This study states amalgamation of technology with human resources.</p> <p>Research frame-Research design: Descriptive research, Sample design: Convenience sampling, Sample size: 54, Data Collection- Primary data collection: Questionnaire, Secondary</p> <p>Data Collection: Books, Journals, Websites. Objective of the study: To study the effectiveness and efficiencies of technology with Human resource.</p> <p>Findings-There is a relationship between Productivity with Service quality and automation helps for augmentation</p>	

Paper Title	Employee Satisfaction through Labour Welfare Measures in Hospitality Sector with Special Reference to Chennai
Authors	Joseph paul & Dr. S. Asrafi
Journal Name	Test Engineering and Management
<p>ABSTRACT:</p> <p>The research is on the basis of “EMPLOYEE SATISFACTION THROUGH LABOUR WELFARE MEASURES IN HOSPITALITY SECTOR WITH SPECIAL REFERENCE TO CHENNAI. Due to the differences in technology and meeting various strains of the staffs and to with stand the place in international arcade the firm has to focus on staffs fulfilment on main areas like well-being measures, health, safety, complaint management, motivation, adequate and fair compensation etc., Survey is an operative way of significant about the employee welfare measures providing in the organization and the awareness to the employees about the welfare measures, through the welfare measure the employees getting overall satisfaction in their work, and the welfare measure motivating the employees job performance. The study was built on the Descriptive Research design. The sampling design being used here is Convenience Sampling. The sample size is 200 over 3800 population. Thus this paper seals to utilize primary research, through structured Questionnaire with five point liker scale and secondary method involves data collection through journal, books and website. The main findings 86% of the respondents are aware about the welfare facilities providing by the organization, it is inferred that is 14% of the respondents are unaware about the welfare facilities 45.5% of the respondents are neutral with employee overall the organization, 32% of the respondents are satisfied, 14.5% of the respondents are highly dissatisfied, 1.5% of the respondents are highly dissatisfied. The tools being used for analysis and interpretation are Chi Square test, T –Test, One way ANOVA and Correlation. The submission made by the staffs where mostly applied whenever they were appropriate.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	In Vivo Strain Alterations in Mandibular Molars after Root Canal Treatment Procedures
Authors	Ramachandran P., PradeepKumar A.R., Ravishankar P
Journal Name	Journal of Endodontics

ABSTRACT:

Introduction The aim of this investigation was to determine the coronal strain variations in mandibular molars under an *in vivo* bite load after root canal treatment procedures.

Methods The coronal strain in carious mandibular first molars with symptomatic irreversible pulpitis (experimental group) was compared with that of intact contralateral teeth (control group) in patients 20–40 years old. Experiments were conducted in 2 stages. In stage 1, the maximum bite force on the first molar region was determined on the experimental and control teeth using a customized load cell. In stage 2, strain gauges were bonded to the buccal aspect of teeth, and the strain was recorded after the application of a bite load on the intact (control) teeth; and the experimental teeth before and after endodontic access cavity preparation, cleaning/shaping procedures, root filling, and composite core restoration.

Paper Title	One-Pot Synthesis of Quinoliny Amino Nitriles and Their Antidiabetic, Anti-inflammatory, Antioxidant, and Molecular Docking Studies
Authors	Gomathi Kannayiram
Journal Name	Polycyclic Aromatic Compounds

ABSTRACT:

One-pot synthesis of quinoliny amine nitriles, **8**, was accounted from quinoline-3-carbaldehyde, **7**, and amines (benzylic, aromatic, aliphatic, or hetero-aromatic) using $\text{Zn}(\text{CN})_2$ /trifluoroethanol (TFE) system, an eco-friendly, and ambient protocol. Antidiabetic, anti-inflammatory, antioxidant, and molecular docking studies of **8a–l** revealed moderate-to-good activity.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Coronal Bacterial Penetration After 7 Days in Class II Endodontic Access Cavities Restored With Two Temporary Restorations: A Randomised Clinical Trial
Authors	S. Sandhya, A.R. Pradeep Kumar, Sridevi Krishnamoorthy
Journal Name	Australian Endodontic Journal

ABSTRACT:

The aim of this *in vivo* randomised clinical trial was to assess coronal bacterial penetration after placement of Cavit G and IRM temporary restorations in Class II endodontic access cavities. After completion of endodontic treatment, placement of an orifice seal and disinfection of the operating field, sterile cotton pellets were placed in the pulp chamber and the cavities were restored with Cavit G or IRM. After 7 days, coronal and proximal restoration thickness was measured by digital radiographs. Cotton pellet was evaluated by culture methods and polymerase chain reaction assay and bacterial species identified. Bacterial growth was observed in 5 of the 27 (18%) Cavit G samples and in 11 of the 27 (40%) IRM samples which was not significant. Coronal restoration thickness of 4–5 mm and proximal restoration thickness of more than 2.15 mm for Cavit G and 2.35 mm for IRM are recommended to prevent bacterial penetration over 7 days. Adequate restoration thickness is critical to prevent bacterial penetration.

Paper Title	A Giant Tonsillolith: A Case Report
Authors	K Vandana Shenoy
Journal Name	Journal of Maxillofacial and Oral Surgery

ABSTRACT:

Mineralized concretions in the tonsillar crypts and peritonsillar region are findings popularly known as tonsillolith. Tonsillolith are usually unilateral, rarely bilateral, single or multiple [1, 2, 9]. We present a case of unilateral, large wood piece like tonsillolith, of 5.8 9 1.5 9 1.5 cm in the left tonsillar fossa as an incidental finding during tooth extraction and was surgically removed. Ours is the largest of the tonsilloliths by dimension, reported in literature till date [11]. The first report of tonsillolith was by Lang et al. as early as in 1560. Fewer cases of tonsilloliths have been cited in the literature and a handful of giant tonsilloliths [1–3, 6, 8, 10] have also been reported. The pathophysiology of formation of a tonsillolith is debatable, and many hypotheses have been formulated. The formation of tonsillolith from retained caseous secretions in the tonsillar crypts in conjunction with filaments of *leptothrix* or *actinomyces*—a common oral saprophyte is one such hypothesis [4]. Tonsilloliths are composed primarily of calcium carbonate and calcium phosphate as well as other calcium salts. Other minerals such as magnesium, sodium, silica, potassium, copper, aluminum, iron and ammonia radicals have also been reported. The calcium salts are calcium hydroxyapatite and calcium carbonate apatite. Tonsillolith may be symptomatic in few whereas asymptomatic in most. It is usually incidentally detected during oral procedures or on routine maxillo-facial radiographs.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Ecthyma gangrenosum-Source reduction along with empirical antibiotics and wound care helps to treat serious infections
Authors	K. Vivekanandan
Journal Name	Journal of Pharmacology and Pharmacotherapeutics
ABSTRACT: <p>Ecthyma gangrenosum (Eg) is a cutaneous necrotic lesion that is mostly seen in immunocompromised patients. It reflects a severe sepsis, possibly caused by <i>Pseudomonas aeruginosa</i>, an aerobic Gram-negative opportunistic pathogen that has a high risk of associated mortality in cases where the infection is systemic. These skin lesions may be seen on admission or can develop later. The recognition of Eg lesions permits the earliest possible introduction of the most effective antimicrobial therapy, which is a key prognostic factor for survival. A 52-year-old male patient admitted to the surgery department presented a sepsis associated green color pus discharge with pain and swelling. An empiric antibiotic therapy was prescribed. Five days after admission, pus culture was positive for <i>Pseudomonas aeruginosa</i>. As a result, the decision was made to continue the antibiotic therapy. Empiric therapy leads to granulation tissue formation. Eg can be treated with simple antibiotic therapy.</p>	

Paper Title	Isolation and identification of Anti-Oxidant Fraction from Active Extract of Rhizophora mucronataPoir. Leaves
Authors	Thirunavukkarasu Palaniyandi., Priya Durairaj., Rohith Kumar Reddy., SandhiyaVishwanathan
Journal Name	Pharmaceutical Chemistry Journal
ABSTRACT: <p><i>Rhizophora mucronata</i> Poir is widely used in traditional medicine for treatment of various diseases including cancer. Different solvent extracts (e.g., methanol, ethanol, chloroform) of <i>R. mucronata</i> leaves showed the presence of some bioactive components, which have been linked to antioxidant and free radical scavenging properties. This study was aimed to assess the phytochemical antioxidant active compound extracted from <i>R. mucronata</i> leaves and identified through chromatographs methods. Experiments were performed with three solvent extract including methanol, chloroform and ethanol. Using qualitative and quantitative analysis of <i>R. mucronata</i> leave extracts and identified total phenolics, flavonoids and terpenoids, final antioxidant assay was done. Among the extracts tested, methanol extract showed very promising results in various qualitative and quantitative studies (phytochemical tests, total phenolic, total flavonoid and total terpenoid content). In addition, methanol extract exhibited high free radical scavenging activity. Hence, further studies were made for the identification of anti-oxidant active fraction from methanol extract of <i>R. mucronata</i> by column chromatography. Data confirmed the presence of two bands in the fraction by thin layer chromatography. The product chromatography fractions were repeatedly verified for antioxidant activity using DPPH free radical scavenging assay. Fraction 4 eluted with ethyl acetate and n-hexane combination exhibited a higher antioxidant activity in DPPH assay. From these findings, it was concluded that the methanol extract of <i>R. mucronata</i> leaves had maximum total phenolic, total flavonoid, total terpenoid content and maximum antioxidant activity, while its subfraction EH4 of ethyl acetate and n-hexane solvent system exhibited the highest antioxidant activity.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Monitoring and sensing COVID-19 symptoms as a precaution using electronic wearable devices
Authors	M S Josephine
Journal Name	International Journal of Pervasive Computing and Communications
ABSTRACT: Purpose The purpose of this paper is to Monitor and sense the symptoms of COVID-19 as a preliminary measure using electronic wearable devices. This variability is sensed by electrocardiograms observed from a multi-parameter monitor and electronic wearable. This field of interest has evolved into a wide area of investigation with today's advancement in technology of internet of things for immediate sensing and processing information about profound pain. A window span is estimated and reports of profound pain data are used for monitoring heart rate variability (HRV). A median heart rate is considered for comparisons with a diverse range of variable information obtained from sensors and monitors. Observations from healthy patients are introduced to identify how root mean square of difference between inter beat intervals, standard deviation of inter-beat intervals and mean heart rate value are normalized in HRV analysis. Design/methodology/approach The function of a human heart relates back to the autonomic nervous system, which organizes and maintains a healthy maneuver of inter connected organs. HRV has to be determined for analyzing and reporting the status of health, fitness, readiness and possibilities for recovery, and thus, a metric for deeming the presence of COVID-19. Identifying the variations in heart rate, monitoring and assessing profound pain levels are potential lives saving measures in medical industries.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Synthesis and optical characterization of Cu(mq) ₂ nanoparticles
Authors	Suchitra J.P., Bharathi Devi V.
Journal Name	Inorganic and Nano-Metal Chemistry
ABSTRACT: OLED is being considered as one of the most budding technology for flat panel displays. The most important part of OLED devices is the electroluminescence layer, for which polymer and small molecular weight metal chelates can be used. In the present work, Bis (2- methyl 8-hydroxyquinalate) (copper) [Cu(mq) ₂] nanoparticles were synthesized by simple precipitation method using copper acetate and 2-methyl 8-hydroxyquinalate. The crystalline nature of the Cu(mq) ₂ nanoparticles were characterized by powder X-ray diffraction (PXRD) analysis. The morphology and the presence of elements in the Cu(mq) ₂ nanoparticles was analysed and proved with scanning electron microscopy (SEM) and energy dispersive X-ray analysis (EDAX). The thermal stability of the particles was studied using TG-DTG curve. The functional group of the incorporated particles were confirmed by Fourier transform infrared spectroscopy analysis (FTIR). The wavelength, band gap and luminescence properties of the particles were determined from the UV-visible spectroscopy and photoluminescence spectrum.	

Paper Title	Immunohistochemical evaluation of nucleotide-binding and oligomerization domain 1 and nucleotide-binding and oligomerization domain 2 receptors in periodontal health and disease
Authors	C H Neeharika Rao., T A Lalitha., Uma Sudhakar
Journal Name	Journal of Natural Science, Biology and Medicine
ABSTRACT: Introduction: Periodontal disease, infectious in origin and inflammatory in progression ultimately leads to destruction of periodontium. Pattern recognition receptors (PRRs) help in identifying the molecular patterns displayed on the bacteria and mount an immune response. Nucleotide-binding and oligomerization domain receptors (NOD1 and NOD2) are cytosolic PRRs involved in the immunopathogenic process involved in the periodontal diseases. This study was undertaken to evaluate distribution of NOD1 and NOD2 and to compare and correlate the NOD1 and NOD2 expression in gingival samples from healthy, chronic, and aggressive periodontitis participants. Materials and Methods: Sixty participants participated in the study and were divided into three groups of 20 individuals each - Group I (healthy), Group II (chronic periodontitis), and Group III (aggressive periodontitis) based on the inclusion and exclusion criteria. Gingival tissue samples were collected during periodontal flap surgery, crown lengthening procedure in periodontitis individuals and healthy controls, respectively. The levels of NOD1 and NOD2 in the gingival samples were analyzed using immunohistochemistry	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Catalytic Cracking Using Catalysts Based On Hetero Polyacids
Authors	S Sendil velan
Journal Name	Rasayan Journal of Chemistry
ABSTRACT: The paper discusses the issues of catalytic cracking processes and presents the experimental results of the authors with the use of the catalysts based on the natural Shankanai zeolite (Kazakhstan) and heteropoly acids (HPA). SEM analysis of the synthesized catalyst structure indicates the presence of its main elements prevailing on the surface of the zeolite. Also, the intense spectra of the components of the HPA (tungsten and phosphorus) are revealed. Possibly, it is because of the high degrees of dispersion and distribution of PW12-HPA particles over the clinoptilolite surface. In this research an analysis of the final reaction product was carried out by NMR spectroscopy. NMR analysis allowed us to calculate the fraction of each component of the mixture. It was shown that the proton spectrum of the sample contains signals of paraffin compounds, which are the main components of the mixture. Aromatic components are absent. Chemical shifts of up to 1 ppm are characteristic mainly of protons of the methyl groups of saturated hydrocarbons and long alkyl substituents in aromatic systems. In this part of the spectrum, it is also assumed that some CH and CH ₂ groups of naphthenic fragments are resonated.	

Paper Title	Investigation of relation between decision making and Self-Actualization
Authors	Senthamizh Pavai Palanivel., Geetha Kannabiran., Vigneshwari Jayamani., Maria Suganthi Lucas
Journal Name	Materials Today: Proceedings
ABSTRACT: Adolescence is a transitional period of life prior to full maturity, which results from the rapid changes in the physical, cognitive, social, and emotional development. Adolescents need to be protected and they need to be kept under control in cognitive processes such as decision-making. In this period the decisions taken on issues including selection of job and professional life affect the health, careers, psychological wellbeing as well as social acceptance of the individuals for their lifetime Baiocco R and Mann L [1] , [2] . Adolescence is a period where they begin to explore and assert their personal identities and potentialities and self-actualization is a driving force that will ultimately lead to enhance abilities and determine the path of one's life. The present study consisted of thousand students drawn randomly from higher secondary schools in and around Chennai districts. The tools used to collect data for the study were (i) Decision Making Questionnaire, (ii) Self actualization Questionnaire and (iii) Personal Data Sheet. <i>t</i> -test and regression were used for the study. Regression analysis showed that there is a positive relationship between decision making and self actualization among adolescents.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Study of mineral content available in the brain of ten fishes from two fish landing centres in Tamilnadu and Andhra Pradesh
Authors	K. Sujatha., S. Nallusamy., Francis Panimathy
Journal Name	Materials Today: Proceedings
ABSTRACT: <p>Worldwide, over two billion people are suffering from nutrient deficiency. People lack in taking micronutrients through staple foods. The concentration of macronutrients and micronutrients like calcium, Phosphorus, Sodium, Chloride and Magnesium were compared between the brains of ten fish species selected based on annual availability and cost effective from two different fish landing centres, Kasimodu (Tamilnadu) and Krishnapatnam (Andhra Pradesh). In current study, the macronutrient mineral Calcium is found to be high with 110.62 ± 0.17 mg / kg dry weight in Arius Caelatus from Kasimodu which is followed by Pampus Niger from kasimodu with similar value of 110.47 ± 0.31 mg / kg dry weight. Calcium, Phosphorus and Sodium are pivotal mineral nutrient that a present massively in fishes at cheap rate. Researchers concentrate on muscles of fishes frequently, but brain which is present in the head of the fish that is considered as waste provides necessary nutrients to the body at suggested levels. Phosphorus is rich in Anchoviellaindica from kasimodu with the level of 188.53 ± 0.31 mg/ kg dry weight. Upeneussulphureus was found to be enriched with sodium at both sampling sites. Chloride content was found to be more and same in NemipterusJaponius and Sardinellslongiceps with 210.57 ± 0.35 mg / kg dry weight from kasimodu site. Same species' brain has the high content of chloride in Krishnapatnam. High level of magnesium was observed in MugilCephalus both in kasimodu and Krishnapatnam. Comparison of the micro nutrients present in the brain which is considered as waste by most of the people are analysed for ten fish samples to determine the variation in the level of nutrients from two different industrial areas.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Enrichment of Quality Rate and Output Level in a Medium Scale Manufacturing Industry by Implementation of Appropriate Quality Tools
Authors	C B Senthil Kumar. ,S. Nallusamy
Journal Name	Materials Today: Proceedings
ABSTRACT: <p>In Indian manufacturing scenario, the polymer industries have gone through significant changes during the past few financial years. Competition has increased drastically and customers focus on cost, delivery time and quality of the product. Thus, companies should be involved an improvement program that would continually improve the quality and the productivity by the process and the product. The purpose of this research is to enhance the quality and productivity of functions through the execution of TPM and other quality tools were implemented in a medium scale rubber moulding unit. Through the execution of E-Kanban inventory level was reduced to its minimum level, besides endorsed the flexible manufacturing and also reduces operational costs, consequently increasing quality and production rate. E-Kanban and just in time are cooperatively reduced and flattened the cash block in inventory investment and return on investment process. After the execution of lean tools the objective of increasing productivity and quality of product and also reduced the scrap losses and machine downtime of process were obtained. Final results showed that, the breakdown time is reduced by 2900 min and the productivity was improved by about 10% and OEE by about 25% which will ultimately save the operational costs.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Digital picture watermarking technique for security applications
Authors	B Swapna., M Kamalahasan.
Journal Name	IOP Conference Series: Materials Science and Engineering
ABSTRACT: <p>Digital picture watermarking is employed to stay secret the proprietary info as a watermark within a digital image, to spot the possession. This method has relevancy to any or all pictures. Separate trigonometric function transform (DCT) is employed before inserting the watermark within the host image. The host picture is isolated into 8x8 non-covering hinders preceding DCT application, and therefore the watermark bit is inserted by dynamic distinction between DCT coefficients of contiguous squares. Arnold transform is employed even so disorderly encoding to feature 2-fold block safeguard to the watermark. 3 distinctive variations of the planned calculation are tried and stone-broke down. The reenactment results demonstrate that the planned set up is powerful to the overwhelming majority of the image making ready tasks like JPEG pressure, honing, trimming, middle separating, and so on. To approve the proficiency of the planned technique, the recreation results are contrasted and sure condition of-workmanship systems. The examination results represent that the planned set up performs higher as so much as power, security and imperceptivity. Given the advantages of the planned set up, it alright could also be used in applications like e-social insurance and telemedicine to smartly hide out electronic eudemonia records in therapeutic footage.</p>	

Paper Title	E-healthcare monitoring using internet of things
Authors	B Swapna., M Kamalahasan., H Hemasundari
Journal Name	IOP Conference Series: Materials Science and Engineering
ABSTRACT: <p>Internet of Things has given a lot simpler answer for remote continuous wellbeing checking of patients from the clinic just as home. Sensors secure the information of different parameters in regards to patients' wellbeing, and the Internet of Things stores that information and shows through the site, which gives access to remote observing. Utilization of Sensor decreases the human mistake, and the span of the framework lessens the involved space of the room. The extraordinary piece of this proposed arrangement is the alert age to give the recommended prescription to the patient in time. The other gainful zone of the framework is the plan of sending the warning through email and SMS alert if any of the wellbeing parameters crosses the limit esteem. Notice plan will keep the separate expert aware of the circumstance. Another huge region of the proposed arrangement is to make the ideal surroundings according to the necessity of patient's wellbeing condition. In this paper, we have talked about the checking of pulse, circulatory strain, breath rate, body temperature, body development and saline dimensions.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Antioxidant Potential of <i>Caesalpinia bonducella</i> Seeds in the Management of Polycystic Ovary Syndrome (PCOS) Using Mifepristone Induced Rats Model
Authors	B Meera., P Muralidharan., Rajeswari Hari
Journal Name	Journal of Herbs, Spices and Medicinal Plants
ABSTRACT: The effects of ethanolic seed extract of <i>Caesalpinia bonducella</i> (ESECB) on <i>in vivo</i> enzymatic and non-enzymatic antioxidant levels and histopathological changes in Mifepristone-induced polycystic ovary syndrome (PCOS) female rats were evaluated. PCOS-induced rats were treated with ESECB at 200 mg and 400 mg kg ⁻¹ b.w. p.o. for 28 d. Metformin 20 mg kg ⁻¹ b.w. was used as a standard drug. At the end of the experimental period, blood was collected from all rats for the estimation of enzymatic and non-enzymatic antioxidants. Ovaries were used for the histopathological analysis. In rats treated with Mifepristone, there was a decrease in the antioxidant enzymes catalase, super oxide dismutase, glutathione peroxidase, glutathione – S – transferase and glutathione reductase, which increased in the ESECB-treated groups. The altered levels of non-enzymatic antioxidants were also brought back to normal levels in these groups. Histopathology showed that the ESECB-treated rats regained normal physiology of ovarian architecture, which was distorted due to the PCOS condition.	

Paper Title	Investigating In Seclusion With Certainty Component For AI Based IOT Device
Authors	Jeyamedona Peter., S Shobana., P S Rajakumar., K Sudha
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: The developing issues about security with protection of Internet of things gadgets, shoppers for the most part don't approach security and protection data when buying these gadgets. We talked with 30 members about Internet of things gadgets they bought. While most had not thought about protection and security before buy, they revealed getting concerned later because of media reports, suppositions shared by companions, or watching sudden gadget conduct. The individuals who looked for protection and security data before buy, revealed that it was troublesome or difficult to track down. We requested that interviewees rank elements they would consider when buying IoT gadgets; after highlights and value, protection and security were positioned among the most significant. At last, we indicated interviewees our model protection and security mark. Practically totally saw it as available and valuable, urging them to consolidate protection and security in their IoT buy choices. The Internet of Things (IoT) constantly creates huge measures of information. Information driven centre product can consequently help lessening the intricacy when arranging appropriated Things. With its heterogeneity and asset restrictions, IoT applications can need execution, versatility, or strength. Storing can help defeating the restrictions. We are right now taking a shot at setting up information reserving inside IoT centre product. The paper presents basics of reserving, significant difficulties, pertinent best in class, and a portrayal of our present methodologies. We show bearings of utilizing AI for storing in the IoT.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Heterogeneous Vehicle Routing Problem in Home Healthcare Enhanced By Elitism of ACO Using Neighborhood Structures
Authors	R V Sangeetha.,A G Srinivasan
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT:

Increase in ageing population and chronic diseases among the people create a huge demand for Home Healthcare (HHC) in recent years. HHC is a service delivery system that provides the service at the patient's home by the set of professional caregivers. Vehicle routing problem is an everyday challenging task for HHC operational team. Continuity of care is regarding the sustainability of caregivers. It is achieved by implementing a feasible routing plan of caregivers within their respective time horizon. This environment creates a necessity to apply metaheuristic or heuristic algorithms in HHC. In this paper, we proposed bi-objective to minimize both total travel time and idle time of heterogeneous capacitated vehicle routing problem in HHC. It is solved by using Elitism of Ant colony optimization (E-ACO) further enhanced with neighbourhood structures. This proposed algorithm has never been applied in the literature of HHC. Finally, compare the efficiency of E-ACO with ACO and PSO using randomly generated test instances for 100 nodes and achieved the desired output.

Paper Title	INTERNET OF THINGS: A REVIEW ON THEIR REQUISITE IN THE DIGITAL ERA
Authors	V R Niveditha., Ca-Saravanan Elumalai
Journal Name	International Journal of Advanced Science and Technology

ABSTRACT:

The Internet of Things is nothing but the amalgamation of connectivity between physical devices and daily objects. This technology empowers how computers can gather meaningful information in many ways, interconnect themselves with various enabling technologies like Artificial Intelligence, Big data Analytics, Cloud Computing and many more to track and count everything around us in their glory. It is also not surprising to note that IOT is considered to be one of the “Disruptive Technologies” with potential impacts in various fields like military, agriculture, medical, healthcare, industrial automation and smart living. This paper addresses the need for internet of things, their connecting devices, their architectures and popular frameworks and their application. Various visions of Internet of Things application has been reviewed and discussed in this paper. Furthermore, the shortcomings and research challenges in various applications have been deliberated in detail.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Resolving Cloud Vulnerability From Hijacking Using Illegal Security Access And Secure Conformity
Authors	S Shobana., Jeyamedona Peter., D Shankar., N Keerthana., S.Radha Rammohan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Cloud computing is a technology used nowadays in larger scale which uses accumulating and access of large amount of data in a single external cloud. The main use of cloud is that it will reduce the cost and maintenance of the resources and infrastructure. This technology gives the applications resilience, protection and redundancy and hence has been used by various organizations. The major concern in cloud computing is that since it involves an external person the security of the cloud is a major problem. Lots of security attacks are happening in the cloud which makes the applications more vulnerable. The proposed system deals with some of the security challenges the cloud is facing and also the solutions to overcome this. The following are some of the security issues, Hijacking and illegal access control, Risk inside organization, cloud Vulnerabilities in app and system and Secure conformity. Various solutions to overcome these issues are discussed below.	

Paper Title	Youtube Trending Video Metadata Analysis Using Machine Learning
Authors	S Amudha., V R Niveditha., P S Raja Kumar., M Revathi., S.Radha Rammohan
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: Data Analysis and Mining are becoming indispensable part of every major organization to find recent trends and statistics and formulate business strategies, planning and marketing. However, most of the Data generated is generally in Huge Size and comes in unstructured format. Big Data cannot be analyzed by traditional database systems and processes. To resolve this issue, many new tools that implement Parallel Processing are being deployed in these organizations. As part of the Advanced Databases Project, we propose to perform Data Analysis of YouTube data. We extracted data of 5 Million Video records from YouTube API and performed Data Analysis on the data to insight into latest trends and user engagement in YouTube with respect to Categories and Year. Data Analysis and Visualization was done using Anaconda jupyter Notebook. Analysis of structured data has seen tremendous success in the past. However, analysis of large scale unstructured data in the form of video format remains a challenging area. YouTube, a Google company, has over a billion users and generates billions of views. Since YouTube data is getting created in a very huge amount and with an equally great speed, there is a huge demand to store, process and carefully study this large amount of data to make it usable.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	The Database Standards And Procedures For IBM Cloud Computing
Authors	Ismail Kalilulah Sadiq Basha., Vidhya Varadarajan., Srinivasan Poonjolai Kuppusamy., Vijayalakshmi Veeranarayanan., K Amandeep Singh
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: The impediment of IBM for cloud storage like public-private and hybrid of cloud scaffold done for accelerating each phase, obligation with cloud supply prototypes with generalization to report technique, planning with readjustment, pre-programmed appraising, adaptable test and substantial mechanism. The paper bestows for graceful cloud result with IBM Tivoli middleware required for database aiming with exemplary cloud way to assess framework with allocated billing to execute business query configuration plus appliance the blueprint of organized smart-cloud association towards capacity. The situation is undoubtedly integrated for workload tools computed by cloud services with Security and Business Assimilation.	

