



Professional Summary

I am an academican, researcher, and administrator with **18+ years of experience** in teaching, research, and leadership. Served as **Professor & HoD of CSE**, I specialize in **AI and Machine Learning**, with expertise in **C, C++, Java and Python**. As a **recognized Ph.D. supervisor**, I guide multiple research scholars and have contributed **60+ research publications, patents, books and book chapters**, and secured **₹4,60,000 in research grants**. I have mentored **award-winning student projects**, played key roles in **NBA & NAAC accreditation**

Experience (18+ Yrs)

- Presently working as a **Professor** in the Department of Computer Science and Engineering at Ahalia School of Engineering and Technology, Palakkad, Kerala, India from 16-September-2026 to till date.
- Worked as **Assistant Dean – Research & Development**, and also as a **Professor & Head of** the CSE and its allied branches at Jawaharlal College of Engineering and Technology, Kerala, India, from 02-May-2024 to 31-August-2026(**2.4 Years**).
- Worked as a **Professor and Head** in the Department of Computer Science and Engineering at Sahrdaya College of Engineering and Technology, Kerala, India from 30-June-2022 to 30/04/2024. (**1.10 Year**) and also worked as **Associate Professor and Head** in the same department from 01-Feb-2017 to 29-June-2022 (**5.5 Years**).
- Worked as an **Associate Professor** in the Department of IT at Hindusthan College of Engg. and Technology, Tamil Nadu, India, from May 5, 2016, to January 24, 2017 (**0.9 years**), and as an **Assistant Professor** from July 15, 2009, to May 4, 2016 (**6.10 years**).
- Worked as a **.NET Programmer and Faculty** at Pentasoft Technologies Pvt. Ltd., Palakkad, Kerala, India, from May 5, 2006, to August 31, 2007 (**1.4 years**).

Academic Profile

Course	Specialization	Institution	University	Mode of Study	Month/Year of Passing
PostDoc	Computer Science	University of Louisiana at Lafayette, USA	University of Louisiana	Hybrid	October - 2025
Ph. D	Information and Communication Engineering	Anna University	Anna University Chennai	Part-Time	May – 2016
M. Tech	Information Technology	Anna University Academic Campus	Anna University Coimbatore	Regular	July - 2009
MBA	Information Systems	Bharathiar University	Bharathiar University	Distance	Dec - 2009
M. Sc	Computer Science	Sree Narayana Guru College	Bharathiar University	Regular	April - 2006

Key Achievements

- **Research Grants & Funding:**
 - Received ₹4,60,000 in grants from APJ Abdul Kalam Technological University & AICTE for FDPs and conferences.
- **Extensive Research Contributions:**
 - Published over 60 peer-reviewed research articles in reputed journals, demonstrating expertise in Machine Learning, AI, and Data Science.
 - Successfully granted and published 10 patents and also authored 5 Textbooks
- **Awards & Recognition:**
 - "Excellent Faculty Award" (2020-2021) from Sahrdaya College of Engineering.
 - "Innovative Research and Dedicated Academician Award" (2018) from ISRP, Malaysia.
 - Successfully guided multiple award-winning student projects.
- **Major Events Organized:**
 - **Successfully organized the IEEE International Conference on (IDCIoT-2026) from 04th to 06th February 2026 at Jawaharlal CET, Palakkad.**
 - Organized an Experts Committee meeting **for the development of a trilingual Engineering glossary (English–Hindi–Malayalam)**, funded by the **Commission for Scientific and Technical Terminology (CSTT), Ministry of Education, Government of India.**
- **Research Supervision & Mentorship:**
 - Recognized as an **approved Ph.D. supervisor** at APJ Abdul Kalam Technological University.
 - Currently guiding **five research scholars**, with three nearing synopsis submission.

Key Skills

- **Programming & Development:** Proficient in C, C++, Java, Python, AI and ML.
- **Academic & Research:** 17+ years of experience, supervising Ph.D. scholars, and publishing in SCIE, Scopus, and UGC journals.
- **Administrative & Leadership Roles:** Assistant Dean Research, Professor & HoD, Board of Studies Chairman, and key contributor to NBA and NAAC accreditation.
- **Project & Innovation:** Mentored award-winning student projects, guided AI & IoT innovations, and secured research funding.
- **Certifications & Editorial Work:** Microsoft-certified in Python & .NET, Editor-in-Chief, and reviewer for Elsevier, Springer, and Wiley.
- **Patents & Publications:** Granted patents in AI, Blockchain, IoT, authored books, chaired IEEE conferences, and delivered talks on AI and Python.

Administrative Roles

- **Assistant Dean Research:** Facilitating research initiatives, collaborations, and funding opportunities within the institution.
- **Chairman, Board of Studies (BoS):** Overseeing curriculum development for CSE, CSE (Cyber Security), and CSE (Data Science) programs.
- **Head of the Department:** Leading the CSE, CSE (Cyber Security), and CSE (Data Science) departments, managing academic and administrative activities.
- **NBA Coordinator:** Played a key role in securing NBA accreditation for three years and led accreditation-related initiatives at Sahrdaya CET and Jawaharlal CET.
- **University Lab Examination Chairperson** for B.Tech semesters S3, S4, S5, and S6 at APJ Abdul Kalam Technological University (APJAKTU) from 2021 to 2025.

