



Dr.R.Sathya, B.E, M.Tech. Ph.D.,

Assistant Professor (Sr.G)

Department of CSE, E&T, SRMIST

Ramapuram, Chennai

Mail id: sathyar@srmist.edu.in

Dr.R.Sathya is working as an Assistant Professor (Sr.G) in the Department of CSE at SRMIST, Ramapuram. She has 21+ years of experience in Teaching and Industry. She has published and presented papers in various International / National Journals / Conferences, published patents, and also written articles for CSI communications, Conversant with technologies such as Python/Java/C/C++. Have Administrative experience in Linux,/Solaris/Windows, and best practices in full stack development, has proven experience in Project development, Laboratory Moderation, System Administration & troubleshooting.

Area of Research:

Data Science and Computer Networks

Special Achievements

1. Acted as a Primary Evaluator & Judge for **AICTE Toyathon** 2021 from June 22 to 24, 2021
2. Acted as a Primary Evaluator for **AICTE Manthan** 2021 during Nov 20, 2021, 2021
3. Completed AICTE - MoE- IIC Advanced Level Programme and acting as an Institution **Innovation Ambassador (IA)**
4. Delivered around 20+ Invited National-level talks under **MHRD-IIC**
5. Article published on “Future with Quantum Computing”, **CSI Communications**, September 2020.

6. Article published on “**RFID Applications for Physical and Information Security in the Converged World**”, CSI Communications, October 2005.

7. “**Honeypot-Anti Hacker Utility**”, published in the ObCom 2003-Perspectra, Vellore Institute of Technology.

Selected Publications:

- R. Sathya, B. Saleena and N. N. Anirudh, "**An Analytical Study of Various Pothole Detection and Prevention Techniques**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-7, doi: 10.1109/SCEECS57921.2023.10063088.**(Scopus Indexed)**
- R. Sathya, B. Saleena and B. Prakash, "**Pothole Detection Using YOLOv3 Model**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-7, doi: 10.1109/SCEECS57921.2023.10063116.**(Scopus indexed)**
- R. Sathya, G. S. Reddy, G. R. Teja, V. P. S. S. Iyengar, and P. Kumar, "**Car Hiring System using Web Technology**" 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-6, doi: 10.1109/SCEECS57921.2023.10063118.**(Scopus Indexed)**
- R. Sathya, N. N. Anirudh and H. Ganeshram, "**Teeth Gap and Position Recognition System with Intraoral Scanner Images Using Image Processing**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-7, doi: 10.1109/SCEECS57921.2023.10063102.**(Scopus Indexed)**
- R. Sathya, B. A. Reddy, P. Jaswanth, C. S. Ram and T. S. Swami, "**A Smart IoT System for Accident Prevention**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-6, doi: 10.1109/SCEECS57921.2023.10062980.**(Scopus Indexed)**
- R. Sathya, D. S. S. Harsha, M. G. Krishna, G. P. S. Reddy and P. S. Arhith, "**Driver Drowsiness Detection and Alerting Model for Minimizing Road Accidents**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-6, doi: 10.1109/SCEECS57921.2023.10063113.**(Scopus Indexed)**
- R. Sathya, L. P. Steve, N. Narayan, A. Upadhye and M. Aravindaraj, "**Covid Wave Prediction using SARIMA Machine Learning Algorithm**," 2023 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS), Bhopal, India, 2023, pp. 1-5, doi: 10.1109/SCEECS57921.2023.10062979.**(Scopus Indexed)**
- R. Sathya, A. Rastogi, A. Kumar and S. Singh, "**Weather Based Future Rain Prediction Using Machine Learning with Flask Framework**," 2022 International Conference on Data Science, Agents & Artificial Intelligence (ICDSAAI), Chennai, India, 2022, pp. 1-7, doi: 10.1109/ICDSAAI55433.2022.10028870.**(Scopus Indexed)**
- R. Sathya, N. Rai, P. Chaturvedi and C. H. Bhargava Phanindra, "**Life Expectancy Post Thoracic Surgery Using Machine Learning**," 2022 International Conference on Data Science, Agents & Artificial Intelligence (ICDSAAI), Chennai, India, 2022, pp. 1-4, doi: 10.1109/ICDSAAI55433.2022.10028819.**(Scopus Indexed)**
- Sathya, R., Saleena, B. **A Framework for Designing Unsupervised Pothole Detection by Integrating Feature Extraction Using Deep Recurrent Neural Network.** *Wireless Pers Commun* 126, 1241–1271 (2022). <https://doi.org/10.1007/s11277-022-09790-z>

