



1. NAME AND ACADEMIC RANK: Dr. S. Nirmala Sugirtha Rajini, Ph.D.,
Professor

2. EDUCATION:

- Ph.D. Computer Applications, Dr.M.G.R. Educational and Research Institute, Chennai, 2013.
- M.Phil Computer Science, Manonmaniam Sundaranar University.Thirunelveli, 2006.
- MCA Computer Applications, Manonmaniam Sundaranar University. Thirunelveli, 2004
- B.Sc Computer Science Manonmaniam Sundaranar University.Thirunelveli, 1997.

3. ACADEMIC EXPERIENCE:

- 2024– Present Professor, Department of Computer Science and Engineering,
Dr. M.G.R. Education and Research Institute, Chennai.
- 2019– Present Professor, Department of Computer Applications,
Dr. M.G.R. Education and Research Institute, Chennai.
- 2016 – 2019 Associate Professor, Department of Computer Applications,
Dr. M.G.R. Education and Research Institute, Chennai.
- 2007 – 2016 Assistant Professor, Department of Computer Applications,
Dr. M.G.R. Education and Research Institute, Chennai
- 2006 – 2007 Lecturer, Rose Mary Arts and Science College, Thirunelveli

4. NON-ACADEMIC EXPERIENCE: NIL

5. CERTIFICATIONS OR PROFESSIONAL REGISTRATIONS:

- NPTEL online certification in Cloud Computing, Dec 2019
- IBM Certified Solution Designed Rational Functional Tester for Java, 21st December, 2011.
- IBM Certified Database Associate DB2 Fundamentals, 3rd August, 2010.

6. CURRENT MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS:

- International Association of Engineers (IAENG), Member
- Editorial Board Member , i-manager's Journal on Computer Science, 2023.

7. HONORS AND AWARDS:

- MGR Publish 999 Challenge Premium Award at Dr. MGR. Educational and Research Institute, Chennai, Sep 2022
- Dr.A.P.J. Abdul Kalam Research Publication Award, 2019, at Dr. MGR. Educational and Research Institute, Chennai,
- Sir. C.V Raman Research Publication Premium Award, 2015, Dr.M.G.R. Educational and Research Institute, Chennai.
- Sir.C.V. Raman Research Award at Dr.MGR. Educational and Research Institute, Chennai, 2014.

8. SERVICE ACTIVITIES:

- Member of various Academic and Administrative Committees at Dr.M.G.R. Educational and Research Institute, Chennai.
- Guiding research scholars at Dr.M.G.R. Educational and Research Institute, Chennai.

9. PRINCIPAL PUBLICATIONS OF LAST FIVE YEARS (2019-2024):

- E. Valla & S. Nirmala Sugirtha Rajini (2024), "Temporal-Spatial Clustering Analysis for Precipitation Prediction: Entropy-TCN-GRU Technique in Environmental Time Series Analysis", African Journal of Biological Sciences, .6(Si3), 10.48047/AFJBS.6.Si3.2024.3054-3065, pp. 3054-3065.

