




SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution| Accredited with 'A++' Grade by NAAC)

Pulloor, Kariapatti –Taluk. Virudhunagar Dist-626115.



Department of Information Technology					
Name	Dr.Rajalakshmi G				
Date of Birth	01.02.1988				
Unique ID	1-42825446				
Educational Qualifications	M.E.,Ph.D				
Designation	Assistant Professor				
Email ID	rajalakshmi@sethu.ac.in				
Alternate Email ID	gurusamyrajalakshmi89@gmail.com				
Experience	Industry	Teaching	Others	Total	
	Nil	14 Years 11 Months	NIL	14 Years 11 Months	
Date of Joining the Institution	20.08.2010				
Area of Specialization	Machine Learning, Deep Learning, Quantum Computing				
Courses taught	Data Structures, Database Management System, Big Data Analytics, Data Warehousing, Operating System, Python Programming, Artificial Intelligence and Machine Learning.				
Research Focus	Machine Learning, Deep Learning, Quantum Computing				
Subject Competency	Data Structures, Database Management System, Big Data Analytics, Data Warehousing, Operating System, Python Programming, Artificial Intelligence and Machine Learning.				
No. of papers published	National Journals		International Journals		Conferences
	-		11		18
PG Specialization	Computer Science and Engineering				
Ph.D. Specialization	Information and Communication Engineering				
Projects Carried out	6				
Patents (Filed & Granted)	2				
Technology Transfer	1				
No. of Books published with details (Name of the book, Publisher with ISBN, year of publication, etc.)	4				



Academic Credentials

Level	Degree	Specialization	University	Year of Completion
UG	B.Tech	Information Technology	Anna University	2009
PG	M.E	Computer Science and Engineering	Anna University	2013
Ph.D.	Ph.D	Information and Communication Engineering	Anna University	2025

Details of Journal Publication:

1. Published a paper titled “A Comprehensive Analysis of Preprocessing Techniques for Thermal Breast Image Processing”, Journal of Ubiquitous Computing and Communication Technologies, Vol.02 (2025):110-132. Doi: 10.36548/jucct.2025.2.002
2. Published a paper titled “DeepCNNMed: Enhancing Medicinal Plant Identification through Deep Convolutional and Hybrid Neural Networks”, Brazilian Archives of Biology and Technology, Vol.68 (2025): e25240881, Page no: 1-15. Doi: <https://doi.org/10.1590/1678-4324-2025240881>. May 2025.
3. Published a paper titled “RFID Attendance System Using ESP8266” in Journal of RF and Microwave Communication Technologies. Vol. 1, Issue 1 (January – April, 2024) pp: (16-21).
4. Published a paper titled “Detecting Malicious Social Bot in Social Media” in International Journal of Scientific Research in Computer Science, Engineering and Information Technology. Vol. 10 No. 7 (2024): May-June, Pages: 105-113. Doi: <https://doi.org/10.32628/CSEIT2410718>.
5. Published a paper titled “H2O-Based Stochastic Gradient Descent Grid Search Using Ridge Regression Techniques for Traffic Flow Forecasting”, in Brazilian Archives of Biology and Technology, 67 (2024): e24220670. Doi: <https://doi.org/10.1590/1678-4324-2024220670>. May 2024.
6. Published a paper titled “Driver safety system using Arduino”, in Journal of Ubiquitous Computing and Communication Technologies, Volume-5, Issue-3, Pages: 280-290. Doi: 10.36548/jucct.2023.3.003. August 2023.
7. Published a paper titled “Incident Detection Using LSTM and SAE”, in an International Journal of Scientific Research in Computer Science Engineering

and Information Technology (IJSRCSEIT), ISSN: 2456-3307, Volume-9, Issue-8, Pages: 138-145. Doi: 10.32628/CSEIT239822, May 17, 2023.