Paper Title	Framework for enhancing the Emotions of EMR using Ontology in Sentiment Analysis
Authors	G Victo Sudha George., Usha D., V R Niveditha
Journal Name	International Journal of Advanced Science and Technology
ABSTRACT: By analyzing a data using NPL, electronic health records (EMRs) could offer many insights, which have not been exploited yet .Through Sentiment Analysis we were able to present the issue in a way that the physicians could identify with and solve. If the stored records are analyzed using a Natural Language Processing methodology (NLP) it will be very helpful in automating the process of collecting ,analyzing the data. This work aim to predict the International Classification of Diseases, Revision 10(ICD-10) code(s)-or it's (their) derivatives-from the raw text records. Through we can easily diagnose the disease based upon the patient's foretelling symptoms instead of going each and every long written data through nurses or its previous medical history. In this paper we represent the pipeline approach on information extraction, sentiment analysis, creating ontology for unsupervised learning and summarization technologies. Sentiment Analysis is performed through recursive neural deep learning and lexicon analysis. In this paper Ontology has the major concern to provide better prediction of related diseases and helps in more proficient summarization. The feasibility of the approach is evaluated through linguistic analysis and user studies. In the presented work we also summarize the effectiveness of the automated EMR against the traditional EMR.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Image Processing Technique for Effective Analysis of the Cytotoxic Activity in Human Breast Cancer Cell Lines – MCF-7
Authors	K Sujatha., Rajeswari Hari.
Journal Name	Advances in Intelligent Systems and Computing

ABSTRACT:

Breast cancer is the lethal form of cancers as it affects the adjacent organs like lungs, liver and heart very easily. The tumors in the nodules of mammary glands serve as the cause for the development of a malignant tumor. Magnetic Resonance Imaging (MRI) images are used to detect breast cancer. The objective of this work is to develop a structured scheme to analyze and evaluate the probabilities of breast cancer with the help of a typical user friendly image processing algorithms. The novelty of this work is that it has a well-developed strategy for breast cancer detection using high performance image based machine learning algorithms to extract the variations in intensity levels at the pretreatment stage followed by segmentation and feature extraction from the region of interest, present in the breast nodules. This method uses images from the open source database like The Cancer Imaging Archive (TCIA). The pretreatment of MR images processing comprises filtering for noise removal and edge detection to extract the Region of Interest (RoI). The power spectrum of the MR images is evaluated and they play an important role to increase the sensitivity in identifying the breast tumors. These power spectrum coefficients extracted using Discrete Fourier Coefficients are used as distinct input feature set for training the Radial Basis Function Network (RBFN) to detect, identify and cross validate the activity of the drug (ethanolic extract) prepared from the traditional plant from the leaves of Excoecariaagallocha (EEEE), tested on a laboratory scale to investigate the probability of cytotoxic activity along with the anti-progressive nature to treat the apoptosis initiation and Cell cycle detention in the breast cancer MCF-7 cell lines causing malignancy in the nodules and ducts of mammary glands. The Apoptosis assessment is found to be nearly 99%.

Paper Title	Oral health status, dental awareness, and dental services utilization barriers among transgender population in Chennai
Authors	R Bharath Marlecha., A Vinita Mary, R Kesavan., Pradeep Christopher Jesudas., K B Nagavalli., Helna Salam
Journal Name	Drug Invention Today

ABSTRACT:

Background: Transgender (TG) community is one of the most underprivileged communities in India. Their accessibility to dental facilities is very scarce. Thus, they are more vulnerable to severe dental problems such as dental decay and tooth loss.

Aim: The present cross-sectional study aimed to evaluate (1) the status of oral health, (2) the knowledge on oral health, and (3) the dental utilization barriers among the TG residing in Chennai, Tamil Nadu, India. **Materials and Methods:** Dental decay, filled teeth, missing teeth, etc., were assessed on clinical examination among 72 TG and a self-evaluated questionnaire was also distributed. Data obtained were analyzed using SPSS IBM software.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Role of Histone Deacetylase (HDAC) Inhibitors for the Treatment of Cutaneous T-Cell Lymphoma (CTCL)
Authors	C N Hemalatha.,Ca- N. Harikrishnan
Journal Name	Research Journal of Pharmacy and Technology
ABSTRACT: HDACs regulate variety of cell functions. Several structurally distinct classes of HDAC inhibitor have been developed. Cutaneous T-cell lymphoma(CTCL) is a clinically and immunologically defined neoplasm which encompasses epidermotropic (mycosis fungoides, Sezary syndrome) and non-epidermotropic variants. CTCL lymphoma comprises a heterogenous group of lymph proliferative disorders, characterised by clonal expansions of mature post thymic T-cells that infiltrate the skin. The USFDA have been approved many HDAC inhibitors such as Vorinostat, Romidepsin, Belinostat, Panobinostat in which the Vorinostat and Romidepsin has been approved for treatment of CTCL. The response rate shown in Histone deacetylase inhibitor in CTCL for Romidepsin was 34%-35%. Whereas the result of overall response rate of Vorinostat is 24%-30% in refractory advanced patients with CTCL. The impact on cell survival signalling varied with molecular phenotype this study suggests that cellular response to HDACs can be viewed as two distinct effect chromatin effect and a cell death effect. The divergent apoptotic responses observed reflect the variable clinical outcome of HDACi treatment. Romidepsin is potent inhibitors offers a promising new treatment for a disease with few existing therapies. We also found Romidepsin to be a more effective than Vorinostat. Our further objective was to further study the clinical benefits of Romidepsin in patients that had the best response of Stable Disease (SD).	

Paper Title	To compare the effectiveness of Laser, EMG biofeedback assisted core stability exercise versus Laser and Core stability exercise alone on pain and disability in patients with non-specific low back pain
Authors	G Yuvarani., Chengi Kousalya., K Kamatchi., G Tharani., G Vaishnavi
Journal Name	Research Journal of Pharmacy and Technology
ABSTRACT: Aim : The aim of this study is to compare the effectiveness of Laser, Biofeedback and assisted Core Stability Exercise versus Laser, Core Stability Exercise alone on pain and disability in patients with Non-Specific Low Back Pain. Background: Non-specific Low Back Pain is the most common type of Back pain. It affects nearly 80% of the population. This is the type of pain that most people will have at some point in their life. Non-Specific Low Back Pain is not due to any specific or underlying disease. Laser therapy is effective in relieving pain , both acute as well as chronic. It reduces swelling and enhances the healing process. It helps to relieve the pain. EMG Biofeedback must be relevant accurate and rapid to enhance motor learning. It provides a feedback by display of force produced by the contracting muscle thus helps to strengthen the muscle further. Core stability exercise improves the range of motion, increase in strength and endurance. Thus the purpose of the study is to find out the efficacy of LASER, EMG Biofeedback Assisted Core Stability Exercise versus Laser and Core Stability Exercise alone in patients suffering from Non-Specific Low Back Pain and Disability. Methodology: After obtaining the ethical clearance from the Institutional Review Board, this experimental study was conducted at Out patient Physiotherapy department, ACS medical college & Hospital. Subjects who fulfilled the inclusion and exclusion criteria were selected and divided into GroupA and GroupB. 40 to 50 years of age and study sampling methods convenient sampling, duration of study 6 session/ 3 weeks, material used Laser, EMG Biofeedback, Couch, Pen, Assessment sheet. Outcome measures Visual Analogue Scale (VAS) and Oswestry Disability Index (ODQ).	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Novel Peroxide Peroxide Gel for Management of Stage II Periodontitis
Authors	Gomathi G D.,Gopala Krishnan., Uma Sudhakar.,Shifa Fathima., Nandhakumar Sathyamoorthy., S Dhanalakshmi
Journal Name	Journal of Pharmaceutical Sciences and Research
ABSTRACT: Background: H ₂ O ₂ is a powerful oxidizing agent with anti-microbial effect that is widely used in dentistry for many purposes. In field of Periodontics, it is used as subgingival irrigant. But the liquid form can damage soft tissues. When it used in the form of gel, its flow is reduced enhancing its antimicrobial property without damage to oral soft tissues. The aim of the study was to evaluate the clinical & microbiological efficacy of novel peroxide gel along with mechanical therapy for Stage II Periodontitis subjects. Materials and methods: A total of 80 patients were recruited for the study and were divided into two groups: GROUP I: Patient treated with SRP & novel peroxide gel (n= 40) GROUP II: Patients treated with SRP alone (n= 40). Plaque Index, Sulcus Bleeding Index, Probing Depth, Clinical Attachment Level were recorded at baseline and 1 month after SRP. Total subgingival flora was counted using Colony forming units at baseline and one month after therapy and P. gingivalis count from subgingival plaque at baseline and one month after therapy were assessed using real time-PCR.	

Paper Title	Garcinia mangostana as an adjunct to Non-Surgical Therapy on Chronic Schizophrenic patients with Periodontitis - A Miracle fruit
Authors	S Catherine Jean., Kiran Joseph Fernandez.,Snophia Suresh.,Uma Sudhakar., Sruthi Ramesh., Archana Balakrishnan
Journal Name	Journal of Pharmaceutical Sciences and Research
ABSTRACT: Background: Patients with mental disorders like schizophrenia are subjected to a higher risk of periodontal disease due to poor dental hygiene. Garcinia mangostana, commonly known as mangosteen fruit is known for its high antioxidant, antiinflammatory and antibacterial properties. Aim: The objective of this study was to evaluate the therapeutic effect of mangosteen fruit as an adjunctive therapy to scaling and root planing in chronic schizophrenia patients with periodontitis. Methods: Sixty chronic schizophrenia patients with periodontitis were selected and randomly allotted to test (N = 30) and control (N = 30) groups. Scaling and root planing (SRP) was done and clinical parameters such as Plaque Index, Gingival Index, Probing Pocket Depth and Clinical Attachment Level were measured at baseline. The test group consumed 2 mangosteen fruits twice daily for 2 months and all the clinical parameters were re-evaluated at the end of 3 months.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Effects of Trigonella Foenum Gel as an Adjunct to SRP on GCF Resistin in Periodontitis Subjects with Type 2 Diabetes Mellitus
Authors	Gopala Krishnan., Gomathi G D
Journal Name	Journal of Pharmaceutical Sciences and Research
ABSTRACT: Aim: The aim of the study was to evaluate the effect of trigonellafoenum gel as an adjunct to nonsurgical periodontal therapy on GCF levels of Resistin in Periodontitis patients with Type 2 Diabetes Mellitus. Materials and methods: 120 Periodontitis patients with Diabetes Mellitus participated in this study and were randomly divided into two groups [Group 1: 60 periodontitis patients with Type 2 DM treated with SRP alone, Group 2: 60 periodontitis patients with Type 2 DM treated with SRP along with trigonellafoenum gel]. Plaque Index, Gingival Index, Sulcus Bleeding Index, PPD, CAL, and FBS were recorded at the baseline and one month after treatment. GCF & blood samples were taken for analysis of Resistin and FBS respectively.	

Paper Title	Study of high sensitive c-reactive protein and gamma-glutamyl transferase in type 2 diabetes mellitus with hypertension
Authors	Ramya S., Sureka Varalakshmi V., Chandan Bala R.
Journal Name	International Journal of Research in Pharmaceutical Sciences
ABSTRACT: C-reactive protein (CRP), produced by the hepatocytes is a primary inflammatory marker of T2DM. Higher levels of gamma-glutamyl transferase enzyme (GGT) and Hs CRP (High sensitive CRP) are associated with the complication of poor glycemic control. This study was aimed to find the association of Hs CRP and GGT for cardiovascular risk factors in Type 2 diabetes mellitus (T2DM) and Hypertension in the suburbs of Chennai. This study includes 57 subjects with T2DM and Hypertension (Group A) and 62 subjects with T2DM (Group B) within the age group of 40-60 years. FBS, HbA1C, Hs CRP, GGT and blood pressure were determined. Statistical analysis was performed using Statistical Package for the SPSS 17 version. Mean values of FBS, blood HbA1C, Hs CRP and GGT were significantly higher among participants of Group A than Group B. Significant difference of FBS, HbA1C were found between the two groups. In contrast, no significant difference of GGT was found between the groups. Differences were considered statistically significant at two-sided $P < 0.05$. Within the group, Hs CRP shows the significance and positive correlation with FBS, SBP and DBP. Still, GGT does not show any significance in Group A. In contrast, in Group B, both Hs CRP and GGT shows the importance and positive correlation with FBS and HbA1C. It is concluded that high levels of HsCRP are associated with T2DM and Hypertension, indicating increased cardiovascular risk, and it should be included in regular monitoring of type-2 diabetic patients.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Morphological Biometric Identifiers As Authentication Measures: An Overview
Authors	Vinolyn Vijaykumar., K.Selvam
Journal Name	Xi'an DianziKejiDaxueXuebao/Journal of Xidian University
ABSTRACT: Biometrics, which is extensively employed in various sectors including forensics and fiscal, is an emanating expertise. A biometric system can be thought of as a pattern recognition technique that corroborates the authentication of an individual with the help of one's diverse biological features. Copious organizations constantly deal with exceedingly confidential and sensitive data. A sole breach in the data they possess, due to mismatch of authentication of a person, may lead to instantaneous detrimental of their reputation. Precipitous infiltration of technology into our everyday lives has left the conventional methods of identification and verification of people fraudulent. The use of biometrics as an authentication measure has paved the way for a good measure of confidence since the biometric traits cannot be spoofed. Every biometric trait, whether it is morphological, biological, or behavioral, is distinct even in identical quadruplets. It is convenient and non-sharable. Hence the biometric authentication system is an utterly revolutionary breakthrough technology in the identification and also effortlessly accessible. In this paper, a comprehensive analysis is made on the morphological features of a person that helps in authenticating an individual inclusive of the recent advancements in the respective modality. The types of biometric systems in vogue are also discussed.	

Paper Title	Operations On Grundy Numbers Between Some Graphs And Its Line Graphs
Authors	R.Nagarathinam
Journal Name	Journal of Shanghai Jiaotong University (Science)
ABSTRACT: Inequalities of Nordhaus – Gaddum analyzes maximal or minimal values of the operations on a graph and its complement. Bounds on the sum and product of Grundy numbers of certain classes of graphs and their line graphs are examined in this paper. Also certain classes of graphs are characterized.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Comparative study on effect of bacopa monniera, omega fatty acids and mesenchymal stem cells on cold stress induced neurodegeneration in hippocampus of wistar rats
Authors	Saraswathi P
Journal Name	Journal of Krishna Institute of Medical Sciences University
ABSTRACT: <p>Background: Natural and ayurvedic drugs are compared with stem cell therapy to suggest an improved treatment to enhance memory and combat stress in our day to day life. Aim and Objectives: The present study was aimed to compare the effect of traditional medicine Bacopa monniera (BM) with omega3 fatty acids and mesenchymal stem cells on cold stress induced neural changes in hippocampus of Wistar rats.</p> <p>Materials and Methods: Total 36 male rats divided into six groups. Group I was control in which rats were kept under ideal laboratory conditions, Group II was cold water swim stress in which rats were forced to swim in the cold water maintained at 18 ± 2 C for ten minutes for a period of one month, Group III was given stress followed by oral administration of normal saline as a control, Group IV was given stress for a month followed by oral administration of 80 mg/kg of BM extract, Group V in which cold water swim stress given for a month followed by oral administration of 60 mg/kg omega3 fatty acid treatment for a month, Group VI in which cold water swim stress given for a month followed by intravenous injection of mesenchymal stem cells treatment. The animals were studied on their behavioral changes, cortisol assay and histological analysis.</p>	

Paper Title	Economical unit commitment solutions through renewable energy management centers for reliable integration of large-scale renewable energy resources
Authors	Sheeba Percis E., Nalini A., Jenish T., Jayarajan J.
Journal Name	Lecture Notes in Electrical Engineering
ABSTRACT: <p>This paper aims at achieving economical and secure commitment of conventional thermal power generating units in a power system integrated with renewable energy sources (RES) by harnessing the renewable energy generation potential to its maximum. The data forecasting tool of renewable energy management center (REMC) is used for closer prediction of RES availability which helps to achieve much improved unit commitment (UC) solution of conventional thermal units apart from intermittent nature of power output obtained from RES. Large-scale penetration of RES is achieved with the advancement in technology supports better optimization of economical dispatch and reduces the thermal plant running hours. This supports considerable reduction in fossil fuel requirements, carbon foot print, and green house emission, and causes lesser impact on global warming, climate change, and improves quality of atmospheric air. This paper analyzes present need of REMCs to integrate large-scale renewable into the grid and to reduce the RES curtailment due to poor prediction of RES availability.</p>	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Comparative study on load frequency control of a single microgrid coupled with thermal power plant using fuzzy and pid controllers
Authors	Singh R
Journal Name	Lecture Notes in Electrical Engineering
ABSTRACT: In this paper, thermal power plant is connected to a microgrid and frequency deviation is observed and the results of the fuzzy and PID controllers are compared with fuzzy and the best controller giving best results is considered. Also, the different parameters are taken care for maintaining stability of the system like area control error (ACE) of individual areas, load demand, etc. This paper focuses on reducing error in quick time that developed due to mismatch between generation and demand. Because if error is not minimized in quick time, then stability of the system is affected and also the power flow through the tie-lines is not uniform. Software used is MATLAB 2014b. Results are shown and compared using necessary graphs. The Simulink model is prepared by selecting the transfer function blocks from the library and assigning the values to them. PID controller is used to minimize the error in quick time. Also, PID controller is replaced with fuzzy PID controller.	

Paper Title	Importance of forensic odontology
Authors	Devi M.S., Manju J., Rajpurohit R.
Journal Name	Indian Journal of Forensic Medicine and Toxicology
ABSTRACT: Forensic dentistry is the connection between the dental professions and forensic professions. In fact, the teeth and jaws are highly resistant to degradation and decomposition by postmortem. For a number of different reasons and situations such as mass disasters, in criminal investigations and in the case of disfigured bodies due to fire and vehicle accidents, dental identification of humans happens. The different methods include x-rays, antemortem & post-mortem photographs, tooth prints, palatal rugae, lip printing, bite marking and molecular methods such as polymerase chain reaction for pulp DNA analysis.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Assessment of effective oral health status among diabetic population by modified special tooth brush with beat sound- an observational study
Authors	Vijay Anand M., Keerthi Narayan V., Kalaivani S., Safa Thabassum S.
Journal Name	Indian Journal of Forensic Medicine and Toxicology
ABSTRACT: Background: of the study: Proper guided brushing technique improves the oral health status especially among diabetic individuals who are more susceptible for periodontal disease. Aim and objective: To find the outcome efficacy of modified design special tooth brush with beat sound by evaluating oral hygiene status among diabetic individuals. Material and methods: The present observational study included 25 study participants irrespective of age and gender divided and categorized as 13 non-diabetic (control) group and 12 belong to diabetic (study) group. All the study participants were educated to use modified special tooth brush with beat sound regularly for a period of 1 week and their oral hygiene status were evaluated by using Oral hygiene index simplified (OHI-S), periodontal index (PI) and Gingival index (GI) at regular intervals on 1st, 3rd, 5th and 7th day.	

Paper Title	Knowledge among parents about importance of primary dentition
Authors	Gayathri P.S., Krithika C., Jenisha D.M., Kalaivani S., Jenifer charu prabha V., Nithyaedeinton R.
Journal Name	Indian Journal of Forensic Medicine and Toxicology
ABSTRACT: Aim: Dental caries is very common in primary dentition because of improper oral hygiene and increased intake of sucrose. The parents are the one who take care of their children and make decision for them. Often parents are responsible for the oral care of their children. The aim of this study is to evaluate the knowledge among parents about importance of primary dentition. Objectives: To evaluate the attitude and knowledge of parents towards importance of maintaining primary dentition in their children. Materials and Method: The study was conducted among parents visiting dental institution, Chennai. A total of 200 questionnaire containing 15 questions were prepared for data collection and were personally distributed to parents. A number of 100 fathers and 100 mothers were included in the study.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Awareness of most commonly used drugs in dentistry inducing teratogenic effects among dental practitioners
Authors	Priya R., Krithika C., Gayathri P.S., Manju
Journal Name	Indian Journal of Forensic Medicine and Toxicology

ABSTRACT:

Aim: The aim of the study was to assess the awareness of most commonly used drugs in dentistry inducing teratogenic effects, among dental practitioners. Birth defects may be caused by many factors such as physical conditions, teratogens, environmental exposures, genetic defects, etc., Although prescription drug use is common during pregnancy, the human teratogenic risks are undetermined for more than 90% drug treatments approved in the USA during the past decades. A particular birth defect may have its origins through multiple mechanisms and possible exposures including medications. A specific chemical process may result in different outcomes depending upon factors such as embryonic age at which a drug is administered, duration and dose of exposure and genetic susceptibility. Estimating the risk of fetal malformations attribute to the use of medications is difficult and perception of risk by health professionals will impact their counseling and treatment of patients. Pregnancy is a unique physiologic condition and importantly specific drugs like folic acid use may have several benefits for pregnant mother. The patient should maintain a good gynecologistpatient-Dentist communication. For example a woman with two spontaneous abortions would be expected to be skeptical of any drug therapy in her next pregnancy and by communicating this to physicians and respective clinician. She may influence the physician and dentist perception. The clinician should be aware of all the newer drugs and its teratogenic effects. For health professionals this includes awareness of specific drug information and sources that provide realistic descriptions of risk beyond product monographs. A greater focus on this aspect may act to balance Risk perceptions. Physicians and dentists need to weigh risks and benefits of drug prescribing to pregnant patients based on the available knowledge.

Paper Title	Awareness of oral hygiene aids among general population
Authors	Manju, Krithika C., Koteswari P.R., Manoj Kumar G.
Journal Name	Indian Journal of Forensic Medicine and Toxicology

ABSTRACT:

Background: The objective of this study was to assess the knowledge of oral hygiene aids among general population.

Method: The study was conducted on general population in and around Chennai. A total of 100 members were selected and self-assessed questionnaire was formulated to assess the awareness on oral hygiene aids.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	A minimally invasive approach to treat gummy smile: Laser-assisted lip repositioning surgery
Authors	Cader S.A., Suresh S., Sudhakar U., Fernandez K.J.
Journal Name	Drug Invention Today
ABSTRACT: Smile is a best jewel a person can wear, that makes a person beautiful and confident. An attractive smile goes a long way in enhancing a person's self-confidence, whereas a "gummy" smile often becomes a matter of esthetic concern. A gingival display exceeding 3 mm is unpleasant and termed as "excessive gingival display (EGD) or "gummy smile." Lip repositioning was intended to minimize the gingival display during smile by removing a strip of mucosa and shortening the vestibular depth. There by restricts the muscle pull of the elevator muscles responsible for smile. Thus the present case report was an attempt to use the laser to assist removal of the strip of the labial mucosa in lip repositioning for the correction of gummy smile.	

Paper Title	Autocorrelation method analyzed the crime news awareness in India
Authors	Ravichandran K.
Journal Name	Journal of Advanced Research in Dynamical and Control Systems
ABSTRACT: Crime has grown to become an inseparable phenomenon of human society today. It is taking a myriad shapes and forms affecting the normal life of humans. Particularly, these social based scientific crimes are affecting the lives of women and children. Despite appropriate elude measures are consistently being taken by government machinery to curb the menace of crime, finally, it proves ineffective. Anyway, such crimes are continuing to happen. In such a scenario, television media has been playing an important role to construct crime awareness to the public by telecasting crime news alarmingly. This research gives a glimpse into the differences between true crime and being portrayed in the media and how it affects the public. This study was analyzed using the Autocorrelation function (ACF) to exactly comprehend crime impact when crime news is consumed separately public. The probability of Regression value is ineffectively and accurately assessing the Crime News on Television impact has used in this study to derive the result. Quantitative analysis within the style of a survey was instrumental in collecting the information that has analyzed by the Autocorrelation function (ACF). Along with this, measures have taken to awareness of crime also have been discussed.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Improved biocompatibility of gallium silicon titanium alloy for biomedical utilities
Authors	Krithika. C
Journal Name	Indian Veterinary Journal
ABSTRACT: Assessment of Gallium Silicon Titanium alloy was done on their biocompatibility and cytotoxicity effect in vitro with SaoS2 cell line in terms of adhesion, viability, proliferation and mineralization on the surface of the alloys. quantitative results of cell adhesion with alamar blue dye containing media with cells on the alloy surface, absorbance measured at 570nm,600nm. Adhesion on the surface of alloy has shown 81.01%,71.20% and 87.31% respectively in GaSiTi, TiGa, and Ti alloys. The viability on the alloy was 55.70%, 60.37% and 65.03% respectively in GaSiTi, TiGa, and Ti alloys. The cell cant between the groups which may pave way proliferation was found to be statistically insigni for the better mineralization. In mineralization cation in the alloys has progressively the calci increased from day 4 today 21, the most ideal of (mean 92, S.D+/-1.54) has been achieved on day 8 itself indicating the effectiveness of the alloy. Qualitative results of cells on the surface of the alloys using scanning electron microscope were studied in this study.	

Paper Title	Problems encountered by female faculty in achieving work-life balance
Authors	Prathibha P.S., Neeraja B., Prabhu M.
Journal Name	International Journal of Pharmaceutical Research
ABSTRACT: In this 21st century almost all families are in need of dual income. We are more into nuclear families. Parents don't have time to spend whit their children, Life style of each individual is changing. Especially women in urban area are more prone to work life stress. There are women who work for 18 hours a day to meet their two ends. They need financial support for their children's best education, improve standard of living and with expectations of better life for their next generation than their life. At time she may also be the bread winner for her family. Women sacrifice her wishes for the benefit of family members. Women compromises over her favored eats, movies, products only to see her family is safe and happy. Through this article an attempt is made by the researcher/ author to bring out the dreams dreamt, decisions taken, problems encountered, compromises made by women. Levels of satisfaction felt and the objectives achieved in the pursuit of their goals by women working especially as a teacher or for those who embrace teaching as their profession at different levels. The article also highlights about the various measures taken by women while in the profession to attain a work-life balance. Since balance cannot be achieved in anything, unless something or a certain level is accepted as a point of satiation, a woman, in general, going through the needed processes determines what her level of acceptance is. The level that a woman attains and accepts may be seen differently by different people. Measuring Level of satisfaction for each individual will differ as no one individual has same needs and demands. As a teacher and as a home maker is not an easy task for her. She should also see that her contribution to the department, to the society, to the university is also a important aspect for her. To balance at her work and at home she should also take care of administrative work in marking attendance, maintain the data base of her class students, coordinate the status of student with their parents etc. preparation of notes and question bank, sharing important topics etc. Conclusively it is therefore observed that the planning has to take into consideration the intensity of involvement – qualitatively and quantitatively on either side – the work and the life - in order to strike a right work-life balance to realize peace and happiness – without foregoing to deliver the due service in the field of education and the future of the students.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	The role of multistep core stability exercise with and without conventional neck exercises in the treatment of chronic non-specific neck pain a randomized controlled trial
Authors	Rajalaxmi V., Manickam M., Srilakshmi M., Arunselvi J., Jayabarathi R., Anupreethi P., Sujatha K.
Journal Name	Biomedicine (India)
ABSTRACT: Introduction and Aim: Neck pain is a common problem with two-third of the population having neck pain at some point in their lives. Chronic non-specific neck pain is related to limited cervical mobility, impaired function, and stress at work. This will occur for IT professions, mobile phone users, and people who are maintaining poor posture in their occupations in daily life. This study is to analyse the effectiveness of core stability exercise. The aim of our study was to analyse the efficacy of multistep core stability exercise with and without conventional neck exercises in the treatment of chronic non-specific neck pain a Randomized Controlled Trial. Methodology: This comparative study of pre-post type was conducted in OPD of physiotherapy at A.C.S. medical college and hospital and took 3 months to complete the study. A total number of 40 samples were selected from 70 volunteers based on the inclusion criteria. GROUP A received neck stability exercise and GROUP B received neck stability and core stability exercises. Both the groups received exercises for 45 min session per day for 6 days a week for 12 weeks. Pre and post-test measured using VAS, NDI, CCFT. Both the group received a hot pack for 10min as a common intervention.	

Paper Title	Materials testing
Authors	Sampath T., Thamizharasan S
Journal Name	Trends in Development of Medical Devices
ABSTRACT: This chapter covers the essentials of materials testing of medical devices. It also briefly describes the various test methods, guidelines, rules, and regulatory processes involved in the development and application of medical devices and implants. The chapter is aimed at helping designers, biomedical engineers, and regulatory employees to accomplish their goals.	



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Wireless Power Reaping Using Peltier Sensor
Authors	K Senthil Kumar., K Sujatha., N Jaya Chitra
Journal Name	Journal of Critical Reviews

ABSTRACT:

In recent years, a large amount of heat is dissipated from various equipments such as motors, generators, compressors etc. where as a large amount of heat is evolved because of various losses mainly due to resistive heating or D.C offset effect. The heat losses dissipated is the major cause for the reduction in efficiency of the machine. But this heat can also improve the battery capacity when utilized in proper way. According to basic law of conservation of energy, 'Energy can neither be created nor destroyed, but can be transferred from one form to another'. Thus this can be used as a weapon for the generation of electricity by using an element called Peltier sensor. By using Peltier sensor, the heat losses which are dissipated from the machinery is converted into electrical energy which can be utilized by the same load or can be used to drive other load. The power generated is transmitted by using Wireless Power Transmission technique (WPT) is adopted for transmission of generated power to the load. A wireless charging Mechanism is utilised for various machineries especially electric vehicle to detect and indicate amount of charge transferred the battery using GPRS-GSM module and Internet of Things (IOT) module.

Paper Title	A Study Of Panic Attack Disorder In Human Beings And Different Treatment Methods
Authors	V Karthikeyan., A Raja
Journal Name	Journal of Critical Reviews

ABSTRACT:

The Paper reviews various reasons behind development of panic attack and symptoms related with the disorder. The behaviour of the affected person varies over time. The various treatment methods available for the disorder are discussed. The level of panic attack is observed by the measurement of Blood Pressure and pulse rate. The frequency and duration of attack is also considered. The technique of breathing exercise and meditation is illustrated and the result shows considerable improvement of reducing the frequency and duration of the panic attack.



