VIT®
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF ELECTRONICS ENGINEERING



ELECTROVERSE

Showcasing the Exellence of SENSE

NEWSLETTER

Volume 7 Issue 1 JAN – MAR 2026

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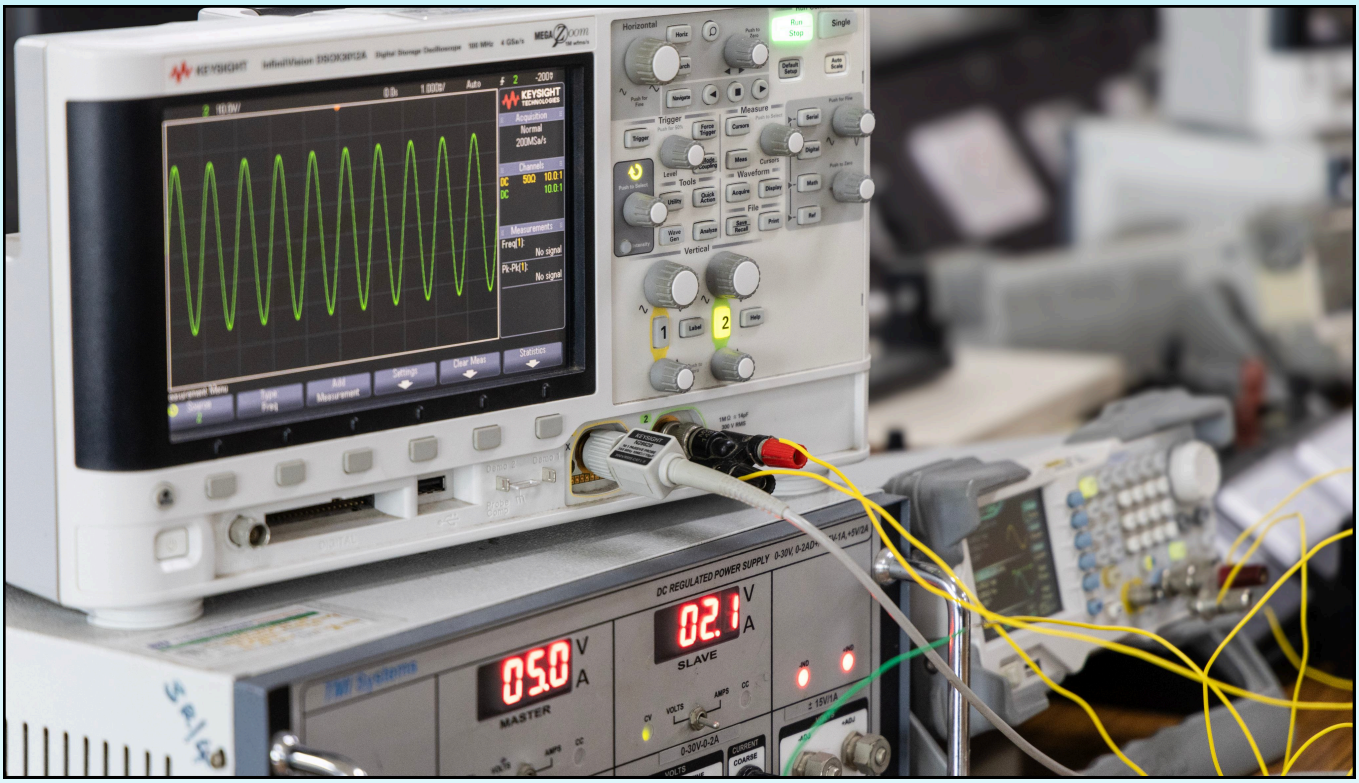
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ABOUT



VISION

To be a leader in imparting in-depth and futuristic knowledge of electronics engineering and allied domains that cater to the needs of industry, research, and society.

MISSION

- To create and maintain an environment of excellence in teaching, learning, and applied research in electronics engineering and associated disciplines to pioneer sustainable growth.
- To collaborate with industries and universities in associated disciplines to pioneer in innovations and technology transfer.
- To equip students with the necessary knowledge and skills enabling them to be lifelong learners in solving real-life problems, thereby improving the quality of human life and values.