- Sathya, R., Saleena, B. **CNN-MAO: Convolutional Neural Network-based Modified Aquilla Optimization Algorithm for Pothole Identification from Thermal Images.** SIViP 16, 2239–2247 (2022). <https://doi.org/10.1007/s11760-022-02189-0>
- R. Sathya, S. Roy, J. Paul, and M. S. Reddy, "**Fake and Unproven Medical Remedy Detector using LSTM Model with Tensorflow Framework**," 2022 12th International Conference on Cloud Computing, Data Science & Engineering (Confluence), Noida, India, 2022, pp. 514-519, doi: 10.1109/Confluence52989.2022.9734119.
- R. Sathya, Muppala Nikhil, K.S.S. Shanmukha Srinath, Mula Ranpal Reddy, **Real-Time Image Classification and Detection of Potholes using Adam's Optimizer with CNN Framework**, International Journal of Early Childhood Special Education (INT-JECSE), ISSN:1308-5581 Vol 14, Issue 02, 2022
- R. Sathya, Satyajit Sahu, Abhyudaya, Kumar Ritesh, "**Uber Data Analysis Using Neural Networks**", Indian Journal of Natural Sciences, Jun 2021
- R.Sathya, Satyam Sharma, Sakshi Sinha, Shubhankar Biswas, "**A Semantic and Shared Prospects Neural Network based Energy Consumption Prediction**", Indian Journal of Natural Sciences, Jun 2021
- R. Sathya, R Siva Sandeep Reddy, P Sandeep, R Sai Kiran, "**Analysis and Derivation of Optimum Data-Driven Approach for Detecting**", Turkish Journal of Computer and Mathematics Education (TURCOMAT), e-ISSN 1309-, 4653, Vol.12 No.6(2021), PP 2084-2094, May 2021
- R. Sathya, Jatin Agrawal, Debayan Roychand Riddhi Dutta, **A Self-Adaptive and Self-Learning Methodology for Wireless Intrusion Detection using Deep Neural Network**, Turkish Journal of Computer and Mathematics Education (TURCOMAT), e-ISSN 1309-, 4653, Vol.12 No.6(2021), PP 2084-2094, Apr 2021
- Mrs. R. Sathya, Jaswanth Naidu, Aditya Mukund, MayankAithani, "**A Novel Approach for Sign Language Interpretation based on Convolutional Neural Networks**", ISSN NO: 0090-5674, PAIDEUMA JOURNAL Vol XIV Issue 5 2021, pp 170-176, May 2021
- Sathya Raman, Pranchal Sharma, Abhishek Chattopadhyay, Ayush Kapoor, Ravindra Singh Rajawat, **A Novel Approach for Urban Mobility by using Trajectory Clustering Method**, Indian Journal of Software Engineering and Project Management (IJSEPM), ISSN 2582-8339, Vol 1, No 1, pp 13-17, 2021
- R. Sathya, B. Saleena, "**A Survey on Content-Based Image Retrieval Using Convolutional Neural Networks**", International Journal of Advanced Trends in Computer Science and Engineering, ISSN 2278-3091, pp 7387 - 7396, Volume 9, Issue 5, <https://doi.org/10.30534/ijatcse/2020/70952020>, Sep - Oct 2020
- Mrs.R. Sathya, U.Sai Kiran, J.V.Chowdary, B.Kasi Kumar Reddy. (2020). Detection of Phishing Attacks using Random Forest Algorithm. *International Journal of Advanced Science and Technology*, 29(06), 6483 - 6490. Retrieved from <http://sersc.org/journals/index.php/IJAST/article/view/20095>
- "**An IoT Based Driver Drowsiness Detection System and Deterrent System for Safety and Driving**", ", International Journal of Future Generation Communication and Networking, Vol. 13, No. 3, (2020), pp. 413 – 421, ISSN: 2233-7857, May 2020
- "**Lane Keeping System Using Real-Time Pathway Detection**", International Journal of Future Generation Communication and Networking, Vol. 13, No. 3, (2020), pp. 42 – 47, ISSN: 2233-7857, May 2020