CVR Journal Club – Research Publications – JULY 2020

Paper Title	Microstructural Study On The Concrete Containing Manufactured Sand
Authors	B Vijaya
Journal Name	Journal of Critical Reviews
ABSTRACT: The present study focuses on evaluating the micro structural characteristics of medium strength concrete, in which manufactured sand (M-sand) is used as a partial and full substitution for natural sand. This paper presents a scanning electron microscopy (SEM) study performed on the medium strength concrete containing manufactured sand. SEM images of manufactured sand shows that the surface is rough and the particles are elongated and angular in nature. From the SEM observation, it was noticed that manufactured sand has more micro roughness and has more angular particles in comparison with river sand. This elongated angular particles of manufactured sand creates better interlocking between the particles and thereby reduces the porosity. Due to better interlocking between the particles, the strength and durability characteristics of manufactured sand in concrete is enhanced in comparison to river sand.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	DESIGN, SYNTHESIS AND IN SILICO EVALUATION OF BENZOXAZEPINO(7,6-B)QUINOLINES AS POTENTIAL ANTIDIABETIC AGENTS
Authors	GOMATHI KANNAYIRAM
Journal Name	MEDICINAL CHEMISTRY RESEARCH
ABSTRACT: The second-generation XPhos palladium preformed catalyst-based C–N cross-coupling through Buchwald–Hartwig amination with primary and secondary amines towards functionalized benzoxazepino(7,6-b)quinolines is accounted for. The microwave irradiation in dioxane provided the desired highly functionalized oxazepino quinolines, 5 , in high yield and purity from the corresponding 2-chloro-3-formyl quinolines, 1 , via intermediate, 4 , in a sequential cyclization/Buchwald amination strategy. Besides, functional group tolerance, low catalyst loading, microwave assistance, and a wide scope of reactions are the advantages. Compounds 5a , 5b , 5c , 5d , 5e , and 6j showed 50% inhibition in antioxidant potency, whereas compounds 5f , 5g , 5m , 6h , 6j , and 6k showed potent activity alongside 70% inhibition of alpha-amylase and 50% inhibition of alpha-glucosidase, respectively. The results were supported by molecular docking studies of the active compounds with acarvostatin as a standard drug for antidiabetic activity.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	EFFECT OF TWO DESENSITIZING AGENTS ON DENTIN HYPERSENSITIVITY: A RANDOMIZED SPLIT-MOUTH CLINICAL TRIAL
Authors	A R PRADEEP KUMAR., VENKATNAGARAJ VISWANATH., KAMNA SINGH., KUZHANCHINATHAN MANIGANDAN., HASEENA BEGUM IQBAL., ANIL KISHEN
Journal Name	JOURNAL OF CONSERVATIVE DENTISTRY

ABSTRACT:

Background: Clinical research is important to evaluate the effect of desensitizing agents. Aims: This randomized clinical trial evaluated the immediate and 1 week desensitizing effect of two desensitizing agents Uno Topical Gel and Profluorid. Materials and Methods: Thirtyfive patients with teeth presenting with dentin hypersensitivity were included in this clinical trial. Each quadrant in a patient was randomly assigned to one of two groups: Uno Topical Gel or Profluorid Varnish. A VAS score was used to assess tooth sensitivity at baseline, immediately after application of desensitizer and after 1 week. Additionally, 30 dentin discs were prepared, divided into Group 1 (Control Group), Group 2 (Profluorid Varnish) and Group 3 (Uno Topical Gel) and examined using scanning electron microscopy (SEM) after 1 hour and 24 hours to evaluate tubule occlusion.

Statistical Analysis: Clinical data were analysed using Friedman's test and Mann – Whitney U test. SEM data was analysed using Student's 2-sample t-test



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ORDINARY KRIGING - AND COKRIGING - BASED SURROGATE MODEL FOR IONOSPHERIC TEC PREDICTION USING NAVIC/GPS DATA
Authors	V. KARTHIKEYAN
Journal Name	ACTA GEOPHYSICA

ABSTRACT:

The ionospheric total electron content (TEC) plays a major role in the estimation of positional accuracy of satellite-based navigation systems. TEC disturbs the transmission of the signal transmitted from the satellite to receiver, which leads to range error. Hence, the prediction of VTEC can rectify the range errors in advance. Navigation with Indian Constellation (NavIC) is a navigational satellite system that gives position of a user and time information in India. NavIC receiver is installed at ACSCE, Bangalore, and it is utilized to estimate vertical total electron content (VTEC). In this paper, VTEC estimated from ACSCE station and VTEC obtained from IISC station, Bangalore, are compared and also ordinary kriging-based surrogate model (OKSM) and cokriging-based surrogate model (COKSM) are developed for forecasting NavIC/GPS VTEC. In these models, input parameters comprise the time, Bt, SSN, Ap and F10.7. NavIC and GPS VTEC are predicted for quiet days, i.e. from 16/1/2018 to 26/1/2018 and from 7/8/2018 to 13/8/2018, by using previous one week of VTEC data, and input parameters belong to ACSCE (12.8914° N, 77.4657° E) and IISC (13.0219° N, 77.5671° E) stations, Bangalore. The VTEC prediction results from OKSM and COKSM are compared. It shows that OKSM results are comparatively better than COKSM. In order to validate our developed models, OKSM and COKSM prediction results are compared with the SWIF model during storm days. Based on the comparison, it is observed that RMSE of OKSM is 3.5202 TECU, COKSM gives RMSE as 4.7126 TECU, and the SWIF model's RMSE is 4.6804. From the comparison results, it is evident that OKSM yields better prediction results than COKSM and SWIF. These results indicate that the proposed model will be useful for correcting range measurement data in advance.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	CHRONIC INFLAMMATORY-MODULATING POTENTIAL OF CASSIA AURICULATA WITH PRO-INFLAMMATORY CYTOKINE IL-1BETA AND ITS ANTICANCER EFFICACY ON LUNG CANCER CELL LINE
Authors	GOMATHI KANNAYIRAM
Journal Name	ANTI-CANCER AGENTS IN MEDICINAL CHEMISTRY

ABSTRACT: Inflammation is a key element in tumor progression, over time, persistent inflammation causes damage to DNA and leads to cancer. The relationship between chronic inflammation and tumor development is well established, blocking of which can help in cancer prevention and treatment in the future. Hence, with this background, the present study aims to evaluate the anti-inflammatory and anticancer potential of Cassia auriculata (CA) solvent fractions through in silico and in vitro means, respectively. Generally, inflammatory mediators play a key task in chronic inflammation, following its inflection was chosen for their interactions with nine structurally varied phytoconstituents of CA identified through GCMS. The ethanolic extract of CA was assessed for its apoptotic effects on A549 lung cancer cells by 3-(4,5- dimethylthiazol-2-yl)-2,5-diphenyl tetrazolium bromide (MTT) assay, JC-10 staining, DNA fragmentation assay and quantitative Real-Time Polymerase Chain Reaction (qRT-PCR). The interactions between bioactive components and target protein revealed that important molecules like 5,7-dihydroxy-2-[2-nethoxyphenyl]- 4H-1-Benzopyran-4-one, a flavonoid, and three other components can bind target interleukin 1-beta associated with lung cancer. In vitro data also confirmed that the diverse active components of CA extract might follow the intrinsic mitochondrial pathway to provoke cancer cell death. Hence, these findings strongly propose that Cassia auriculata (CA) solvent fractions could be exploited in the future to design ligands for obtaining novel leads for treating chronic inflammation linked with lung cancer, and also the extracts of CA can be recommended as a potential agent for lung cancer chemotherapy.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	A STUDY ON ENHANCED PRODUCTION OF 3-DEMETHYLATED COLCHICINE BY A NOVEL STRAIN OF BACILLUS ENDOPHYTICUS ISOLATED FROM RHIZOSPHERIC SOILS OF GLORIOSA SUPERBA
Authors	REENA DAS, VASANTHARAJA, PRITHIKA.U, RAMAVIDYANATHAN
Journal Name	BIOCATALYSIS AND BIOTRANSFORMATION

ABSTRACT:

A native strain of Bacillus endophyticus, PC was found to be effective in demethylation of colchicine. The strain was isolated from rhizospheric soils of Gloriosa superba from Erode, Tamilnadu, and was grown in optimised conditions of carbon and nitrogen. To intensify the demethylation, the strain was enriched and grown for 15 generations starting from low (0.5 mg/ml) to very high (10 mg/ml) concentrations of colchicine. Owing to enrichment, B. endophyticus showed an MIC of 25 mg/ml, and notable activity of demethylation of colchicine. Maximum production was observed at idiophase level, wherein PC produced around 71.97% of 3-DMC. Supplementary studies with the strain B. endophyticus PC proved the adverse effects of colchicine on the metabolic and structural portrait of cells. There was major variance in the cell shape and size, including the clipping of thickness of plasma membrane and cell wall. The number of polyhydroxybutyrate (PHB) rich inclusion bodies were found to be enhanced, suggesting their portrayal in activation of P450-BM3 enzyme which initiates demethylation.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	PERVASIVE COMPUTING IN THE CONTEXT OF COVID-19 PREDICTION WITH AI-BASED ALGORITHMS
Authors	NIVEDITHA, P.S. RAJA KUMAR, S. RADHA RAMMOHAN
Journal Name	INTERNATIONAL JOURNAL OF PERVASIVE COMPUTING AND COMMUNICATIONS

ABSTRACT:

The current and on-going coronavirus (COVID-19) has disrupted many human lives all over the world and seems very difficult to confront this global crisis as the infection is transmitted by physical contact. As no vaccine or medical treatment made available till date, the only solution is to detect the COVID-19 cases, block the transmission, isolate the infected and protect the susceptible population. In this scenario, the pervasive computing becomes essential, as it is environment-centric and data acquisition via smart devices provides better way for analysing diseases with various parameters. For data collection, Infrared Thermometer, Hikvision's Thermographic Camera and Acoustic device are deployed. Data-imputation is carried out by principal component analysis. A mathematical model susceptible, infected and recovered (SIR) is implemented for classifying COVID-19 cases. The recurrent neural network (RNN) with long-term short memory is enacted to predict the COVID-19 disease. Machine learning models are very efficient in predicting diseases. In the proposed research work, besides contribution of smart devices, Artificial Intelligence detector is deployed to reduce false alarms. A mathematical model SIR is integrated with machine learning techniques for better classification. Implementation of RNN with Long Short Term Memory (LSTM) model furnishes better prediction holding the previous history.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	MONITORING AND ANALYSIS OF THE RECOVERY RATE OF COVID-19 POSITIVE CASES TO PREVENT DANGEROUS STAGE USING IOT AND SENSORS
Authors	NIVEDITHA
Journal Name	INTERNATIONAL JOURNAL OF PERVASIVE COMPUTING AND COMMUNICATIONS

ABSTRACT:

This paper has used the well-known machine learning (ML) computational algorithm with Internet of Things (IoT) devices to predict the COVID-19 disease and to analyze the peak rate of the disease in the world. ML is the best tool to analyze and predict the object in reasonable time with great level of accuracy. The Purpose of this paper is to develop a model to predict the coronavirus by considering majorly related symptoms, attributes and also to predict and analyze the peak rate of the disease. COVID-19 or coronavirus disease threatens the human lives in various ways, which leads to deaths in most of the cases. It affects the respiratory organs slowly and this penetration leads to multiple organ failure, which causes death in some cases having poor immunity system. In recent times, it has drawn the international attention because of the pandemic threat that is harder to control the spreading of infection around the world. This proposed model is implemented by support vector machine classifier and Bayesian network algorithm, which yields high accuracy. The K-means algorithm has been applied for clustering the data set models. For data collection, IoT devices and related sensors were used in the identified hotspots. The data sets were collected from the selected hotspots, which are placed on the regions selected by the government agencies. The proposed COVID-19 prediction models improve the accuracy of the prediction and peak accuracy ratio. This model is also tested with best, worst and average cases of data set to achieve the better prediction rate. From that hotspots, the IoT devices were fixed and accessed through wireless sensors (802.11) to transfer the data to the authors' database, which is dedicated in data collection server. The data set and the proposed model yield good results and perform well with expected accuracy rate in the analysis and monitoring of the recovery rate of COVID-19.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	WORKPLACE VIOLENCE AGAINST HEALTHCARE PROFESSIONALS - A CROSS-SECTIONAL STUDY TO ASSESS THE CURRENT SCENARIO IN CHENNAI CITY, INDIA
Authors	R. KESAVAN, A.VINITHA MARY, VISHWANI REDDY, TANAAZ KHAN, VISHALI SAANKAR, SWATHI.S
Journal Name	JOURNAL OF EVOLUTION OF MEDICAL AND DENTAL SCIENCES

ABSTRACT:

Workplace violence against health workers is offensive and harms the psychological and physical well-being of health-care staff. It affects their job motivation leading to compromise in the quality of care provided. The present study was conducted to assess the prevalence and potential risk factors associated with workplace violence against medical and dental healthcare professionals in Chennai city. A descriptive cross-sectional survey was done among 440 healthcare professionals from medical and dental settings. A specially designed validated questionnaire consisted of 15 questions divided into 3 sections was used to collect the demographic details, experience and factors associated with workplace violence. The overall prevalence of workplace violence in the current study was 38 %, with male participants reporting a higher prevalence than females. 51.4 % of the respondents believe that the lack of proper communication and negligence of the doctor also plays a crucial role in violence against them. More than half of the participants (61.4 %) recommended doctors to carry weapons for self-defence against violence and these values rise to 71 % among individuals with more than 10 years of clinical experience. Around 70.5 % believed that media publicity plays a crucial role in the increasing trend of violence against healthcare professional. Workplace violence against doctors in Chennai is frequent although in most of the situations it is psychological. Healthcare staff should be trained to identify, manage and prevent violent situations adequately. A nationwide law for the prevention of violence against healthcare professionals and institutions should be developed.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	EFFECTIVE CATALYSTS FOR THE SELECTIVE RESTORATION OF AROMATIC MONO- AND DINITRO COMPOUNDS
Authors	L R SASSYKOVA., N E MAXIMOV., A Y YERZHANOV., M S ILMURATOVA., A T RAIYSSOV., Y A AUBAKIROV., R N AZHIGULOVA., A A BATYRBAYEVA., S SENDILVELAN
Journal Name	SERIES CHEMISTRY AND TECHNOLOGY

ABSTRACT

This article discusses the issues of catalytic reduction of aromatic nitro compounds to obtain valuable intermediate and final products-aromatic amines. The most important method for producing amines from nitro compounds is catalytic reduction with hydrogen on catalysts. The article describes in detail the choice of catalysts for hydrogenation of nitro compounds at atmospheric and high hydrogen pressure. Studies of hydrogenation reactions of aromatic nitro compounds on nickel, copper and iron catalysts are discussed. Hydrogenation of aromatic nitro compounds on catalysts based on palladium, platinum, and rhodium deposited on various carriers, including nanodiamonds, is considered. Catalysts based on supported palladium catalysts with copper additives showed high selectivity in the hydrogenation of nitro groups in nitro compounds with functional groups; and with the addition of platinum and rhodium, during the reduction of both nitro groups and the aromatic ring in nitrobenzene. In the works on the use of nanodiamonds, it was found that catalysts based on platinum and palladium nanoparticles of 4-5 nm in size, fixed on nanodiamonds, were highly active in liquid-phase hydrogenation reactions of nitro compounds under mild conditions. The data described by the authors on theoretical issues and practical problems of catalytic hydrogenation of aromatic nitro compounds are very relevant. The article is based on the analysis of domestic and foreign literature and may be useful to specialists in the field of catalysis.

Keywords: aromatic nitro compounds, catalytic reduction, aromatic amines, selective catalysis, liquid-phase hydrogenation.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	A SURVEY ON LATEST DEVELOPMENTS AND APPLICATIONS IN SUPPLY CHAIN MANAGEMENT USING IOT
Authors	V. KARTHIKEYAN, A.RAJA
Journal Name	JOURNAL OF CRITICAL REVIEWS

ABSTRACT:

The Internet of Things (IoT) is rapidly changing the world in various ways. In addition to influencing applications such as the development of on-demand apps, it also strives to simplify our lives considerably. There are a large number of physical objects that can connect to the Internet, communicate with one another and collect data to improve existing products and services. For most companies, IoT technology offers opportunities to improve efficiency and transparency in the supply chain. The classic approach to inventory management has numerous inefficiencies. A company has to pull employees from their regular roles to manually count and record items. In some cases, the company may even have to pay overtime for processing or temporarily hire temporary workers. When the Internet of Things is used in inventory management, these problems are a thing of the past. By attaching IoT sensors to articles in the warehouse or in the store, a company can carry out an exact inventory without the need for manual operations. This optimizes accuracy and enables better management of goods, since it enables the current stock of individual articles to be checked. In addition, the data from the IoT system can be analyzed, which gives the company a good insight into the inventory forecast. This paper summarizes the advantages and applications of supply chain management using IoT. The paper covers the concepts of IT Enablers, Source, Make and Return in the supply chain.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Title of the Paper	THE ESTIMATION OF SIGNAL IN TIME DOMAIN ANALYSIS WITH A MEAN SMOOTHENING, GAUSSIAN SMOOTHENING AND MEDIAN FILTER
Authors	V. KARTHIKEYAN
Journal Name	JOURNAL OF CRITICAL REVIEWS
<p>ABSTRACT:</p> <p>In the signal processing the signals are slowly corrupted by noise. It will affect the quality of signal. It is reconstructed using the smoothing filters. The first order recursive smoothing is used to extract the signal and it bypasses longer convolution method and it is generally used as unbiased estimators of mean of random process, as enhancement algorithm it requires an estimation of noise power spectral density. If the noise is varying slowly power spectral density can be obtained by Pause of the speech signal. In this paper we are going to estimate its efficiency of the signal considered in memory consumption and high practical relevance they are used to monitor the first order moment of the non stationary random process. it is an infinite impulse response for a long filter kernel. In speech, the noise signal can be estimated in the mean smooth time series and Gaussian smooth time series and median filter to remove the spike noise and their comparison has been shown.</p>	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	AUTHENTICATION STUDY ON CHARACTERISTICS OF SAFETY MANAGEMENT CUSTOMS IN CONSTRUCTION ENGINEERING
Authors	THIRUGNANA SAMBANDAN, FELIXKALA .T, NALLUSAMY.S
Journal Name	SSRG INTERNATIONAL JOURNAL OF ENGINEERING TRENDS AND TECHNOLOGY
ABSTRACT: In current scenario, construction sites are recognized as one of the hazardous work places. Working at height is one of the most hazardous situations in construction sites. Majority of the accidents at construction sites are mainly caused by the risk behaviour of the workers. At risk behaviour of the workforce is influenced by safety climate such as attitudes and perceptions are prevailing at construction site. This paper investigates the prevalent cultural values and its effect on safety beliefs, attitudes and perceptions of workforces at construction sites. Two part questionnaire surveys namely: Attitude and perception survey and cultural values survey for workers were conducted at civil engineering construction sites in and around Chennai. The responses obtained from workers for these surveys were analysed through exploratory factor analysis for extraction of factors. Pearson correlations revealed significant and positive correlations among the factors of national cultural values and safety climate of workforce.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	AUTHENTICATION STUDY ON CHARACTERISTICS OF SAFETY MANAGEMENT CUSTOMS IN CONSTRUCTION ENGINEERING
Authors	THIRUGNANA SAMBANDAN, FELIXKALA .T, NALLUSAMY.S
Journal Name	SSRG INTERNATIONAL JOURNAL OF ENGINEERING TRENDS AND TECHNOLOGY

ABSTRACT:

Comprehensive safety management system is an integral part of prevailing safety culture of any organisation. However, the Safety Management System (SMS) and good safety practices may vary at every national, regional and organisational level for various reasons. A well poised and consummate safety management system will certainly reduce the frequency and occurrence of untoward incidents at work place. The aim of the research is to investigate the prevailing factor structure for SMS and to test the efficacy of factor structure for appropriateness of the construction safety management systems and best practices. This cross-sectional study used questionnaire survey consisting 14 variables which were used in previous studies to measure the strategic and operational constructs of SMS. The modified SMS questionnaire was administered to 130 respondents working at various construction sites in Chennai, India. The respondents were engineers and supervisors having good degree of exposure with construction engineering background. Both exploratory and confirmatory factor analyses were performed and analysed the results statistically. Five out of fourteen variables were dropped to achieve good factor structure after performing Exploratory Factor Analysis (EFA) using Statistical Package for the Social Sciences (SPSS). Confirmatory Factor Analysis (CFA) was carried out using Analysis of Moment Structures (AMOS). The results revealed acceptable model fit indices for the SMS factor structure under examination.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	A REVIEW ON PHASEOLUS VULGARIS LINN
Authors	M DEVI, S DHANALAKSHMI
Journal Name	PHARMACOGNOSY JOURNAL
ABSTRACT: <p>Medicinal herbs have been discovered and used in traditional medicine practices since antiquated times. <i>Phaseolus vulgaris</i> Linn. (Family-Fabaceae) commonly known as French bean, is a most consuming carbohydrate and protein rich food crop having medicinal values. This plant having diverse compounds like carbohydrate, proteins, flavonoids, Saponins, tannins and phenolic acid. The seeds of <i>Phaseolus vulgaris</i> Linn. Possess having anti-urolithiatic activity and anti- obesity activity. This review provides a summary of phytochemistry and pharmacological effect of <i>Phaseolus vulgaris</i> Linn., The plant can be further investigated for other pharmacological activities as it contains variety of chemical constituents and it is a commonly using food crop and medical remedies of this plant are sync with nature.</p>	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	CYTOMORPHOMETRIC EVALUATION OF ORAL EXFOLIATED CELLS – ITS CORRELATION WITH AGE OF AN INDIVIDUAL
Authors	T. RADHIKA, SERAB HUSSAIN, ADITHYAN S, NADEEM JEDDY, L J SAILAKSHMI
Journal Name	JOURNAL OF OROFACIAL SCIENCES

ABSTRACT:

Age is a vital tool in assessing the mental and physical growth of an individual. Exfoliative cytology, a non-invasive procedure, also has its potential implication in age assessment of an individual. This study aims to correlate and compare the average cell size from oral buccal smears of individuals of varying age groups using cytomorphometric analysis. In this study, 100 buccal smears were collected from normal individuals, dividing them into five age groups (Group 1: 10–20, Group 2: 21–30, Group 3: 31–40, Group 4: 41–50, Group 5: 50 and above). The collected smear samples were stained using papanicolau stain. The average sizes of the cells were measured using Dewinter's image analysis software. Cytomorphometry revealed a decrease in the average cell size as age increases. Analysis using Bonferonni and Post Hoc tests showed statistically significant decrease in the average cell size ($P < 0.005$). Cytomorphometric evaluation of exfoliated oral cells proves reliable tool for correlation of age. Cytomorphometric analysis of exfoliated cells of buccal mucosa serves a potential alternative non-invasive procedure in evaluation and correlation of age of an individual compared to the other screening modalities, which are usually either invasive or expensive.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	HIGH PERFORMANCE GLASS FIBER REINFORCED CONCRETE
Authors	V.S. SETHURAMAN
Journal Name	MATERIALS TODAY: PROCEEDINGS
ABSTRACT: The research article outlines the experiment for the fresh properties of concrete and harden concrete which is conducts to find the use of glass fibers with structural component like cube cylinder and beam. To find the strength and durability of M20 grade of concrete with Glass Fiber Reinforced Concrete (GFRC). GFRC is mixed with concrete in three different variation and identify the fresh properties of the concrete and the harden strength of the concrete. GFRC varies from 0 to 1 percentage by mass of concrete and the properties of this FRC like compressive strength, toughness, modulus of elasticity and flexure strength were studied.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ENHANCEMENT OF COAP BASED CONGESTION CONTROL IN IOT NETWORK - A NOVEL APPROACH
Authors	M SWARNA., T GODHAVARI
Journal Name	MATERIALS TODAY: PROCEEDINGS
<p>ABSTRACT:</p> <p>IoT technologies are an inclusive kind of application and provide insolent environments. IoT devices accomplish actuating and recognize tasks through unique addresses. Resources of the WSN control the memory utilization of the network, network bandwidth, and network power consumption. The traffic strategy of the WSN IoT network is different from the conservative network. CoAP is the best data protocol in handling consistency and congestion control in the IoT environment. It is very important in cluster communication in multicast with server and numerous clients. This work emphasizes CoAP due to its squat overhead to reduce consumption in memory utilization and reduced the overall network power consumption. The proposed work presents a new approach to predict congestion control with the best feasible technique. An advanced congestion control mechanism uses various margins implemented using CoAP to analyze. Network congestion information is transpiring via massive, constrained communication devices. The proposed work implementation results are shows that it is better to compare to the real terms like transmission of packets, reduction in the latency, and increase in the transmission response time and reduction in power consumption.</p>	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	IMPACT OF DENTAL OPERATING MICROSCOPE, SELECTIVE DENTIN REMOVAL AND CONE BEAM COMPUTED TOMOGRAPHY ON DETECTION OF SECOND MESIOBUCCAL CANAL IN MAXILLARY MOLARS: A CLINICAL STUDY
Authors	RAVISHANKAR P, SRIDEVI K, KEERTHI V, PRASHANTH P, PRADEEP KUMAR A.R.
Journal Name	INDIAN JOURNAL OF DENTAL RESEARCH

ABSTRACT:

Maxillary molars may frequently require root canal therapy and can have complex anatomy. It is important to locate and treat the second mesiobuccal canal to significantly improve prognosis. The purpose of this study was to evaluate direct vision, dental operating microscope (DOM), selective dentin removal under DOM, and cone beam computed tomography (CBCT) in clinical detection of second mesiobuccal root canal (MB2) in maxillary molars. A total of 122 maxillary first and second molars indicated for root canal treatment were included in our study. Following access cavity preparation, the presence of MB2 canal orifice was assessed in four stages. Stage I: with direct vision. Stage II: under DOM, Stage III: after selective dentin removal under DOM and Stage IV: teeth in which MB2 canal was not identified by Stage III were further investigated with CBCT. The number of canals identified during each stage was analyzed statistically. Clinical detection of MB2 canal in our study was 90%, with 93% in maxillary first molar and 86% in maxillary second molar. 64% MB2 canals were located at Stage I (direct vision) which improved to 84% at Stage II (under DOM) and 90% at Stage III (selective dentin removal under DOM). CBCT investigation (Stage IV) further improved the identification of MB2 canal leading to overall prevalence of 93%. The results of our study demonstrated that MB2 canal can be clinically detected in up to 90% of maxillary molars by the use of DOM and selective dentin removal. CBCT investigation is indicated when MB2 canals are not clinically detected.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ACCEPTABILITY OF SILVER DIAMINE FLUORIDE AS INTERIM MEASURE TOWARDS UNTREATED DENTAL CARIES AND ITS IMPACT ON OHRQOL AMONG CHILDREN WITH HIV: PILOT STUDY
Authors	V. ANBU
Journal Name	INDIAN JOURNAL OF DENTAL RESEARCH

ABSTRACT:

Children with HIV are a special group with limited access to care and high prevalence of dental caries. Silver Diamine Fluoride (SDF) is approved universally for the management of asymptomatic carious lesions but research on the psychological impact of black staining is scarce. Effect of silver diamine fluoride (SDF) application as an interim caries management on the child's oral health-related quality of life of children with HIV over a period of 4 months until definitive care was provided. A pilot study conducted among children with HIV in a care home. It was a pilot trial to check the acceptability of SDF among these children. Forty-two children (12.3 ± 3.5 years) participated in this pilot study. Prevalence of caries (DMFT), candidiasis, gingival inflammation, and cervical lymphadenitis was evaluated. OHRQoL inventory (COHIP-SF) was completed by the students at baseline, immediately, 4 months after SDF application. One-way ANOVA with post hoc Tukey HSD test. Poor oral hygiene was universal and mean DMFT was 3.2 ± 2.5 . OHRQoL was not significantly affected at baseline (26.2 ± 6.4), but immediately following SDF application, OHRQoL was significantly poor (48.7 ± 8.2), remained poor even after 4 months (42.6 ± 6.1). Emotional wellbeing was significantly impacted negatively following SDF application ($p < 0.001$); whereas oral health, functional wellbeing dimensions were not impacted. SDF should be used with caution among special children as the black discoloration of the teeth can cause emotional trauma and negatively impacting their OHRQoL while trying to improve the same.