DEAN'S MESSAGE

Dear VITians,

I hope this message finds you well and energized.

It is with great enthusiasm that I reach out to you as the newly appointed Dean of the School of Electronics Engineering (SENSE). Stepping into this role, I am filled with optimism for the future we will build together.

Recognizing the rapid advancements shaping the field of electronics engineering, SENSE is undergoing an exciting phase of transformation. We are currently revisiting our curriculum to ensure that our academic programs are not only aligned with industry trends but also future-ready. Students can look forward to refreshed course structures, upgraded laboratories with state-of-the-art equipment, and enhanced project-based learning modules that nurture creativity and technical excellence.

Our commitment to research and innovation remains stronger than ever. We have initiated new collaborations with industry leaders and secured additional funding to support breakthrough research. These efforts will empower both students and faculty to work on multidisciplinary projects that address real-world problems and contribute to technological progress.

To bridge the gap between the classroom and the corporate world, we are forging partnerships with top technology companies. Through internships, training programs, live projects, and expert guest sessions, students will have increased opportunities to engage directly with the industry and develop practical insights essential for their career journeys.

It also gives me immense pleasure to present the 7th Volume, 1st Issue of Electroverse: Showcasing the Excellence of SENSE — the official e-Newsletter of SENSE for the first quarter of 2026. This issue highlights and celebrates the remarkable achievements of our faculty and students during January to March 2026.

I extend my sincere thanks to everyone in the SENSE community for your unwavering commitment, passion, and support. Together, we will continue to elevate SENSE's legacy and embrace new opportunities for learning, innovation, and impact.



Dr. Jasmin Pemeena Priyadarisini M
Professor & Dean
School of Electronics Engineering
Vellore Institute of Technology, Vellore
dean.sense@vit.ac.in

HIGHLIGHTS



76
Patents Published



46
Events Organized





51
organized
Guest Lectures



35
delivered
Guest Lectures





161
Publications

STUDENT ACHIEVEMENTS

The January to March publications in 2026 represent significant scholarly contributions to contemporary developments in engineering and emerging technologies. The research encompasses diverse areas, including advanced wireless communication systems, antenna and sensor technologies, intelligent computational techniques, signal processing, cybersecurity, and data-driven applications. These studies demonstrate the application of innovative methodologies to address complex technological challenges, with particular emphasis on improving system performance, efficiency, reliability, security, and scalability. Collectively, the publications reflect a strong commitment to interdisciplinary research and the advancement of state-of-the-art technologies with potential relevance to next-generation communication, intelligent systems, healthcare, and other emerging application domains.

1. A. Srivastava, D. Pandurangan, and N. Mishra, "Triple-Band Quad-Port Highly Isolated MIMO Antenna for THz Applications with Frequency-Agile Characteristics," Arabian Journal for Science and Engineering, vol. 51, no. 6, pp. 7673–7683, 2026
2. S. Pratap, R. R. Das, S. B. Thomas, D. R. Sona, and K. Akash, "Coinmeter: a real-time digital asset analysis platform for data-driven investment decisions utilizing advanced visualization technologies," International Journal of System Assurance Engineering and Management, vol. 17, no. 4, pp. 1297–1314, 2026.
3. Krishna, Raghav, Ishan Aryendu, Sudhanshu Arya, and Ying Wang. "A Unified Framework for Group Delay Flattening: Stable and Hardware-Efficient All-Pass Networks." IEEE Access, Vol. 14, March, 2026.

CONSULTANCY PROJECTS

Identification of Machine Learning Driven Candidate Biomarkers of Antibiotic Resistance in Pseudomonas aeruginosa Infections: A Multi-Omics Based Approach on Chronic Lung Disease

Faculty: Prof. George Priya Doss C, **Prof. Sasikumar K**

Funding Agency: ICMR

Sanctioned Amount: INR 1,86,46,256

Sanctioned Date: 17-02-2026



Design, Develop and optimize DSP algorithms for Radar Signal processing including target Detection, Tracking and imaging- Phase-III

Faculty: Prof. Dr. Valarmathi J

Funding Agency: Capgemini Technology Services Pvt Ltd., Coimbatore.