- **“Stock Price Prediction using Reinforcement Learning and Feature Extraction”**, International Journal of Recent Technology and Engineering (IJRTE), ISSN: 2277-3878, pp 3324-3327, Volume-8 Issue-6, March 2020
- **“Spider bite detector system using faster R CNN”**, International Journal of Scientific and Technology Research, 22778616, 840-842, Volume 8, Issue 6, Nov 2019
- **“Salinity Level Indicator using IoT”**, published in International Journal of Recent Technology and Engineering (IJRTE), ISSN 2277-3878, pp 3699- 3703 Volume-8 Issue-4, Nov 2019
- **“Implementation of Video Proposal on Cloud with Analysis of Applicant in Public System”**, International Journal of Emerging Technologies in Engineering Research (IJETER), ISSN 2347 – 3983, vol 7, Iss 5, May 2019
- **“Detection of Manipulated Images using Convolution Neural Network”**, published in International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8 Issue-4, pp 1431 - 1438 April 2019.
- **“Network Analysis Of Intrusion Detection Based On Machine Learning And Deep Learning”**, published in International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8 Issue-4, April 2019
- **“Economically Efficient Data Feature Selection using Big Data Analysis”**, published in International Journal of Innovative Technology and Exploring Engineering (IJITEE), ISSN: 2278-3075, Volume-8 Issue-7, pp 983-987, May 2019
- **“Data-Efficient Approaches on Deep Action Recognition in Videos”**, published in International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8 Issue-4, pp 385-391, April 2019.
- **“Emotion Analysis by Deep Learning Methods using Convolutional Neural Networks”**, published in International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8 Issue-4, pp-1806-1810, April 2019.
- **“Vehicle to Vehicle Communication and Collision Avoidance with Auto Braking System”**, published in Journal of Network Communications and Emerging Technologies (JNCET), April 2018
- **“Solar Equipped Moisture Absorber using Supervised Machine Learning Techniques”**, published in International Journal of Advance Research and Innovative Ideas in Education, April 2018
- **“Smart AI Representation of Automated Home and Health Systems (SARAH Smart Home Technology)”**, published in Journal of Network Communications and Emerging Technologies (JNCET), April 2018
- **“Automated Face Recognition Attendance System”**, published in International Journal of Advance Research and Innovative Ideas in Education, ISSN(O)-2395-4396.PP 2357-2363, Vol 4, Issue-2, April, 2018
- **“Object recognition using surveillance dynamic background for cluster recognition”**. published in International Journal of Advance Research, Ideas and Innovations in Technology (IJARIIT), April 2018
- **“Detection and recognition of hand gestures to control the system Applications by neural networks”**, published in International Journal of Pure and Applied Mathematics, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (online version), Volume 118 No. 10 2018, 399-405, February 2018
- **“Situational Awareness Security for Smart Grids Using Big Data Analysis**, published in the National Conference on “Recent Trends in the Development of Smart

Cities – NCRTDSC'17", Rajalakshmi Institute of Technology, Chennai, March 3 & 4, 2017.