DR MGR - RESEARCH PUBLICATION ABSTRACT – **AUGUST 2020**

Paper Title	DERMAL TEST OF SEPIA PHARAONIS INK EXTRACT PROVES TO BE SAFE IN ALBINO RABBITS
Authors	JOHNSON LEONOLINE EBENEZER
Journal Name	DRUG INVENTION TODAY

ABSTRACT

To measure the degree of skin irritation in albino rabbits using Sepia pharaonis ink extract (SPIE). The procedure followed was as per Organization for Economic Cooperation and Development guidelines for dermal irritation. Three albino rabbits were selected. Twenty-four hours before the test, the dorsal aspect skin of the rabbit was prepared for the test. 0.5 gm of the SPIE patch was prepared. The patch was applied to the dorsal aspect of the body. Patch 1 for 3 mins, Patch 2 for 1 hr, and Patch 3 for 4 hrs were applied and removed, observed for 24 hrs initially followed-up to 14 days without any patch to grade the corrosion or erythema. Dermal irritation test grading was done. skin irritation grading revealed no Oedema or Erythema in the Albino Rabbit. Sepia pharaonis ink extract in Albino rabbits ensures the safe use of the product in the mere future for the public without any Anaphylactic reaction.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	BIOLOGICALLY ACTIVE COMPOUNDS IN SEPIA PHARAONIS FISH (EHRENBERG, 1831) INK EXTRACT FROM CHENNAI SEACOAST ISOLATED BY GAS CHROMATOGRAPHY
Authors	JOHNSON LEONOLINE EBENEZER
Journal Name	DRUG INVENTION TODAY
ABSTRACT: The aim of the study is to perform gas chromatography–mass spectrometry (GC–MS) of Sepia pharaonis ink extract (SPIE) and enlighten the world of the bioactive components present in it. The objectives of this study were to analyze and quantify the various compounds present in the S. pharaonis fish ink extract and to characterize the compounds present in the SPIE with their uses and potentiality. S. pharaonis fish crude ink extract was taken from ink sac of cuttlefish and subjected to lyophilization. The black residue was used in performing the GC–MS procedure. N-hexane was used as a solvent for SPIE. Various compounds such as dopamine, beta-carboline, palmitamide, erucylamide, and stearamide were identified. A total of 22 compounds were identified. The compounds identified were having antimicrobial, antifungal, anti-inflammatory action, etc. SPIE can be useful in treating various diseases of human beings. The ink sac discarded normally with precious ink can be preserved in the mere future and used in various health ailments.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	DERMATOGLYPHIC STUDY USING RECENT TECHNIQUE IN HYPERTENSIVE INDIVIDUALS OF BOTH SEXES IN SOUTH INDIAN POPULATION
Authors	JOHNSON LEONOLINE EBENEZER
Journal Name	DRUG INVENTION TODAY

ABSTRACT:

The aim of the present study is to compare the dermatoglyphic patterns between normal and hypertensive individual using fingerprint detector instrument in both male and female patients. Persona fingerprint reader and its software were used for the study. Twenty-five normal and 25 hypertensive male individuals were selected. Twenty-five normal and 25 hypertensive female individuals were selected. Ten fingers of every individual were recorded and compared. The various patterns were compared and analyzed. In normal males, central pocket loop, plain arch, and tented arch were statistically significant. In normal females, the loop was statistically significant. In hypertensive males plain arch, true whorl was statistically significant; in hypertensive females, tented arch was statistically highly significant. Noninvasive diagnostic tools to rule out certain diseases using dermatoglyphics are on the increase. The fingerprint reader used in the present study is non-expensive and non-time consumable. Like glucometer and sphygmomanometer, the fingerprint reader can be used as screening test in normal clinical practice. This study will alarm the society about the forthcoming hypertension disease in future. Physician can alert the public of future procurement of disease and prevent its early onset.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	TOPICAL CURCUMIN AND TRIAMCINOLONE ACETONIDE IN RECURRENT MINOR APHTHOUS ULCERS: A PILOT TRIAL
Authors	PRAVEENA RAMAN., RAGHURAM PITY., CHANDRASEKAR LAKSHMI KRITHIKA., S P NEHRU ANAND., DR. P S GAYATHRI
Journal Name	JOURNAL OF CONTEMPORARY DENTAL PRACTICE

ABSTRACT:

To evaluate the efficacy of topical curcumin and topical triamcinolone acetonide in a professional population with minor aphthous ulcers by assessing six clinical variables: site, size, pain, healing period, frequency of recurrence and number of ulcers. This randomized, parallel designed pilot trial was performed on 60 symptomatic individuals with minor aphthous ulcer. Willing participants were allocated randomly into group I and group II. Participants in group I were treated with topical curcumin and group II were treated with topical triamcinolone acetonide for a period of 6 months. All participants were blinded to the drug they received. Participants were assessed on day 1, day 3, day 5, day 7, and after healing for symptomatic reduction in pain, size, healing period, frequency of recurrence, and in the number of ulcers. Statistically, independent sample t test, Chi-square test, and Log rank Kaplan–Meier survival analysis were performed. Lower labial mucosa was found to be the predominant site of minor aphthous ulcer in both the groups. A gradual reduction in pain and size was noted in both the groups with statistical significance of p value 0.05. Our study showed clinically beneficial effects with topical curcumin with regard to ulcer size, pain, healing, and recurrence rate. Also topical curcumin gel was well tolerated and performed on par with topical triamcinolone acetonide oral paste with a borderline favorable result with triamcinolone. Curcumin can be safely recommended on a long-term basis as a more appealing therapeutic agent and is a better alternative choice for aphthous ulcers in children, pregnant woman, lactating mother, and in immunocompromised individuals.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	DESIGN OF MICROSTRIP PATCH ANTENNA AT 10.3 GHZ FOR X-BAND APPLICATIONS
Authors	K SUDHAMAN, T GODHAVARI
Journal Name	IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING
<p>ABSTRACT:</p> <p>In this study, an E shaped microstrip patch antenna is proposed. which is designed using FR4 - epoxy substrate. The designed antenna has a return loss of -29.21 dB and works with X band. The design is simulated using a software tool called HFSS (High Frequency Structure Simulator). The antenna has been designed for 10.3 GHz frequency applications and the return loss, VSWR and the radiation plot of the designed antenna has been evaluated. The aim is to achieve a high directivity with better gain and reduced losses particularly for X band applications.</p>	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	EXPERIMENTAL ANALYSIS OF LUFFA COMPOSITE MATERIAL
Authors	KUMAR VIJAYENDRA GOPAL, FREDRICK GNANARAJ F, VIJAYA KUMAR K R, ANDREW NALLAYAN W
Journal Name	IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING

ABSTRACT:

In recent times maximum research is based on the composite materials. In the future, many engineering developments are based on the composite material. This research is entirely based on natural composite material. In this work, Luffa material is used for making composite materials in different proportions and its mechanical properties calculated. Luffa is a natural material with less cost and easily available material. Thus the main objective of this work is determining the best composition by comparing the properties of different compositions.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	STABILITY ANALYSIS OF DEDICATED GREEN ENERGY CORRIDORS AND ENHANCEMENT OF RENEWABLE ENERGY EVACUATION
Authors	E SHEEBA PERCIS, A NALINI, T JENISH, JAYARAJAN, S SENDILVELAN
Journal Name	IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING

ABSTRACT:

This paper aims to analyze and investigate the influence of RES on 400kV transmission system in Tamil Nadu state which has the highest amount of Wind/Solar generation installed in India and huge addition of other RES, has been considered to study the impacts of increasing Renewable Energy Resources on proposed TN - Green Energy Corridors with regards to stability of the system and to suggest the improvements required to enhance the of the Corridor. Quantification of maximum power transferred from remote areas where renewable sources are pre dominant to Load centers through Green Energy Corridors also observed. Increasing Renewable Energy penetration in a power system means that RERs substitute the conventional power plants that traditionally control and stabilize the power system. Further, this project also covers the importance of Dedicated Transmission Corridors to facilitate large scale integration of renewable into the grid and identify the possibilities to evacuate the RES generation to the Load centres which ensures maximum RES usage and reduction in RES curtailment. Renewable Energy Management Centre (REMC) equipped with advanced Forecasting Tools, Smart Dispatching solutions & Real Time Monitoring of RE generation, can closely coordinate with the Grid Operations team for safe, secure and optimal operations of the overall grid.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	SUPERVISORY PROTECTION SCHEME FOR A WIDE AREA 400KV POWER NETWORK
Authors	NALINI. A, SHEEBA PERCIS. E, SENDILVELAN. S
Journal Name	IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING

ABSTRACT:

The Occurrences of blackout has emphasized the Engineers to enhance the protection schemes. The faulted areas are isolated and therefore the remainder of the areas are protected. During the faulted conditions like Congestion, Over/Under Voltage, Over/Under current, Over/Under Frequency etc, the dimensions and complexity of the facility grid makes the system vulnerable. In this paper Wide area protection scheme is applied to a 400kv Network. For detection and to initiate remedial actions, SCADA alongside Phasor Measurement Unit is applied for Wide Area Protection for robustness of the facility Grid.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	TWITTER SENTIMENT ANALYSIS ON BIG DATA IN SPARK FRAMEWORK
Authors	ANURADHA K, UMADEVI S, E MERCY BEULAH, NIRMALA SUGIRTHA RAJINI
Journal Name	IOP CONF. SERIES: MATERIALS SCIENCE AND ENGINEERING

ABSTRACT:

Earlier for communication between people is something which is delivered by hand from one person to another. In some words, or letter Social Media an important and also an integral part of everyone's life now days. Twitter is a social media site and its primary purposes are to connect people and allow people to share their thoughts. Twitter an American Microbe Using twitter social media users post their views, opinions and to communicate with messages called as tweets. It is one of the social media that is gaining popularity now days. As of 2014 twitter social media has more than 284 million users are in active in monthly basis and above 500 million messengers sent messages on a daily base. Twitter is created by Jack Dorsey, Noah Glass, Biz stone and Evan Williams in March 2006 and it was launched in the month of July in that year. Sentimental analysis means the analysis and classification of the emotions and feelings such as positive thought, negative thought and neutral thought using text analysis techniques within text data. The aim of the proposed analysis is to identify the public opinion using NLP (Natural Language Processing) with n-gram stemming algorithm in Spark framework.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	GIS APPLICATIONS FOR WATER RESOURCES CONSERVATION THROUGH HYDROGRAPHIC SURVEYS IN CHIKARAYAPURAM AND PAMMAL ABANDONED QUARRIES
Authors	R M NARAYANAN, VIJAYALAKSHMI A R, NIRANJANA V
Journal Name	IOP CONFERENCE SERIES: MATERIALS SCIENCE AND ENGINEERING

ABSTRACT:

During the year 2017 the Chennai metropolis was facing a severe drought due to failure of monsoon rainfall and starved even for drinking water. A scientific study has been carried out using geospatial technology and echo sounders for the identified source of water from abandoned quarries towards estimating the quality and quantity. The study has identified the quantity of available water is 26,32,967 m³ from both the quarries and the water quality is suitable for drinking purpose and concluded with the recommendations of collecting the excess water (Floodwater) in Chikarayapuram Quarries, which can hold maximum of 0.55 TMC of water for water starving Chennai City with diversion of overflowing water channels to the abandoned quarries with minimal measures. The water in Quarry No.4, Pammal should be treated with hydrochloric acid and after additional water treatment techniques, the water can be utilized for drinking purposes.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ROLE OF SOFT SKILLS AND PERSONALITY DEVELOPMENT IN TEACHER EDUCATION
Authors	THANGAM ARUNACHALAM., RENGARAJAN M., GEETHA KANNABIRAN
Journal Name	INTERNATIONAL JOURNAL OF PSYCHOSOCIAL REHABILITATION

ABSTRACT:

Personality development is significant in aiding the evolution of student-teachers in teacher training programmes. It incorporates the acquisition of soft skills such as ethical behaviour, language-learning, professionalism, body language, class management, pedagogy, practise of legal matters while staying informed and up-to-date with current news and technology. These are climacteric and holistic skills that teachers not only require but also tremendously lack in developing countries to this day. Training such as this one could spark the desire impertinent in younger teachers. It helps them bring out their intellectuality, impacts their sphere positively, and strengthens their coping mechanism during work pressure. Learners benefit when they adopt influence over professional and social circles that help them further their career. Every individual yearns to harbour and demonstrate certain values and skills before embarking on career-driven adventures. It is their right to have complete control over their profession without missing out on personal and workplace values. Educational institutions foster an ever growing demand for such courses that refine aspirants and groom them for interviews, seminars and discussions. It takes any foundation to the future of advanced learning. Personality development is the foremost requirement for any qualified teacher that is independent. The skills it instils become requisite for sharing ideas and for carrying out beneficial interaction, be it between students and teachers and parents.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	AI POWERED FACE RECOGNITION BASED ATTENDANCE MARKING SYSTEM
Authors	M.KAMALAHASAN, GAYATHRI S, B. SWAPNA, H. HEMASUNDARI
Journal Name	JOURNAL OF ADVANCED RESEARCH IN DYNAMICAL AND CONTROL SYSTEMS

ABSTRACT:

Staff Attendance marking is a most time consuming task in every institutes. Current attendance system is mostly based on RFID, IRIS, Fingerprint and even Notebook. Those systems require physical interaction of human with the devices, everyone should wait until previous user mark the attendance and queue is essential to control the crowd. Objective of our project is to develop a Face recognition based staff attendance system by using AI. It captures the faces with cameras and processes every image into datasets. With the help of deep learning and datasets system detects the location of the person face and identifies which face belongs to which ID then mark the attendance in the datasheet. Then export the attendance as excel sheet then save it to specific location. All captured images and datasets are saved to the servers.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ANALYSIS OF FUZZY ANALYTICAL HIERARCHY PROCESS FOR SUSTAINABLE DEVELOPMENT OF TEACHING SKILL FACTORS BASED ON ENGINEERING APPLICATIONS
Authors	SONA. P, KALEESWARI. K, JOHNSON .T, SARALA .S
Journal Name	JOURNAL OF GREEN ENGINEERING
ABSTRACT: Career of teaching is centered upon narrowness on a definite field with teaching abilities and some assured personal features that it needs. In view of facing global challenges, "quality of education" plays a vital role especially in applications of engineering. For teachers, it is difficult to avoid the global challenges which are influenced by the implication of the rapid development of science and technology, situations like COVID19 etc., but have to be challenged by using possessions with high eminence will power. The aim of this paper is to determine the criteria which have been incorporated in the improvement of teaching skills using Fuzzy Analytical Hierarchy Process (FAHP). These analysis may be helpful to the teachers to absorb with their desires and concerns in mind.	



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	STUDY ON UTILIZATION OF BURR WASTES AS MICRO-REINFORCEMENTS IN CONCRETE TO OVERCOME DISPOSAL OF HAZARDOUS MATERIALS IN ENVIRONMENT
Authors	SETHURAMAN V.S.
Journal Name	JOURNAL OF GREEN ENGINEERING

ABSTRACT:

Concrete is the basic engineering material used in most of the civil engineering projects. It is extremely used because of the ability in possessing high compressive strength and can be moulded into any desired shape. In order to overcome the poor tensile strength of concrete, fibers are introduced in the matrix. In this research work, burr wastes obtained from CNC turning process in lathe industry were disposed as wastes in open lands in the proximity of the industries causing an hazard to the environment. Hence, these wastes were tested as fiber material in the form of micro-reinforcements in the concrete. Burr wastes were added to the concrete in volume fractions $V_f = 0\%$ to 2.0% and tested for its split tensile strength, compressive strength and flexural strength. The results of the experimental tests revealed that the compressive strength and flexural strength of burr waste concrete increased from 16.16% to 23.36% and 117% to 124% respectively for $V_f = 0.5\%$ to 2.0% at 28 days strength in comparison with concrete made without burr waste. The tensile strength of burr waste concrete increased upto 6.06% for $V_f = 0.5\%$ at 28 days strength when compared to conventional concrete. From the experimental investigation, it was observed that the addition of burr wastes as micro reinforcements in the concrete had significant improvement in terms of concrete strength.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	PHARMACOLOGICAL REVIEW OF PORTULACA GRANDIFLORA HOOK
Authors	DEVI M., HARIKRISHNAN N., RAMYA M., NANDHINI M.
Journal Name	INTERNATIONAL JOURNAL OF PHARMACEUTICAL RESEARCH

ABSTRACT

Portulaca grandiflora Hook commonly known as “Moss rose” is a succulent flowering plant belonging to the family Portulacaceae. It has been used in eastern traditional medicine for centuries, valued for its benefits in the management of sore throat, skin rashes and detoxification. Portulaca grandiflora Hook has been reported to possess antioxidant activity, antibacterial and antidiabetic activity also been used as folk medicine since ancient times. Leaves are used in the treatment of scurvy and in Chinese medicine it is used to treat various tumors. It is one of the important ingredients of the Chinese herbal medicine, Tumoclear (Kang zhongpian) formulated for tumor and cancer treatment. Leaves and flowers are strained around the neck to relieve muscle spasms and neck stiffness. In this review we have focused on photochemistry and pharmacological actions proven on Portulaca grandiflora Hook. Till now there is not much clear research information about pharmacology studies, so for upcoming researchers this article will be more useful for further studies.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	A STUDY TO COMPARE THE EFFECTS OF AEROBIC EXERCISES AND YOGA ON DEPRESSION AND MATERNAL ANXIETY ORIENTING AMONG PRIMIPAROUS WOMEN
Authors	G YUVARANI, G. THARANI, K KAMATCHI, G VAISHNAVI
Journal Name	BIOMEDICINE

ABSTRACT: Primiparous women undergo stages of depression or anxiety during pregnancy especially the risk of preterm birth, breast-feeding problems and disruption of the mother-infant attachment. It is a most common psychiatric disorder and is associated with a greater risk of low fetal quality, Pregnancy complication and developmental disorder of the child. During pregnancy 10-15% women were affected with depression and the incidence increases in low economic status. Physical activity during pregnancy is more beneficial to the maternal fetal unit and it may prevent recurrence of maternal disorders. The objective of this study is to compare the effects of aerobic exercise and yoga on depression and maternal anxiety orienting among primiparous women. This experimental study was conducted with 30 subjects at ACS Medical College and Hospital, from January 2018 to March 2018. The outcome measures of CES D scale were used to assess the severity of depression and anxiety. Group A received Aerobic exercise for 30 minutes initially started with warm up for 10 minutes and followed by 10 minutes stretching and 10 minutes relaxation. Group B received yoga for 20 minutes up to 3 months. The treatment duration was followed from the 16 to 20 weeks of gestation for 3 months. On comparing the mean values of group A and group B on centre for epidemiological studies depression scale score, it showed significant decrease in the post test mean values of group A (24.60) and group B (24.40) at $P \leq 0.001$. Hence both the groups were equally effective in decreasing the depression and maternal anxiety among primiparous women. This study concluded that the aerobic and yoga showed significant effect in both groups for reducing the symptoms of depression and anxiety among primiparous women.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	EFFECTIVENESS OF ISOLATED ANKLE STRENGTHENING AND FUNCTIONAL BALANCE TRAINING IN SINGLE LEG DROP JUMP LAND IN FOOTBALL PLAYERS AND MEASURING THE STABILITY
Authors	G VAISHNAVI, G YUVARANI, K KIRUPA, G THARANI, SATHYA S
Journal Name	BIOMEDICINE

ABSTRACT: Football is one of the famous sports in the world and associated with many ankle injuries in football players. Many football players use single leg drop jump landing ranging from 13 to 20 out of 1000 players. Functional balance maintain or improve activities of daily living and quality of life. Strength training increases the density of bone and reduces the risk of fractures. Aim of this present study is to analyze the effectiveness of the isolated ankle strengthening and functional balance training in single leg drop jump land in football players. 30 football players with single leg drop jump were randomly selected to participate in this pre and post-test experimental study. Study is done at ACS medical college. Selected players were asked to perform the exercise for about 8 weeks, 40 minutes per day. The subjects performed ankle strengthening for 20 minutes and functional balance training for 20 minutes. Dorsiflexors are at high – risk injury during single leg drop jump land in football players. Thus, exercise is given for strengthening and functional balance and prevailing stability of ankle is measured using foot and ankle measure (sub scale) (FAAM), Star Excursion Balance Test (SEBT). On comparing mean values of SEBT within group between pretest and post-test values, it shows statistically highly significant difference and improvement in balance between pre-test (89.67) and post – test (94.18) at $P < 0.001$. On comparing the mean value of FAAM sports subscale within group between pretest and post-test values, it shows statistically highly significant difference and improvement in ankle and foot physical function between pretest (45.34) and post-test (60.81) at $P < 0.001$. This study shows that isolated ankle strengthening, and functional balance training is effective in improving the ankle strength and balance in football players.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	ANTIBACTERIAL, ANTIOXIDANT, ANTICANCER EFFECTS AND GCMS ANALYSIS OF BERBERIS ARISTATA
Authors	K J SHARMILA, S M MONISHA, A AKILA BEEVI, V DEEBARATHI
Journal Name	BIOMEDICINE

ABSTRACT:

Berberis aristata is an important medicinal plant, which belongs to Berberidaceae family. It is used to treat skin diseases, jaundice, syphilis, diarrhoea, continual rheumatism and urinary problems in Ayurveda. The aim of the present study was to evaluate the antioxidant and antibacterial activity of aqueous extract of B. aristata and GC-MS analysis for active compound identification. Different antioxidant assays were carried out for evaluating the antioxidant activity of aqueous extract of B. aristata. The maximum DPPH radical scavenging activity of aqueous extracts, the maximum superoxide radical scavenging activity of B. aristata extract, the maximum Fe^{3+} and the maximum phosphomolybdenum of B. aristata was analysed along with the anticancer activity of aqueous extract of B. aristata. These form MTT assay of the extracts. The targeted investigations carried at the cytotoxicity interest of bark of B. aristata have delivered out a few salient diagnostic features, which allow one to distinguish it from other substitutes and adulterants. The antioxidant activity, antibacterial activity and the usage of GCMS analysis has especially contributed to this differentiation. Based on these observations, the bark extract of B. aristata can be used as a potential drug and thereby is a promising future for further researches.



DR MGR - RESEARCH PUBLICATION ABSTRACT – AUGUST 2020

Paper Title	PERVASIVE COMPUTING IN THE CONTEXT OF COVID-19 PREDICTION WITH AI-BASED ALGORITHMS
Authors	P S RAJA KUMAR
Journal Name	INTERNATIONAL JOURNAL OF PERVASIVE COMPUTING AND COMMUNICATIONS

ABSTRACT:

The current and on-going coronavirus (COVID-19) has disrupted many human lives all over the world and seems very difficult to confront this global crisis as the infection is transmitted by physical contact. As no vaccine or medical treatment made available till date, the only solution is to detect the COVID-19 cases, block the transmission, isolate the infected and protect the susceptible population. In this scenario, the pervasive computing becomes essential, as it is environment-centric and data acquisition via smart devices provides better way for analysing diseases with various parameters. For data collection, Infrared Thermometer, Hikvision's Thermographic Camera and Acoustic device are deployed. Data-imputation is carried out by principal component analysis. A mathematical model susceptible, infected and recovered (SIR) is implemented for classifying COVID-19 cases. The recurrent neural network (RNN) with long-term short memory is enacted to predict the COVID-19 disease. Machine learning models are very efficient in predicting diseases. In the proposed research work, besides contribution of smart devices, Artificial Intelligence detector is deployed to reduce false alarms. A mathematical model SIR is integrated with machine learning techniques for better classification. Implementation of RNN with Long Short Term Memory (LSTM) model furnishes better prediction holding the previous history. The proposed research collected COVID -19 data using three types of sensors for temperature sensing and detecting the respiratory rate. After pre-processing, 300 instances are taken for experimental results considering the demographic features: Sex, Patient Age, Temperature, Finding and Clinical Trials. Classification is performed using SIR mode and finally predicted 188 confirmed cases using RNN with LSTM model.



DR MGR - RESEARCH PUBLICATION ABSTRACT – **AUGUST 2020**

Paper Title	OVERVIEW AND PREVENTIVE STRATEGIES OF CORONAVIRUS AMONG HEALTHCARE COMMUNITIES
Authors	K SHEELA KUMARI
Journal Name	INTERNATIONAL JOURNAL OF CURRENT RESEARCH AND REVIEW

ABSTRACT:

Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. It is considered to be a pandemic disease of the year 2019-2020. The pandemic has caused the severe global socioeconomic disruption, including the largest global recession and the great depression. The virus that causes COVID-19 is mainly transmitted through droplets generated when an infected person coughs, sneezes, or exhales. The health care providers, work to save the lives of many people affected by coronavirus by fighting against the dreadful virus and become helpful in preventing the spread of infection in society. Thus it is very essential to reduce the role of fomites, virus and other micro-organisms that might play a role in the transmission of coronavirus in healthcare and non-healthcare settings which can be overcome by adapting proper sterilization and disinfection protocol. This article gives an overview of preventive measures to be undertaken in various healthcare fields which is mandatory in the current COVID 19 situation.

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APPRECIATION
SEPTEMBER 2020



DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	COVID-19 - In Silico Structure Prediction and Molecular Docking Studies with Doxycycline and Quinine
Authors	Sumitha A, Parthiban Brindha Devi, Sowmya Hari, Dhanasekaran R
Journal Name	Biomedical and Pharmacology Journal

ABSTRACT:

Coronavirus disease (covid-19) is a pandemic of international concern. It creates serious health risk all around the globe and it has no effective treatment. Doxycycline and Quinine are the drugs used as ligands in the study as these drugs has proved in vitro antiviral activity against dengue virus and herpes simplex virus. These compounds were targeted against non structural protein (nsp 12) which plays a vital role in replication and transcription of Corona viral genome. The protein 6 NUR that showed maximal identity of target protein nsp 12 was retrieved using BLASTp. Further the protein was modelled and the compounds were docked using AUTODOCK software and to study the structure activity relationship of ligand with target protein and biochemical information of ligand receptor interaction was done. Both the compounds, Doxycycline and Quinine were well engaged into the active site of target protein nsp 12 with strong hydrogen bond interaction and non polar interaction with active site of the protein. The Docking score of Doxycycline is found to be - 7.34 kcal/mol while that of Quinine being - 6.14 Kcal/mol. This indicates the potential of these drugs as a lead against the nsp target protein of Corona virus which need further analysis and Optimisation studies.

Paper Title	Heavy metals accumulation in plants of the dry-steppe zone of the East Kazakhstan region
Authors	L R Sassykova, Y A Aubakirov, M Sh Akhmetkaliyeva, A R Sassykova, S Sendilvelan, M Prabhakar, S Prakash, Zh Kh Tashmukhambetova, T S Abildin, A K Zhussupova
Journal Name	Materials Today: Proceedings

ABSTRACT:

In this article data of a long-term research of the main regularities of distribution of heavy metals (Cu, Zn, Mn, Co, Pb, Cd) in plants of dry-steppe zone of the East Kazakhstan region are described. The field under study is of considerable scientific significance, as it includes the former nuclear plant of Semipalatinsk, as well as the protected area of the Abai Museum-Reserve. Zone typical plants of a steppe and desert-steppe zone were investigated; all 100 tests of plants, 18 views from 6 families were studied. It is shown that the wild vegetation of the study region contains much higher amounts of lead than cobalt. A significant scatter in the content of heavy metals in wild plants is characteristic. The maximum change in heavy metals is observed in cadmium (72%) and manganese (62%), the minimum change in zinc (25%). For the researched region by the level of biological absorption by plants, copper, manganese, cobalt, lead belong to the group of elements of average absorption; zinc, cadmium – to a group of elements of intense absorption. For zinc and cadmium, biogenic migration, apparently, can act as the main factor in the migration of these elements in the landscape.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Influence of Saturated Fatty Acid Material Composition in Biodiesel on its Performance in Internal Combustion Engines
Authors	M Prabhakar, Kathirvelu Bhaskar, Gomathi Kannayiram, S Sendilvelan, S Prakash, Palsami Tamilselvan, Larissa Sassykova
Journal Name	Materials Today: Proceedings

ABSTRACT:

The aim of this research was to study the influence of the composition of saturated fatty acids of biodiesel on the performance, emissions and characteristics of combustion in an engine with compression ignition. An increase in saturated fatty acids may eliminate biodiesel deficiencies. Various 55% mixtures of saturated fatty acids with diesel fuel were studied and compared. Five different combinations of blend were prepared using the following esters such as Palm oil methyl ester (POME), Coconut oil methyl ester (COME), Neem oil methyl ester (NOME), Mahua oil methyl ester (MOME), Jatropha oil methyl ester (JOME) and Pongamia oil methyl ester (PONOME). All five combinations (BD1-BD5) were tested and compared for physicochemical characteristics such as density, viscosity, iodine number, saponification number, energy consumption, thermal efficiency, exhaust gas temperature, toxic gas emissions. Five blended combinations showed viscosity around 5.13 to 5.56 centistokes. The Cetane number of the five blends were in the range of 52–56. The heating value of the five combinations was in the range of 38.92 to 40.65 MJ/kg. Iodine values were found to be in the range of 50–73. The brake thermal efficiency percentage were in the range of 27.15–27.4. All five blends found to emit less amount of Greenhouse gases. The results of the research state that all five combinations of biodiesel are unique, and they show very good performance properties as fuel along with less discharges toxic emissions.

Paper Title	Research of the combustion of gas-generating compositions with additives of carbon powders
Authors	D A Baiseitov, S Tursynbek, L R Sassykova, Zh Amir, A Orazbayev, M I Tulepov, Zh Kudyarova, S Sendilvelan, M Prabhakar, S Prakash
Journal Name	Materials Today: Proceedings

ABSTRACT:

In this article data of a long-term research of the main regularities of distribution of heavy metals (Cu, Zn, Mn, Co, Pb, Cd) in plants of dry-steppe zone of the East Kazakhstan region are described. The field under study is of considerable scientific significance, as it includes the former nuclear plant of Semipalatinsk, as well as the protected area of the Abai Museum-Reserve. Zone typical plants of a steppe and desert-steppe zone were investigated; all 100 tests of plants, 18 views from 6 families were studied. It is shown that the wild vegetation of the study region contains much higher amounts of lead than cobalt. A significant scatter in the content of heavy metals in wild plants is characteristic. The maximum change in heavy metals is observed in cadmium (72%) and manganese (62%), the minimum change in zinc (25%). For the researched region by the level of biological absorption by plants, copper, manganese, cobalt, lead belong to the group of elements of average absorption; zinc, cadmium – to a group of elements of intense absorption. For zinc and cadmium, biogenic migration, apparently, can act as the main factor in the migration of these elements in the landscape.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Review on construction risk and development of risk management procedural index – A case study from Chennai construction sector
Authors	K Sharan Kumar, RM Narayanan
Journal Name	Materials Today: Proceedings

ABSTRACT:

Construction risk management plays an important role in the area of buying and selling irrespective of measure, activity and organisation. Risk management is a field of ideology and uncertainty which depends on significant projects which vary from nation to nation. It is essential to decrease the losses faced by the firm and to increase the profit, which can be done to forecast and calculate the risk factors relevant to the construction practices on time. Therefore, the research aims to identify and categorise the types of risk factors associated in the Chennai construction industry by developing a cumulative value using Risk management procedural index. The methodology of the study is to examine and rank the types of risk factors disturbing the construction projects by distributing a questionnaire survey administered to participants such as consultant, contractors and client/developers in the major parts of Chennai. In the result, the proposed RMPI method gives a cumulative value which shows the percentage of risks contributed by the various factors and they are ranked in order of the weighted value. The conclusion of this paper gives a clear forecast to reduce the cost and times overrun, which improves the quality of the construction project. The top three risk factors identified by the RMPI for the Chennai sector are listed as management (~15%), financial (~12), and environmental (10%).

