

Faculty Profile



Dr. Kannan R, M.E., Ph.D.
Assistant Professor (SG)

HIGHLIGHTS:

- Number of Journal Publications : 32
- H-Index : 6
- Project Funding Received : 0
- Patents Published : 3
- Patents Granted : 1

PROFESSIONAL LINKS:

- Scopus ID : 58190874800
- Scopus Link: [Ramakrishnan, Kannan - Author details - Scopus Preview](#)
- Google Scholar ID:
<https://scholar.google.com/citations?hl=en&authuser=1&user=58pNzdEAAAAJ>
- Anna University Faculty ID: 1117338
- AICTE Faculty ID: 1-3870091978
- Anna University Supervisor ID: Nil
- LinkedIn: [\(23\) Feed | LinkedIn](#)
- Mobile number 9840181019
- Mail Id: rrkannaiya@gmail.com

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 12
- Industrial Experience: 4.4

INTERNATIONAL EXPOSURE:

- Nil

AREA OF SPECIALIZATION:

- Frontend and backend VLSI design
- Embedded systems and IoT.

Ph.Ds AWARDED WITH DETAILS:

S:No	Name of Scholar	Title of Thesis	Year of Completion	Full Time/Part Time
	Nil			

Ph.Ds GUIDING:

- Full Time Scholars: nil
- Part Time Scholars : nil

SPONSORED RESEARCH / FUNDING APPLIED / CONSULTANCY:

- Nil

PATENTS PUBLISHED/GRANTED:

- A patent titled " heart attack pre-diagnosis tool" was granted on 9th July 2024 under Certificate of Registration for a UK Design No. 6375587.
- A patent titled " IoT and machine learning based wireless sensor network" was published on 12th September 2023 under Application No. .202341061395 A.
- A patent titled "System and Device for Fall Detection and Prevention" was published on 17th March 2023 under Application No. 202341014652 A.
- A patent titled " VLSI Based Impulse Noise Cancellation to Enhance the Image Quality Visually" was published on 8th February 2022 under Application No. 202241001140 A.

COURSES CERTIFIED:

- Successfully completed the AICTE-QIP-PG Certificate Program on "Wireless Technology and IoT" in the Continuing Education Centre, IIT Roorkee, from July 2024 to December 2024 .
- Successfully completed the NPTEL course on Accreditation and Outcome-Based Learning with an Elite + Silver certification during the Aug-Oct 2023 session.
- Successfully completed the NPTEL course on Introduction to Internet of Things with an Elite + Silver certification during the Jul-Oct 2023 session.

- Successfully completed the NPTEL course on CMOS Digital VLSI Design with an Elite + Silver certification during the Jan-Mar 2023 session.
- Successfully completed the NPTEL course on Cloud Computing with an Elite certification during the Jul-Oct 2022 session.
- Successfully completed the course on Master class on Raspberry-Pi with a certification at Pantech solution Pvt. Ltd., during 26.04.2024 to 25.05.2024.
- Successfully completed the course on Master class on IoT with a certification at Pantech solution Pvt. Ltd., during 12.07.2024 to 12.08.2024.

ACHIEVEMENTS AND AWARDS:

- Received the **Best Paper Award** for the paper entitled “Awake Guard: “Enhanced system for railway track fault detection Using ai based solar power” in the IEEE International Conference on Next Generation Electronics (SET-2024), at Vellore Institute of Technology, Chennai, India, 3rd – 4th May 2024.
- Received **Committee Member Award** in International Conference on Educating the Millennials (ICEM 2022), Saveetha Engineering College (6th May 2022).
- Received **Reviewer** in IEEE International Conference on Signal Processing and Advance Research in Computing held on 12th and 13th September 2024, at Amity University Lucknow Campus.
- Received **Esteemed Session Chair Award** in IEEE International Conference on Smart Structures and Systems (ICSSS 2022), Saveetha Engineering College (21st & 22nd April 2022).
- Cleared the Restricted Grade HAM Radio certification in January 2020.