Research Grant Received

- Received a sum of **Rs. 2,00,000/-** from APJ Abdul Kalam Technological University to conduct a **Five-day Faculty Development Program** titled “**Medical Image Analysis using Deep Learning Technique**”, 2022.
- Received a sum of **Rs. 2,00,000/-** from APJ Abdul Kalam Technological University to conduct a **Five-day Faculty Development Program** titled “**Cyber Security and Cyber Forensics**”, 2020.
- Received a sum of **Rs. 1,60,000/-** from AICTE through **Gant of Conference-2019** for conduct a National Conference titled “**ABACon 2.0**” **Innovations in Computing**.

Awards and Honors

- Received “**Excellent Faculty Award**” for the academic year **2020-2021** from Sahrdaya College of Engineering and Technology, Kodakara, Thrissur, Kerala.
- Received an award titled “**Innovative Research and Dedicated Academician Award-2018**” from Innovative Scientific Research Professional Malaysia.

Project Awards

- The student project titled "FITRIDE: An Interactive Fitness Game Leveraging Gamification for Enhanced Physical Activity and User Engagement," guided by me, won **First Prize and a Rs.5000/- Cash Prize in the S8 Main Project for the academic year 2024-2025 at JSITE, Jawaharlal College of Engineering and Technology, Palakkad, Kerala, India.**
- The student project titled "Smart Helmet for Impact Detection and Alcohol Sensing" guided by me, won **Third Prize in the CSE Department S6 Mini Project for the academic year 2024-2025 at JSITE, Jawaharlal College of Engineering and Technology, Palakkad, Kerala, India.**
- The Students Project work Titled “**AGRON**” guided by me won the **Best Project Award** for the academic year 2022-2023 in the final year CSE Department, Sahridaya College of Engineering and Technology, Thrissur, Kerala, India.
- Won First Runner-up and received a cash prize **Rs. 30,000/-** for the project titled “**Aware-360**” in **Beach 4 Hack 2022.**
- The student project “**AIVA CONTROLLER (AI, IoT, VR, AR)**” won **First Runner-up** at **CUBETHON 2022-23** with a **₹30,000 cash prize** and at **PINEOTHON 2022** with a **₹20,000 cash prize.**
- The students' project titled "**Gaming Bike: Virtual Reality Indoor Gaming Console for Universal Games,**" which I guided received the **Best Innovation Project Award in Health Care** and a **\$500 cash prize** at **Shrank Tank CCE-2022**, won **First Prize & Best Project Award** at **SHRISHTI 2022**, and secured **Second Prize** at **Tharang Techfest-2022.**

Professional Body Activities

- **Joint Secretary Academia IEEE Computer Society Kerala Chapter 2024, 2025 & 2026.**
- **Senior Member of IEEE** (Institute of Electrical and Electronics-97571198).
- **IEEE Computer Society Member** since 2020.
- **Life Member of ISTE** (Indian Society for Technical Education-LM81103).
- **Life Member of IAENG** (International Association of Engineers-116746).
- **Life Member of IACSIT** (International Association of Computer Science and Information Technology-80344521).

Ph.D Registered Research Scholars

Sl. No.	Name of the Ph.D. Scholar	Role	Category	Year of Registration	Status
1	Ms. Geethu Wilson	Supervisor	Part-Time	2024	Ongoing
2	Ms. Sonu Varghese	Supervisor	Full-Time CERG	2022	Ongoing
3	Ms. Keerthana I P	Supervisor	Full-Time JRF	2021	Synopsis Submitted
4	Ms. Anly Antony M	Supervisor	Part-Time	2020	Ongoing
5	Ms. Meera Mohan	Joint Supervisor	Part-Time	2019	Ongoing

Ph.D Research Details

University : Anna University, Chennai

Research Type : Part-Time Ph.D

Open Defense Date : 06/05/2016

Research Department : Information and Communication Engineering

Research Area : Machine Learning and Image Processing

Publications**Textbook Publications**

1. Published a Textbook titled “**Artificial Intelligence, IoT and Bigdata**”, Scientific International Publishing House, 2025 (ISBN No.: 978-93-7196-974-1).
2. Published a Textbook titled “**Entrepreneurship and IPR: Strategies for Business Growth**”, Merimax International Publications, **2025** (ISBN No.: 978-81-986199-4-5).
3. Published a Textbook titled “**Artificial Intelligence and Machine Learning**”, Scientific International Publishing House, 2024 (ISBN No.: 978-93-6674-611-1).
4. Published a Textbook titled “**Handbook of IoT and Big Data**”, Scientific International Publishing House, 2022 (ISBN No.: 978-93-5625-141-0).
5. Published a Textbook titled “**Object Oriented Programming using Java**”, Shanlax Publications, 2021 (ISBN No.: 938068603-X).
6. Published a Textbook titled “**Machine Learning with Python**”, LAMBERT Academic Publishing, 2020. (ISBN No.: 978-620-078817-7).