Paper Title	Prediction of TEC using NavIC/GPS data with geostatistical method / forecasting capability comparison with other models
Authors	P Soma, P Sindhu, R Mukesh, V Karthikeyan
Journal Name	Astrophysics and Space Science

ABSTRACT:

Total Electron Content (TEC) is used for calculation of Ionospheric delay. The Precise forecast of TEC is useful to correct the range measurements. TEC depends on the time of measurement, solar radiation (SSN & F10.7), geomagnetic index (AP & KP), season and geographic location of the user. In this paper, Cokriging geostatistical method is applied to build the Surrogate Model (COKSM) to estimate the range error based on predicted Vertical Total Electron Content (VTEC). The model is tested with pseudo-range measurements of L5 & S band data received from the operational NavIC/GPS receiver positioned at ACSCE, Bangalore, India and also using L1& L2 data of IGS network station. In order to assess the developed model, we have predicted and analyzed the ACSCE-NavIC TEC and IISC-GPS TEC and found that COKSM has predicted well for both NavIC (ACSCE) and GPS (IISC) TEC. The average RMSE of COKSM for NavIC TEC prediction is 1.4920 TECU, mean accuracy is 1.1151 TECU and average correlation coefficient is 0.9854. For GPS TEC prediction COKSM yields average RMSE of 1.1435 TECU, mean accuracy as 0.9080 TECU and average correlation coefficient of 0.9926. The average range error of NavIC and GPS are 0.2126 and 0.0938 meters. In order to estimate the performance of COKSM, it is compared with the Median model, Fourier series, NTCM-GL, SPM, LSTM and TIEGM/WEIMER models.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Experimental Investigation of Heat transfer and Friction Factor Characteristics with Triangular-cut Twisted Tape (TCTT) Inserts
Authors	K Sivakumar, K Rajan
Journal Name	Proceedings of the National Academy of Sciences, India Section A: Physical Sciences

ABSTRACT:

An experiment was conducted to investigate the heat transfer characteristics and friction factor characteristics of a concentric tube fitted with triangular-cut twisted tape (TCTT) insert with a twist ratio Y of 5.4 and depth of triangular cut of 1.2 cm, which were studied for laminar flow. This investigation also is used to find the heat transfer coefficient, Nusselt number and Reynolds number. The heat transfer enhancement was caused with the flow of fluid between the plain twisted tapes and TCTT. The experimental value of plain tube and triangular-cut twisted tube obtained from the experimental work and these two statistical data were compared with the results. The results show that the enhancement of heat transfer rate induced with plain and TCTT inserts increases with the increase in Reynolds number. The Reynolds numbers were varied in the range of 5710–18,366. The Reynolds number in the tube with triangular-cut twisted tape insert were enhanced by 1.1–1.3 times compared with smooth twisted tape inserts. The configuration of TCTT insert offered higher heat transfer rate and friction factor than that of the plain twisted inserts.

Paper Title	Treatment of 2,4,6-trichlorophenol using agricultural by-products
Authors	Juliet Mary Juli Jenisha, D. Kavitha
Journal Name	Materials Today: Proceedings

ABSTRACT:

This research discusses adsorption of 2,4,6-trichlorophenol (TCP) using coir pith carbon produced from agricultural by-products. Batch mode studies investigated the essential adsorption aspects like initial adsorbate concentration, dosage of adsorbent, varying pH and temperature. The mechanism of kinetic adsorption was rapid, attaining equilibrium at 50 and 110 min for concentrations of TCP (10–40 mg/L). Experimental kinetic data revealed excellent match for second order kinetic. Only Freundlich followed the isothermic adsorption data and pH 2.0 was appropriate for TCP adsorption. Desorption experiments have shown that chemical adsorption plays a significant role that has also been supported by studies of thermodynamic factors like standard enthalpy, entropy and free energy.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Equilibrium, kinetics, thermodynamics and desorption studies of pentachlorophenol onto agricultural waste activated carbon
Authors	D. Kavitha
Journal Name	Materials Today: Proceedings

ABSTRACT:

Cair-pith derived activated carbon has been shown to be a feasible adsorbent for the extracting pentachlorophenol from aqueous medium. The adsorption was studied by varying the dosage of carbon, contact time, concentration of the adsorbate, temperature and pH. Kinetic studies revealed fast adsorption with equilibrium attained at 60 and 80 min for adsorbate concentrations (10-40 mg/L). The second order model was best described in the experimental kinetics. Analyzed the equilibrium data by applying well known isotherm models. The principle of adsorption has been confirmed by estimation of thermodynamic parameters like standard entropy, enthalpy and free energy.

Paper Title	Administration of coenzyme Q10 to a diabetic rat model: changes in biochemical, antioxidant, and histopathological indicators
Authors	Jerine S. Peter, Shalini M, Giridharan R, Kadar S. Basha, Udhaya B. Lavinya, Sabina Evan Prince
Journal Name	International Journal of Diabetes in Developing Countries

ABSTRACT:

Background - Diabetes mellitus is a metabolic disorder caused by impaired glucose metabolism. Coenzyme Q10 is an endogenous vitamin with significant antioxidant properties.

Aims and objective - The aim of our study is to investigate the protective effect of coenzyme Q10 against streptozotocin-induced diabetic rats.

Materials and methods - Five groups of rats were used as follows: normal control (given normal saline), diabetic control (STZ 50 mg/kg b.w., i.p.), coenzyme Q10-treated diabetic rats (10 mg/kg b.w.), glibenclamide-treated diabetic rats (0.6 mg/kg b.w.) as standard group, and drug alone-treated group (coenzyme Q10 10 mg/kg b.w.). The rats were sacrificed after the study duration of 30 days. Biochemical and antioxidant parameters and histopathological evaluation were carried out in experimental rats.

Results and discussion - The diabetic control group showed significant alterations in biochemical and histological parameters. Coenzyme Q10 was able to bring back the altered parameters to normal levels which were similar to that of the glibenclamide-treated group.

Conclusion - Coenzyme Q10 could, therefore, be used as an adjunct in the management of diabetes.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	A Comparative Study of Mast Cells Count in Different Histological Grades of Oral Squamous Cell Carcinoma by Using Toluidine Blue Stain
Authors	Keerthi Narayan. V., Grace Sonia., Parikshya Srestha., Girish Hemadala
Journal Name	Cureus

ABSTRACT:

Background - Oral squamous cell carcinoma (OSCC) is the sixth most common cancer worldwide accounting for 90% of all malignant oral lesions with high mortality and a five-year survival rate of about 50%. Various studies have shown mast cells regulate carcinogenesis by immunosuppression, angiogenesis enhancement, and promotion of tumor cell mitosis.

Aim - Hence, the present study was aimed to compare mast cell counts in normal oral mucosa with histological grades of oral squamous cell carcinoma by using toluidine blue stain.

Methodology - Sixty formalin-fixed, paraffin-embedded tissue samples included 15 well-differentiated, 15 moderately differentiated, and 15 poorly differentiated OSCC, as well as 15 cases of the normal oral mucosa (control), were sectioned and stained with 1% toluidine blue.

Results - We observed that the mean mast cell (MMC) count was comparatively more in normal mucosa than in various grades of OSCC. It was higher in low-grade OSCC. However, the differences between grades were not statistically significant.

Conclusion - In the present study, according to the results obtained, the MMC count was significantly decreased in OSCC in comparison with normal oral mucosa. Therefore, it can be assumed that mast cells could serve as an indicator of tumor progression.

Paper Title	Evaluation of Pharmacognostical, Phytochemical and Antimicrobial properties of Clerodendrum heterophyllum (Poir.) R.br.
Authors	S Valliammai., M Deepak Ashwin., B Sivachandran
Journal Name	Materials Today: Proceedings

ABSTRACT:

Clerodendrum heterophyllum (Poir.) R.Br (Verbenaceae) is a medium sized shrub commonly known as tree of little star. Traditionally the genus *Clerodendrum* is well known for its therapeutical potential. But till now there is no scientific evidence regarding microscopy, macroscopy, physicochemical and biological properties available for the plant *Clerodendrum heterophyllum*. Hence the present study was aimed to investigate the necessary pharmacognostical parameters, physicochemical parameters such as foreign matter, loss on drying, ash values, pH, extractive values in different solvents such as ethanol, water and hexane etc. Furthermore, the phytochemical constituents were observed by High Performance Thin Layer Chromatography. The leaf and stem extract were also tested against few gram positive and gram negative bacteria. The generated information of the present study will provide data which is helpful in the correct identification, authentication and also helpful for the confirmation of the therapeutical potential of the plant.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Analysis of particle damping characteristics on steel vertical machining centre column with epoxy reinforced granite
Authors	Nallusamy S, Sujatha K, Rajan K, Vijaya Kumar K.R.
Journal Name	International Journal of Engineering Research in Africa

ABSTRACT:

In high speed machining, performance is generally influenced by the dynamic behaviour of the machine tool structures. The machine tool structure is required to be rigid in order to remove the undesirable vibration and to improve the work piece quality. The most conventional material used in machine tool structure is cast iron which has both stiffness and dynamic characteristics to perform at varying speeds. The objective of this work is to improve damping capacity of vertical machining centre column. The damping capacity of column can be increased further by using passive damping method of ball packing. Damping capacity is a crucial factor which makes the dissipation of vibration happens at faster rate. As compared with cast iron established studies shows that epoxy granite a composite material improves damping capacity. Epoxy granite though could be a good choice for improving the machine tool performance at high speeds but is poor in static stiffness compared to cast iron. In this investigation it was observed that, the static stiffness of epoxy granite composite vertical machining centre column could be increased by using steel reinforcements. The final results reveal that, steel balls with epoxy granite provide faster dissipation time of 15ms at 70% packing ratio as compared to glass balls that showed dissipation time of 35ms. Also it was seen that, the steel balls offer the better damping capacity at optimum packing ratio of 50% mainly due to its specific gravity and mass of the balls.

Paper Title	A Study on Women Empowerment through Self- Help Groups with Special Reference to Villupuram District in Tamil Nadu
Authors	C B Senthil Kumar, A Arumugam Dharmaraj, B C Indhumathi, C V Selvam, E Kandeepan
Journal Name	Journal of Critical Reviews

ABSTRACT:

The empowerment of women has been apparent as a focal issue in deciding their status in recent years. The target of the examination are to replicate the social effect of women self help group, to look into the adjustments in the social clause SHGs, to gauge the effect of the SHGs on the social state of the individuals, and to dissect the demeanour of the individuals from the SHGs towards social effect. The investigation is distinct nature. Just essential information has been made utilized off with the end goal of examination. Essential information has been gathered through a field overview. The example size of the examination is 300 respondents. The specialist has utilized stratified random testing. The survey has used to gather the information from respondents. The study area is Villupuram District, Tamil Nadu. The collected data has been analysed using discriminant analysis. The study would be immensely useful to researchers, planners and policy makers in overcome the problems of women and in formulating strategies for the social progress and empowerment women through SHGs in Tamilnadu in general and predominantly in Villupuram District.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Encouraging leads from marine sources for cancer therapy - A review approach
Authors	Srinivasan N, Dhanalakshmi S, Pandian P.
Journal Name	Pharmacognosy Journal

ABSTRACT:

Cancer is one of the dreadful illnesses that cause mortality in many individuals around the world. Present cancer treatments generally include surgery, radiation therapy with chemotherapy. One of the primary sources of anticancer drugs are natural products that exhibit impressive potential in medicines. Plant and microbial secondary metabolites are an important source for cancer drug development. The ocean has an immense collection of flora and fauna overflowing with natural compounds having potent pharmaceutical significance. Marine bioprospecting has just started recently hence, marine ecosystem has not yet been explored properly. Nearly 68 percent of the drugs derived from marine sources are utilized for cancer and the remaining are utilized for inflammation, pain relief etc. Ongoing advancement in synthetic processes has helped in solving the limitations caused due to the complicated structure of natural products. Unlimited potent sources of compounds that can be isolated having diverse structures are found in the marine biodiversity. Only 1% of the marine microorganisms have been distinguished till now. Coral reefs and mangrove ecosystem have been focused for bioprospecting on the grounds that they have an elevated level of biodiversity. This review focuses on pharmacologically active anti-cancer lead discovery from marine ecosystem. The review has also tried to describe the structure

Paper Title	A review of Static, Dynamic and Stochastic Vehicle Routing Problems in Home Healthcare
Authors	R V Sangeetha, A G Srinivasan
Journal Name	European Journal of Molecular and Clinical Medicine

ABSTRACT:

The demand for Home Health care (HHC) service increases gradually in all of its sectors. Vehicle Routing Problem (VRP) is an everyday challenging task for the HHC administrative team. Because of its multidimensional resources such as physicians, nurses, medical equipment, drugs, etc. In this review article, we overview the current work of routing problems in HHC and emphasized the problems based on static, dynamic and stochastic strategies along with their solution methodologies, objectives, constraints, etc. Moreover, this paper displays that there exists only very less contribution to work on applying the dynamic and stochastic type of models using metaheuristic algorithms. Metaheuristic algorithm is a technique which is capable of generating good approximation solution within less execution time. Hence, insisting that HHC needs more focus on practical oriented problems such as dynamic and stochastic strategies in the mere future.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Evaluation of association between Porphyromonas gingivalis and visfatin levels in chronic periodontitis patients
Authors	Roshini Paul., Snophia Suresh., Uma Sudhakar., Catherine Jean., Kiran Joseph Fernandez
Journal Name	Journal of Indian Society of Periodontology

ABSTRACT:

Periodontal disease is one of the most common prevailing diseases, where the destruction occurs due to the direct effect of microorganisms and indirectly by the stimulation of host cells. The diverse inflammatory action of visfatin made this adipokine a potential periodontal biomarker of choice along with the periopathogen Porphyromonas gingivalis. Aim: Our study was carried out to evaluate the visfatin levels in gingival crevicular fluid (GCF) and P. gingivalis levels in subgingival plaque in periodontal health and disease. Materials and Methods: A total of 60 participants were divided into two groups of thirty participants each as Group I – patients who have healthy periodontium and Group II – patients with generalized chronic periodontitis. The clinical parameters assessed for the participants were plaque index, probing pocket depth, papillary bleeding index, and clinical attachment loss. The subgingival plaque samples were obtained to estimate P. gingivalis levels and GCF was collected to check visfatin levels. Results: The clinical parameters, P. gingivalis, and GCF visfatin levels between the two groups showed a notable significant difference. A significant positive correlation was noted on the correlation of GCF visfatin levels with clinical parameters. Conclusion: Our study outcomes propose that P. gingivalis can be the bonafide periopathogen which modulate the visfatin levels in individuals with periodontal disease and GCF visfatin can also be evaluated as a biomarker in periodontal disease.

Paper Title	A novel soft tissue cone-beam computed tomography study in the evaluation of gingival thickness associated with subepithelial connective tissue graft versus a cellular dermal matrix in the management of gingival recession: A clinical study
Authors	Uma Sudhakar, T A Lalitha, Nimisha Mithradas, Snophia Suresh, Manoj Raja
Journal Name	Journal of Indian Society of Periodontology

ABSTRACT:

Background: Dental esthetic awareness among patients led the clinicians to introduce newer materials and predictable techniques that satisfy the patients' esthetic demands.

Aim: To evaluate and compare the efficacy of subepithelial connective tissue graft (SECTG) and acellular dermal matrix (ACDM) allograft in the treatment of Millers Class I or Class II recession with the determination of gingival thickness using an impertinent method, soft tissue cone-beam computed tomography (ST-CBCT).

Materials and methods: A split-mouth study with a total of ten patients with bilateral Millers class I or class II recession is randomly assigned by a coin toss method as Group I (SECTG) and Group II (ACDM) along with coronally advanced flap. Clinical parameters including recession height (RH), recession width (RW), probing depth, clinical attachment level (CAL), and height of keratinized tissue (HKT) were evaluated at baseline, 90th day, and 180th day for both groups. The thickness of keratinized tissue (TKT) was determined by most reliable, predictable and noninvasive method called ST-CBCT.

Results: Statistically significant reduction in RH and RW, gain in CAL, and increase in HKT and TKT in both Group I and Group II were seen in 90th day and 180th day. However, when both Group I and Group II were compared between 0 and 180th day, the change in RH and RW, gain in CAL, and increase in HKT and TKT did not show any statistically significant change.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	COVID-19 - In Silico Structure Prediction and Molecular Docking Studies with Doxycycline and Quinine
Authors	Sumitha A, Parthiban Brindha Devi, Sowmya Hari, Dhanasekaran R
Journal Name	Biomedical and Pharmacology Journal

ABSTRACT:

Coronavirus disease (covid-19) is a pandemic of international concern. It creates serious health risk all around the globe and it has no effective treatment. Doxycycline and Quinine are the drugs used as ligands in the study as these drugs has proved in vitro antiviral activity against dengue virus and herpes simplex virus. These compounds were targeted against non structural protein (nsp 12) which plays a vital role in replication and transcription of Corona viral genome. The protein 6 NUR that showed maximal identity of target protein nsp 12 was retrieved using BLASTp. Further the protein was modelled and the compounds were docked using AUTODOCK software and to study the structure activity relationship of ligand with target protein and biochemical information of ligand receptor interaction was done. Both the compounds, Doxycycline and Quinine were well engaged into the active site of target protein nsp 12 with strong hydrogen bond interaction and non polar interaction with active site of the protein. The Docking score of Doxycycline is found to be - 7.34 kcal/mol while that of Quinine being -6.14 Kcal/mol. This indicates the potential of these drugs as a lead against the nsp target protein of Corona virus which need further analysis and Optimisation studies.

Paper Title	Production and nutritional quality of traditional Indian millet mixture of rice, pearl millet and urad dal
Authors	Caroline Jeba R, Priyanka S, Priyanka M.
Journal Name	International Journal of Research in Pharmaceutical Sciences

ABSTRACT:

Millet mix was prepared for its traditional values. The prepared sample was analyzed for its chemical and nutritional value, and by using the cost-efficient method, the nutritional content of the final product was enhanced. The improved sample was checked for its nutritional content. The objective is to make a comparison between standard and enhanced samples. Three ingredients were prepared in a powdered form of a sample in four different ratios. The standardized ratio of the ingredients used to make the samples were found by using organoleptic tests. In the standardized ratio normal (S1) and nutrition enhanced (S2) samples were prepared using the three ingredients. For nutrition enhancement, the method of sprouting was used. Various tests were conducted for the standardized sample to verify its nutritional content, commercializing ability, microbial analysis, phytochemical analysis etc. The nutritional content Analysis of the normal and nutrition enhanced samples (S1) and (S2) was done. The sample (S2) was nutritionally rich when compared to the normal sample (S1). All other test had more or less coinciding results for both the samples (S1) and (S2). By comparing the nutritional content, a conclusion arrives that the sample (S2) is nutritionally rich when compared to (S1). Microbial and Physical properties results show that the product is efficient to be commercialized and stored to a specific period without microbial contamination in powdered form. The nutrient-rich mass is suitable for all age group.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Reimposing of marketed drugs in treatment of COVID 19 by in silico methods.
Authors	Hemalatha C.N, Hemamalini B, Harikrishnan N.
Journal Name	International Journal of Pharmaceutical Research

ABSTRACT:

Objective: Galidesivir-BCX4430 is an antiviral broad spectrum drug with an adenosine nucleotide analogue. Galidesivir behaves in vitro against numerous RNA viral pathogens, which include the filoviruses and develops irresistible contagious to humans, for example, MERS CoV and SARS-CoV. In vivo, BCX4430 is agile after intramuscular, intraperitoneal administration, and on more, oral organization in an assortment of test contaminations. Recent studies have stated that this drug is currently being examined for treatment of COVID 19 as previously it has been used in zika virus, Ebola and also Hepatitis C. Methods: The study was to investigate the binding efficiency of selected currently COVID 19 treating drugs and visualized by Discovery Studio 4.1 Visualizer. The target sites of drugs selected for the study were extracted from Protein Data Bank, and the ligands selected for the study are (R1-R7)Among the compounds treated with targets are screened in Autodock. CompoundR5 shows greater binding efficacy Results: Compound R5 shows better antiviral activity and inhibition and active protease inhibitor and promotes to treat Sars cov.2 (COVID-19).

Paper Title	An invitro study on predicted glycemic index and bioactive component of fortified-bread using senna auriculata
Authors	Kannayiram G, Antony Xavier Bronson F, Arun Kumar J, Sandhya A, Gayathri S, Emiyal D.
Journal Name	International Journal of Research in Pharmaceutical Sciences

ABSTRACT:

Bread is an affordable staple food available worldwide. People demand for the high quality breads for consumption. Bread is considered to be a daily diet food for most of the people around the world. Foods with reduced glycemic index Shows less risk of some chronic diseases like diabetes and stroke. Sennaauricu-lata a plant compound which is a potential inhibitor of diabetes. Low concentration possessed high radicals scavenging activity, 90%of radicals were scavenged at lower concentrations. It further proved to have the anti-hemolytic effect. The extract inhibits the alpha amylase and alpha glycosidase activity. The bread contains large amount of digestible starch which leads to glycemic index. The foods with higher glycemic index leads to type 2 diabetes mellitus. Incorporation of Senna auriculata In bread is the effective method to Produce low glycemic index foods. This study was aimed to evaluate digestibility of starch and glycemic index in bread through the incorporating Senna Auriculata as fortified bread sample. At 60 mins of dialysate, the concentration of resistant starch of bread sample with Senna Auriculata exhibited to below when compared with the control. The Senna auriculata Fortified bread sample is compared with the control which the regular bread based on the crumb, colour, symmetry, texture, eating quality, and overall quality of the bread. Bread with 6%of extract was sensory evaluated. Bioactive components like phenolic, flavonoid found to be retained in fortified bread sample.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Determinants of Adolescents Attitude Towards Gender Equality in Urban, Rural, and Tribal Areas of the Southern Part of India
Authors	Prathyusha Kadiyala, Smitha Malenahalli Chandrashekarappa, Narayana Murthy M R
Journal Name	Online Journal of Health and Allied Sciences

ABSTRACT:

Gender stereotyping and assumptions about men and women shape everyday personal interactions and attitudes on gender norms. Adolescents forming the future society would be playing an essential role in practising gender equality norms and inculcating it in future generations. Hence the study was undertaken to know the adolescent's attitude towards gender equality norms and to explore its determinants. Objectives: To assess the attitude of adolescents towards gender equality in Urban, Rural, and Tribal areas of Mysuru district. To determine the association of socio-demographic variables, interpersonal influences of family, friends, and experiences of gender bias with adolescent's attitude towards gender equality. Methods: A cross-sectional study was conducted in the urban, rural, and tribal areas of Mysuru district using multistage sampling. Data was collected from 500 adolescents by a pre-structured and pre-tested, validated questionnaire and analysis was done using SPSS V.24. Results: 50.5% of adolescents had negative attitude scores towards gender equality, and 79.3 % of adolescent girls had reported the personal experience of gender bias. Age, Sex, Residence, interpersonal influence of family and friends and personal experience of gender bias among adolescent girls showed significant association with their attitude towards gender equality. Conclusion: Nearly, half of the adolescents have a negative attitude towards gender equality, and more than three fourth of adolescent girls had personally experienced gender bias. The influence of family and friends was significant in determining the attitude of adolescents towards gender equality norms.

Paper Title	Reimposing of marketed drugs in treatment of COVID 19 by insilicomethods
Authors	Hemalatha C.N., Hemamalini B., Harikrishnan N.
Journal Name	International Journal of Pharmaceutical Research

ABSTRACT:

Galidesivir-BCX4430 is an antiviral broad spectrum drug with an adenosine nucleotide analogue Galidesivir behaves in vitro against numerous RNA viral pathogens, which include the filoviruses and develops irresistible contagious to humans, for example, MERS CoV and SARS-CoV In vivo, BCX4430 is agile after intramuscular, intraperitoneal administration, and on more, oral organization in an assortment of test contaminations Recent studies have stated that this drug is currently being examined for treatment of COVID 19 as previously it has been used in zika virus, Ebola and also Hepatitis C

Methods: The study was to investigate the binding efficiency of selected currently COVID 19 treating drugs and visualized by Discovery Studio 4.1 Visualizer The target sites of drugs selected for the study were extracted from Protein Data Bank, and the ligands selected for the study are (R1-R7) Among the compounds treated with targets are screened in Autodock Compound R5 shows greater binding efficacy

Results: Compound R5 shows better antiviral activity and inhibition and active protease inhibitor and promotes to treat Sars cov 2 (COVID-19)

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Medication errors and adverse clinical incident reporting system
Authors	Sharmil S.H, Srinivasan R, Lewington D, Sharma A.K, Dhas D.B.
Journal Name	International Journal of Pharmaceutical Research

ABSTRACT:

It is not uncommon for hospitals and other healthcare services to encounter medication error and existence of incident reporting will enhance the attorney of hospitals to be rightly prepared for possible litigation. Not all incidences occurring at the hospitals are liable for law suit but when a legal litigation do occur information recorded in the incident report will have an huge impact. Though the health care people are likely to provide factual details on the patients' health records and related aspects in the case notes. Incident report do enhance quality service and act as an evidence to bring up trustworthy information thereby avoiding medical negligence and malpractice. The point to note is incident report would not contain the opinion of the person documenting but will certainly indicate the actual account of the witness as it is, as what was seen? This true-life data will be an effective measure to refurbish better standards of care that's appropriate.

Paper Title	Effects of Swiss ball exercise and Pilates exercise on core muscle strengthening in college cricketers
Authors	K Kamatchi, Arun B, G Tharani, G Yuvarani., G Vaishnavi, Srilakshmi Moses, Kaviraja N
Journal Name	Biomedicine

ABSTRACT:

Introduction and Aim: Cricket is one of the most popular game in India played by men and women of all ages. Core stability is defined as the ability to control the position and movement of the trunk over the pelvis to allow optimum production, transfer and control of force and movement to the terminal segment. Major muscles involved are pelvic floor muscles, Transverse abdominis, multifidus, internal and external obliques, and rectus abdominis. Core is used to stabilize the thorax and the pelvis during dynamic movement. The study helps to compare the effectiveness of Swiss ball exercise and Pilates exercise on gaining core muscle strength. The aim of the study is to compare the effect of Swiss ball exercise and Pilates exercise on core muscle strengthening in college cricketers.

Materials and Methods: The design of the study is comparative type.

Results: On comparing the mean values of group A and group B on double leg lowering test (DLLT), it shows significant decrease in the post test mean values but (group B Pilates exercise) shows (30.60) which has the lower mean value is more effective than (group A-Swiss ball exercise) (46.80) at $P \leq 0.001$. Hence, null hypothesis is rejected.

DR MGR - RESEARCH PUBLICATION APPRECIATION – SEPTEMBER 2020

Paper Title	Enzymatic and nonenzymatic antioxidant activity of the saponin rich butanol extract of Tribulus terrestris fruits against tetrachlorodibenzo-p-dioxin induced oxidative stress in male Wistar rats
Authors	Priya Chokkalingam, Hemalatha Dhandapani, Dr S Karthikeyan, Priya Durairaj, Rajeswari Hari
Journal Name	Biomedicine

ABSTRACT:

Introduction and Aim: 2,3,7,8 – tetrachlorodibenzo – p - dioxin (TCDD), a xenobiotic compound causes reproductive and developmental problems in living beings by elevating the oxidative stress. This research work aims to evaluate the curative potency of the saponins rich butanol fraction of Tribulus terrestris (SFTT) fruits on the altered in vivo antioxidant status of testis and RBC due to TCDD induced oxidative stress in male rats.

Materials and Methods: TCDD induced male rats were treated with SFTT extract of 200mg and 400mg/kg b.w. p.o. for 28 days. Clomiphene 10mg/kg p.o. was used as a standard drug. At the end of experimental period, the testicular tissue and blood were collected for analyzing the levels of enzymatic antioxidants like Superoxide dismutase (SOD), Catalase (CAT), Glutathione reductase (GR), Glutathione peroxidase (GPx), Glutathione S-Transferase (GST) and non-enzymatic antioxidants like Glutathione, Vitamin C and Vitamin E.