- R. Soundharya Devi & S. Nirmala Sugirtha Rajini (2024), “Transforming Lung Cancer Diagnosis: Tdywt Filtering For Enhanced Histopathological Imaging”, African Journal Of Biological Sciences, Volume 6, Issue Si2, doi: 10.33472/AFJBS.6.Si2.2024.237-250, ISSN: 2663-2187, pp. 238-250.
- G. Preetha & S. Nirmala Sugirtha Rajini (2024), “Improved Lung Tumor Classification In Ct Images With Resnet, Tydwt And Mask R-Cnn”, African Journal of Biological Sciences, Volume 6, Issue Si2, ISSN: 2663-2187, 10.33472/AFJBS.6.Si2.2024.226-236, pp. 226-236
- K. Anuradha & S. Nirmala Sugirtha Rajini(2024), “Enhancing Wireless Sensor Network Security: Sequential Pattern Analysis With Biometric Authentication For Predicting Attacker Transactions”, African Journal Of Biological Sciences , Volume 6, Issue Si2, Issn: 2663-2187, Pp. 211-225, Doi: 10.33472/Afjbs.6.Si2.2024.211-225
- P. Abirami& S. Nirmala Sugirtha Rajini(2024), “Detection Of Tuberculosis Using Optimized Deep Learning Approach With Enhanced Selective Median (Esmf) Filter”, African Journal Of Biological Sciences, Vol. 6, Issue Si2, Issn: 2663-2187pp. 193-210, Doi: 10.33472/Afjbs.6.Si2.2024.193-210
- R. Murugadoss , S. Leena Nesamani , A. Banushri , K. M. Monica , M. Vairavel , S. Nirmala Sugirtha Rajini & Gopi P(2024), “A review of using deep learning from an ecology perspective to address climate change and air pollution”, Global NEST Journal, Vol 26, No 2, 05697, pp. 1-18(WOS).
- S. Leena Nesamani, D. Lissy, S Sumathy & S. Nirmala Sugirtha Rajini(2023), “Breast Cancer Diagnosis in Radiology Images Using Transfer Learning Technique, 2023 International Conference on New Frontiers in Communication, Automation, Management and Security (ICCAMS), Bangalore, India, 2023, pp. 1-5, doi: 10.1109/ICCAMS60113.2023.10526195.
- G. Preetha, S. Nirmala Sugirtha Rajini& K. Anuradha (2023), “Enhancing Early Detection of Lung Cancer Through Advanced Medical Imaging and Automation: A Focus on CT scans”, IEEE 2023 9th International Conference on Smart Structures and Systems (ICSSS), CHENNAI, India, 2023, pp. 1-5, doi: 10.1109/ICSSS58085.2023.10407048.
- G. Preetha& S. Nirmala Sugirtha Rajini(2023), “Lung Cancer Detection Through TYDWT Algorithm”, Journal of Advanced Zoology, Vol. 44, No. 3, pp. 1545-1558.

- R.Soundharya Devi & S. Nirmala Sugirtha Rajini (2023), “Lung Cancer Detection And Segmentation Based On Deep Learning Approaches”, Journal of Data Acquisition and Processing, Volume 38 Issue 3, pp. 1970-1981.
- E Valli , S. Nirmala Sugirtha Rajini (2023), “RAINFALL PREDICTION USING MODERN DEEP LEARNING ALGORITHMS WITH TIME-SERIES DATA “, Vol. 38 , No. 3, pp. 2004-2015.
- B.Bavani, S. Nirmala Sugirtha Rajini, M.S. Josephine & V. Prasannakumari (2022), “Arrhythmia Disease Prediction System (ADPS) Using Machine Learning Concepts”, Mathematical Statistician and Engineering Applications, Vol. 71 No. 4, pp. 757-762.
- P. Abirami, S. Nirmala Sugirtha Rajini & V.N. Rajavarman (2022), “Diagnosis of Tuberculosis Using Deep Learning Models”, Mathematical Statistician and Engineering Applications, Vol. 71 No. 4, pp. 786-793.
- P.Abirami & S. Nirmala Sugirtha Rajini (2022), “DIAGNOSIS OF LUNG DISEASES USING CONVOLUTION NEURAL NETWORK”, Advanced Engineering Science, ISSN: 2096-3246, Vol. 54, No. 02, pp. 3455-3462.
- T.M.Ezhilmathi & S. Nirmala Sugirtha Rajini(2022), “STATISTICAL FEATURE ANALYSIS USING DBSCAN AND FEATURE OPTIMIZATION USING STOCHASTIC GRADIENT DESCENT (SGD)”, Advanced Engineering Science, ISSN: 2096-3246 Vol. 54, No. 02, pp. 3509-3516
- T.Chandrakala ,S.Nirmala Sugirtha Rajini, K.Selvam & K.Dharmarajan(2022), “An Investigation for detecting cyber security to overcome cyber attacks using machine learning methods”, NEUROQUANTOLOGY, VOL. 20, No. 15, pp. 3581-3591, DOI: 10.14704/NQ.2022.20.15.NQ88352
- K. Anuradha & S. Nirmala Sugirtha Rajini(2021), “Efficient Proxy Re-Encryption Method for Industrial IoT (IIOT)”. Design Engineering, ISSN: 0011-9342 pp. 11188 - 11197.
- T.M Ezhilmathi & S. Nirmala Sugirtha Rajini (2021), “**Infectious** Disease Prediction Model Using Deep Learning Approaches”, Design Engineering (Toronto), ISSN: 0011-9342, No. 8, pp. 14738-14747.