Book Chapter Publications

1. Vishwanadham Mandala, C. D. Premkumar, K. Nivitha and **R. Satheesh Kumar**, “Machine Learning Techniques and Big Data Tools In Design And Manufacturing” Big Data Analytics in Smart Manufacturing: Principles and Practices, CRC Press, Taylor & Francis Group, **Scopus Book Chapter, 2022.**
2. M. Anly Antony, **R. Satheesh Kumar**, G. R.Gnana King, V. Yuvaraj, and Chidambaranathan, “Technical Assessment of Various Image Stitching Techniques: A Deep Learning Approach”, Handbook of Deep Learning in Biomedical Engineering and Health Informatics, **Scopus Book Chapter, 2021.**
3. **R. Satheesh Kumar**, Ms. G. Keerthana, "Enabling Artificial Intelligence and Cyber Security in Smart Manufacturing", Artificial Intelligent Techniques for Wireless Communication and Networking, **Scopus Book Chapter, 2021.**

Patent Grants and Publications

1. Granted an **UK Patent** titled “AI-Driven Cloud Data Encryption Device”, 2026 (Design number: 6494521).
2. Published an **Indian patent** titled “Context-Aware Federated Learning Framework with Privacy-Preserving Aggregation”, **2026.** (Application No.: 202541128757).
3. Published an **Indian patent** titled “Intelligent Intravenous Therapy Bag Monitoring System for Enhanced Patient Care”, **2025.**
4. Published an **Indian patent** titled “Intelligent Alcohol Detection and Monitoring System Using IoT Technology for Real-Time Monitoring and Alerts”, **2025.**
5. Published an **Indian patent** titled “Intelligent Access Control System for Seamless Door Unlocking in Modern Environments”, **2025.**
6. Granted an **UK Patent** titled “Blockchain Based Device for Communication”, 2025 (Design number: 6409866).
7. Granted an **UK Patent** titled “Wearable Disaster Emergency Communication Device”, 2024 (Design number: 6409866).
8. Granted an **UK Patent** titled “Soil Sampling Stick Using Machine Learning”, 2023 (Design number: 6295348).
9. Published an **Indian patent** titled “Machine Learning and Deep Learning based Medical Image Segmentation and Feature Extraction Scheme for Practitioners using Multi-Dimensional Clinical Data”, 2022 (Application No.: 202241005300).
10. Granted an **Australian Patent** titled “An IoT Based Self Phased Analysis of Adverse Effects of Covid Recovered Patient”, 2021 (Application No.:2021101599).

11. Granted an **Australian Patent** titled “A Smart Methodology to Track the Spread of Pandemic and Sanitizing at Regular Intervals”, 2020 (Application No.:2020103763).
12. Published an **Indian patent** titled “A System and Method of IoT Based Intelligence Green House Surveying System with Cloud Computing”, 2019 (Application No.: 201941033012)
13. Published an **Indian patent** titled “An Automated IoT Based Agriculture Monitoring System with Plurality of Sensors to detect Parameters related Thereof”, 2019 (Application No.: 2019410449558).

International Referred Journals

1. Keerthana, I.P., **Satheesh Kumar, R.** An Enhanced Transfer Learning-Based Hierarchical Ensemble Framework for Diabetic Retinopathy Identification and Multistage Classification. Arabian Journal of Science and Engineering, Springer Publications (2025). <https://doi.org/10.1007/s13369-025-10827-1>.(SCIE-Q1).
2. Ms. Meera Mohan, Dr. P. Dhanalakshmi and **Dr. R Satheesh Kumar** published a paper titled “Speech Emotion Classification using Ensemble Models with MFCC” in Procedia Computer Science 2018 (2023) 1857-1868. (Scopus) 2023.
3. Mr. Jerin Reji, and **Dr. R Satheesh Kumar** published a paper titled “HTLV Virus Prediction Using Enhanced Machine Learning Techniques in RStudio” in Mukta Shabd Journal. (UGC) 2022.
4. Ms. Rosmy Antony, Ms. Jasmy Davies, and **Dr. R Satheesh Kumar** published a paper titled “Tuberculosis detection using Convolutional Neural Network” in Mukta Shabd Journal. (UGC) 2022.
5. Ms. Irfana Parveen CA, Dr. R. Sunder, and **Dr. R Satheesh Kumar** published a paper titled “Automatic Deep Learning Glaucoma System” in Mukta Shabd Journal. (UGC) 2022.
6. Ms. Dhanamithra R G, Ms. Anly Antony M, and **Dr. R Satheesh Kumar** published a paper titled “An Efficient Thyroid Prediction System for a Healthy Society” in Mukta Shabd Journal. (UGC) 2022.
7. Ms. Vandana Davis, Dr. Krishnadas J, and **Dr. R Satheesh Kumar** published a paper titled “ICU Mortality Prediction using Machine Learning” in Mukta Shabd Journal. (UGC) 2022.
8. **Dr. R Satheesh Kumar**, Dr. A. Francis Saviour Devaraj Dr. M. Rajeswari, published a paper titled “Exploration of Sentiment Analysis and Legitimate Artistry for Opinion Mining” in international Journal of Multimedia Tools and Applications, Springer Publication. (SCIE) 2021.