8. Published a paper titled “Intelligent Vehicle damage assessment and cost estimator Insurance”, in an International Journal of Emerging Technology in Computer Science & Electronics (IJETCSE), Volume-30, Issue-03, April 2023, ISSN: 0976-1353, pp: 15-22. Doi: <https://www.researchgate.net/publication/371539375>
9. Gurusamy, R., & Seenivasan, S. R. (2022). DGSLSTM: Deep Gated Stacked Long Short-Term Memory Neural Network for Traffic Flow Forecasting of Transportation Networks on Big Data Environment. Big Data. Doi: <https://doi.org/10.1089/big.2021.0013>.
10. Rajalakshmi, Ms G., and S. Siva Ranjani. "An Emerging Statistical Analysis for Solving Big Data Problems Using R Tool." IJRAR-International Journal of Research and Analytical Reviews (IJRAR) 5, no. 4 (2018): 431-436. December. URL: http://ijrar.org/viewfull.php?&p_id=IJRAR1905157
11. Published a paper titled "A Succinct study and analysis of smart Manufacturing: IOT is driving the next Industrial Revolution" in Journal of Emerging Technologies and innovative Research, Volume 5, Issue 12, December 2018. Pp: 299-307, Doi: <https://www.jetir.org/view?paper=JETIR1812546>

Details of Conference attended:

1. Presented the paper in the 6th National Conference on Advancements in Computer Science and Engineering (NCACSE – 2024) paper titled “Detecting Malicious Social Bot in Social Media” organized by New Horizon College of Engineering, Bangalore, on 20th June, 2024.
2. Presented the paper in the International Conference on Recent Innovations in Information and computing technologies (RIICT’24) paper titled “Heartbeat Monitoring System“ organized by Sethu Institute of Technology, 5th April 2024.
3. Presented the paper in the International Conference on Recent Innovations in Information and computing technologies (RIICT’24) paper titled “Farm Management System“ organized by Sethu Institute of Technology, 5th April 2024.
4. Presented the paper in the 1st IEEE International Conference on Multidisciplinary Research in Technology and Management (MRTM 23) paper titled “Deep MalNutriNet: Childhood Malnutrition Detection using Depth wise Separable Convolutional Neural Networks” organized by New Horizon College of Engineering, Bangalore, on September 22nd & 23rd , 2023.
5. Presented the paper in the 5th National level Conference on Advancement in Computer Science and Engineering (NCACSE 2023) paper titled “Incident

Detection Using LSTM and SAE” organized by New Horizon College of Engineering, Bangalore, on May 17, 2023.

6. Presented Paper in an International conference on “Emerging trends in Information and Communication Technologies-ETICT 2K23, Department of ECE, Sethu Institute of Technology during 5th & 6th April,2023, ”Voice controlled smart wheel chair with automatic medicine dispenser”
7. Presented Paper in an International conference on “Emerging trends in Information and Communication Technologies-ETICT 2K23,Department of ECE, Sethu Institute of Technology during 5th & 6th April,2023, ”Autonomous Vacuum Cleaning Robot”.
8. Presented Paper in an International conference on “Emerging trends in Information and Communication Technologies-ETICT 2K23,Department of ECE, Sethu Institute of Technology during 5th & 6th April,2023, ”Driver safety system”.
9. Presented Paper in an International conference on “Emerging trends in Information and Communication Technologies-ETICT 2K23,Department of ECE, Sethu Institute of Technology during 5th & 6th April,2023, ”Railway Track Object & Crack Detection”.
10. Presented Paper in an International conference on “Emerging trends in Information and Communication Technologies-ETICT 2K23,Department of ECE, Sethu Institute of Technology during 5th & 6th April,2023, ”Smart Jacket for Bike Rider’s Safety”.
11. Presented the paper in the 5th International Conference on Communication and Computational Technologies (ICCCT 2023) paper titled “2C-CNN-LSTM: Two Channel Convolutional Neural Network- Long Short Term Memory Deep Learning for Categorization of Autism Using EEG Data” organized by Rajasthan Institute of Engineering and Technology, Jaipur, on January 28-29, 2023.
12. Presented the paper in the 3rd International Conference on Communication Systems paper entitled “Tweak Myocardial Infarction (MI) Prognosis Methodologies Using RFGS Optimization for Machine Learning and Hyper-parameters” organized by Department of Electronics and Communication Engineering, National Institute of Technology, Puducherry, Karaikal, on December 17, 2021.
13. Presented a paper entitled, “Observing the Development Of Smart Water Quality Monitoring System With Internet Of Things (IoT)”, International Virtual Conference on Computational Intelligence and Applications (ICCIA 2020) on 28.08.2020 at Mohamed Sathak AJ College of Engineering, Chennai.
14. Presented a paper entitled, “Detecting Malicious Social Bot in Social Media”, International Virtual Conference on Computational Intelligence and

