

Dr. S.Brindha B.E, M.E, Ph.D.

Professor / Department of ECE

Sri Sai Ram Engineering College

West Tambaram

Chennai-600044, Tamil Nadu India

Email: sbrindha.ece@sairam.edu.in

brindhamit@gmail.com

Mobile: (+91) 9176650672



Academic Employment

Professor - ECE, Sri Sai Ram Engineering College, Chennai, 2020-present

Associate Professor - ECE, Sri Sai Ram Engineering College, Chennai, 2014-2019

Assistant Professor - ECE, Sri Sai Ram Engineering College, Chennai, 1999-2014

Research Fields

Optical Communication, Radio Over Fiber Networks, 5G & 6G Smart Networks

Education

Ph.D. - Optical and Wireless Communication - Anna University, CEG Campus - 2018

M.E. - Communication & Networking - 2008

B.E. - Electronics & Communication Engineering - 1994

Professional Memberships and leadership roles in IEEE & working groups:

Professional Memberships: SIEEE, LMIETE, OSI, LMISTE, and OSA.

Treasurer - IEEE Madras Section (2025-2026)

Chair, Student Activities Committee - IEEE Madras Section (2022–2026)

Member - SAC IEEE India Council (2025-2026)

Global Strategy Representative - India, IEEE Photonics Society, USA (2024–2026)

Chairman - IEEE VTS Madras Section Chapter (2022–2026)

Member - IEEE VTS AdHoc Committee on SAGW Integrated Systems (2024–2026)

Vice Chairman - IEEE SPS Madras Section Chapter (2022–2026)

IEEE SB Counselor - Sri Sairam Engineering College (2008–Present)

Working Group

Head - BIS Ocular Prosthetic Eyes Working Group (2025-present)

Member - BIS Optical Communication Working Group (2025-present)

Member - National Quantum Working Group (2024-present)

Awards and Recognition

Received **multiple awards from IEEE at the global level**, which include:

- 2024 IEEE MGA Achievement Award
- 2024 IEEE MGA Best Student Branch Counselor/Advisor Award
- 2023 IEEE R10 SAC Outstanding Volunteer Award
- 2023 IEEE India Council Best Outstanding Volunteer Award
- 2022 IEEE Madras Section IEEEExtreme 16.0 Proctor Award
- 2014 IEEE MGA Top Recruiter Award

Projects and Activities Funded:

- **Bureau of Indian Standards (BIS)** research proposal titled "*Study and Comparative Analysis of Functional and Safety Requirements of Ocular Prosthesis*", allocated a financial grant of **Rs. 7,00,000/-** on 23.08.2025, sanctioned by the code **MHD 0154** - successfully completed by **May 31st, 2025**
- Received a **AU-CFR -Seed research Grant Rs 1,00,000/-** for the project title “ **Artificial Intelligence assisted Frequency Selective Resonator for Secured communications**” with project duration from 1st April 2024 to 31st March 2025
- Received **Rs 15,00,000** /-(Rupees Fifteen lakhs only) fund sanctioned by **AICTE MODROB** Grant aid no and date: 8024 and 21.12.2009 for the **establishment of Optical Communication Systems Design and Development Laboratory** -successfully completed by **May 31st, 2010**.
- Organized Online mode **AICTE sanctioned ATAL FDP 2020-21** for the topic “Artificial Intelligence for Robotics “ from Dec 7th - 11th 2020 with funding value of **Rs 1,00,000/-**.