9. Dr. M. Rajeswari, **Dr. R Satheesh Kumar** published a paper titled “Person Identification with aerial imaginary using SegNet based semantic segmentation” in international Journal of Earth Science Informatics, Springer Publication. **(SCIE) 2020.**
10. Dr.M.Rajeswari, **Dr. R Satheesh Kumar** published a paper titled “Usage of Energy Efficient Sensor nodes on Wearable Device for Fall and Child Abduction detection” in international Journal of Engineering and Advanced technology **(Scopus) 2019.**
11. **Dr. R. Satheesh Kumar** and Dr.M.Rajeswari published a paper titled “ A Secure Model For Hiding Multimedia Files within Two Cover Images” in International Journal of Recent Technology and Engineering (IJRTE), **(Scopus) 2019.**
12. K. Shankar, Mohamed Elhoseny & **R. Satheesh Kumar**, "Secret image sharing scheme with encrypted shadow images using optimal homomorphic encryption technique", Journal of Ambient Intelligence and Humanized Computing, Springer Publication **(SCIE) 2018.**
13. **R. Satheesh Kumar** and S. Vijayan., " Computer Aided Content Analysis of Web Based Medical Queries: Classifying affective and Informative Post ", Journal of Pure and Applied Microbiology, vol. 9, No. Special Issue, pp. 37-45 **(Scopus).**
14. **R. Satheesh Kumar** and S. Vijayan., "Mining Movie Reviews – An Evaluation", International Journal of Theoretical and Applied Information Technology, Vol.56, Issue No.2, Page No.:290-295, 2013 **(Scopus).**
15. N. Kannammal., S. Vijayan and **R. Satheesh Kumar.**, "A Survey On Collaborating Techniques and QoS Based Recommendation System", ARPN Journal of Engineering and Applied Sciences, Vol. 10, Issue No. 6, Page No. 2582-2593, April 2015 **(Scopus).**
16. **R. Satheesh Kumar** and N. Kannammal., "A Review On Data Privacy Protection And Types Of Attacks In Cloud Computing", ARPN Journal of Engineering and Applied Sciences, Vol. 10, Issue No. 6, Page No. 2675-2680, April 2015 **(Scopus).**
17. Doniya Antony, Jancy M P and **R. Satheesh Kumar.**, “Personal Intelligent Assistant for Speech Recognition”, Asian Journal of Applied Science and Technology (AJAST), Volume.2, Issue.1, pp.190-195, March 2018.
18. Divin Davis, Anjana Shaji, Edwin Earny, **R. Satheesh Kumar.**, “Cloud Security – Protection for Cloud Data Using 3DES Encryption”, Asian Journal of Applied Science and Technology (AJAST), Volume.2, Issue.1, pp.275-280, March 2018.
19. Anjaly Rajesh, Alen Antony, Femy Jose and **R.Satheesh Kumar** “IoT Based Smart Street Light System”, Asian Journal of Applied Science and Technology (AJAST), Volume.2, Issue.1, pp.312-320, March 2018.

20. **R. Satheesh Kumar**, N. Krishnaraj and G. Keerthana “Highly Energy Efficient and Scalable Distributed Clustering Procedure for Dense Wireless Sensor Networks”, Asian Journal of Applied Science and Technology (AJAST), Volume.1, Issue.9, pp.550-558, December 2017.
21. **R. Satheesh Kumar**, N. Krishnaraj and G. Keerthana “Procuring Cloud from Ddos Attacks Using Transgression Revelation System”, International Journal of Computer Science and Engineering Communications, Volume.5, Issue.5, pp.1752-1760, September 2017.
22. **R. Satheesh Kumar**, Boseline Prabhu and G. Keerthana “A Literature Review on Automatic Composition of Web Services”, International Journal of Technology in Computer Science and Engineering, Volume.4, Issue.2, pp.4081-4086, June 2017.
23. **R. Satheesh Kumar**, N. Krishnaraj and G. Keerthana “Assessment of Quality of Service in Communication Network and Evaluating Connectivity Among IP Networks”, Asian Journal of Applied Science and Technology (AJAST), 1(3), pp.319-322, April 2017.
24. Gayathri Narayanan, Vince Paul and **R. Satheesh Kumar** “Survey on 3-PAKE Protocols in Cryptography”, International Journal of Application or Innovation in Engineering & Management (IJAIEEM), Volume.6, Issue.4, pp.40-43, April 2017.
25. **R. Satheesh Kumar** and M. Rajeswari “Survey On Secure Data Exchange Using Authenticated Ciphertext policy Attributed-Based Encryption”, International Journal of Application or Innovation in Engineering & Management (IJAIEEM), ISSN: 2319 - 4847, Volume 6, Issue 3, pp.121 -126, March 2017.

Proceedings in International Conference

1. **R. Satheesh Kumar et al.** “Enhancing Banking Security Through Predictive Machine Learning Models For Payment Fraud Detection” Accepted for presentation in the Third IEEE International Conference on Networking and Communications (ICNWC 2026), Organized by SRM Institute of Science and Technology Kattankulathur (**Scopus**)
2. **R. Satheesh Kumar et al.** “Smart Shoe for Gaming: An Integrated Wearable Shoe for Motion-Based Interaction and Physical Activity Enhancement”, accepted for presentation in the Third IEEE International Conference on Networking and Communications (ICNWC 2026), Organized by SRM Institute of Science and Technology Kattankulathur (**Scopus**)
3. **Satheesh Kumar R et al.** "FITRIDE: An Interactive Fitness Game Leveraging Gamification for Enhanced Physical Activity and User Engagement" published in the IEEE International Conference Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA-2025), FISAT, Kerala, India. (**Scopus**).