15. Presented the paper in the 4th International Conference on Current Research in Engineering Science and Technology paper titled :An Automatic IOT Based Irrigation Control Using Arduino Controller” on March 8th , 2019.
16. Presented the paper in the International Conference on Applied Mathematics and Theoretical Computer Science paper entitled “An Emerging Statistical Analysis for Solving Big Data Problems Using R tool” on 1st - 3rd Feb 2018.
17. Presented the paper in the 1st International Conference on VLSI Computation, Networking, and Drives & System Design paper entitled “Utilize Proficient Intrusion Detection System for Data Mining Techniques” on 28th March 2014.
18. Presented the paper in the 3rd National Conference on “Embryonic Technologies in Information and Computing” paper entitled “Exploit Competent Data Mining Techniques for Feature Selection to Enhance the Intrusion Detection System” on 5th April 2013.

Details of Book Chapter and Books Published:

1. Rajalakshmi Gurusamy. (May 2025). Improving Livestock Management Frameworks with Real-Time Internet of Things (IoT) Based Machine Learning Techniques. In book: The Future of Machine Learning with Automation in Engineering. Doi: <https://doi.org/10.52305/yfix2832>
2. Rajalakshmi Gurusamy, S. Siva Ranjani, G.Susan Shiny. (April 2024). Prediction of COVID Stages Using Data Analysis and Machine Learning. In book: Intelligent Systems and Sustainable Computational Models. Doi: <https://doi.org/10.1201/9781003407959-25>, Page: 383-396
3. Rajalakshmi Gurusamy, B.Ben Sujitha. (April 2024). A Real-Time Automated Face Recognition and Detection System for Competitive Examination. In book: Intelligent Systems and Sustainable Computational Models. Doi: <https://doi.org/10.1201/9781003407959-18>,Page: 275-287.
4. Gurusamy, R., Rajalakshmi, J., Solairaj, A., Muthuraja, T. (September 2023). 2C-CNN-LSTM: Two-Channel Convolutional Neural Network-Long Short-Term Memory Deep Learning for Categorization of Autism Using EEG Data. In: Kumar, S., Hiranwal, S., Purohit, S., Prasad, M. (eds) Proceedings of International Conference on Communication and Computational Technologies. ICCCT 2023. Algorithms for Intelligent Systems. Springer, Singapore. https://doi.org/10.1007/978-981-99-3485-0_51, pp: 641-654.
5. Published a book named “Data Structures and Algorithms: A Practical Approach” with ISBN 1397893-82459-20-0
6. Published a book named “Computer Organization and Architecture” with ISBN 978-93-80686-51-6

Details of Patents Filed and Granted:

1. Granted a Design Patent named “Advanced Smart City Infrastructure Monitoring Device”. Application Number: 6396523.
2. Published a patent named “Neural Network-based Predictive Maintenance for IOT-connected Industrial Equipment”. Application Number: 202341073629.

Expert Lecture Delivered:

1. Act as Resource person for delivered session on “Outcome-Based Education and Accreditation” during the FDP organized by CSBS, SIT on 28.05.2025 to 29.05.2025.
2. Act as a Resource Person in the DRDO sponsored seminar on “Artificial Intelligence on Military Cyber Security: Threads and Solution” organized by Department of AIDS, SIT on 13.06.2024.
3. Resource person for delivered a lecture and Lab demo on “GenAI Tools and its applications” on 25.05.2024 organized by the department of CSE, Noorul Islam Centre for Higher Education, Nagarkovil.
4. Resource person for delivered a lecture and Lab demo on “Cassandra and MongoDB” on 15.11.2022 organized by the department of Computer Science and System Design, SIT.
5. Resource person for delivered a Lecture in Student and Faculty Orientation Program on “2D Animation Using Macromedia Flash MX” on 13.11.2021 organized by the Good Shepherd College of Engineering and Technology, Maruthamparai.