Results: As a result, the enzymatic antioxidants like SOD, CAT, GR, GPx, GST and non – enzymatic antioxidants like Glutathione, Vitamin C and Vitamin E levels of the SFTT treated groups showed a significant increase ($P < 0.001$) when compared to the levels of both testis and RBC's of TCDD treated rats. In addition, the rats, which received SFTT at the concentration of 400mg/kg b.w. p.o. exhibited higher antioxidant activity when compared to the rats, received SFTT at the concentration of 200mg/kg b.w. p.o.

Paper Title	Power Optimization by Detection and Monitoring of Sensor Event in Smart Home
Authors	A Ganesan, K Sujatha, N P G Bhavani, V Srividhya, Su-qun Cao
Journal Name	Lecture Notes in Networks and Systems

ABSTRACT:

Sensor event monitoring and detection facilitate to recognize the activities of the human lives in a smart home daily. The major aim of this technology is to attain optimal performance in activity recognition. The symbol of the daily activity recognition involves the usage of feature inputs which have a noteworthy consequence on the output. However, commonly used representations of features dependent on daily activity have limited performance on the recognition activity. Based on the dynamic nature of the sensor events caused by daily activities, this paper presents a statistical processing approach for time series of sensor events. First time, the statistical values are extracted from sensor events dependent on time series. Subsequently, different categories of statistic formulae are proposed to solve daily activity features. To evaluate the proposed approach, two distinct datasets are adopted for activity recognition based on artificial neural network (ANN), fuzzy logic (FL), and hybrid neuro-fuzzy logic (HNFL). The experimental results reveal that the proposed HNFL approach provides power optimization.

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Paper Title	Original Antioxidant Activity of Flavonoid Compounds Isolated from the Petals of <i>Hibiscus Rosa Sinensis</i>
Authors	Rengarajan Sumathy, Melanathuru Vijayalakshmi, Govindasamy Chandramohan, Chinnadurai Veeramani, Elsadek Mohamed Farouk
Journal Name	Journal Of King Saud University Science

ABSTRACT:

Hibiscus rosasinensis, medicinal plant known for its various medicinal properties. The present study was to identify and characterize the flavonoid compound from the petals of *Hibiscus rosa sinensis*. The antioxidant compounds were isolated by Silica Gel G Column chromatography. From the fractions, C5 shows the highest antioxidant activity compared to C3 & C4 compounds. DNA damage protection activity results indicated that two major bands super coiled DNA and open circular DNA was protected by the presence of different concentration (5 µg, 10 µg, 15 µg & 20 µg) of C5 compound isolated from the petals of *Hibiscus rosa sinensis*. IR absorptions peaks reveals the presence of functional groups alcohols, phenols, α, β unsaturated aldehydes, ketones and alkanes. The structure of compound was characterized as Hibiscetin-3-glucoside (C₂₁H₂₀O₁₄) by Mass spectroscopy and NMR. The study emphasized flavonoid compounds have effective scavenging activities which may be due to its phenolics and flavonoid contents and can be used as anticancer agents.

Paper Title	A Novel Image Based Method for Detection and Measurement of Gall Stones
Authors	K Sujatha, Shoba Rani R , A Ganesan , P Saikrishna , Shaik Shafiya
Journal Name	Algorithms for Intelligent Systems

ABSTRACT:

Accurate gall bladder segmentation is a challenging task because the surrounding tissues present in computed tomography (CT) images have densities similar to that of the gall bladder tissue and lesions at the edges of gall bladder. This work focuses on delineation of gall bladder contours on CT images whose contrast is enhanced. This gall stone detection scheme exploits a snake algorithm using Fuzzy C-means clustering (FCM) to extract the features. To improve the performance of the gall bladder contour segmentation, Sobel operator is used an edge map, followed by a template based modification using concavity removal algorithm. The unwanted edges are eliminated inside the gall bladder to obtain a modified edge map. The contour of the gall bladder is obtained using Support Vector Machine (SVM) algorithm. The segmentation of the adjacent region is done on part-by-part basis so that the result is constrained on the segmentation algorithm. Five hundred two-dimensional gall bladder images from which 400 CT images with cholecystitis spreading through the gall bladder were delineated using SVM whose optimal parameters are inferred using chaotic whale optimisation algorithm (CWOA). This method detects sizes corresponding to small (S), medium (M) and large (L) sized gall stones in comparison with the normal gall bladder condition. An opinion from the radiologist is taken for manual evaluation. The difference ratio, defined as the ratio of percentage of mismatched detection between the algorithm and the radiologist's. This value obtained to be 1.9%.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	COVID-19 and its relationship to particulate matter pollution – Case study from part of greater Chennai, India
Authors	Laxmi Priya, RM Narayanan
Journal Name	Materials Today: Proceedings

ABSTRACT:

It is well known that atmospheric contamination, especially the particulate matter (PM), causes severe human diseases. Yet, presently air pollution levels have dropped primarily attributable across the nation lockdown forced in the wake of the novel Corona virus outbreak. In this study, we have attempted to establish a conceivable relationship between Covid 19 and PM_{10-2.5}, obtained from eleven airquality monitoring stations in Chennai city, India for both Pre and during Covid situations and its influence over Covid positive cases. The observations of the materials (+ve cases, PM 10, PM 2.5) collected proved that during precovid regime less polluted areas are indicated with less than 5 infection cases reflecting the healthy people and they are less vulnerable to covid except the few occurrence of foreign source indicating no community spread where us most polluted spots of precovid regimes are indicated with more than 90% cases and indicated that people in pollution zones are succumbed to get infected quickly. However, during Covid the lockdown has considerably reduced the particulate suspension and the results revealed that the +ve cases are of the nature of community spreading through primary and secondary contacts as reported from the media. If Covid is a visible, brutally virulent, incredibly contagious pandemic that kills rapidly and mercilessly, air pollution is its unseen evil twin. Under the radar, but even ruthlessly, if Covid and PM paired together lead to murder without delay. This is a non-communicable disease (NCD) slow-motion pandemic, equivalent-if not exceeding-the catastrophic wrath of SARS-CoV-2.

Paper Title	Analysis of Cymbopogon Citratus, Pinus sylvestris and Syzygium cumini biodiesel feedstocks for its fatty acid composition
Authors	K Bhaskar, L R Sassykova, M Prabhaha, E Sheeba Percis, A Nalini, T Jenish , J Jaya Rajan, S Sendilvelan
Journal Name	Materials Today: Proceedings

ABSTRACT:

Rapid depletion of fossil fuel and increased demand for petroleum products in energy and transportation sector motivated the researchers to find a substitution for petroleum diesel. Biodiesel is one among the alternate to this crisis. Biodiesel is a combined mixture of fatty acid alkyl esters obtained by the reaction of triglycerides of vegetable or animal origin with alcohol in the presence of a catalyst. The fatty acid profile influences the overall properties of the biodiesel. The properties of individual fatty acid depend on the occurrence of double bonds, fatty acid chain length and branching. Better understanding of the fatty acid composition and correlating the fuel properties is of utmost importance in improving the optimal performance. In the present study, feedstocks of *Cymbopogon citratus*, *Pinus sylvestris* and *Syzygium cumini* is analysed for its fatty acid composition study using Gas Chromatography assisted with mass spectrometry. Based on GC–MS Analysis, fifteen types of fatty acids in *Cymbopogon citratus*, *Pinus sylvestris* and *Syzygium cumini* oil methyl esters were analysed and defined; all these esters are amalgamations of saturated and unsaturated fatty acids. The variation in fatty acid compositions affects the properties of the esters. GC–MS synthesis showed that methyl, ethyl esters free from dirt for the three feedstocks. Few impurities like mainly mono-, di - and triglycerides were found.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Synthesis of Effective Environmentally Friendly Additives for Automotive Fuels
Authors	L R Sassykova, K A Kadirbekov, N K Zhakirova, A S Zhumakanova, S Sendilvelan, T S Abildin, A A Batyrbayeva, R N Azhigulova, O I Ponomarenko, R G Ryskaliyeva
Journal Name	Rasayan Journal of Chemistry

ABSTRACT:

One of the pressing problems when using internal combustion engines is the formation of harmful gas emissions. This study aimed to develop a synthesis technology for several promising tertiary esters with the number of carbon atoms in a molecule of 6-8: ethyl tert-butyl (ETBE); iso-butyl-tert-butyl (IBTBE) and iso-propyl-tert-amyl (IPTAE). As catalysts, standard gel sulfocationites and catalysts prepared based on the systems heteropoly acid (HPA)-aluminum oxide and HPA-natural zeolite were tested. It was found that the selectivity of the synthesis of ATBE on catalysts with HPA increases with an increasing number of carbon atoms in alcohol. The amount of gasoline additives varied from 1 to 12%. It was shown that the additives synthesized allowed to increase the octane number by several points, in some cases up to 20. The results obtained show a good acceptance of the studied base gasoline to the components of the prepared composite additives.

Paper Title	Identification and classification of multiple species of wild animals using convolutional neural networks
Authors	M Maheswari, M S Josephine , V Jeyabalaraja
Journal Name	Journal of Green Engineering

ABSTRACT:

Having accurate, detailed, and up-to-date information about the location and behavior of animals in the wild would improve our ability to study and conserve ecosystems. We investigate the ability to automatically, accurately, and inexpensively collect such data, which could help catalyze the transformation of many fields of ecology, wildlife biology, zoology, conservation biology, and animal behavior into “big data” sciences. Motion-sensor “camera traps” enable collecting wildlife pictures inexpensively, unobtrusively, and frequently. However, extracting information from these pictures remains an expensive, time-consuming, manual task. We demonstrate that such information can be automatically extracted by deep learning, a cutting-edge type of artificial intelligence. We train deep convolutional neural networks to identify, count, and describe the behaviors of 48 species in the 3.2 million-image Snapshot Serengeti dataset. Our deep neural networks automatically identify animals with >93.8% accuracy, and we expect that number to improve rapidly in years to come. More importantly, if our system classifies only images it is confident about, our system can automate animal identification for 99.3% of the data while still performing at the same 96.6% accuracy as that of crowd sourced teams of human volunteers, saving >8.4 y (i.e., >17,000 h at 40 h/wk) of human labeling effort on this 3.2 million-image dataset. Those efficiency gains highlight the importance of using deep neural networks to automate data extraction from camera-trap images, reducing a roadblock for this widely used technology. Our results suggest that deep learning could enable the inexpensive, unobtrusive, high-volume, and even real-time collection of a wealth of information about vast numbers of animals in the wild.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	High performance hardware design of compressor adder in DA based FIR filters for hearing aids
Authors	Rammohan S R, Jayashri N, Bivi M A, Nayak C K, Niveditha V R
Journal Name	International Journal of Speech Technology

ABSTRACT:

Hearing aid is an acoustic device which is worn by hearing loss people. To compensate the different types of hearing loss, it is necessary to selectively amplify sounds at required frequencies. The main aim of the hearing aid is to selectively remove the noise signal such that the processed sound matches ones audiogram. To achieve this, the decimation filter in hearing aids can be design using multiplier less architecture which should be able to adjust sound levels at arbitrary frequencies within a given spectrum. In hearing aids, decimation filter plays a key role. This paper presents a low complexity design of a digital finite impulse response (FIR) filter for digital hearing aid application. This paper proposed approximate 4:2 compressor adders in memory less DA based FIR filter architecture. In DA architecture the area of the ROM increases gradually when filter order is increased. Memory less DA is designed using compressor adders is a solution to decrease the power consumption and area of the FIR filters and makes the area and power reduction for hearing aid application. The proposed DA based FIR filter architecture is synthesized on 90 nm technology using Synapsis Application Specific Integrated circuit design compiler. The proposed architecture has 45% reduction in area delay product when distinguish with systolic architecture and 10% less ADP when compare with OBC DA architecture. The proposed design is also implemented Field Programmable Gate Array and the results shows that the proposed architecture has less slices than best existing designs. The proposed architecture is used in decimation filter of hearing aids applications using matlab simulink, which removes the unwanted signal

Paper Title	A survey on deep learning feature extraction techniques
Authors	Karthikayani K, A R Arunachalam
Journal Name	AIP Conference Proceedings

ABSTRACT:

The major advancing techniques in machine learning are mainly two, they are deep learning and computer vision. The advanced deep learning techniques are highly promising to increase the interest in research within the upcoming years. This is often because the eminent benefits in overcoming the drawbacks within the outdated techniques for producing the result accurately. The theme of this paper is to provide a comprehensive description on the convolution neural network and its recent improvements which includes the CNN – S convolution neural network segmentation, CNN – CBIR convolution neural network – content-based image retrieval system. This survey paper provides a detailed summary within the latest advancements in the domain of CNN with various extended applications through its classification for improved understanding. Analysing the performance is done considering the speed, accuracy and ease.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Disease monitoring of the crops after segmentation and IoT based sensing of soil water level
Authors	M Anand, V Malathy, N Shilpa, B Raja
Journal Name	IOP Conference Series: Materials Science and Engineering

ABSTRACT:

The practical problems in the present irrigation methods are overcome by sensing the local soil water level. If the water level is low, the system sprinkles water by using pump motor by means of relay. The soil fertilizer level, humidity and temperature of the field are also checked by using the corresponding sensors. The current status is always displayed in the Liquid Crystal Display (LCD). If any abnormality occurs, then the message is sent to the owner by means of Global System for Mobile (GSM). Disease monitoring of the crops is done by segmentation. Irrigation control can reduce water consumption.

Paper Title	Eliminating products' fake reviews using network parameters and geo location
Authors	B Raja, V Malathy, N Shilpa , M Anand
Journal Name	IOP Conference Series: Materials Science and Engineering

ABSTRACT:

People purchase things based on the online reviews. But the reviews may not be trusted always. Sometimes there may be false information about the product and this may lead to loss for the sales. Customers also take wrong decision for purchasing the things. So, a system is proposed in this paper to eliminate false reviews. The product reviews are compared here. Using network parameters and geo location, the system identifies the IP address for PC and browser ID for mobile OS of the false review. Also it directs the admin to remove the review if it is attempted many times. By comparing the reviews, the level of the product can be increased. With the key boards the model divides the positive and negative reviews.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Cancer Prediction For Type-2 Diabetes Using Machine Learning
Authors	V Malathy, N Shilpa, M Anand, N Swathi, R Elavarasi
Journal Name	IOP Conference Series: Materials Science and Engineering

ABSTRACT:

Cancer prognosis is crucial to control the suffering and death of diabetic patients. Diabetes is a prolonged disease caused by the deficiency in the amount of insulin generated by the pancreas. Type 2 diabetes occurs due to the inability of the cells to respond to the production of insulin that results in increased concentration of glucose in the blood. We have attempted to bring in novelty to predict and classify cancer types such as breast, liver, and colon cancer for Type 2 diabetic patients through this paper. We have analyzed key common parameters like triglycerides, age, menopause age, number of pregnancies, etc. for Type 2 diabetes and cancer patients. We then gathered values for these parameters and used them to train and validate the Random Forest model that we have used for classification. We have been able to predict and classify the type of cancer using our model and achieve an accuracy level of 86%.

Paper Title	Radio frequency identification based electronic voting machine using fingerprint module
Authors	V Malathy, N Shilpa, M Anand, R Elavarasi
Journal Name	IOP Conference Series: Materials Science and Engineering

ABSTRACT:

Radio frequency identification (RFID) based electronic voting machine (EVM) with fingerprint module overcomes the challenges of wired electronic voting. Finger print module is to authenticate the voters. In this paper the system is constructed with microcontroller, Liquid Crystal Display (LCD), RS232 cable, RFID reader, RFID tag, fingerprint module and buzzer alarm. Dishonest voting will be avoided if the government uses the biometric based system. The details of all voters with their fingerprint will be stored in the database. Database is kept in microcontroller. Microcontroller verifies the voter by comparing the database during polling. If a person with RFID comes for second time voting, immediately the buzzer gives sound. The RFID base EVM will reduce time consumption. When compared to the existing voting system, the system in this paper is expected to be fast and reliable. The voters' details will not be revealed out. For every polling end, the button should be pressed for getting the number of votes polled.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Experimental Investigation of Performance, Emission and Combustion Characteristics of a Di-diesel Engine Fuelled with Aqueous Cerium Oxide and Aqueous Aluminium Oxide Nanoparticle Additives
Authors	M Sarath Chandra, P Ravichandra Ganesh, K Hemachandra Reddy, J M Babu
Journal Name	Lecture Notes in Mechanical Engineering

ABSTRACT:

Experiments were conducted to determine the engine performance and emission characteristics of Direct Injection (DI)—diesel engine using aqueous cerium oxide nanoparticles (ACONP) and aqueous aluminium oxide nanoparticles (AAONP) as an additive in diesel, ethanol and surfactant blended fuel and were compared with diesel fuel. Blends were prepared by in proportions of Diesel 83%, Ethanol 15% and Surfactant 2% (Span 80) with 50 and 75 ppm aqueous cerium oxide and aqueous aluminium oxide nanoparticles as an additive, denoted as ACONP50, ACONP75, AAONP50 and AAONP75, respectively. The blends are prepared by uniform mixing of nanoparticles with the help of an ultrasonicator. Nanoparticles were acted as an oxygen-donating catalyst which improves the combustion process and results in complete combustion. This will also reduce the hydrocarbons (HC) and carbon monoxide (CO) emissions. It was observed that there is a significant enhancement of performances and decrease of exhaust emissions HC, CO, smoke, slight increase in nitrogen oxides (NOX) as compared to diesel fuel. The combustion parameters like cylinder pressure and heat release rates are increased for both nanoparticles as an additive which has been compared with pure diesel.

Paper Title	Automated Real-Time Software Based Forecasting of Climate Change Using Chlorophyll Content on Agriculture
Authors	K Sujatha, Kannusamy Sivaprakasam Thivya, Elakkiya Sivalingam, V Srividhya, N P G Bhavani , Bhuvaneshwari Nagarajan
Journal Name	Lecture Notes in Mechanical Engineering

ABSTRACT:

The core theme of this project is to assess the economic impact of climate change on Indian agriculture. The climate change is caused due to the emission of greenhouse gases like Carbon dioxide (CO₂), Methane (CH₄), and Nitrous oxide (N₂O) from various industrial sources. Neyveli, being the source of heavy megawatt generating stations, let out flue gases which contain Carbon dioxide (CO₂), Carbon monoxide (CO), Oxides of sulfur (SO_x), Methane (CH₄), and Oxides of nitrogen (NO_x). These harmful gases are responsible for depletion of Ozone (O₃) layer which has a significant effect on year-to-year variation in weather and agricultural output and sometimes even produce 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 alarming situation has motivated the researchers to propose a solution which will facilitate to identify the concentration of the constituents of the greenhouse gases, increase in atmospheric temperature, and variations in rainfall from the chlorophyll content present in the crops.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Concepts and Contributions of Edge Computing in Internet of Things (IoT): A Survey
Authors	S Magesh, J Indumathi, S Radha Rammohan, Niveditha V R, P Shanmuga Prabha
Journal Name	International Journal of Computer Networks and Applications

ABSTRACT:

Edge has become a growing trend in recent years. Bringing computing and analytics remarkably close to the data where it originated is the leading cause of edge computing. As the data is growing day by day, there arises the bottleneck in computation and network layers. Due to the enormous growth of Internet of Things (IoT) devices with its recent applications, the need for real-time computation has readily driven edge computing. Today data processing is an excellent paradigm for real-time data. In the integration of various IoT devices to solve the computing perplexities, created the emergence of the Edge computing. This paper clarifies concepts and contributions of edge computing associated with IoT devices. The proposed work produces a thumbnail survey on edge computing and its performance management towards IoT devices. The characteristics and architecture of Edge computing over IoT devices are furnished. The state-of-the-art on edge computing applications in the real-time scenario is discussed in this article. The proposed work explores the key benefits of Edge computing towards IoT devices, along with the comparative principles of edge computing over the Cloud, are represented. The existing challenges of edge computing are also discussed in this work.

Index Terms

Paper Title	Compound Feature Generation and Boosting Model for Cancer Gene Classification
Authors	A Mohamed Affir, Thangamani M, S Jafar Ali Ibrahim, S Nallusamy
Journal Name	International Journal of Engineering Trends and Technology

ABSTRACT:

The huge-data processing applications are conducted utilizing data mining or deep learning approaches. In data processing and deep learning systems, computational complexity is the key problem. High dimensional data analysis requires immense computing time and computer capital. For improved visibility, optimization of data, elimination of noise and comprehensible factors and generalization, dimensionality restriction methods are implemented. The dimensionality reduction activities monitor the data output. In the high dimensional data world, feature selection models are implemented to minimize complexity. Throughout the potential selection process, sub-set filtering with significance element is considered. In the function selection process, quantitative techniques are implemented. The poor results of the T-test configuration are found. F-test models disable the unnecessary functions. To test the apps, Q-statistics activities are added. For the practical enhancement cycle, the booster algorithm is used. For the classification method, the Naïve Bayes algorithm is used. Dynamic characteristics are identified with the filtering methods of the applications. The retrieval of characteristics is implemented in the microscope data values to catch complex properties. The method for integrating feature discovery with abstraction is added to the compound object creation. Many percentage-based attribute associations are introduced for app incorporation. The boosting approach is combined with the production of compound functions. The classification is performed using the algorithm Naïve Bayes with function values produced.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	A Review on Exploring the Deep Learning Concepts and Applications for Medical Diagnosis
Authors	Seetha Subha Priya P, Nandhinidevi S, Thangamani S, S Nallusamy
Journal Name	International Journal of Engineering Trends and Technology

ABSTRACT:

Deep Learning (DL) benefits significance among researchers, from both academia and Industry. DL algorithms show the facility to learn and model very large-scale data sets. Deep learning techniques have gained wide acceptance in performing different task especially in bioinformatics, medical analysis and drug discovery. In the recent years, DL theory in the field of artificial intelligence, neural network structure, optimization and natural language processing has seen exponentially growth and attention. This paper explores the knowledge representation of various methods and their applications of DL for disease prediction in the medical field.

Paper Title	An Empirical Analysis On Evaluation of Safety Attitudes And Perceptions of Civil Engineering And Construction Management Personnel
Authors	V Thirugnana Sambandan, Felix Kala T, S Nallusamy
Journal Name	International Journal of Engineering Trends and Technology

ABSTRACT:

Safety climate is defined as the attitudes and perceptions of the personnel about their work settings. The term safety climate is derived from the organizational climate. Literatures reveal that the climate is the manifestation of the culture. The safety culture is an integral part of an organisational culture. The organizational culture varies from organization to organization and hence the safety culture also varies from organization to organization. The safety culture is influenced by the attitudes and perceptions of the personnel working in the particular organization. The safety culture can be measured by the safety climate. In other words, the attitudes and perceptions related safety will have to be captured to ascertain the safety culture prevailing in the organizations. The primary objective of this study is to ascertain the differences and to identify the most discriminating safety climate variables among various group organizations. The attitudes and perceptions of construction personnel were measured through questionnaire based survey. Principal Component Analysis (PCA) was performed for the extraction of safety climate factors. The factor analysis extracted four factors for the safety climate. Out of 25 variables 24 variables were retained in the final factor solution. The descriptive analysis revealed that the safety awareness and beliefs among the management personnel are relatively high, management commitment towards safety is moderate and the supportive work environment needs improvements to enhance the safety culture. Further, a linear discriminant analysis was also performed to determine the most discriminating safety climate variables between the three group organizations. Out of 21 variables 12 variables were revealed significant differences amongst three groups. All six variables of physical work environment factor revealed statistically significant differences among the group means.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Esterase like Activity of Enterococcus Faecalis and Lactobacillus Casei on Microhardness and Weight Loss of Resin Luting Cements
Authors	Gopal Sree Vidya, Durvasulu Archana, Prithika Udayakumar, Elangovan Sivapriya, Tejaswi Bollina, Angambakkam Rajasekaran Pradeepkumar
Journal Name	Indian Journal of Dental Research

ABSTRACT:

Introduction: Gap-free/continuous cement margins have been considered important for the longevity of indirect dental restorations. Bacterial species have demonstrated esterase-like activity that can cause biodegradation of resin composites.

Aim: The aim of this study was to evaluate the effect of the esterase-like activity of *E. faecalis* and *L. casei* on three resin luting cements.

Settings and design: In-vitro study materials and three resin luting cements tested were: Variolink N, Rely X U200 and Panavia F2.0. *E. faecalis* and *L. casei* suspensions and supernatants were assessed for enzymatic activity by bacterial esterase activity assay. Circular samples of resin luting cements were exposed to suspensions of *E. faecalis* and *L. casei* for 7 and 28 days followed by testing for solubility, microhardness and bisphenoxy propoxy phenyl propane (BisHPPP) release.

Results: *E. faecalis* and *L. casei* both demonstrated esterase-like activity. Bacterial suspensions had significantly increased enzymatic activity than supernatant solutions ($P < 0.05$). There was no significant reduction in microhardness or increased weight loss in all three cements after incubation in *E. faecalis* and *L. casei* for 7 and 28 days. BisHPPP release signifying resin degradation was seen after 7 and 28 days of incubation in *E. faecalis* and *L. casei*.

Paper Title	Questionnaire Study On Knowledge Attitude, And Practice On Factors Associated With Initiation and Cessation of Tobacco Among Patients Using Tobacco Products
Authors	J Manju , C Krithika , Mutum Sangeeta Devi, Saranya P, R Saravanan, N Sanjana
Journal Name	Indian Journal of Forensic Medicine and Toxicology

ABSTRACT:

A study was conducted to assess the knowledge, attitude and practice (KAP) of factors associated with initiation and cessation of tobacco among patients using tobacco products. A KAP study was conducted among patients using tobacco products of various age groups attending the outpatient department in a dental college in Chennai, Tamil Nadu. A self-constructed questionnaire by our team was framed and distributed to 100 subjects. The data collected was then analysed with SPSS software (version 21) statistically to obtain the results. In this study, predominantly 69% of the subjects started the habit of using tobacco products in the age group of 15-25 years. Most commonly used tobacco product was cigarette (56%) and the frequency of tobacco usage was 5-10 times per day (50%). About 68% of the questioned subjects are aware of passive smoking and 94% are aware of the consequences of using tobacco products. High prevalence of tobacco usage was observed among younger age group. This calls for the need that educational institutions mandate the inclusion of awareness of health hazards of cigarette smoking in their curriculums. This is a much needed intervention to extricate them from this habit.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	A Study On The Aspiration Procedures In Syringes Among Health Care Professionals
Authors	Vijay Anand, Rathika Rai, Nirmal Famila Bettie, Shantha Priya
Journal Name	Indian Journal of Forensic Medicine and Toxicology

ABSTRACT:

Aspiration during routine injection is meant to ensure that the injecting needle tip is at the anticipated location during this unsighted procedure. While injecting needle appears to be a simple procedure, it has produced a lot of controversy regarding the apparent benefits and indications. Keeping in view the huge number of injections given worldwide, it is observed that key questions regarding aspiration till now, remain unanswered. Due to very smaller number of studies and data in the literature there is no evidence of particular injecting procedure as truly beneficial or unjustified. The present integrative review was chosen to draw conclusions about the current state of knowledge and practice of aspiration and use of syringes among medical, paramedical and dental practitioners. On analyzing the questionnaire output data's, it was observed that most sound knowledge practitioners found difficulty in usage of syringes and forget to aspirate due to nervousness during injection resulting in positive aspiration ($p < 0.05$) during the procedure. Henceforth a new invention in the syringe for safer and easier use or a standard injecting technique with aspiration protocol have to be established to avoid complications due to difficulty in usage of syringes during minor or major surgical procedures.

Paper Title	A Cross Sectional Study Of Dermatoglyphic Patterns Among Type 2 Diabetic Patients And Non-diabetics In Chennai
Authors	Sudharson T, Karthikeyan S K , Singh M B, Rajkamal R, Brethis C S
Journal Name	International Journal of Medical Toxicology and Legal Medicine

ABSTRACT:

Introduction: Diabetes mellitus is broadly categorized into two: type 1 and type 2. It has been proposed that dermatoglyphics can serve as a supportive and economically feasible tool in the prediction and diagnosis of diabetes mellitus amongst individuals predisposed to developing this disorder. Materials and Methods: Descriptive cross-sectional study of the quantitative design. Fingerprint samples of 200 (100 type 2 diabetics & 100 controls) participants of age > 36 years of were obtained and studied. Results and Discussion: Fingerprint distribution patterns of the control group: Ulnar loop - 623 (62.3%), Radial loop - 22 (2.2%), Arch - 123 (12.3%) and Whorl - 232 (23.2%). Fingerprint distribution patterns of the type 2 diabetics: Ulnar loop - 652 (65.2%), Radial loop - 17 (1.7%), Arch - 88 (8.8%) and Whorl - 243 (24.3%). This study observes a statistically significant difference in the fingerprint distribution of arch pattern between the diabetics and non-diabetics overall and in female sex. There is need to conduct larger population-based studies and examination of larger samples to standardize the findings of this study and come to definitive conclusion.