4. **Satheesh Kumar R** et al. "Context-Aware Explanation Drift Detection (CA-EDD): for Plant Disease Severity Estimation" accepted for publication in the 4th IEEE International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT-2026), Kerala, India (**Scopus**).
5. **Satheesh Kumar R** et al. "Smart Protective Headgear with Embedded Sensors for Impact Detection and Alcohol Intoxication Monitoring" accepted for publication in the 4th IEEE International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT-2026), Kerala, India (**Scopus**).
6. **Satheesh Kumar R** et al. "A MobileNet-Driven Transfer Learning Model for Papaya Fruit Disease Classification", accepted for publication in the 4th IEEE International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT-2026), Kerala, India (**Scopus**).
7. **Satheesh Kumar R** et al. "Accident Detection and Prevention Systems for Smart and Electric Vehicles Using IoT-Enabled Techniques", accepted for publication in the 4th IEEE International Conference on Intelligent Data Communication Technologies and Internet of Things (IDCIoT-2026), Kerala, India (**Scopus**).
8. **Satheesh Kumar R.** et al. "Smart Transit Guardian: Seamlessly Navigating the Intersection of Safety and Efficiency" accepted for publication in the IEEE International Conference International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), Sahridaya CET, Thrissur, Kerala. (**Scopus**).
9. **Akhila E** et al. "CareLink – An IoT-Based Smart Platform for Seamless Epilepsy Monitoring, Seizure Detection, and Patient Management" accepted for publication in the IEEE International Conference International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), Sahridaya College of Engineering and Technology Kodakara, Thrissur, Kerala(**Scopus**).
10. **R Satheesh Kumar** et al. "Phishing Website Identification using Sparse Representation and Autoencoder " accepted for Publication in IEEE International Conference on AI- Driven Solutions for Sustainable Smart Cities:Challenges and Opportunities (ADSSSC -2026), Sahridaya CET, kerala, India. (**Scopus**).
11. **R Satheesh Kumar** et. al. "NETRA: An IoT based smart glass system for Visually imaired individuals" accepted for publication in the IEEE International Conference on AI driven solutions for sustainable smart cities (ADSSSC-2026), Sahradaya CET, Kerala, India. (**Scopus**).

12. **R Satheesh Kumar** et al. “Numbuz: An AI powered smart drone tracking and Neutralization” accepted for publication in the IEEE International Conference International Conference on AI-Driven Solutions for Sustainable Smart Cities: Challenges and Opportunities (ADSSSC 2026), Sahridaya CET Kodakara, Thrissur, Kerala (**Scopus**).
13. **R. Satheesh Kumar** et al. "FITRIDE: An Interactive Fitness Game Leveraging Gamification for Enhanced Physical Activity and User Engagement” published in the IEEE International Conference Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA-2025), FISAT, Kerala, India. (**Scopus**)
14. **R. Satheesh Kumar** et al. "An Innovative Technique of Integrating PSO-ResNET for the Detection of Hypertension” accepted for presentation in the 7th IEEE International Conference on Energy, Power and Environment (ICEPE 2025), NIT Meghalaya!2025 (**Scopus**)
15. **R. Satheesh Kumar** et al. “Deep Convolutional Neural Network-Based Sarcasm Detection and Sentiment Analysis on Social Media” presented in the (2nd IEEE International Conference on Trends in Engineering Systems and Technologies (ICTEST – 2025) (**Scopus**)
16. **R. Satheesh Kumar** et al. “An AI – Powered Web Application for Automating Brain Tumour Identification” presented in the (2nd IEEE International Conference on Trends in Engineering Systems and Technologies (ICTEST – 2025) (**Scopus**)
17. **R Satheesh Kumar** et al., "An Effective method for the detection of Tuberculosis using Artificial Intelligence", presented in the 3rd IEEE International Conference on Device Intelligence Computing and Communication Technologies (DICCT 2025), at Graphic Era Deemed University, India. (**Scopus**)
18. **R. Satheesh Kumar** et. al., “Enhanced Integration system for the prediction of high blood pressure”, accepted for the presentation in the Conference on Advances in Communication Networks & Systems (CoaCoNS 2025), at SRM Institute of Science and Technology, Chennai, India. (**Scopus**)
19. Keerthana I P, and **R Satheesh Kumar**, "Diabetic Macular Edema Detection and Classification Using Advanced Convolutional Neural Networks", presented in the 3rd IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI 2025), at ABV-IIITM, Gwalior, (**Scopus**)
20. Sonu Varghese K and **R Satheesh Kumar** “A Comprehensive Analysis on Severity Estimation of Plant Diseases by Deep Learning Model” presented at IEEE International

Conference on Computational, Communication and Information Technology held at IPS Academy Institute of Engineering & Science, Indore on 7 February 2025. (**Scopus**)