Sanctioned Amount: INR 14,16,000

Sanctioned Date: 1-02-2026



FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
A High-Dimensional Quantum Key Distribution (QKD) System	**Mugelan R K**, Amith S	Published
An Assistive Mobile Navigation System for Guided Walking and Obstacle Avoidance	**Kathirvelan J,** Dinanjayan ES, Nakul Vengat SV, Shaswath Ayyampalayam Mahalingam	Published
An Automatic Medicine Pill Dispensing System and a Method for Performing the Same	**Kathirvelan J**, Karanam Venkat Viswanth Reddy, Dhamodarapatruni S Hiren Patnaik, Likith Ganesh K N	Published
A Multi Segmented Robotic Snake System and Method for Generating Biomimetic Serpentine Motion in a Robotic Snake	**Kathirvelan J**, Naren Rithvik S, Nitin Eswar, SP Sanjay	Published
Artificial Intelligence-Based Risk-Aware Emergency Alert System for Womens Safety	**Konguvel Elango**, **Vidhya S**, A S Rassel, Suhani Singh	Published
Eye-Blink and Head-Tilt Based Assistive Communication System and Method	**Konguvel Elango, Vidhya S**, A S Rassel, Tarun Eashwar	Published
System and Method for Enhancing Wireless Performance Using RIS-Assisted Dual-Hop Communication System With Hybrid Relaying	**Hementa Kumar Sahu**, Namburi Venkatalakshmi	Published
A Wearable Dermatological Monitoring System for Early Detection of Pediatric Skin Conditions	**Sumit Kumar Jindal**, Nishita Sanjeev, Gurpreet Singh	Published
A Method and System for Dual-Mode Device-to-Device Communication in a 5G IoMT Network	**Subhra Sankha Sarma, Sagar Pareshkumar Ramanbhai, Shah Arpan Hasmukh Mayuri, Rahul Mahohar**	Published
A Hybrid Piezoelectric Triboelectric Kinetic Energy Harvesting Floor Mat	**Sumit Kumar Jindal, Satyam Aman, Shubham Kumar**	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
A Pacemaker-Aware Adaptive Time Frequency Method for Electrocardiogram Signal Classification	**Sivakumar R, Konguvel Elango**, Mrunmayee Mohanty	Published
A Polarization-Conversion Frequency Selective Metasurface for Radar Cross Section Reduction and Method of Fabricating the Metasurface	**Yogesh Kumar Choukiker**, Mohan K N, **Abhijit Bhowmick, Sudhanshu Arya**	Published
Multi-Controller Adaptive Smart Farming and Safety System	**Naveen Mishra**, Krishna Jawandhiya, Raghav Chandak	Published
Textile-Based Circularly Polarized Antenna for Biomedical Applications	**Rajkishor Kumar**, Samridhi Bajpai, Sarthak Varshney, Rachita Joshi	Published
An IoT-Based System for Monitoring Soil Emissions and Agro-Climate Parameters in Precision Agriculture	**Sujatha R,** Parthasarathi T, Keshav S Kaushish, Samarth P Choudhari, Abhipriya Srivastava, Daniel R	Published
Epileptic Seizure Detection System Using Ensemble Machine Learning With Brain and Heart Signal Analysis	**Poongundran Selvaprabhu**, Kishore V, Santheep S, Sakthivel K V	Published
AI-Powered Toll Collection System Using ANPR and Vehicle Detection	**Preetha K S**, Pravesh S, Raakesh Kripal V U K, B S Vinayakan Vidyasagar	Published
SDR-Based Emergency Communication System for SIM-Less Devices	**Mugelan R K**, Vishnuvardhan Reddy K, Poorvaj Naresh S P	Published
A Contactless Soil Moisture Sensing and Automatic Irrigation Control System and Method for Performing the Same	**Ashish P, Sujatha R**, Prabhat Pandey, Pranjal Dwivedi, Debangshu Kundu	Published
A Miniaturized High-Performance Patch Antenna for Intelligent Transportation Systems and V2X Communication Thereof	**Rahul Mahohar**, Parth Bhaiya, Abhishek Tiwari, Alaqmar Karampurwala, **Subhra Sankha Sarma**	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
A System and Method for Unified Monitoring and Predictive Analysis of Physiological Parameters	**Sundar S**, Dhakshana Bala S, Abisek S, Kaarmukilan AG	Published
Compressor-Assisted Nitrogen Cold Gas Propulsion System	**Kavitha K V N**, **C Sathiyavel**	Published
System and Method for Air Quality Monitoring and Forecasting	**Naushad Manzoor Laskar, Vikas Vijayvargiya**, Mehak Gandhi, Fathima Hana K	Published
System and Method for Vehicle Safety Monitoring and Accident Prevention	**Abhishek Narayan Tripathi, Naushad Manzoor Laskar**, R Divesh, Kethamreddy Yaashitha Reddy, Hrithika Muraleedharan, Mrinal Phanindra Golkonddda	Published
Coaxial Dual Propeller Drone Assembly and Method for Controlling Same	Sisir Lakkaraju, Hemanth Panchagnula, Nikitha Shivaji Nair, Senthil Kumar S	Published