DR MGR - RESEARCH PUBLICATION APPRECIATION – OCTOBER 2020

Paper Title	Power Optimization by using Reconfigurable Lfsr with Gated Clock
Authors	Anandhi S, Neela R, Janaki Rani M
Journal Name	IOP Conference Series: Materials Science and Engineering

ABSTRACT:

LFSR are the most commonly used test pattern generators due to its efficiency than any binary counters. This paper presents the design of a novel reconfigurable LFSR with clock gating for VLSI testing. The technology advancement in VLSI has increased the complexity of chip testing. This complexity in testing has made the Logic BIST (LBIST) more popular than Automatic Test Equipment. This helps the testing with an additional hardware added inside the circuit. ATE does not apply any test patterns but the test patterns are generated by the testing circuits which are inbuilt in the hardware. Thus the cost of testing is greatly reduced. In the LBIST, reconfigurable LFSR are used for the test pattern generation which improves the fault coverage in IC testing. This increases the generation of random test pattern. To increase the speed of testing and reduce the power required a clock gating is introduced in the reconfigurable LFSR. In traditional testing more transistors are required in the circuits resulting in consumption of more power than power required for the functioning of the circuit. Conventional clock circuit consumes 70% of the clock buffer. This reduces the number of switching activities in the BIST. The power consumption of the proposed reconfigurable LFSR with gated clocking is significantly reduced when compared with the conventional LFSR with clocking circuits.

Paper Title	Simulation and Modeling of Seawater Intrusion around Pondicherry Coastal Aquifer-India
Authors	N Sanjana Narayanan R M, Radhika K, Priya C L, Laxmipriya S, Krishnakumari B
Journal Name	Proceedings of the 2019 8th International Conference on System Modeling and Advancement in Research Trends, SMART 2019

ABSTRACT:

Characteristic nature of groundwater along the Pondicherry beachfront area is under worry because of overexploitation. The examination models the excess concentration of EC levels to assess the impacts on the coastal region. Field data included in the model are electrical conductivity, water table, depth, pump test, elevation/ topography of the area, annual precipitation, aquifer thickness, their porosity, permeability, specific storage and specific yield, the litho logical cross-section of exploratory/ observatory bore wells, etc. The visual MODFLOW modeller (MT3DMS) is employed to predict the concentration of EC $\mu\text{s/cm}$ for the actual pumping rate and at an annual recharge of 40% together with the DL (longitudinal dispersion) value of 10 m to characterize changing salt-cloud. The model encompasses the highest coefficient of correlation of more than 94% for the initial twenty years, and so reduced to 85% for the subsequent twenty years. The model results with saltwater intrusion (~14 km) along the SW Pondicherry coast.

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Paper Title	Impact of root canal treatment on high-sensitivity C-reactive protein levels in systemically healthy adults with apical periodontitis - A preliminary prospective, longitudinal interventional study
Authors	L Poornima, P Ravishankar, A Subbiya, A R Pradeep Kumar, P V Abbott
Journal Name	International Endodontic Journal, Vol 54, I, B 501-E508

ABSTRACT:

Aim: To assess the influence of root canal treatment on serum high-sensitivity C-reactive protein (hsCRP) levels in systemically healthy human adults. **Methodology:** Fifteen individuals aged 20-40 years diagnosed with apical periodontitis [Periapical Index (PAI) score ≥ 3] who were otherwise healthy took part in this prospective interventional study. Patients with moderate to severe periodontitis, systemic diseases and traditional cardiac risk factors (hypertension, diabetes, dyslipidemia and smoking) were excluded. Root canal treatment was completed in two visits with an inter-appointment calcium hydroxide intracanal medicament. After 6 months, healing of apical periodontitis was evaluated clinically and radiographically, and serum hsCRP levels were recorded. A paired sample T-test was used to compare the mean hsCRP values between the pre- and post-treatment groups. The Mann-Whitney U test was used to compare hsCRP values between patients with PAI scores of 3 and 4, and the Wilcoxon signed-rank test was used to compare pre- and postoperative PAI scores. **Results:** The mean preoperative baseline serum hsCRP level was $2.88 \pm 1.06 \text{ mg L}^{-1}$ which can be associated with a moderate risk for cardiovascular disease (CVD). Based on the preoperative hsCRP levels, eight of the 15 patients were categorized as high risk ($\text{hsCRP} > 3 \text{ mg L}^{-1}$) and the other seven as medium risk ($\text{hsCRP} 1-3 \text{ mg L}^{-1}$) for CVD. The mean preoperative hsCRP value of patients with a PAI score of 3 was $2.88 \pm 1.19 \text{ mg L}^{-1}$, and the mean preoperative hsCRP of patients with a PAI score of 4 was $2.87 \pm 0.15 \text{ mg L}^{-1}$, which was not significantly different ($P = 0.942$). Six months after root canal treatment, the mean PAI score had significantly reduced from 3.2 ± 0.42 to 1.4 ± 0.69 ($P = 0.003$). The PAI score had reduced to ≤ 2 in 87% of the patients, and the mean serum hsCRP levels had significantly reduced to $1.34 \pm 0.52 \text{ mg L}^{-1}$ ($P < 0.001$). Ten of the 15 patients had a reduction in their CVD risk status.

Paper Title	Toxicity mechanism of Cu^{2+} ion individually and in combination with Zn^{2+} ion in characterizing the molecular changes of <i>Staphylococcus aureus</i> studied using FTIR coupled with chemometric analysis
Authors	Annika Durve Gupta, E Kavitha, Shikha Singh, Sivakumaran Karthikeyan
Journal Name	Journal of Biological Physics, Vol 46, I, B 395-E 414

ABSTRACT:

Copper and zinc have a high binding affinity with a *staphylococcus aureus* bacterial community. This causes a change in the biomolecular composition of *S. Aureus*. Our study aims at understanding the resistance mechanism of cu and zn either or in various combinations using FTIR and chemometric techniques. Zn toxicity resulted in a significant change in lipid content ($3100-2800 \text{ cm}^{-1}$) compared to cu. A significant decrease in protein content is observed for cu treatment in the amide region. The bio-concentration factor shows a higher value for cu compared to zn. The increase in band area of carbohydrates moieties 1059 cm^{-1} shows the secretion of EPS due to cu toxicity. A significant change in nucleic acid compositions was noted in the region $1200-900 \text{ cm}^{-1}$ due to zn treatment. Secondary structural change in protein shows β sheet formation. The result of the finding shows cu has greater toxicity than zn. Further toxicity effects were greatly enhanced for metal mixtures ratio (cu:2zn). This shows zn exhibits synergism effect with cu. The obtained ROC (receiver operating characteristic) curve area gives good reliability of the experiments. The study attempts to understand the mechanism of toxicity removal of cu and zn metal mixtures by bacterial population using FTIR coupled with chemometric techniques.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	Efficacy of valacyclovir and famciclovir in herpes zoster: A comparative study
Authors	Ankita Bist, A Savitha, Kashinath M Gumma
Journal Name	Indian Journal of Pharmacology, Vol 52, I , B 472-E 475

ABSTRACT:

Objectives: The objective was to evaluate the efficacy of antiviral agent valacyclovir compared with famciclovir in the treatment of herpes zoster. **Materials and methods:** A comparative study was conducted over a period of 1 year. Data relevant to the study were collected from 60 patients, with active herpes zoster presenting to the outpatient department within 72 hr of the first occurrence of zoster rash. They were divided in to two groups of 30 patients each. The first group of patients received valacyclovir tablet 1000 mg thrice daily, whereas those in the second group were given famciclovir tablet 500 mg thrice daily. Both the drugs were given for 7 days. Periodic follow-up till 29th day was done for assessment of the effects of given drugs. **Results:** Significant decrease was observed on comparison of pain scores between the two groups using the visual analog scale, with the drug valacyclovir, than in the famciclovir group at day 29. Furthermore, valacyclovir treatment accelerated the resolution of zoster associated pain in more number of patients compared with famciclovir. **Conclusion:** Oral valacyclovir administered during acute zoster infection for a period of 7 days offers significant benefit compared to famciclovir by providing a well tolerated and greater resolution of pain while maintaining the favorable safety profile, making valacyclovir more efficacious and a better drug in management of Herpes Zoster in comparison to famciclovir.

Paper Title	Financial Stress Testing In US Banking Sector
Authors	Geetha Kannabiran, Maria Suganthi Lucas, Vasanthi K, Kavitha B
Journal Name	Materials Today: Proceedings, Vol 37, I , B 2252 – E 2255

ABSTRACT:

This paper focuses on measuring the financial stress in US banking sector through internal and external financial variables. For this purpose, probability of default which is considered to be the most crucial variable for measuring the financial stress has been ascertained through a model developed by Zuzana Fungacova and Petr Ja kubik. We have also combined all the variables into a single stress index which will depict the stress level in the US banking sector. It was found that the stress level was the highest in 2008 which was the year of subprime crisis in USA which also justifies that the stress variables and the index will be useful in predicting financial crisis in coming years.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	Effect of Ethanolic Extract of <i>Carica papaya</i> Leaves and their Cytotoxicity and Apoptotic Potential in Human Ovarian Cancer Cell Lines- PA-1
Authors	Priyadurairaj, Palagati Rohith Kumar Reddy, Palaniyandi Thiruvananvukkarasu, Sindhu Rajesh, Suganya Karunakaran, Rajeswary Hari
Journal Name	Pharmacognosy Magazine, Vol 16, I 5, B 524-E 530

ABSTRACT:

Introduction: The aim of the present study is to investigate the efficacy of *Carica papaya* ethanolic extract for anti proliferative, cytotoxicity, apoptotic, cell cycle blockade and wound healing in the ovarian cancer PA-1 cell lines. **Materials and Methods:** PA-1 cells were treated without the sample (act as a control) and with the sample for the above assay as per the described protocol. **Results:** The end result anti proliferative showed that PA-1 cell viability decreases in a concentration dependent manner and the growth inhibitory effect (IC₅₀) values are obtained at a concentration of 100 µg. The increase in number of apoptotic cell was observed and after treating with PA-1 cells the sample with double staining methods. G2/M phase of the cell cycle was significantly blocked by the test sample followed by the S phase in a negligible manner. And *in vitro* cell wound closure or contracture was not significant when compared the sample against control group. **Conclusion:** *C. papaya* ethanolic extract showed to possess excellent cytotoxic effect through inducing apoptosis especially causing arrest at the G2/M phase of the cell cycle.

Paper Title	Design and Evaluation of Wi-Fi Offloading Mechanism in Heterogeneous Networks
Authors	Vinoth Kumar V, S Ramamoorthy, Dhilip Kumar V, Prabu M, Balajee J M
Journal Name	International Journal of e-Collaboration, Vol 17, I 1, B 60-E 70

ABSTRACT:

In recent years, Wi-Fi offloading provides a potential solution for improving ad hoc network performance along with cellular network. This paper reviews the different offloading techniques that are implemented in various applications. In disaster management applications, the cellular network is not optimal for existing case studies because the lack of infrastructure. MANET Wi-Fi offloading (MWO) is one of the potential solutions for offloading cellular traffic. This work combines the cellular network with mobile ad hoc network by implementing the technique of Wi-Fi offloading. Based on the applications requirements the offloading techniques implemented into mobile-to-mobile (M-M), mobile-to-cellular (M-C), mobile-to-AP (M-AP). It serves more reliability, congestion eliminated, increasing data rate, and high network performance. The authors also identified the issue while implementing the offloading techniques in network. Finally, this paper achieved the better performance results compared to existing approaches implemented in disaster management.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	A Perspective Overview on Hygrophila auriculata
Authors	S Dhanalakshmi, Harikrishnan N, N Srinivasan, P Pandian, B A Tanisha, M Tharun Kumar, V Lokesh, N Yuvashri, S Supriya
Journal Name	Pharmacognosy Journal, Vol 12, I 6, B 1748-E 1752

ABSTRACT:

Hygrophila auriculata, belonging to the family Acanthaceae, is a promising medicinal plant with great economic potential. The medicinal value of *H. auriculata* has been appreciated in the ancient medical literature. The plant contains terpenoids, alkaloids, flavonoids, and is traditionally known as an aphrodisiac, renal tonic, and for its health-promoting properties. The plant is cultivated throughout India. However, systematic information on the different aspects of this species is not available. In this review, an attempt has been made to present this information.

Paper Title	Study on sulfate resistance behaviour of granite sand as fine aggregate in concrete through material testing and XRD analysis
Authors	Arivumangai Anbazhagan, RM Narayanan, Felix Kala T
Journal Name	Materials Today: Proceedings, Vol 43, I , B 1724-E1729

ABSTRACT:

To develop sustainable concrete, partial replacement of cement with silica fume, fly ash, GGBFS was attempted in addition to the replacement of river sand with granite sand at the proportions of 0%, 25%, 50%, 75%, and 100%. The investigation leads to the breakthrough of ideal Sulfate resisting concrete with optimal design mix consisting Granite sand 25% + river sand 75% + partial replacement of cement by 7.5% silica fume + 10% fly ash + 10% GGBFS. The analysis results with the Sulfate resistance through only a 12.2% reduction in the tested compressive strength for the optimum design. All other design mix considered for the study indicated with lesser Sulfate resistance varying from 13.2 to 17.1% of reduction in compressive strength. Conventional river sand with admixtures leads to decline in compressive strength from 40 to 33 N/mm² however the optimum design mix as identified in the study resulted with the higher sulfate resistance. It is estimated that 2% total cost savings were achieved for the identified optimal design mix for the 1 m³ of conventional concrete. Total cost savings of 2% were achieved for the identified optimal design mix for the 1 m³ of conventional concrete based on the estimation. The goodness of fit using Chi-Square analysis has been carried out for the developed regression equation towards estimating the compressive strength for various design mixes resulted in a value of 0.82.

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Paper Title	Investigation of Heat Transfer Enhancement Effect on Normal and Nano Coated Wick Structure Heat Pipes-A Comparative Assessment
Authors	Manikanda Prabu N, S Nallusamy, Suresh Kannan G
Journal Name	International Journal of Engineering Research in Africa, Vol 51, I , B 191-E 198

ABSTRACT:

Removal of heat generation is an important characteristic needs to be considered in electromechanical and electronic devices which improve the stability and feasibility of system. Despite numerous cooling methods, heat pipes are recent updating in research line. Heat pipes are one of the super conducting medium of heat energy and it is being used as an equipment to absorb more heat through phase change process of cooling medium circulated in it. It ensures the direct enhancement in heat transfer capacity and characteristics. Nowadays, improvement of the thermal performance in heat pipes getting up with various technologies, especially combination of heat pipe and Nano fluids. It has been experimentally practiced and various results are observed by previous researches that wick structure also a part of reason in improvement. The aim of this research work is to analyze the influence of wick material to improve heat transfer characteristics in heat pipes. In addition, combination of nano coated wick material with heat pipes is comparatively analyzed. From the final observed results it was found that, the best combination of wick material is supporting the better cooling requirements in electronic devices.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	DNA based CGB methylation in breast cancer - A case control study
Authors	Anjana Vasudevan, Vasugi G A, R Ponniah Iyyappan, Guru Prasad, C S Subramaniam
Journal Name	European Journal of Molecular & Clinical Medicine, 2020, Vol 7, I 5, B 55-E 61

ABSTRACT:

Breast carcinoma is the most commonly diagnosed cancer and the leading cause of cancer death. Breast cancer also produces and is influenced by ectopic hormones. Beta Human Chorionic Gonadotropin (hCG) is one such hormone and is encoded by chorionic gonadotropin beta (CGB) genes. The aim of this study was to determine the CGB gene methylation in breast cancer tissues and compare them with normal tissues. Materials and methods: After approval from Institutional Ethical Committee (IEC), consent from patients were obtained. Normal and tumour tissues from breast cancer patients were taken. DNA was isolated from normal and tumour tissues. Post bisulfate conversion samples were processed for qPCR using methylation specific primers for the set of selected CGB genes and SYBR green. Results: 1-2M was found to be significantly higher among the normal tissues (50.22). 3-9M was found to be 65.93 in tumour tissues and 5.05 in normal tissues and this was significant.

Paper Title	New age treatment for an age-old problem - PRP for post-surgery non-healing venous ulcers
Authors	Nithyaraj Prakasam, Anjana Vasudevan, Guru Prasad, Vivek Bala, K Senguttuvan
Journal Name	European Journal of Molecular & Clinical Medicine, 2020, Vol 7, I 5, B 185-E192

ABSTRACT:

Introduction: One of the major complications of varicose veins is the non-healing ulcer of the leg. The traditional treatment for this is regular dressing, foot end elevation with appropriate antibiotics and local application of silver-based ointments. The gold standard treatment for these patients is surgery (Trendelenburg surgery with or without venous stripping and subfascial perforator ligation and endovenous procedures). Surgeons usually reach a crux when a patient develops persistent ulcers which does not heal even after all efforts. **Methodology:** This was a case control study with 40 patients conducted over 2019 and 2020, after institutional ethical clearance. All patients were treated with appropriate antibiotics prior to the study and obtained a culture negative status. PRP was separated and injected locally into the borders of the ulcer in cases, while controls were given regular dressings with silver-based ointments. **Results:** We found that patients who were given PRP had a significantly faster healing rate and a lower infection rate.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	Performance assessment of DI diesel engine using waste transformer oil with different compression ratios
Authors	K Rajan, Manoj Babu A, P Ravichandra Ganesh, S Nallusamy, K R Senthil Kumar
Journal Name	International Journal of Ambient Energy, Vol , I , B 1-E 23

ABSTRACT:

Increasing cost of petroleum fuels, fast depletion of petroleum resources and excessive automotive engine pollution lead to the researchers to search for an alternate fuel like waste lubricant oil and Waste Transformer Oil (WTO) for Compression Ignition engines. In the present investigation, WTO is blended with diesel fuel in the ratio of 30:70 (WTO30) on volume basis and is used in a diesel engine to evaluate the performance, emission and combustion characteristics. Initially the engine was operated with diesel and WTO30 and then the test was repeated with WTO30 at different compression ratios. The results revealed that the BTE was increased by 1.12% at CR20 and CO, HC and smoke emissions were decreased and the NO_x emissions were increased for WTO30 with an increase in CR when compared to that of diesel. The cylinder pressure and heat release were increased for WTO30 at CR20:1 compared to that of WTO30 at maximum load.

Paper Title	Synthesis, crystal structure, vibrational, optical, thermal and photoluminescence properties of dibromidobis {2 - [(2 - chlorophenyl) methylidene] hydrazine – 1 - carbothioamide} - cadmium [CdL2Br2]
Authors	E Kavitha, Karnan Chandran, Manivannan S, Madhavan J
Journal Name	International Endodontic Journal, Vol 31, I , B -E

ABSTRACT:

The solvent evaporation technique synthesized the metal complexes of Dibromidobis{2-[(2-chlorophenyl) methylidene] hydrazine-1-carbothioamide}-cadmium [CdL2Br2] under optimum conditions. The [CdL 2 Br 2] crystallizes with a space group Cc with a monoclinic crystal system. FTIR and Raman spectrum affirms the presence of all expected the functional group. UV-vis absorption analysis shows high absorption at 314 nm and the energy gap was found to be 3.37 eV. TG-DTA analysis confirms the crystalline nature and thermal stability of the material. Photoluminescence analysis demonstrates that the materials have an emission peak at 412.07 nm in the violet light region. Grown crystal confirms it is very much essential for the second harmonic generation (SHG) and frequency conversion applications.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	On b-coloring line, middle and total graph of tadpole graph
Authors	R Nagarathinam, N Parvathi
Journal Name	AIP Conference Proceedings, Vol 2277, I 1, B 1-E 4

ABSTRACT:

Irwing and Manlove instigate the knowledge of b -colorings and provided some inequalities for extreme bounds to explore the parameter on b -coloring. He denoted m-degree $m(G)$ to determine the b -chromatic number. Here the parameter on b-coloring of Line graph of Tadpole Graph, Middle graph and Total graph of tadpole graph are being investigated. Also comparison of parameters on coloring and b-coloring has been done.

Paper Title	Device Authentication and Secure Routing in MANET for Internet of Things
Authors	Kirubadevi Thiyagarajan, S Ramamoorthy, Neelavathy Pari S, P S Raja Kumar
Journal Name	Advances in Parallel Computing, Vol , I , B 313-E 319

ABSTRACT:

In the next generation of communication mobile adhoc network (MANET) will play a major role in Internet of Things (IoT).MANET can be defined as a network among a group of nodes with no infrastructure. Internet of Things is the composition of a variety of networks like Wi-Fi, ZigBee, Wireless Sensor Networks (WSNs).MANETs, and Radio Frequency Identifier (RFID). There is a need for the compatibility of MANET with IoT for the deployment of smart infrastructure. Authenticity and security in communication between devices are essential for the realization of IoT with MANET. Authentication and providing security in MANET are always challenging due to its mobility in nature. Devices in IoT are usually resource constrained in energy, memory, computation and bandwidth. Therefore, it is difficult for each node to authenticate all the devices in the network. In this paper, an authentication scheme is proposed without any third party provider to distinguish the authorized and unauthorized devices. This authentication consists of two level process; in the 1st level mutual devices are authenticated, and in the 2nd level secure data routing between the devices is carried out. Mutual authentication is performed by Clustering based on keys and unique identities and by the cluster heads interpreting for secure routing. This scheme ensures the early measure of authenticity for the message requested enters into the IoT networks and disagreement against attacks.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	Impact of Natural Gas Combined Cycle Power Plant on Gomati River, Tripura
Authors	A Ghosh, Partha Sarathi Chakraborty, S Nallusamy, K Balakannan
Journal Name	Journal of Green Engineering, Vol 10, I 11, B 11853-E 11871

ABSTRACT:

Breast Nowadays, it has been observed that power plant effluents significantly affect the aquatic ecosystem wherein living organism like microorganisms, fish, insects, invertebrates and plants interact with the surrounding. Every power plant use water source for their requirement such as cooling purpose, producing steam, discharging effluents etc. So, this is the high time to closely monitor the water bodies present in the water source. In this study, we have analyzed the impact of natural gas power plant on Gomati River through monitoring physical, chemical parameters and bacteriological characteristics of upstream, downstream and Jamjuri switch gate nala water samples. In this study, the quality of water of study area is determined using the various physical, chemical and biological parameters such as pH, dissolved oxygen, electrical conductivity, biochemical oxygen demand, total hardness, total dissolved solids, total suspended solid, chloride, sulphate. The weighted arithmetic index method was introduced to analyze the Water Quality Index (WQI) of upstream, downstream and Jamjuri Switch Gate Nala samples. From the three samples, it has been observed that the Gomati River's water is in safe limit for industrial, domestic and irrigation use, recreational activities etc. Analysis disclosed that quality of water has improved drastically from upstream to downstream side of the river, though it is not considered very good for drinking purpose in respect to WQI value but still power plant has contributed positively to enhance the quality of water of Gomati River. It was observed that all the parameters are in safe limit for sustaining the aquatic ecosystem.

Paper Title	Reduction of heavy metals from textile effluent with activated carbon from wheat husk
Authors	Tanmayee Panigrahi, RM Narayanan
Journal Name	Pollution Research, Vol 39, I , B 138-E 142

ABSTRACT:

Textile industries are known to be huge platform for providing employment without any skill perfection but at the same time they also hold the tag of prime offender in polluting the environment. They are immensely responsible for discharging the heavy metals to the aquatic bodies. Heavy metals such as Copper (Cu), Lead (Pb), Cadmium (Cd), Chromium (Cr), Arsenic (As), Zinc(Zn), Iron (Fe), Mercury (Hg), and Sulphur (S) are widely used in textile industries. These heavy metals are the great threat for the environment and ecology. This proposed work is done to evaluate the efficiency of wheat husk in removing of heavy metals from textile Effluent. Wheat husk was subjected to different steps of physical and chemical treatment and was converted into activated carbon. Textile effluent was collected from Tirupur area in Tamilnadu which is very famous for the cotton industries. Batch studies were done by taking 10 g of wheat husk with 200 mL of the textile effluent to evaluate change in the Heavy metal concentration from initial state to final state in the collected sample from textile effluent. The pH of the sample was varied from 4.5 to 7.5 and the adsorption capacity of wheat husk was analyzed for Arsenic, Mercury Chromium and Lead. Initial characterization of Heavy metals is done by using PERKIN ELMER OPTIMA 5300 DV ICPOES. The results show that this low cost and eco-friendly adsorbents can effectively used for the removal of heavy metals.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	Analysis of Photovoltaic Power Generation for Electric Vehicle Application
Authors	Merlin Suba G, M Kumaresan
Journal Name	Advances in Parallel Computing, Vol 37, I , B 296-E 303

ABSTRACT:

This paper presents a hybrid solar-energy supply with battery storage for electric vehicle applications. This converter is designed to improve the topologies of the Cuk-Boost converter in parallel power transfer mode to achieve higher performance. Extract maximum energy from the hybrid PV source simultaneously. Hybrid source fed Cuk-Boost converter performance is analyzed in this paper using MATLAB/SIMULINK. To achieve maximum output voltage, while using proposed scheme compared to existing converters topologies.

Paper Title	WSN Based on Bio-Inspired Algorithm in Cluster Head Formation
Authors	Vinmathi M S, M S Josephine, Jeyabalaraja V
Journal Name	Advances in Parallel Computing, Vol 37, I , B 263-E 268

ABSTRACT:

IA sort of inclusion improvement technique dependent on bio-inspired algorithm was implemented so as to fathom the irrationality and low system inclusion of sensor hub in WSN at the irregular dispersion. Right off the bat, the ebb and flow investigate status of WSN inclusion was broke down, the hub inclusion and territorial inclusion in WSN on the premise were examined, the comparing scientific model was set up, the bio-enlivened calculation was taken to tackle the built up numerical model, and the WSN inclusion advancement program dependent on the bio-roused was gotten. At last, MATLAB was utilized for the recreation analyses, and the reproduction results demonstrated that the presentation of bio-motivated calculation improved the hub inclusion in WSN viably; the inclusion territory was huger at a similar measure of hubs. In addition, the calculation can get the ideal arrangement in the worldwide extension, and arrive at the better system inclusion advancement impact with less sensor hubs, and the quantity of cycles was diminished altogether.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	An analysis on entity recognition and existence of images in video
Authors	Maheswari M, Josephine M.S, Jeyabalaraja V
Journal Name	Advances in Parallel Computing, Vol 37, I , B 355-E 361

ABSTRACT:

Humans can effortlessly notice and perceive objects found in a photograph and video. Human visual system is speedy, correct and performs complicated tasks like identifying multiple entities and spot obstacles. An Entity is referred as an object. Object detection in videos entails verifying the presence of an item in image sequences. It is related to many real time appliances like car belief, video surveillance and so forth. The aim of this paper is to investigate and assess the distinctive strategies that are used in item tracking and detection through the usage of video sequences.

Paper Title	Perception of Students Towards Anatomy Internal Assessment in Competency based Undergraduate Curriculum
Authors	P Vaijayanthimala, J Leonoline Ebenezer, M Mahima Sophia, M Sasirekha, S Kamalakannan
Journal Name	Indian Journal of Public Health Research & Development, Vol 11, I 12, B 95-E 98

ABSTRACT:

Introduction: Many changes have taken place in the field of education to improve the standards of professional course. A new competency based UG curriculum developed from 2020 in response to improve knowledge & skills in medical students. Assessment is the essential key to judge the students knowledge. Students feedback about new curriculum is a useful tool to identify strength and weakness of the new curriculum. **Objective:** To assess the perception of under graduate medical students towards assessment in anatomy in competency based curriculum. To identify challenges and obstacles faced during competency based curriculum. **Results:** Most of the students felt that the Assessment should be conducted once in a month. Students favoured examination pattern was clinical based & multiple choice questions. Majority of the students felt that internal assessment should be the criteria for allowing students to appear for the University examinations. Students feedback was affirmative for histology discussion. Many of the students agreed that they had enough time to prepare for the Internal Assessment in covid - 19 lock down period.

DR MGR - RESEARCH PUBLICATION APPRECIATION – NOVEMBER 2020

Paper Title	A review on development of effectiveness evaluation in the manufacturing system
Authors	Logeshwaran J, Nachiappan R M, S Nallusamy, N Ethiraj
Journal Name	International Journal of Engineering Trends and Technology, Vol 68, I 11, B 129-E 136

ABSTRACT:

In the global market scenario, sustaining in the ecumenical organization concentrates on their manufacturing and system. For this, the manufacturing industries were adopted to various world-class manufacturing implements in their organization. In which Total Productive Maintenance (TPM) implement plays a significant role. The implementation of TPM has been understood well by its effectiveness evaluation. The evaluation has also aimed to assess the current manufacturing performance status and execute amendments for further magnification. The evaluation has been carried out by sundry researchers in different indices for their desiderata and requisites under the substructure of Overall Equipment Effectiveness (OEE). The index has been developed to evaluate individual equipment and elongate it for the whole manufacturing system. A detailed literature review has been carried out and summarized with deference to the past three decenniums; the review includes the researcher's highlights or contribution with the difficulties associated with evaluating it in manufacturing industries.