SPECIAL SESSIONS DELIVERED:

- NIL

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

- Published a paper Arduino UNO-based robotic system for combating fires 2nd International Conference on Innovations in Electronics and Communication Systems, ICIECS 2022; Chennai; India; 24 November 2022 through 26 November 2022; Code 205856.
- Published a PDQRRFF: Poisson-distributed quantum random reversible flip flop generator for BIST(Article), Integration, Volume 100, January 2025, Article number 102289.
- Published a Advanced Deep Learning Approaches for Enhanced Satellite Image Analysis and Comprehensive Land Use Classification in Diverse Environmental Contexts (Conference Paper), 2024 International Conference on Cybernation and Computation, CYBERCOM 2024; Dehradun; India; 15 November 2024 through 16 November 2024; Category number CFP24VA6-ART; Code 205480.

- Published a Real Time Mental Health Monitoring System using Machine Learning (Conference Paper), 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024; Coimbatore; India; 28 August 2024 through 30 August 2024; Category number CFP24VG0-ART; Code 203161.
- Published a Alcoholic Consumption and Diabetes Prediction Using Machine Learning and Deep Learning (Conference Paper), 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024; Coimbatore; India; 28 August 2024 through 30 August 2024; Category number CFP24VG0-ART; Code 203161.
- Presented a paper Real Time Mental Health Monitoring System using Machine Learning in 2nd International Conference on Intelligent Cyber Physical Systems and Internet of Things, ICoICI 2024, During 28-30 August 2024.
- Participated and presented a research work titled Efficient Parking Management for Modern Urban Environments, 3rd International Conference Automation, Computing and Renewable system (ICACRS 2024) Organized by Mount Zion Engineering College, Pudukottai, on 4-6, December 2024.
- Presenting the research paper entitled “AI-Based Detection of Different Stages of Lung Cancer Using MRI/CT Imaging” in the 2024 First International Conference on the Innovations in Communications, Electrical and Computer Engineering (ICICEC 2024) held at Bapuji Institute of Engineering and Technology (BIET), Davangere, Karnataka, India during 24 – 25, October 2024. The conference is technically co-sponsored by IEEE Bangalore Section.
- Participated and presented a research work titled Optimization of Data Aggregation Techniques in Wireless Sensor Networks in the "International Conference on Recent Advances in Science and Engineering Technology (ICRASET-2024)" in association with IEEE Bangalore Section Organized by Dept. of BCE, CSE, ISE and AI & ML, at Faculty of Engineering, Management & Technology (BGSIT), Adichunchanagiri University, BG Nagara-571448, Mandya, Karnataka, India. During 21st - 22nd, November 2024.
- Participated and presented a research work titled Design and Quantum Cost Optimization of Ripple Counter using Information Reversal Logic Gates ,5th International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS 2024) organised by T. John Institute of Technology, Bengaluru, India held on 17-18, December 2024.
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- Participated and presented a research work titled Smart connection enabled portable inverter ,3rd International Conference Automation, Computing and Renewable system (ICACRS 2024) Organized by Mount Zion Engineering College, Pudukkottai, on 4-6, December 2024.
- Participated and presented a research work titled Arduino-Driven Elevating Bridge Responsive to Water Level Variations using HC-SR04, 3rd International Conference Automation, Computing and Renewable system (ICACRS 2024) Organized by Mount Zion Engineering College, Pudukottai, on 4-6, December 2024.
- Participated and presented a research work titled Deep Learning for Medical Image Segmentation: Applications in Disease Detection and Diagnosis, 3rd International Conference Automation, Computing and Renewable system (ICACRS 2024) Organized by Mount Zion Engineering College, Pudukottai, on 4-6, December 2024.
- Participated and presented a research work titled Novel Methods for Area Optimization in Static Circuits via IRL Interpreter in T-Spice in the " 4th Asian Conference On Innovation In Technology (Asiancon 2024)" Pune, India. During 23rd - 25th, Aug 2024.
- Participated and presented a research work titled Integrating Remote Sensing Technologies for Real-Time Disaster Management, Mitigation, and Decision Support

Systems in the "International Conference on Recent Advances in Science and Engineering Technology (ICRASET-2024)" in association with IEEE Bangalore Section Organized by Dept. of BCE, CSE, ISE and AI & ML, at Faculty of Engineering, Management & Technology (BGSIT), Adichunchanagiri University, BG Nagara-571448, Mandya, Karnataka, India. During 21st - 22nd, November 2024.