21. Poulin Paul, S Manishankar and **R. Satheesh Kumar** "Disease Detection & Severity Prediction of Pomegranate Fruit", presented at the Fifteenth International Conference on Computing, Communication and Networking Technologies, held at IIT-Mandi, in association with IEEE Electronics Packaging Society. on 24th-28th June 2024. . (**Scopus**)
22. **R. Satheesh Kumar** and Sonu Varghese K "Emerging Trends in Deep Learning Models for Plant Disease Detection: A Review", presented at the **Springer International Conference** on Computing, Communication, Security and Intelligence Systems (IC3SIS 2023), Organized by SCMS School of Engineering and Technology, Kerala, India on 7th July 2023. (**Scopus**)
23. **R.Satheesh Kumar** and Keerthana I P "A Survey of Deep Learning Models to Detect and Classify Eye Disorders", presented at the **IEEE International Conference** on Sustainable Computing and Smart Systems (ICSCSS 2023), Organized by Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, on 15th June 2023. (**Scopus**)
24. **R. Satheesh Kumar** and Suni Jose "Pneumonia Detection Using Convolutional Neural Networks", presented in International Conference on Innovations in Computing Materials Communication Technologies (ICICMCT '23), Organized by IES College of Engineering, Chitillapilly, Thrissur, Kerala on 10th May 2023.
25. **R. Satheesh Kumar** and Maria A.S "Obesity Risk Prediction Using Machine Learning Approach", published in the proceedings of First **IEEE International Conference** on Networking and Communications 2023 (ICNWC-2023), Organized by SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India on 5th and 6th April 2023. (**Scopus**)
26. **R Satheesh Kumar** et. al. "Candlestick chart based stock analysis system using ensemble learning", published in the proceedings of First IEEE International Conference on Networking and Communications 2023, Organized by SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, India on 5th and 6th April 2023. (**Scopus**)
27. **R. Satheesh Kumar** and Suni Jose "A Review on Federated Learning Techniques", presented at 6th National Conference on Computational Intelligence (NCCI 2023) and published in Indian Journal of Natural Science-(IJONS-2022), Organized by Kristu Jayanti College, Bengaluru, Karnataka, India on 30th January 2023. (UGC)

28. Theres Davies, **R Satheesh Kumar**, Anly M Antony "A Novel Method for Concrete Crack Detection Using Image Processing Technique", presented in Advanced Computing and Communication Technologies for High Performance Applications (ACCTHPA), on 20th January 2023. (**Scopus**)
29. CA Irfana Parveen, **R Satheesh Kumar** "A Review on Deep Learning Models for Optic Disc Segmentation and Glaucoma Classification", published in the proceedings of IEEE World Conference on Applied Intelligence and Computing (AIC), Organized by Sri Eshwar College of Engineering, Coimbatore, on 17th to 19th June 2022. (**Scopus**)
30. **R. Satheesh Kumar** and Dhanamithra "A Comparison Study on Machine Learning Approaches for Thyroid Disease Prediction", published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems-(ICACCS-2022), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India on 25th & 26th March **2022**. (**Scopus**)
31. **R. Satheesh Kumar** and Jerin Reji "Virus Prediction using Machine Learning Techniques", published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems-(ICACCS-2022), Organized by Sri Eshwar College of Engineering, Tamilnadu, India on 25th & 26th March **2022**. (**Scopus**)
32. **R. Satheesh Kumar** and Rosmy "A Review on Tuberculosis Identification Using Convolutional Neural Networks", published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems, Organized by Sri Eshwar College of Engineering, Tamilnadu, on 25th & 26th March 2022. (**Scopus**)
33. **R. Satheesh Kumar**, et. al. "Prognostication of Covid-19 and Heart Disease: A Combined Approach", published in the proceedings of **IEEE International Conference** on Communication, Control and Information Sciences, Organized by Government Engineering College, Idukki, Kerala, on 16th & 17th June 2021. (**Scopus**)
34. **R. Satheesh Kumar**, et. al. "Deep Learning Model for Face Mask Based Attendance System in the Era of the Covid-19 Pandemic", published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems-(ICACCS 2021), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India on 19th & 20th March 2021. (**Scopus**)
35. Anly Antony M, **R. Satheesh Kumar** "A Comparative Study on Predicting Food Quality using Machine Learning Techniques", published in the proceedings of **IEEE**

International Conference on Advanced Computing & Communication Systems-(ICACCS 2021), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India on 19th & 20th March 2021. **(Scopus)**