System and Method for Adaptive Budget Optimization Using Behavioural Financial DNA Analysis	Hemavathi S, Adithyan S	Published
Microfluidic Placenta-on-a-Chip Device and Method for Modeling Placental Transport and Pathological Conditions	**Vikas Vijayvargiya, Naushad Manzoor Laskar**, Mehak Gandhi, Fathima Hana K	Published
Dynamic Flight Routing System Using Hierarchical Multi-Agent Coordination and Graph-Based Airspace Modelling	**Jaffino**, Ankit Kumar Singh, Adarsh Singh	Published
Hybrid Radio-Over-Fiber and Free-Space Optical Backhaul System for Wireless Networks	**Subhra Sankha Sarma**, Darsh Jain, Jaydeep Mahato, Ansu Banerjee, Soumya Sucharita Dwibedy, Akshita	Published
Decoy Device for Intrusion Detection With Tamper Sensing and Dual-Logging Architecture	**Aparna Mohanty,** Padmasravya Konchada, Eshita Priyam, Anushka Sinha, Aryan Sethi	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
Passenger Tracking System for Public Transport Vehicles Using RFID and Edge Processing	**Aparna Mohanty**, Viswanad Ram R, Elakshmi Narayanan, Balavasanth R	Published
Smart Safety Footwear With Automatic Distress Detection and Alert Generation	**Aparna Mohanty**, Kumaravel Sengottaiyan, A Nilavalakan, Manesh A, S Aniritha, S Rithanya	Published
Infrastructure-Independent Offline Emergency Communication System With Captive Portal and Long-Range Wireless Transceiver	**Jaffino**, Hariharasudhan V, Sanjay M S, **Prabin Jose J**	Published
Fatigue-Adaptive Wearable Apparatus for Physiological Signal Stabilization During Endurance Activity	**Sivakumar R,** Shreesh Prateek Pathak, Mohit Kumar Jagwani, Anurag Adarsh	Published
Fabric-Based Origami Microfluidic Structures for Biosensor Development	**Debashis Maji**, Lingadharini P	Published
Dual-Band Implantable Antenna With L- and Rhombus-Resonators	**Madurakavi Karthikeyan, Kumaravel S**	Published
Performance-Efficient Arithmetic Multiplier Using Radix-4 Booth Encoding	**Arun Dev Dhar Dwivedi**, Nilofer Parween	Published
Solar-Powered Off-Grid Home Appliance Control System With Presence Detection and Adaptive Speed Regulation	**Deepika Rani Sona**, Paidi Udhay, Menda Somnath, Kodati Sai Rohith	Published
Hybrid Outdoor-Indoor Navigation System With Autonomous Mode Transition and Augmented Reality Visualization	**Budhaditya Bhattacharyya**, Nithila G, Shriharsh S Kotecha, Anindita Kundu, Arpan Garai, Suresh Kumar	Published
Air Quality Monitoring System With Machine Learning Prediction and Health Advisory Generation	**Aparna Mohanty**, Bhaargav Rathor, Om Patel, Divyanshi Jaiswal, Pranay V	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
Hybrid Outdoor-Indoor Navigation System With Autonomous Mode Transition and Augmented Reality Visualization	**Budhaditya Bhattacharyya**, Anindita Kundu, Arpan Garai, Nithila G, Shriharsh S Kotecha, Suresh Kumar	Published
Solar-Powered Off-Grid Home Appliance Control System With Presence Detection and Adaptive Speed Regulation	**Deepika Rani Sona**, Paidi Udhay, Menda Somnath, Kodati Sai Rohith	Published
Infrastructure-Independent Offline Emergency Communication System With Captive Portal and Long-Range Wireless Transceiver	**Jaffino**, Hariharasudhan V, Sanjay M S, **Prabin Jose J**	Published
Performance-Efficient Arithmetic Multiplier Using Radix-4 Booth Encoding	**Arun Dev Dhar Dwivedi**, Nilofer Parween	Published
Infrastructure-Independent Offline Emergency Communication System With Captive Portal and Long-Range Wireless Transceiver	**Jaffino**, Hariharasudhan V, Sanjay M S, **Prabin Jose J**	Published
Fabric-Based Origami Microfluidic Structures for Biosensor Development	**Debashis Maji**, Lingadharini P	Published
Fatigue-Adaptive Wearable Apparatus for Physiological Signal Stabilization During Endurance Activity	**Sivakumar R**, Shreesh Prateek Pathak, Mohit Kumar Jagwani, Anurag Adarsh	Published
Dual-Band Implantable Antenna With L- and Rhombus-Resonators	**Madurakavi Karthikeyan**, Kumaravel S	Published
Smart Safety Footwear With Automatic Distress Detection and Alert Generation	**Aparna Mohanty**, Kumaravel Sengottaiyan, A Nilavalakan, Manesh A, S Aniritha, S Rithanya	Published
Passenger Tracking System for Public Transport Vehicles Using RFID and Edge Processing	**Aparna Mohanty**, Viswanad Ram R, Elakshmi Narayanan, Balavasanth R	Published