- Organized physical mode AICTE sanctioned **ATAL FDP 2023-24** for the topic “Basics of Quantum Computing Robotics “ from Dec 18th–23rd 2023 with funding value of **Rs 3,50,000/-**
- Organized funded flagship events **IEEE SPS seasonal school** with funding value of **Rs 4,15,000/-** from IEEE SPS Society during March 2023 ,
- Organized funded flagship events **IEEE SPS Forum** with funding value of **Rs 2,15,000/-** from IEEE SPS Society during December 2023
- Received a fund **Rs 2,45,000** to organize a flagship event under IEEE SPS banner “**Design Competition**” during Oct 2025 to March 2026
- Organized funded AICTE-sponsored the 2nd International Conference on Communication, Computing, and Internet of Things (**IC³IOT-2020**) as **Conference Chair** on 20th – 22nd Feb 2020 & **Conference Chair -IC³IoT-2022** from 10th March 2022 to 11th March 2022. Also acted as **Technical Program Chair** for the IEEE 2024 International Conference on Communication, Computing, and Internet of Things (IC³IOT-2020) April **2024**
- **Key IEEE Events Organized:**
 1. IEEEExtreme 16.0, 17.0, 18.0, with up to 3000 students and 1000+ certificates of participation
 2. IEEE Day Celebrations, with 3000+ students and 500+ professional members
 3. IEEE SB Officers Meetup 2023.
 4. IEEE MAS Hub congress during March 17th & 18th 2024
 5. IEEE Awareness Webinar on SAC Awards.
 6. Organized more than 200+ IEEE online and offline technical and non-technical events.

Publications & Reviewer

Reviewer for the following Journals

1. The Journal of Optical Communications (DE Gruyter)
2. Journal of Optics (Springer)
3. Optical Engineering (SPIE)
4. International Journal of Electronics (Taylor & Francis).
5. Journal of High-Frequency Communication Technologies(Blue martin press)

Research Profiles

Published **100+** National and International Journals and Conference Papers.

Vidwan ID: 181870

Scopus ID: [58113832500](#)

Google Scholar: <https://scholar.google.co.in/citations?user=1zcLlxIAAAAJ>

Published Research Articles-(only recent)

1. Lakshmi G, Brindha S, **“Optimizing Anomaly Detection in Optical Fiber Monitoring with Machine Learning Algorithms”**, Optical Engineering, SPIE Publisher- Submitted (Revision Under Review).
2. Lakshmi G, Brindha S **"Real-Time Environmental Impact Analysis on Optical Fiber Networks Using IoT and AI"** in RAEEUCCI-2025.
3. Lakshmi. G and Brindha. S, **"Mitigating Environmental Impacts on Optical Fiber Fault Detection Using Machine Learning,"** 2024 *International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)*, Chennai, India, 2024, pp. 1-5, doi: 10.1109/ICPECTS62210.2024.10780193.
4. G. Lakshmi, S. Brindha, S. V. Sriram and B. A. Padmanabhan, **"Ensuring Resilience: IoT-Driven Fault Detection in Fiber Optic Networks,"** 2024 *International Conference on Communication, Computing and Internet of Things (IC3IoT)*, Chennai, India, 2024, pp. 1-5, doi: 10.1109/IC3IoT60841.2024.10550388.
5. Maria Christina Blessy A, Brindha S, **“Maximizing VANET Performance in Cluster Head Selection using Intelligent Fuzzy Bald Eagle Optimization”** Vehicular Communications, issn 2214-2096, doi <https://doi.org/10.1016/j.vehcom.2023.100660>. Impact Factor: 5.8
6. Maria Christina Blessy A, Brindha S **“Energy-efficient fuzzy management system using tri-parametric methodology in VANET”** Wireless Networks (2023). <https://doi.org/10.1007/s11276-023-03505-3>. Impact Factor: 3
7. Maria Christina Blessy A, S. Brindha, **"A Comprehensive Survey of Various Localization Methods in Vehicular Ad Hoc Network"**, *International Journal of Computer Networks and Applications (IJCNA)*, 8(6), PP: 818-829, 2021, DOI: 10.22247/ijcna/2021/210729.
8. Maria Christina Blessy A, Brindha S, Danesh K, **"Threshold-Based Fuzzy Deep QNetwork for Spectrum Management in Cognitive Radio Vehicular Networks"**, *International Journal of Computer Networks and Applications (IJCNA)*, 11(6), PP: 915- 932, 2024, DOI: 10.22247/ijcna/2024/55.
9. **Optimizing CR-VANET Routing with Multi-Objective Approach and Memory-Fused Aquila Optimization in Wireless Networks.** Under Review.
10. Saminathan, Brindha, Ilavarasan Tamilarasan, and Meenakshi Murugappan. **"Energy and electromagnetic pollution considerations in AROF-based multi-operator multi-service systems."** *Photonic Network Communications* 34 (2017): 221-240.
11. Tamilarasan, Ilavarasan, Brindha Saminathan, and Meenakshi Murugappan. **"Improved fiber nonlinearity mitigation in dispersion managed optical OFDM links."** *Optics Communications* 385 (2017): 87-91.
12. Brindha, S., and M. Meenakshi. **"Radio over fiber system architecture: a boon to meet future energy and Pollution challenges."** *Optoelectronics and Advanced Materials-Rapid Communications* 9.May-June 2015 (2015): 855-864.