36. Vishnu S Babu, **R. Satheesh Kumar**, R. Sunder “A Comparative Study on Disease Detection of Plants using Machine Learning Techniques”, published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems-(ICACCS 2021), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India on 19th & 20th March 2021. **(Scopus)**
37. Rehna Baby Joseph, **R. Satheesh Kumar** “A Reflection of Driver Drowsiness Detection Techniques”, published in the proceedings of **IEEE International Conference** on Advanced Computing & Communication Systems-(ICACCS 2021), Organized by Sri Eshwar College of Engineering, Coimbatore, Tamilnadu, India on 19th & 20th March 2021. **(Scopus)**
38. Gayathri Narayanan, Krishnadas J, M. Rajeshwari and **R. Satheesh Kumar** “Game Theoretical approach with Audit based Misbehavior Detection System”, published in the proceedings of **IEEE International Conference** on Inventive Communication and Computational Technologies (ICICCT-2018) during 20th -21st April 2018. **(Scopus)**
39. **R. Satheesh Kumar**, N. Krishnaraj and G. Keerthana “Survey on Parameters and Algorithms in Ad-Hoc problem solving”, published in the proceedings of International Conference on Emerging Trends in Engineering & Technology On Intelligent Systems (**ICETET 2017**), organized by Pandiyan Saraswathi Yadav Engineering College, Madurai, Tamilnadu, India, on 10th and 11th March 2017.
40. **R. Satheesh Kumar**, R. Lenin Babu and N. Kannammal “Automatic Web Service Composition - A Survey”, published in the proceedings of Fifth International Conference on Intelligent Systems and Control (ISCO 2011), organized by Karpagam College of Engineering, Coimbatore, Tamilnadu, India, on 7th January 2011.

Proceedings in National Conference

1. **Satheesh Kumar. R** et al., “Web Service Composition Algorithms – A Survey”, published in the proceedings of the National Conference on Recent Trends in Communication, Networking and Computing, organized by the Department of IT, Hindusthan College of Engineering and Technology, Coimbatore on 10th March 2011.
2. **Satheesh Kumar. R** et. al. “Survey on Query Processing in Peer-To-Peer Network”, published in the proceedings of the National Conference on Future of Electrical and Instrumentation Technology (ECLECTIC ‘09), organized by Vivekanandha College of Engineering for Women, Namakkal, Tamilnadu, India on 9th April 2009.

3. **Satheesh Kumar. R** and P. Marikkannu, “Professional Ballpark Query Processing on Peer-To-Peer Network”, published in the proceedings of the National Conference on Advanced Computing Concepts (NCACC ‘09), organized by the Department of Information Technology, Velalar College of Engineering and Technology, Erode, Tamilnadu, India, 17th April 2009.
4. **Satheesh Kumar. R** and R. Lenin Babu, “A Survey on Cloud Computing Technology”, in the proceedings of the National Conference on Advanced Computing Concepts (NCRACCG ‘10), organized by the Department of IT, Hindusthan College of Engineering and Technology, Coimbatore on 8th and 9th April 2009.

Ph.D Thesis Desertions

- Evaluated a **Ph.D Thesis** “Energy-Efficient Criticality-Aware Task Scheduling for Multicore Platforms in Safety-Critical Systems” of **VelTech University**, 2024.
- Evaluated a **Ph.D Thesis** “Deep Learning Algorithms for Lung Disease Detection Using Chest CT Scan & CXR Imaging System” of **Anna University** Tamilnadu. 2024.
- Evaluated a **Ph.D Thesis** titled “Unified Deep Learning Framework for Imbalanced Data Classification with Multi-Class Drift in Evolving Data Streams” of **Bharathiar University**, Tamilnadu.2024.
- Evaluated a **Ph.D Thesis** titled “Long Term Energy Optimization Of Wireless Sensor Networks Based On Novel Approaches In Reactive Routing” of **Bharathiar University, Tamilnadu**. 2023.
- Evaluated a **Ph.D Thesis** “Prevention of Cyber Attacks using Email-Spam Detection and Mitigation Protocols in Cyber Space” of **Anna University** Tamilnadu. 2022.
- Evaluated a **Ph.D Thesis** titled “Hybrid Edge Detection and Hybrid Probabilistic Neural Network Classifier for Detection and Classification of Brain Tumor” of **Prist University**, Thanjavur, Tamilnadu. 2021
- I evaluated two **Ph.D. Thesis** from **Shri Venkateswara University**, Uttar Pradesh: one titled “Hybrid Approaches to Optimize the Performance of Load Balancing and Task Scheduling in Cloud Environment” and another titled “Improving QOS in Wireless Sensor Networks through EUDAC and R-UCMR.” 2020.

Invited Talks

- Delivered an invited talk on the topic "Introduction to Machine Learning using Python" at Sahridaya College of Engineering and Technology, Kerala on 08th January 2025.
- Delivered an invited talk on the topic "The Power of Positive Thinking" at Hindusthan College of Engineering and Technology, Coimbatore, Tamil Nadu, on 27th July 2024.

- Handled a hands on session for the topic "Introduction to Python Programming", held at Govt. Polytechnic College, Nedumkandam, Idukki, Kerala on 02nd & 03rd March 2023.
- Handled a hands on session for the topic "Neural Networks for Segmentation and Classification", in the APJ Abdul Kalam Technological University Sponsored FDP held at Sahridaya CET, Thrissur, Kerala on 3rd February 2023.
- Handled a hands on session for the topic "Deep Learning Introduction and Overview", in the APJ Abdul Kalam Technological University Sponsored FDP held at Nehru College of Engineering and Research Centre, Palakkad, Kerala on 27th January 2023.
- Handled a hands on session for the topic "Neural Networks for Segmentation and Classification", in the APJ Abdul Kalam Technological University Sponsored FDP held at Sahridaya CET, Thrissur, Kerala on 27th January 2023.
- Handled a hands on session for the topic "Recent Trends in Python Programming", held at Sree Narayana Guru College, Coimbatore, Tamilnadu on 09th & 10th Jan 2020.
- Handled a hands-on session for the topic "Introduction to Python Programming", held at St. Xavier's College (Autonomous), Tirunelveli, Tamilnadu on 30/08/2018.
- Handled a hands on session for the topic "Python - A Research Tool", held at Sri Saradha College for Women, Tirunelveli, Tamilnadu on 31/08/2018.