FACULTY ACHIEVEMENTS

AWARDS AND CERTIFICATIONS



IEEE IATMSI 2026

IEEE MADHYA PRADESH SECTION

ABV IIITM STUDENT BRANCH

SPECIAL SESSION 1: ADVANCES IN SMART ANTENNA DESIGN FOR 5G AND BEYOND COMMUNICATION SYSTEM

BEST PAPER AWARD

Proudly awareded to

SANDHYA R, DR. AVINASH CHANDRA

(VIT, Vellore)

For the Paper entitled

POLYMIDE BASED TRIPLE-BAND CONFORMABLE WEARABLE ANTENNA FOR ON-BODY BIOMEDCIAL APPLICATIONS (PAPER ID-4491)

Presented at the 4th IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI), organized by the IEEE MP Section and ABV-IIITM Gwalior, India, held during 12–14 March 2026.

Dr. Somesh Kumar
Conference Chair, IEEE IATMSI-2026

Prof. G. S. Tomar
Chair, IEEE Madhya Pradesh Section, India

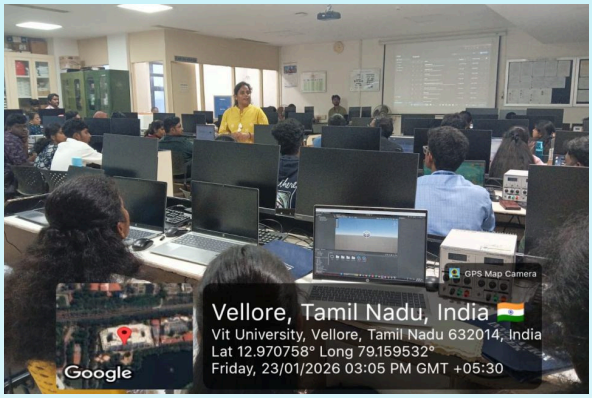
Prof. S. N. Singh
Director, ABV-IIITM Gwalior

IATMSI-2026/BP/SS/1

Dr. Avinash Chandra received the Best Paper Award for "Polymide based Triple Band Conformable Wearable Antenna for On body Biomedcial Applications" from IEEE IATMSI 2026 conference at ABV IIITM on 14-03-2026.

EVENTS ORGANIZED

AR–VR Bootcamp: Concepts, Tools & Application Development was organized by Konguvel Elango and Vidhya S on 23-Jan-2026.