- P. Abirami & S. Nirmala Sugirtha Rajini (2021), “Analysis of Recent Tuberculosis Detection Algorithms: Challenges and New Research Directions”, Design Engineering (Toronto), ISSN: 0011-9342, No. 7, pp. 6656-6667.
- Leena Nesamani S. & S. Nirmala Sugirtha Rajini (2021), “Predictive Modeling for Classification of Breast Cancer Dataset Using Feature Selection Techniques”, Handbook of Research on Innovations and Applications of AI, IoT, and Cognitive Technologies, IGI Global Publisher of Timely Knowledge, DOI: 10.4018/978-1-7998-6870-5.ch015 pp. 204-215.
- S. Nirmala Sugirtha Rajini, S. Leena Nesamani & P. Abirami (2021), “Brain Tumor Segmentation from MRI Images using Deep Learning-based CNN with SVM Classifier”, International Journal of Grid and Distributed Computing, Vol. 14, No. 1, pp. 1557 – 1564..
- B. Bavani, S. Nirmala Sugirtha Rajini, M.S. Josephine & V. Prasannakumari (2021), “Classification of Arrhythmia Disease using Enhanced RNN Model”, Design Engineering (Toronto), Vol. 2021, No. 7, ISSN: 0011-9342, pp. 4062- 4072.
- M. Anita Priscilla Mary, M.S. Josephine, V. Jeyabalaraj & S. Nirmala Sugirtha Rajini (2021), “Classifying Future Scope in Energy Resources and Predicting Power Demand using Multilayer Perceptron”, Turkish Journal of Computer and Mathematics Education, Vol. 12, No. 10, pp. 2332-2339.
- T. Chandrakala, S. Nirmala Sugirtha Rajini, K. Dharmarajan & K. Selvam (2021), “Implementation Of Data Mining And Machine Learning In The Concept Of Cyber security To Overcome Cyber Attack”, Turkish Journal of Computer and Mathematics Education Vol. 12 No. 12, pp. 4561-4571.
- S. Leena Nesamani & S. Nirmala Sugirtha Rajini (2021), “ Evaluation Of Machine Learning Classifiers In Breast Cancer Diagnosis”, Turkish Journal of Computer and Mathematics Education Vol. 12, No. 9, pp. 1331-1337
- S. Leena Nesamani, S. Nirmala Sugirtha Rajini, M. S. Josephine & J. Jacinth Salome (2021), “Deep Learning-Based Mammogram Classification for Breast Cancer Diagnosis Using Multi-level Support Vector Machine”, Springer Lecture Notes in Electrical Engineering, vol. 700, pp. 371-383