- Presented a paper Wildlife Accident Prevention on Rail Track Using AI Technology in 3rd IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics, ICDCECE 2024, held at Ballari Institute of Technology & Management, Ballari, India. During 26-27th April 2024.
- Presented a paper Diabetes Prediction Using Deep Learning in International Research Conference on Computing Technologies for sustainable Development, IRCCTSD'24, held at SRM Vadapalani, Chennai, India. During 9-10th May 2024.
- Participated in 10 Hours National Faculty Development Program on NLP, Computer Vision and Artificial Intelligence organized by Andhra Pradesh State Skill Development Corporation (APSSDC) in Collaboration with ExcelR Edtech Pvt. Ltd., 4-8th December 2023.
- Participated in 10 Hours National Faculty Development Program on ChatGPT and Prompt Engineering organized by Bharati Vidyapeeth College of Engineering - Navi Mumbai, NRI Institute of Technology - Vijayawada and Sreenidhi Institute of Science & Technology – Hyderabad in Collaboration with ExcelR Edtech Pvt. Ltd. 18-22nd December 2023.
- Participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on VLSI Chip Design: An AI/ML Perspective at BMS INSTITUTE OF TECHNOLOGY & MANAGEMENT from 18/12/2023 to 23/12/2023.
- Presented a paper Enhanced System For Railway Track Fault Detection Using Ai Based Solar Power in the International Conference on Trends on computing Automation, Management (ICAMEASS 2023) held at Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu, India. During 28th Oct 2023.
- Presented a paper Food Image Recognition Using Deep Learning Algorithm in the International Conference on Trends on computing Automation, Management (ICAMEASS 2023) held at Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu, India. During 28th Oct 2023.
- Presented a paper RG-ALU: A Reversible Logic Gate-Based Arithmetic Logic Unit in an FPGA in the International Conference on Trends on computing Automation, Management (ICAMEASS 2023) held at Rohini College of Engineering and Technology, Kanyakumari, Tamil Nadu, India. During 28th Oct 2023.
- Presented a paper A Novel Fabric Defect Detection Network in textile fabrics based on DLT in the International Conference on artificial Intelligence and knowledge Discovery in Concurrent Engineering (ICECONF 2023) held at St. Joseph's Institute of Technology (Autonomous), Chennai, Tamil Nadu, India. During 5th to 7th Jan 2023.
- Presented a paper entitled AI based rush collision prevention of civic segments in the National Conference on Advancements in Mechanical, Environmental Safety & Health Engineering (AMESHE 2022) held at Knowledge Institute of Technology, Salem. During 13th Aug 2023.
- Presented a paper entitled Arduino based robotic system for combating fire in the 2nd International Conference on Innovations in Electronics and Communication Systems (ICIECS 2022) held at R.M.K College of Engineering and Technology, Chennai. During 24th – 26th Nov 2023.
- Presented a paper entitled design and reduce the area of combinational circuits using reversible cryptography in tanner tools in the National Conference on Advancements in

Mechanical, Environmental Safety & Health Engineering (AMESHE 2022) held at Knowledge Institute of Technology, Salem. During 13th Aug 2023.