Journal Editorial Board Member

- **Editor in Chief** in International Journal of Computer Science and Engineering Communications (IJCSE) ISSN: 2347-8586, No.12, Valluvar Street, Jegannathan Nagar, Arumbakkam, Chennai, India.
- **Editorial Board Member** in International Journal of Research and Engineering (IJRE), ISSN (Online): 2319-1163, ISSN (Print): 2321-7308, eSAT Publishing House Pvt. Ltd., Trilochan Complex, Gandhi Nagar Munnekolala, Bangalore, Karnataka.
- **Editorial Board Member** in Asian Journal of Applied Science and Technology (AJAST), 5-19, Sathya Cottage, Kanniyakumari District, Tamilnadu, India.
- **Editorial Board Member** in Mediterranean Journal of Basic and Applied Sciences (MJBAS), ISSN (Online): 2319-1163, ISSN (Print): 2321-7308, Sathya Cottage, Venganancode, Pacode-629168 Kanniyakumari District, Tamilnadu, India.
- **Editorial Board Member** in Indo-Iranian Journal of Scientific Research (IIJSR), Sathya Cottage, Venganancode, Pacode-629168 Kanniyakumari District, Tamilnadu, India.

Journal Reviewer

- Regular Reviewer in **Elsevier Publications**: *Egyptian Informatics Journal Production and Hosting by Elsevier B.V.* on behalf of the Faculty of Computers and Information, Cairo University. ISSN: 1110-8665.

- Regular Reviewer in **Springer Publications:** *The Journal of Super Computing*, An International Journal of High-Performance Computer Design, Analysis, and Use. ISSN: 0920-8542; 1573-0484.
- Regular Reviewer in **Springer Publications:** *Multimedia Tools and Applications*, an International Journal. ISSN: 1380-7501 (print version) ISSN: 1573-7721.
- Regular Reviewer in **Wiley Publications:** *Concurrency and Computation: Practice and Experience*, An International Journal. ISSN: 1532-0634.
- Regular Reviewer in **EAI Publications:** *EAI Endorsed Transactions on Energy Web and Information Technologies*, an International Journal. ISSN: 2032-944X.
- Regular Reviewer in **Elsevier Publications:** *Computers and Electrical Engineering*, An International Journal ISSN: 0045-7906.

Session Chairs

- Session Chair for “Innovations in Computing Materials & Communications Technologies - ICICMCT 2023,” held at IES College of Engineering, Thrissur, Kerala.
- Session Chair for “IEEE International Conference on Networking and Communications - ICNWC 2023,” held at SRM Institute of Science and Technology, Chennai.
- Session Chair for “IEEE International Conference on Advanced Computing and Communication Systems - ICACCS 2022,” held at Sri Eshwar College of Engineering, Coimbatore, Tamilnadu.
- Session Chair for “IEEE International Conference on Computer Communication and Informatics - ICCCI 2022,” held at Sri Shakthi Institute of Engineering and Technology, Coimbatore, Tamilnadu.
- Session Chair for “IEEE International Conference on Advanced Computing and Communication Systems - ICACCS 2021,” held at Sri Eshwar College of Engineering, Coimbatore, Tamilnadu.
- Session Chair for “International Conference on Green Intelligent, Computing and Communication Systems - ICGICCS 2020,” held at Hindusthan College of Engineering & Technology, Coimbatore, Tamilnadu.
- Session Chair for MEDCON-2019 International Conference on Perceptions in Biomedical Engineering and Affordable Healthcare Technologies” held at Sahrdaya College of Engineering & Technology, Thrissur, Kerala.
- Session Chair for “Third IEEE International Conference on Electrical, Electronics, Communication, Computing Technologies and Optimization Technique - ICEECCOT 2018,” held at GSSS Institute of Engineering & Technology for Women, Mysuru, Karnataka.
- Session Chair for “KETCON-2018 (Kerala Technological Conference)” held at Sahrdaya College of Engineering & Technology, Thrissur, Kerala.

Certifications

- **MTA (Microsoft Technology Associate)** Certification in Introduction to Programming using Python (2021)
- **MCTS (Microsoft Certified Technology Specialist)** in .Net Framework 2.0 Web Applications. **(070-528)**.
- **MCP (Microsoft Certified Professional)** in .Net Framework 2.0. **(070-536)**
- Completed a **.NET Technology** course from C - DAC Thiruvananthapuram.
- Completed several courses provided by **Coursera**: "**AI for Everyone**" (4 weeks), "**Coursera Network Certificate**" (5 weeks), "**Introduction to Cybersecurity Tools & Cyber Attacks**" (4 weeks), "**Programming for Everybody (Python)**" (7 weeks), and "**Python Data Structures**" (7 weeks).