- **“Situational Awareness Security For Smart Grids Using Big Data Analysis”**, published in International Journal of Advanced Research in Management, Architecture, Technology, and Engineering (IJARMATE), Vol. 3, Special Issue 5, March 2017
- **“Data Mining and Analysis of Online Social Networks”**, published in International Journal of Data Mining Techniques and Applications, IJDTA, ISSN: 2278-2419, Volume: 04, Issue: 01, June 2015.
- **“Data Mining and Analysis of Online Social Networks”**, published in the International Conference on Computing Paradigms (ICCP-2015), Don Bosco College, Yelagiri, Tamil Nadu, July, 24-25 2015.
- **“Design And Implementation of Low-Cost Maritime Boundary Identification System Using Fiber Optic Technology”**, ISSN: 2321-9653, published by International Journal for Research in Applied Science and Engineering Technology, IJRASET, volume 2, Issue XII (December 2014).
- **“Design and Implementation of Low-Cost Maritime Boundary Identification System Using Fiber Optic Technology”** in International Conference on Advances in Engineering and Technology, IAETSD, Hyderabad on 17th 18th December, 2014.
- **“Key Management Associated with Symmetric and Asymmetric Key Cryptography”**, published in Far East Journal of Mathematical Sciences, Nov 2005.
- **“Framework on the unresolved issues of using RFID Technology in Real-time applications”**, accepted for IADAT-aci2006, International Conference on Automation, Control and Instrumentation, Valencia (SPAIN), July 2006
- **“Implementation of Cryptographic Algorithm for Intranet Based Emails”**, published in the proceedings of IADAT-tn2005, International Conference on Telecommunications and Computer Networks, Portsmouth, U.K., Sep 2005.
- **“A Practical Approach to Automated Crypt Analyzer”**, published in the proceedings of the 5th National Workshop, Shimoga, Karnataka, August 2005.
- **“Design and Implementation of Secured RFID Components”**, published in the proceedings of International Conference on Wireless Networking and Mobile Communication, Chennai, Dec 2005.
- **“Design Framework for Constructing Intelligent Tutoring Systems”**, published in the National Conference on Distributed Systems & Knowledge Engineering proceedings, Chennai, Sep 2005.

Patent & Book Chapters Details

1. **Book Chapter 1: IoT-Based Driver Drowsiness Detection and Alerting System Using Haar Cascade and Eye Aspect Ratio Algorithms**, in Integration of AI-Based Manufacturing and Industrial Engineering Systems with the Internet of Things, 2023, pp. 245–259, CRC Press, ISBN 9781003383505, Taylor and Francis
2. **Book Chapter 2: Focusing towards Safe and Healthy Environment by Adapting Easy way of living**, LEKHIT Publications, ISSN: 978-91-954429-4-2

3. **Book Chapter 3:** Impression of Artificial Intelligence in E-healthcare Medical Applications, **IET Digital Library**, **ISBN:** 9781839534492, June 2022, https://digital-library.theiet.org/content/books/10.1049/pbhe040e_ch8
4. **Patent 1:** Application No: 202041024592, published in June 2021, **Title: Automated System To Detect Pothole**
5. **Patent 2:** Application No: 202041001340, published in Jan 2020, **Title: Novel Algorithm of Active Learning Based On Machine Learning Vector Algorithm**

Professional Bodies:

1. CSI life membership (Member: 00115843)
2. Lifetime Member of IAETSD
3. International Association of Engineers (IAENG) (Member No:318206), Hongkong, HK.

Google Scholar:

https://scholar.google.co.in/citations?user=_SCgwIAAAAAAJ&hl=en

LinkedIn:

<https://www.linkedin.com/in/sathya-raman-051951b5/>

Scopus:

<https://www.scopus.com/authid/detail.uri?authorId=57219827644>

Orchid:

<https://orcid.org/0000-0003-2949-8263>