VIT Deep Tech Pitch Day was organized by Vidhya S, Mythili A, and Konguvel Elango on 23–24 Jan 2026

Product Market Fit & Pitch Her Perfect was organized by Vidhya S, Leema Rose Viannie, and Konguvel Elango on 11-Mar-2026.





Demo Day – Startup and Project Expo (Innovation Week 2026) was organized by Konguvel Elango and Vidhya S on 22-Jan-2026.

EVENTS ORGANIZED

- **One Day Workshop on AI on Edge Devices for Robotic Applications** was organized by Kathirvelan J on 09-Jan-2026.
- **Introduction to PCB Design Using KiCad Software** was organized by Sundar S and Kannadassan D on 10-Jan-2026.
- **Frontiers in Antenna Engineering: From Metamaterials to Reconfigurable Systems** was organized by Rajesh N and Madurakavi Karthikeyan from 27–31 Jan 2026.
- **Two-Day Hands-On Workshop on Biomedical Laboratory Equipment** was organized by Debashis Maji and Zachariah C Alex on 06–07 Feb 2026.
- **Faculty Enrichment Program** was organized by Dhanabal R, Muthu Raja S, and Sangeetha N on 07-Feb-2026.
- **VAC2111: Next Generation Radio Communication Technologies (NGRCT)** was organized by Abhijit Bhowmick, Sudhanshu Arya, and Yogesh Kumar Choukiker from 10-Feb to 08-Apr 2026.
- **Modernizing Data Acquisition Using Moku:Go** was organized by Elizabeth Rufus and Dharani Bai G on 13-Feb-2026.
- **Applied Edge Intelligence: Project-Oriented Training on AIoT and Vision AI** was organized by Aparna Mohanty and Deepika Rani Sona on 14-Feb-2026.
- **FDP Under SPORIC-CRF-PRISM – FE-SEM-EBSD** was organized by Kathirvelan J on 19-Feb-2026.
- **Optical and Wireless Communication – Application of Machine Learning and Artificial Intelligence** was organized by Christina Josephine Malathi A and Revathi S on 21-Feb-2026.
- **Robo-Thon** was organized by Sriharipriya K C and Kathirvelan J on 21-Feb-2026.
- **Advanced Fiber Optical System and Testing (OptiLuse & OptiFiVerify)** was organized by Poongundran Selvaprabhu and Rajalakshmi S on 05-Mar-2026.
- **AR & VR Technologies for Engineering With Hands-On** was organized by Elizabeth Rufus and Sathya P on 06-Mar-2026.

EVENTS ORGANIZED

- **Edge IoT for Smart System and Automation** was organized by Sumathi Gokulanathan and Sriharipriya K C on 07-Mar-2026.
- **Design, Fabrication and Characterization of Printed Bluetooth Antenna for IoT Applications** was organized by Rohit Mathur and Avinash Chandra on 07-Mar-2026.
- **IoT Made Easy With ESP32** was organized by Rajesh N, Naveen Mishra, and Madurakavi Karthikeyan on 07-Mar-2026.
- **Value Added Course – Millimeter Wave Radar and Its Applications** was organized by Christina Josephine Malathi A, Revathi S, and Jasmin Pemeena Priyadarisini M from 09-Mar to 02-Apr 2026.
- **One Day FDP/Workshop on OptiSystem for Optical System Design** was organized by Aarthi G and Sangeetha A on 10-Jan-2026.

  SPORIC-CRF-PRISM Emphasis on NMR was organized by Kathirvelan J on 13-Mar-2026.
- **Smart World With IoT: From Sensors to Cloud** was organized by Sumathi Gokulanathan and Sundar S on 13-Mar-2026.
- **From Deep Learning to Agentic AI: Intelligent Decision-Making in Healthcare Applications** was organized by Jeeva J.B and Jaffino from 16–23 Mar 2026.
- **Machine Learning and AI in Microwave and Antenna Design: Pathways to 5G/6G Communication** was organized by Dilip Kumar Choudhary and Naveen Mishra from 16–20 Mar 2026.
- **ARM Architecture and Its Impact on Modern Embedded Applications** was organized by Henridass, Rajesh N, and Avinash Chandra on 24-Mar-2026.
- **One Day National Workshop on Real-Time Database Monitoring and Failover Solutions With Case Studies** was organized by Ashish P and Lavanya N on 28-Mar-2026.
- **Solvathon 2026** was organized by Sathya P and Elizabeth Rufus on 30-Mar-2026.