- T. Chandrakala, S. Nirmala Sugirtha Rajini, K. Dharmarajan & K. Selvam(2020), “Development Of Crime And Fraud Prediction Using Data Mining Approaches”, International Journal of Advanced Research in Engineering and Technology (IJARET), Vol. 11, No. 12, pp. 1450-1470.
- LeenaNesamani S & Nirmala Sugirtha Rajini. S (2020), “Evaluation of Ensemble Machines in Breast Cancer Prediction”, Advances in Parallel Computing, Vol. 37, pp. 391-395.
- Umadevi S & Nirmala Sugirtha Rajini, S (2020), “Dimensionality Reduction of Production Data Using PCA and DBSCAN Techniques’, Advances in Parallel Computing, Vol. 37 pp. 458-462.
- S. Nirmala Sugirtha Rajini, K Anuradha, S Umadevi & E Mercy Beulah(2020), “Twitter Sentiment Analysis on Big Data in Spark Framework”, IOP Conf. Series: Materials Science and Engineering 925 (2020) 012015 IOP Publishing , ICCEMS-2020 doi:10.1088/1757-899X/925/1/012015.
- S. Nirmala Sugirtha Rajini, D.Saravanan & K. Dharmarajan(2020), “Multi Purpose Life Saving Tool Uisng Iot & Cloud Computing”, Journal of Xi'an University of Architecture & Technology, Volume XII, Issue III, 2020, Issn No : 1006-7930.
- D.Saravanan, S. Nirmala Sugirtha Rajini& K. Dharmarajan (2020), Efficient image Data Extraction using Image Clustering Technique”, Test Engineering & Management, January - February 2020 ISSN: 0193 - 4120, pp. 14574 – 14579.
- S. Nirmala Sugirtha Rajini, J. Sri Devi & E. Mercy Beulah, “Role Of Current Communication Technologies In Business Management”, Journal of Xi'an University of Architecture & Technology, Volume XII, Issue III, 2020, ISSN No : 1006-7930
- S. Nirmala Sugirtha Rajini , S. Ramamoorthy , S. RadhaRammohan, P.S.Rajakumar &V.R.Niveditha (2020), “Reliability of Cloud Services Provided To Non-Banking Financial Institutions “, International Journal of Control and Automation Vol. 13, No. 2s, (2020), pp. 165-172.
- K. Anuradha ,S. Nirmala Sugirtha Rajini,T.Bhuvanewari & Viji Vinod (2020), “ TCP /SYN Flood of Denial of Service (DOS) Attack Using Simulation “, Test Engineering & Management, January - February 2020 ISSN: 0193 - 4120, pp. 14553 – 14558.

- K. Anuradha , S. Nirmala Sugirtha Rajini , T.Bhuvanewari & Viji Vinod (2020), SAFETY SACKET SECURITY SYSTEM USING ARDUINO-BOARD “, International Journal of Advanced Science and Technology Vol. 29, No. 4s, (2020), pp. 1955-1961.
- S.Umadevi, S. Nirmala Sugirtha Rajini,A. Punitha & Viji Vinod, (2020), “ Dimensionality Reduction in Machine Learning Technique using Principal Component Analysis”, Test Engineering and Management, January - February 2020 ISSN: 0193 - 4120 Page No. 14546 - 14552 .
- S.Umadevi, S. Nirmala Sugirtha Rajini, A. Punitha & Viji Vinod(2020), “Performance Evaluation Of Machine Learning Algorithms In Dimensionality Reduction”, International Journal of Advanced Science and Technology, Vol. 29, No. 9s, pp. 3845-3853
- M.Anita Priscilla Mary , M.S.Josephine , V.Jeyabalaraja & S.Nirmala Sugirtha Rajini(2020), “Identification and Performance valuation for Effective Utilization of Electrical Energy Resource using K Means Clustering Algorithm”, International Journal of Advanced Science and Technology, Vol. 29, No. 9s, (2020), pp.55-62.
- S. Uma Devi & S. Nirmala Sugirtha Rajini (2019), “ Detection of Traffic Violation Crime Using Data Mining Algorithms”, Jour of Adv Research in Dynamical & Control Systems, Vol. 11, No.9, pp. 982-987.
- B. Bavani, S. Nirmala Sugirtha Rajini, M.S. Josephine & V. Prasannakumari (2019), “Heart Disease Prediction System based on Decision Tree Classifier”, Jour of Adv Research in Dynamical & Control Systems, Vol. 11, 10-Special Issue.

10. PROFESSIONAL DEVELOPMENT ACTIVITIES IN THE LAST FIVE YEARS:

- “Exploring Artificial Intelligence” 5 days FDP by Department of Information Technology, DMI, College of Engineering Chennai, from 09.09.2024 to 13.09.2024.
- Emerging Research Trends in Block Chain and Data Science”, one week Virtual FDP organized by Department of Computer Science and Engineering during 8th May to 12th May 2023.