13. B. S, J. T. Josy, P. R, M. Baskaran and S. M, "The Power Optimization of mm Wave Circular Array Antenna for 5G Communications," *2023 International Conference on Recent Advances in Electrical, Electronics, Ubiquitous Communication, and Computational Intelligence (RAEEUCCI)*, Chennai, India, 2023, pp. 1-5, doi: 10.1109/RAEEUCCI57140.2023.10134051
14. S. Brindha, Lakshmi.G, "Camobot - Thermal Image Processing Surveillance Rover with GPS Tracking and Human Detection Using OpenCV," *2023 International Conference on Recent Advances in Electrical, Electronics, Ubiquitous Communication, and Computational Intelligence (RAEEUCCI)*, Chennai, India, 2023, pp. 1-6, doi: 10.1109/RAEEUCCI57140.2023.10134340.
15. Lakshmi. G, Brindha. S, "AI-powered Digital Classroom," *2022 International Conference on Communication, Computing and Internet of Things (IC3IoT)*, Chennai, India, 2022, pp. 1-6, doi: 10.1109/IC3IOT53935.2022.9767944.
16. S. Brindha,Lakshmi.G, "Mapping the Surface Water Using Convolution Neural Networks for Remote Sensing Technology," *2022 International Conference on Communication, Computing and Internet of Things (IC3IoT)*, Chennai, India, 2022, pp. 1-6, doi: 10.1109/IC3IOT53935.2022.9767955.
17. Lakshmi.G *et al.*, "Real Time Pervasive Health Monitoring System," *2022 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)*, Chennai, India, 2022, pp. 1-3, doi: 10.1109/ICPECTS56089.2022.10047546.
18. G. Lakshmi, S. Brindha, "Advancing Precision Agriculture: AI, IoT, and Machine Learning Solutions for Optimal Crop Yield," *2024 International Conference on Communication, Computing and Internet of Things (IC3IoT)*, Chennai, India, 2024, pp. 1-5, doi: 10.1109/IC3IoT60841.2024.10550338.
19. Brindha. S *et al.*, "A Compact Medikit health monitoring device," *2022 1st International Conference on Computational Science and Technology (ICCST)*, CHENNAI, India, 2022, pp. 339-343, doi: 10.1109/ICCST55948.2022.10040470.
20. G. Lakshmi, S. Brindha *et al.*, "Deep Learning-Based Tennis Shot Type Prediction Using Gait Analysis," *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)*, Chennai, India, 2023, pp. 1-4, doi: 10.1109/ICCEBS58601.2023.10449169.
21. S. Brindha, G. Lakshmi, V. M. Selvi and J. Sandhya, "Harnessing the potential of conversational AI: A Roadmap for Academic Applications," *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)*, Chennai, India, 2024, pp. 1-5, doi: 10.1109/ICPECTS62210.2024.10780187.
22. Lakshmi. G, Brindha. S, "Grouping Based Wrong Way Vehicle Detection," *2023 Intelligent Computing and Control for Engineering and Business Systems (ICCEBS)*, Chennai, India, 2023, pp. 1-5, doi: 10.1109/ICCEBS58601.2023.10448972.
23. Maria Christina Blessy A, S. Brindha, "Optimal Cluster Minimization for VANETs using Modified Tuna Swarm Optimization," *2023 7th International Conference on Trends in Electronics and Informatics (ICOEI)*, Tirunelveli, India, 2023, pp. 1389-1393, doi: 10.1109/ICOEI56765.2023.10126028.
24. A. M. C. Blessy, S. Brindha and K. Danesh, "Optimizing Safety Messaging in Cognitive Radio VANETs with Smart Message Sorting and Spectrum sensing," *2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS)*, Chennai, India, 2024, pp. 1-7, doi: 10.1109/ICPECTS62210.2024.10780413.