EVENTS ORGANIZED

- **SENSE Hackathon – Java Programming** was organized by Vinoth Babu K and Vetriveeran Rajamani from 31-Mar to 01-Apr 2026.
- **SENSE Hackathon – Java Programming: Core Data & Infrastructure Domains** was organized by Poongundran Selvaprabhu and Suganthan V from 31-Mar to 01-Apr 2026.
- **SENSE Hackathon – Java Programming** was organized by Lavanya N and Sivacoumar R from 31-Mar to 01-Apr 2026.
- **SENSE Design-A-Thon '26** was organized by Sri Adibhatla Sridevi and Rajeev Pankaj Nelapati from 31-Mar to 01-Apr 2026.
- **SENSE Hackathon – Java Programming: Industry 4.0 & Smart Manufacturing** was organized by Rajeshkumar V and Tanmaya Kumar Das from 31-Mar to 01-Apr 2026.
- **SENSE-A-Thon (Make-A-Thon '26 – Antenna-Thon)** was organized by Kannadassan D, Avinash Chandra, and Vinoth Babu K from 31-Mar to 01-Apr 2026.



PUBLICATIONS

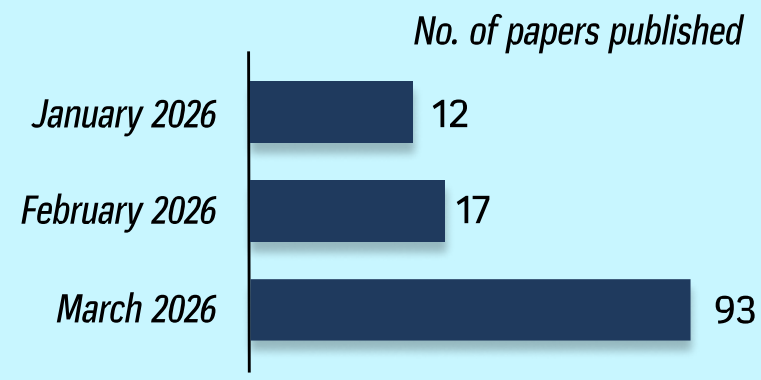
HIGH IMPACT FACTOR PUBLICATIONS

Publication Details	IF
Chittibabu, S.K.; Vijayababu, M.; Natarajan, K.; Sharma, N.; Chandrasekhar, A.; Chintagumpala, K.; Lin, Z.-H., "Biomorphic honeycomb-engineered Ti_2C MXene/PDMS composite triboelectric nanogenerator for eco-conscious energy harvesting and autonomous analysis of perishable food freshness," Chemical Engineering Journal, Vol:533, DOI: 10.1016/j.cej.2026.174961	13.2
Vasugi, N.; Karthikeyan, M., "Compact dual-band implantable antenna for biomedical telemetry with T-shaped and circular patch resonators featuring capacitive ground loading," Results in Engineering, Vol:29, DOI: 10.1016/j.rineng.2026.109666	7.9
Pandurangan, D.; Mishra, N., "Circularly-polarized four-port self-decoupling high-performance THz MIMO antenna for terahertz communication," Results in Engineering, Vol:29, DOI: 10.1016/j.rineng.2026.109552	7.9
Srivastav, P.S.; Arya, S., "Channel Estimation Paradigm for Wideband mmWave MIMO System," IEEE Wireless Communications Letters, Vol:15, Pg.No:(865-869), DOI: 10.1109/LWC.2025.3644138	5.5
Thiyagarajan, K.; Rahul, S.G.; Adarsh, T.; Arya, P.U.; Babu, T.A.; Rajini, G.K.; Maji, D., "Screen-printed flexible electronic devices: A review," Sensors and Actuators A: Physical, Vol:396, DOI: 10.1016/j.sna.2025.117131	4.9
Gunasekaran, H.; Rajkumar, S.; Lincy Kirubhadharsini, B., "Lightweight deep learning for tomato disease detection: trends, challenges, and edge AI perspectives," Frontiers in Plant Science, Vol:16, DOI: 10.3389/fpls.2025.1737208	4.8
John, P.B.; Nageswaran, S., "Mechanobiological evaluation of solid and multiple porous humeral stem architectures in reverse shoulder arthroplasty based on design and materials: a finite element study," Frontiers in Bioengineering and Biotechnology, Vol:13, DOI: 10.3389/fbioe.2025.1675726	4.8