- Participated in the Workshop on Advances in Optical Communication organised by IIT Madras under the aegis of the Department of Telecommunications from July 22nd–23rd, 2023.
- participated in One-Week Faculty Development Program on “MIMO ANTENNAS FOR 5G COMMUNICATIONS”, through Online mode organized by Department of ECE and IETE Chapter, Kallam Haranadhareddy Institute of Technology, Guntur, from 26th June 2023 to 30th June 2023.
- Successfully completed the NPTEL FDP on Accreditation and Outcome-Based Learning with an Elite + Silver certification during the Aug-Oct 2023 session.
- Successfully completed the NPTEL FDP on Introduction to Internet of Things with an Elite + Silver certification during the Jul-Oct 2023 session.
- Successfully completed the NPTEL FDP on CMOS Digital VLSI Design with an Elite + Silver certification during the Jan-Mar 2023 session.
- Successfully completed the NPTEL FDP on Cloud Computing with an Elite certification during the Jul-Oct 2022 session.
- Participated in the Webinar on "Innovations in India" by Dr.D.Doreen Robin, Director - Computational Intelligence Research Foundation, organized by Innovation Club and Institute Innovation Council of Saveetha Engineering College, Chennai-602105
- Participated in a Five-Day Online FDP on "Quantum Computing for Real-World Applications," organized by the Department of ECE, ATAL, and VIT Pune, from 17th to 21st Jan 2022.
- Attended a Six-Day FDP on "Android Development with Kotlin," organized by Andhra Pradesh State Skill Development Corporation from 2nd to 7th Aug 2021.
- Participated in a webinar on "Smart Sensors Transform Health Care System," presented by Dr. Amrita Rai, Associate Professor, GL Bajaj Institute of Technology and Management, on 3rd July 2021, organized by the Department of ECE, Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor.
- Attended a webinar on "Machine Learning for Image Classifications" organized by the Department of ECE, Siddhartha Institute of Science and Technology (Autonomous), Puttur, on 21st June 2021.
- Participated in a one-day workshop on "Circuit Design Using Multisim," presented by Mr. S. Nagaraj, Associate Professor, SVCET (A), Chittoor, on 29th May 2021.
- Attended a webinar on "IC Design Process," presented by Dr. V. Govindaraj, Associate Professor, Bannari Amman Institute of Technology, on 2nd July 2021, organized by the Department of ECE, Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor.
- Participated in a webinar on "Introduction to Machine Learning," presented by Dr. S. Sankar Ganesh, Associate Professor, VIT, Vellore, on 6th Aug 2021, organized by the Department of ECE, Sri Venkateswara College of Engineering and Technology (Autonomous), Chittoor.
- Attended a Five-Day Online Faculty Development Program (FDP) on "Techniques in Research and Innovations (TRI 2021)" organized by the Department of ECE, Karpagam College of Engineering, from 5th to 9th July 2021.
- Participated in the One-Day Online International Faculty Development Program on "Role of Electromagnetics in Aerospace Applications Using Altair Feko," held on 30th May

2020, organized by Saveetha School of Engineering in collaboration with IET & Altair Feko.

- Attended a one-day webinar on "Substrate Immobilized TiO₂ Photocatalysts for Environmental Applications – In the Perspective of Coronavirus Pandemic" organized by Chennai Institute of Technology on 30th May 2020.
- Participated in a one-day webinar on "Chip Design and Its Applications" organized by SJB Institute of Technology on 28th May 2020.
- Attended a one-day webinar on "RF and Wireless Design Considerations" conducted by Sathyabama Institute of Science and Technology on 25th May 2020.
- Participated in a one-day webinar on "How Teachers Should Be Ready to Handle Post-Pandemic Challenges," organized by Chennai Institute of Technology on 12th May 2020.
- Attended a TEQIP III-sponsored Two-Day National Workshop on "FPGA Design Flow Using Xilinx Vivado" held at PSG College of Technology, Coimbatore, on 13th & 14th Dec 2019.
- Participated in a seminar on "Intellectual Property Rights and Patent Drafting" organized by SSE during a National Seminar.
- Attended a seminar on "Amateur Station Operator Certificate (ASOC) Exam – Ham Radio" conducted by SSE during a National Seminar.
- Participated in a robotics workshop held at Saveetha School of Engineering as part of a National Seminar.
- Took part in the "LabVIEW-Based Antenna Design" workshop organized by Saveetha School of Engineering during a National Seminar.
- Participated in a seminar on "Recent Trends in Communication Engineering" at Saveetha School of Engineering during a National Seminar.
- Attended a seminar on "Microwave and Its Applications" organized by Saveetha School of Engineering as part of a National Seminar.
- Contributed to the organization of the ICRTECC 2019 conference at SSE as a member of the National Banner Committee.
- Participated in a Two-Day National Workshop on "Recent Trends in Electromagnetic (EM) Simulation for Industry 4.0" held at Sri Venkateswara College of Engineering.
- Attended the Industrial Institution Summit 2018 organized by IET at Hilton Hotel, Chennai, as part of a National Seminar.
- Participated in a one-day workshop on assessment and quality assurance organized by SSE as part of a National Seminar.

PROFESSIONAL MEMBERSHIPS:

- The Institution of Electronics and Telecommunication Engineers (IETE), ID : AM-503497
- The Institute of Electrical and Electronics Engineers (IEEE), ID : 99362311
- Institute For Educational Research and Publication (IFERP), Number :PM68472930

OTHER DETAILS (If any):

Nil