Paper Title	Impact of 1 - hexanol fumigation on diesel engine emissions using moringa oleifera biodiesel
Authors	Pradeepraj R, Rajan K, S Nallusamy
Journal Name	International Journal of Engineering Trends and Technology, Vol 68, I 11, B 150-E 155

ABSTRACT:

Pollution is one of the big issues in the modern environment all over the world. The greatest contribution in this field is vehicle pollution and industry. Diesel is also one of the key fuels that introduce toxic contaminants to the atmosphere. To meet the strict emission requirements, the polluting components in the fuels need to be drastically reduced. In this research, the aim is to investigate diesel engine performance characteristics utilizing Moringa Oleifera oil Biodiesel blend (MOBD25) with different ratios of 1-hexanol fumigation. Fumigation is a method that increases the combustion of the engine and decreases emissions. Fumigation is the Fuel that is to be fumigated by carburizing, vaporizing the alcohol into the engine's intake manifold. Additionally, it requires control systems for the Fuel, fuel tank, and vaporizer. The results showed that for MOBD25, the BTE is improved by 1.1% with 30% 1-hexanol fumigation relative to other proportions of 1-hexanol. At peak power, the NO and smoke opacity of MOBD25 with 30% fumigated hexanol was diminished by about 36% and 38%, respectively, relative to diesel. Finally, it is concluded that MOBD25 with 30% of fumigated 1-hexanol can effectively diminish the NO and Smoke emissions with a decrease in the engine's performance.

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Paper Title	In Vivo Strain Alterations In Mandibular Molars After Root Canal Procedures
Authors	Prameet Ramachandran, Angambakkam Rajasekaran Pradeepkumar, Periasamy Ravishankar, Anil Kishen
Journal Name	Journal of Endodontics, Vol 46, I 12, B 1849-E 1855

ABSTRACT:

Introduction: The aim of this investigation was to determine the coronal strain variations in mandibular molars under an in vivo bite load after root canal treatment procedures.

Methods: The coronal strain in carious mandibular first molars with symptomatic irreversible pulpitis (experimental group) was compared with that of intact contralateral teeth (control group) in patients 20-40 years old. Experiments were conducted in 2 stages. In stage 1, the maximum bite force on the first molar region was determined on the experimental and control teeth using a customized load cell. In stage 2, strain gauges were bonded to the buccal aspect of teeth, and the strain was recorded after the application of a bite load on the intact (control) teeth; and the experimental teeth before and after endodontic access cavity preparation, cleaning/shaping procedures, root filling, and composite core restoration.

Results: The mean maximum bite force on the experimental teeth (91 ± 48 N) and the contralateral control teeth (91 ± 49 N) was not significantly different ($P = .989$). The preoperative strain (microstrain) in the experimental teeth was significantly higher (125 ± 36 , $P = .001$) than in the contralateral intact teeth (46 ± 17)

Paper Title	Catalytic Cracking Of Vacuum Distillates On Composite Catalysts
Authors	S Sendilvelan, T M Seilkhanov, R Kh Ibrasheva, V S Yemelyanova, L R Sassykova, U N Dzhatkambayeva, T V Shakiyeva, B T Dossumova, N K Zhakirova
Journal Name	Rasayan Journal of Chemistry, Vol. 13 No. 4 2370-2375

ABSTRACT:

The article describes the study of the regularities of oxidative cracking of vacuum gas oils of Atyrau and Zhetybay oil on composite catalysts based on natural zeolite Taizhuzgen and Narynkol clay. During oxidative cracking on synthesized zeolite-containing catalysts, an increase in gas and coke formation is observed in comparison with cracking in an inert atmosphere. These data indicate a magnification in the catalytic destruction of high molecular weight hydrocarbons in the presence of traces of air. The influence of the fractional composition of the processed feedstock on the laws of the catalytic process was determined; the dependence of the composition and yield of cracking products on the ratio of components in the catalyst was established. The influence of air on the course of the cracking reaction and the relationship between the parameters of oxidative-catalytic cracking were determined.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Biometric and RFID based authentication system for exam paper leakages detection using IoT technology
Authors	AnnRoseela J, Godhavari T
Journal Name	Indonesian Journal of Electrical Engineering and Computer Science, Vol 20, I 3, B 1271-E 1277

ABSTRACT:

Education is the soul of a community; it goes from one generation to another. Exam is the prime responsibility of an educational framework. The reason for an examination is to select talented applicants for multiple positions. Exam is an important aspect of the education system to test students' abilities online and in oral papers. Every year we receive deferred/canceled exam messages due to paper leakage. Therefore, we have come up with a affordable and concise outcome, and we have decided to design and implement the "Exam Paper Leak Protection Framework", which will be a much more secure structure depending on the controller. Together with RFID Reader, Fingerprints sensor, Buzzer, LCD, and Wi-Fi module. First, the university will send a selection sheet to an educational institution "electronic sealed box" known the "electronic control box". Electronic control box is a prototype that can be proposed using controller, and the RTC to display the current date and time. If anybody tries to intrude the box the buzzer will beep and alert message will be send to the university.

Paper Title	Human Exposure to Lead, Mechanism of Toxicity and Treatment Strategy- A Review
Authors	Dr. Sridevi Sangeetha Kothandaraman Sivaprakasam, Umamaheswari S
Journal Name	Journal of Clinical and Diagnostic Research, Vol 14, I 12, B LE1-E LE5

ABSTRACT:

Lead is one of the earliest metals discovered by humans. It has a number of unique properties such as softness, high malleability, ductility, low melting point, resistance to corrosion and low cost. This has made its widespread usage in different industrial sectors, which in turn has led to its manifold occurrence in free form in biological systems and the inert environment. Over the last few decades, with the adverse effects of lead coming to the forefront, nations across the world have started to recognise lead toxicity. This review covers the history behind the usage of lead, sources of lead exposure, absorption, distribution and excretion of lead, toxic signs and symptoms of lead toxicity and methods to evaluate the lead levels and the current treatment regimen. This also covers the details of current research work going on in the area of herbal remedies against lead induced liver damage.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Removal of Zinc and Chromium from industrial wastewater using water hyacinth (<i>E. crassipes</i>) petiole, leaves and root powder: Equilibrium study
Authors	D Hemalatha, Rm Narayanan, S Sanchitha
Journal Name	Materials Today: Proceedings, Vol , I , B -E

ABSTRACT:

Water hyacinth (*Eichhornia crassipes*) is known for its rapid invasive growth on surface of water bodies which in turn cause many ill-effects on biodiversity. The current study was performed on the remediation of Zinc and Chromium metal ions from Electroplating Industry Wastewater (EIW) using dried biomass of aquatic macrophyte – water hyacinth. The potential of powdered parts of (leaves, petiole, root) water hyacinth was studied through influential parameters such as biosorbent dosage, initial concentration of heavy metals, initial pH and contact time. Batch adsorption studies were conducted followed by column studies. Biosorbent prepared from root showed maximum Zinc (Zn) removal of 98.9% and stem showed Chromium (Cr) removal of 96.4% respectively. The obtained data was fit into equilibrium studies i.e. Freundlich and Langmuir isotherms. Equilibrium studies confirmed the conformity of the adsorption isotherms to Langmuir and Freundlich isotherms for the stem sample in removal of Chromium and the root sample was found to conform to the Langmuir isotherm in removal of Zinc.

Paper Title	Design and deployment of IoT based underwater wireless communication system using electronic sensors and materials
Authors	Ann Roseela, T Godhvari, Rm Narayanan, P L Madhuri
Journal Name	Materials Today: Proceedings, Vol , I , B -E

ABSTRACT:

Underwater wireless communication performs a critical role in tactical surveillance, water pollution control, oil exploration and maintenance, offshore mining, local weather control and oceanography research. It is an excellent operation for the military, industry, and scientific community. To facilitate these applications, wide variety of unmanned motors or units, which require excessive bandwidth and excessive ability to switch data are deployed underwater. Even though some of these goals have been achieved by underwater acoustic communication discipline but constrained by bandwidth. These factors have led to the advent of underwater Wi-Fi connectivity (UWC), which provides higher bandwidth than the usual acoustic contact systems with substantially reduced energy consumption and simplified technological problems for short-range Wi-Fi connexions. This paper under water wireless communication is achieved by using Internet of Things (IoT) an advanced technology along with microcontroller and Wi-Fi. In this study temperature, turbidity and distance between the objects are measured with the respective sensors connected to the transmitter and recorded at the receiver side by using IoT technology for different time intervals. It is concluded that the proposed UWC system based on IoT can be low cost, efficient and can be used for different applications related to underwater.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Evaluation of Knowledge, Attitude and Practice of Pharmacovigilance among Retail Pharmacist in Thiruvallur District, Tamilnadu, India
Authors	Vivekanandan . K, E Bhavya, Ramya A
Journal Name	European Journal of Molecular and Clinical Medicine, Vol 7, I 8, B 2607-E 2610

ABSTRACT:

Objective: The study was aimed to assess knowledge, attitude and practices of retail pharmacists towards Pharmacovigilance (PV) and ADR reporting in Thiruvallur district, Tamilnadu towards adverse drug reactions (ADR). Methods: In this study we had selected community pharmacists as the study population. Registered Pharmacists working at retail Pharmacies were asked to complete a paper-based questionnaire which included 10 questions related to knowledge and 8 questions related to attitude and practice towards adverse drug reaction (ADR). Results: The total of 69 participants provided their response. The demographic details are tabulated in table.1. The knowledge of the participants regarding the Pharmacovigilance was assessed by asking 10 questions. A score of 1 was given for correct answer and 0 score for wrong answer. The highest score obtained was 9 and the lowest score was 0. The percentage of knowledge of the participants (Retail Pharmacists) about the Pharmacovigilance was only 26%. Conclusion: The result showed the retail Pharmacist had a poor knowledge and practice towards PV at the same time they showed a good attitude towards adverse drug reactions. Our study also suggests that more awareness is needed to improve reporting.

Paper Title	Proanthocyanidins (PC) - A novel approach
Authors	Jayamathi Govindaraj, Keerthidaa Govindaraj, Kesavaram Padmavathy, Raghavendra Jayesh, Vidyarekha U
Journal Name	European Journal of Molecular and Clinical Medicine, Vol 7, I 8, B 1693-E 1697

ABSTRACT:

An ever increasing number of pharmacological effects have become known through the discovery of new plant flavonoid with variations in chemical structure and related derivatives. A new group of phytochemicals that has been attracting much attention from both the general public and health professionals is a novel drug proanthocyanidins. This review emphasize various properties of proanthocyanidin , pertaining to various diseases of proanthocyanidins.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	A Novel Method For Multi-dimensional Cluster To Identify The Malicious Users On Online Social Networks
Authors	N Keerthana., Viji Vinod., Sudhakar Sengan
Journal Name	Journal of Engineering Science and Technology, Vol 15, I 6, B 4107-E 4122

ABSTRACT:

The initiation of Online Social Networks (OSN) has distorted a shared passive reader into an information provider. The Social Networks (SN) utilization of media in long-range interpersonal communication in our community is progressively getting to be well known. A victim of a winning attack is in which data including user names, email addresses, session tokens, and encoded/salted secret phrase of users undermined in a Twitter. It helps the users to share knowledge and to exchange viewpoints, and also to represent themselves in interactive online communities and to connect other users with common interests. OSN has transformed users' social domain into commercial space. It generates a problem around privacy and protection for OSN users. The OSN service providers store their consumers' private and confidential data securely, and sometimes it may be misused by data administrators, third parties, or unauthorized users. In this article, the trend of social networking websites aims to review and analyse these types of cyber threats of SN and develop measures to shield the identity in cyberspace, i.e., the security of non-public data and identity in social networks is studied. Specific protection and privacy concerns are clarified along with the guidelines for OSN users to defend themselves against these problems while utilizing SN. And this paper proposed a new method over the design of the multi-Dimensional Clustering (m-DC) method for FB-Friends, which characterize the weight esteems which utilize the assessments of inactive and dynamic user attacks. The better percentages of using m-DC for Face book users are achieved 45.64% in the precision, recall, and F1 score as 51.15%, 45.8 %, 59.19 %

Paper Title	Awareness of Hand Hygiene in Hospital Set-up for Infection Control: Knowledge-based Questionnaire for Health Care Workers in a Teaching Hospital
Authors	E Subbalakshmi, P Abirami, Vidhya Subramanian, Sumitha A, H Kalavathy Victor
Journal Name	Biomedical & Pharmacology Journal, Vol 13, I 4, B 1773-E 1779

ABSTRACT:

The notion of hygiene is built on the relationship between cleanliness and the maintenance of good health. Hand washing technique is the rubbing together of all parts of the hands, including all the clefts using soap and water. Hand hygiene is the first step in preventing cross-transmission of microorganisms, which can help in prevention of Hospital Acquired Infections (HAIs). The entire world is in fact, emphasizing the importance of hand wash for the prevention of the COVID-19 pandemic. The germs causing infection in a health care setting can be transmitted through contaminated hands. Health care-associated pathogens can be acquired from any source, mainly from infected or draining wounds, patients' skin, aprons they wear, mattresses they use, bedside furniture and other objects in the immediate environment of the patient. Organisms such as *S. aureus*, *Proteus mirabilis*, *Klebsiella* spp., *Acinetobacter* spp., *Enterococci*, play an important role in HAIs. Although hand hygiene procedures are relatively simple, several studies have mentioned that health care workers do not adhere to this properly. Poor hand hygiene compliance has been one of the leading contributory factors to Health Care Acquired Infections (HCAIs). Reasons for low hand hygiene adherence include location of sinks in an inconvenient place, tight work schedule, reluctance as well as lack of role models and not being aware of implementation guidelines. Aim: To analyze the awareness of hand hygiene among health care workers in a hospital set-up for infection control. The goal of the study is to get a better insight of and explore the knowledge and awareness on hand hygiene among health care workers in a tertiary care hospital. Results: A total of 134 people participated which included 75 doctors (56%), 38 nurses (28.4%), 11 lab technicians (8.2%) and others (7.4%). The overall response was good.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Evaluation of Ensemble Machines in Breast Cancer Prediction
Authors	Leena Nesamani S, Nirmala Sugirtha Rajini
Journal Name	Advances in Parallel Computing, Vol 37, I 1, B 391-E 395

ABSTRACT:

Breast cancer is one of the most deadly diseases encountered among women for which the cause is not clearly defined yet. Early diagnosis may help the physicians in the treatment of this deadly disease which could turn out fatal otherwise. Machine Learning techniques are employed in the process of detecting breast cancer with greater accuracy. Individual classifiers employed in this process, predicted the disease with less accuracy when compared with ensemble models. Ensemble methods employ a group of classifiers to individually classify the data. It then combines the result of the individual classifiers using weighted voting of their predictions. Ensemble machines perform better than individual models and show improved levels in the accuracy of the prediction system. This paper examines and evaluates different ensemble machines that are used in the prediction of breast cancer and tries to identify the combinations that prove to be better than the existing ones.

Paper Title	Dimensionality Reduction of Production Data Using PCA and DBSCAN Techniques
Authors	Umadevi S, Nirmala Sugirtha Rajini
Journal Name	Advances in Parallel Computing, Vol 37, I 1, B 458-E 462

ABSTRACT:

Now a day's data mining concepts are applied in various fields like medical, agriculture, production, etc. Creation of cluster is one of the major problems in data analysis process. Various clustering algorithms are used for data analysis purposes which depends upon the applications. DBSCAN is a famous method to create clusters. This article describes the DBSCAN clustering concept applied to the production database. The main objective of this research article is to collect and group the related data from a large amount of data and remove unwanted data. This clustering algorithm removes the unwanted attributes and groups the related data based upon density value.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Process Analysis on Large Scale Manufacturing Industry for Performance and Sustainable Development
Authors	Soumitra Singh, Partha Sarathi Chakraborty, Balakannan K, S Nallusamy
Journal Name	Journal of Green Engineering, Vol 12, I 1, B 312737-E 312752

ABSTRACT:

Process mining is used to promote the business and production in organization through raw data pre-processing, relevant data usage by feature selections, mining methods, technique, simulations, validation and testing and sustainable manufacturing. Process analysis is vital role to convert prototype into product. Main problem in manufacturing industries are migrating between business and IT perspective and hard to automate with green manufacturing. Also achieving computerized clarifications from high level production representation and analyzing the implementation of processes from a technical data and a business perception is widely difficult task. Continues evaluation of process mining and performance monitoring in components levels are very essential benchmark in large scale industries.

Paper Title	Safety Attitudes, Risk Perceptions and Safe Behaviors of Construction Workers and Sustainability at Workplace Environments
Authors	Felix Kala T, V Thirugnana Sambandan, S Nallusamy
Journal Name	Journal of Green Engineering

ABSTRACT

Attitudes towards safety refer to the mental predisposition of workforce to respond either proactively or reactively on the organizational safety belief, safety objective and safety plan. The safety attitudes not only tend to influence the choice of actions of the workforce but also their immediate responses to the imminent challenges faced by them at workplace. Risk perception refers to the subjective judgment made by the workforce with regard to their work place hazards and severity potentials. The safety attitudes and safety perceptions of workforce about their sustainable work environments form the safety climate at workplace. Safety climate is the measure of the safety culture prevailing at the organizational level. No iota of doubt that the sustainable organizations strive hard to protect its people at workplace and its stakeholders. Striking balance between the safety of people and profitability perceptions influence the behaviour at workplace

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Induced Stress on Red Blood Cell Promotes Red Blood Cell-Endothelial Adhesion
Authors	Mahalakshmi Vijayaraghavan, Prattusha Sengupta, V N Sumantran, Natarajan Suganya, Suvro Chatterjee
Journal Name	Cell and Tissue Biology, Vol 14, I 6, B 448-E 457

ABSTRACT:

Besides disease condition, very few stress stimulants were determined to provoke red blood cell (RBC) adhesion to endothelial cells (EC). However, the possible role of other stress factors which disrupt RBCs anti-adhesive property is still unknown. To resolve this, we studied in vitro static adherence of RBC-EC after RBC exposure to physical (osmotic and shear stress) and chemical stress stimulants (cholesterol depletion and nitric oxide modulation). In support with earlier studies, RBC under hypertonic shock demonstrated a significant increase in RBC-EC adherence as a result of prominent structural modification. Besides, our study shows that shear stress, cholesterol depletion and nitric oxide inhibition in RBC increases RBC-EC adhesiveness which elucidates cholesterol, nitric oxide and shear stress importance in preventing RBC-EC adhesion. Thus, present study shows that assessment of RBC-EC interaction after exerting to external stress is critical in understanding pathophysiological conditions.

Paper Title	Antioxidant Activity of Kiwi Fruit (<i>Actinidia Chinensis</i>)
Authors	C N Hemalatha, Mehurnisha K, Preethi B, Keerthana V, N Harikrishnan
Journal Name	International Journal of Research in Pharmaceutical Sciences, Vol 11, I 4, B 6810-E 6817

ABSTRACT:

Actinidia chinensis (kiwi fruit), also known as golden fruit, has its origin in China. All the plant parts of *Actinidia chinensis* such as fruit, leaves, vine, and root were used in food products and also used as medicine in China. The Worldwide distribution of the kiwi (*Actinidia chinensis*) is due to its Nutritional property, economic value and the presence of the various phytoconstituents such as terpenoids, quinones, flavones, phenyl proteinoids and steroids. It is also rich in antioxidant and dietary fibers which are utilized for the production of cellulose and hemicellulose. The Nutritional composition of the Kiwi fruit has distinguishing amount of vitamin C and also several other compounds such as Minerals, Vitamin E and Carotenoids and these are used to protect DNA. It has a high amount of medicinal and Nutritional value and also provides various health benefits. In traditional medicine of China, Kiwi fruit is also used in the treatment of Edema, Pyorrhea, gingivitis, Hepatitis, maintenance of blood glucose level, asthma, fight against muscular degenerative diseases and reduces the risk of blood clots and also used in Cancer treatment. Recently researchers have updated that Kiwi fruit has beneficial Physiological effect on the human body through clinical studies. It has been proven that Kiwi has Anti-Oxidant property and relieves Oxidative stress which was the Major cause of Diseases. This article is an overview of kiwi fruit, its nutritional benefits and its antioxidant effect.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Yoga a Curative Therapy to Treat Multiple Sclerosis
Authors	S Gejalakshmi, N Harikrishnan
Journal Name	International Journal of Research in Pharmaceutical Sciences, Vol 11, I 4, B 6834-E 6836

ABSTRACT:

Multiple sclerosis (MS) is characterised as an autoimmune disease originated from Central nervous system affecting the neurons Grey matter no evidence for treatment. Many recent approaches as alerted for treating for disease-modifying therapies for the treatment of multiple sclerosis no remedy has occurred for complete curative for MS. In this review, the author has pioneered the measures to control MS from its symptoms by using physical exercise yoga therapy. Yoga therapy has a beneficial role in controlling MS. The best practice of breathing exercise which we all of us do every day without thought becomes a most powerful tool when we all can become aware of how your daily breathing affects every part of your body control. By learning how to focus awareness on your breathing, you can observe how your mind can feel calmer, and your body becomes relaxed. Hence Yoga practice can be the best medicine to treat multiple sclerosis.

Paper Title	An infected sac in the mandible – a case report
Authors	Harshada Ragunathan, Sankar Narayanan R, Nalini Aswath
Journal Name	Indian Journal of Forensic Medicine and Toxicology, Vol 14, I 4, B 1330-E 1334

ABSTRACT:

Dentigerous cyst is the second most common cyst. It is usually associated with the impacted third molars, canines and premolars. Clinically they present with asymptomatic swelling, bony expansion and radiographically they are well defined and the larger cyst leads to destruction of bone later leading to pathological fracture. They are chances where this cyst can be misdiagnosed when seen only clinically with an infected tooth. Radiographic investigation is the gold standard in diagnosing the lesion and its extent for treatment planning. The protein content of the cyst fluid also helps in the diagnosis. Here is a case where the patient complained of a decayed tooth along with swelling in the left side of face and how the diagnosis changed after proper history and radiographic investigation.

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Prevalence of nomophobia and its association with stress, anxiety and depression among medical students
Authors	Sureka Varalakshmi, Abeetha S, Suma Sukumaran, Sadhana Subramanian, Brinda S, Bhagyashree N, Ramya S, M Ganesh
Journal Name	Biomedicine, Vol 40, I 4, B 522-E 525

ABSTRACT:

Introduction and Aim: The change in human behaviour has created a social phobia wherein a human use either computers or any other electronic gadgets to defend himself from social contact. Nomophobia is fear of not having mobile phones and the stress associated with it. Increased use of mobile phones among students has changed the scenario and it is no more a luxury but a necessity. Social interaction has decreased and electronic gadgets have become the master. This has led to development of neuropsychological issues. The purpose of the study is to find out the prevalence of nomophobia among college students and to explore the association between nomophobia and stress, anxiety and depression. **Results:** Results showed a wide prevalence of nomophobia (59%) among students. 14%, 29%, 8% of students were seen having severe/ extreme depression, anxiety and stress respectively.

Paper Title	Morphological variations of peroneus tertius: A cadaveric study with anatomical and clinical consideration
Authors	Khizer Hussain Afroze M, Sangeeta Muralidharan, J Leonoline Ebenezer, Sasirekha Muthusamy
Journal Name	Medeniyet Medical Journal, Vol 35, I 4, B 324-E 329

ABSTRACT:

Objective: The objective of this study was to highlight variations in the morphology of peroneus tertius muscle owing to its evolutionary, academic, and clinical importance. **Methods:** Sixty-six disarticulated lower limbs were used to study the morphological variations of peroneus tertius (PT) muscle like absence, duplication, accessory PT muscle, and abnormal site of origin and insertion. Detailed dissection was performed to study the proximal and distal attachments of PT muscle, and observed variations were recorded. **Results:** Twelve out of 66 specimens showed the following variations, accessory and duplicate peroneus tertius was observed in one specimen (1.52%) each. We categorized variations in insertions into six types. The most common variation in the present study was type II (84.8%) followed by type VI (10.6%). Type IIa and IV were observed in one specimen (1.52%) each. **Conclusion:** The present study highlights variations in both origin and insertion of PT muscle. We have also postulated a new modified classification which is the first of its kind to highlight two new additional variations in insertions existing in the current literature. Awareness of the above variations would be useful to surgeons performing tendon transfers, tendoplasty, and resection surgeries of the foot. **Keywords:** Fibularis tertius, accessory muscle, duplicate muscle, morphology, tendoplasty

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Mural Variant of Unicystic Ameloblastoma in a Pediatric Patient: A Rare Case Report
Authors	M Laavanya, Senthil Kumar, K Vandana Shenoy, Kmohamed Afradh, P Ashwan
Journal Name	Cureus, Vol 12, I 12, B 1-E 8

ABSTRACT:

Unicystic ameloblastoma (UA) differs from conventional ameloblastoma by presenting in the younger population with a lower recurrence rate and has a unilocular appearance on radiograph mimicking dentigerous cysts. Among the three variants of UA, the mural variant has a tendency to recur. Here we present a case of mural variant of UA in a pediatric patient treated conservatively with enucleation followed by application of Carnoy's solution to the cystic cavity. The aim of this case report is to emphasize conservative management in the treatment of UA in pediatric patients considering growth and development in children.

Paper Title	Comparative Study on Effect of Vestibular Stimulation and Tactile Stimulation along with Kinaesthetic Stimulation on Neuromuscular Development of Premature Infants
Authors	Kamatchikaviraja, Jaiganesh G, Tharani G, Yuvarani G, V Rajalaxmi, G Mohan Kumar, Kaviraja N
Journal Name	International Journal of Life Science and Pharma Research, Vol 10, I 5, B 74-E 78

ABSTRACT:

Comparison of the Effects of Mackenzie Neck Exercises and Elastic Band Exercise on Head Forward Posture. Due to the Use of Smartphones Kamatchi kaviraja*1,D.Helan deborah2,Tharani.G3,Yuvarani.G4, Vaishnavi.G5,Sri Lakshmi Moses6,Nadar Newton Jayakumar7 1,2,3,4,5,6,7 Faculty of Physiotherapy, Dr.M.G.R Educational and Research Institute, ABSTRACT OBJECTIVE: The aim of the study is to compare the effect of Mackenzie neck exercises and elastic band exercise on head forward posture due to the use of smartphones. BACKGROUND OF THE STUDY: Forward head posture refers to the posture that accompanies forward bending of the lower cervical vertebrae and excessive extension of the upper cervical vertebra. But most of the cases, it is largely influenced by the habit of using electronic devices such as smart phones .The use of smartphone for long hours can cause improper postures such as "FORWARD HEAD POSTURE", and the subsequent increase in cervical lordosis and thoracic or lumbar kyphosis. METHODOLOGY: It was an experimental study of comparative type (pre and post type).A sample of 60 individuals of age group between 18-23 years. Females, subjects with cervical pain, subject using smart phone for at least 3 hours per day, forward head posture (CV angle <50 degrees),NDI score greater than or equal to 14/50 are included in this study. Males, individual with recent fracture, recent surgery, malignancy or other spinal infection, diagnosed with cervical radiculopathy are excluded and the study setting at DR.M.G.R. Educational and Research institute (faculty of physiotherapy). RESULT: On comparing the mean values of Group-A and Group-B on Craniovertebral angle and neck disability index, both the groups showed significant difference in the post-test mean values but Group A (Mackenzie neck exercise) is more effective than Group B (Elastic band exercises) at $P \leq 0.001$

DR MGR - RESEARCH PUBLICATION APPRECIATION – DECEMBER 2020

Paper Title	Efficient Classification of Heart Disease using K-Means Clustering Algorithm
Authors	M Thangamani, R Vijayalakshmi, Ganthimathi M, M Ranjitha, Malarkodi P, S Nallusamy
Journal Name	International Journal of Engineering Trends and Technology, Vol 68, I 2, B 48-E 53

ABSTRACT:

The heart is important organ of human body part. Life is completely dependent on efficient working of the heart. What if a heart undergoes a disorder, cardiovascular diseases are the most challenging disease for reducing patient count. According to survey conducted by WHO, about 17 million people die around the globe due to cardiovascular diseases i.e. 29.20% among all caused death, mostly in developing countries. Thus there is a need of getting rid of the this complicated task CVD using advanced data mining techniques, in order to discover knowledge of Heart disease prediction. In this paper, we propose an efficient hybrid algorithmic approach for heart disease prediction. This paper serves efficient prediction technique to determine and extract the unknown knowledge of heart disease using hybrid combination of K-means clustering algorithm and artificial neural network. In our proposed model we considered 14 attribute out of 74 attributes of UCI Heart Disease Data Set [19]. This technique uses medical terms such as age, weight, gender, blood pressure and cholesterol rate etc for prediction. To perform grouping of various attributes it uses k-means algorithm and for predicting it uses Back propagation technique in neural networks. The main objective of this paper is to develop a prototype for predicting heart diseases with higher accuracy rate. Keyword Heart disease, K-means, artificial neural network, cardiovascular diseases

Paper Title	Development of a Lean Manufacturing and SLP-based System for a Footwear Company
Authors	V Paucar, S Munive, V Nuñez, G e Marcelo, J c Alvarez, S Nallusamy
Journal Name	2020 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), Vol , I , B -E

ABSTRACT:

This research article addresses one of the main problems in the footwear industry, namely the high order non-fulfillment rate. The case study suggests that the main causes of this problem are the increasing rate of defective goods, delays in the production process, and excessive time consumption in the movement of staff and materials. To face this issue, a proposal focused on the use of Lean Manufacturing, such as Systematic Design Planning (SLP) and Andon, is developed to increase productivity, as well as optimize and streamline production processes, considering Covid-19-related safety protocols. To validate the effectiveness of the proposal, an ARENA simulation system was used to establish a new scenario where the defective product indicator decreases by 3.13% and productivity improves by about 38%. In turn, the resulting increase in the number of orders enhances company sales and profits, as well as the ability to meet the customer demand in a timely manner.

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