Publication Details	IF
Samal, P.K.; Sahoo, R.; Dasila, S.; Manohar Odampilly, R.; Venkatachalam, S.; Praharaj, S.; Rout, D., "Frequency-Selective EMI Shielding Using PVDF/$NiFe_2O_4$//PVDF/Graphene Layered Structure," ACS Applied Electronic Materials, Vol:7, Issue:24, DOI: 10.1021/acsaelm.5c01816	4.7
Shameli, R.; Rajkumar, S., "Design of an AI-driven secure 5G-SDN framework with federated reinforcement learning for anomaly detection, mitigation, and attack forensics," Frontiers in Artificial Intelligence, Vol:9, DOI: 10.3389/frai.2026.1701944	4.7
Bhadrapriya, B.C.; Natarajan, K.; Basith, S.A.; Chandrasekhar, A.; Kishor, G.; Bhowmik, R.N.; Arunachalakasi, A.; Rouxel, D.; Kalarikkal, N., "A hybrid approach to powering the future: Flexible PVDF-HFP/MWCNT/hexaferrite nanocomposite films for piezoelectric and hybrid tribo-piezoelectric energy harvesting," Materials Science and Engineering: B, Vol:325, DOI: 10.1016/j.mseb.2025.119157	4.6
Shyamsundar, R.; Rajesh, N.; Shankar, T., "Wideband tunable terahertz metamaterial absorber based on vanadium dioxide (VO_2) for terahertz sensing and communication," Results in Surfaces and Interfaces, Vol:23, DOI: 10.1016/j.rsurfi.2026.100775	4.4
Dudekula, S.; Jaiswal, N.K.; Ebel, T.; Chowdam, V.P.; Koo, S.-M.; Kannadassan, K., "Design and Optimization of AlGaN/AlN/GaN L-SBD for Radiofrequency Applications," ACS Omega, Vol:11, Issue:2, DOI: 10.1021/acsomega.5c09448	4.3
Murugesan, S.; Hemalatha, K.; Mathivanan, S.K.; Rajadurai, H.; Panneerselvam, K.; Ahmad, N.; Haleem, A.; Mallik, S., "BDST: Boundary-dependent deviating segmentation technique using concurrent layer learning," Egyptian Informatics Journal, Vol:33, DOI: 10.1016/j.eij.2026.100896	4.3
Manivannan, P.; Alex, Z.C., "Highly selective U-bend fiber optic glucose sensor utilizing glucose oxidase (GOD) enzyme as a potential bioreceptor for visible and near-infrared regime operation," Optical Materials, Vol:174, DOI: 10.1016/j.optmat.2026.117924	4.2
Sateesh, D.; Muthuramalingam, M.; Manojkumar, K.; Haritha, M.; Vamsi, R.; Chandrasekhar, A.; Vivekananthan, V., "Synergistic energy conversion: triboelectric hybrid approaches for sustainable self-powered sensors and systems," Sustainable Energy & Fuels, DOI: 10.1039/d5se00740b	4.1

Publication Details	IF
Das, P.; Kundu, S.; Kumar, R., "A near zero refractive indexed non-uniform metasurface for broadband RCS reduction of an antipodal Vivaldi antenna," Scientific Reports, Vol:16, Issue:1, DOI: 10.1038/s41598-026-37848-6	3.9
Nallakaruppan, M.K.; Johnson, J.; Mapari, S.; Dasgupta, A.; Udgir, S.; Narmatha, C., "Reliable and efficient solar radiation estimation with the insights of XAI," Scientific Reports, Vol:16, Issue:1, DOI: 10.1038/s41598-025-33604-4	3.9
Rao, M.V.; Bhattacharyya, B.; Ram, G.C.; Yuvaraj, S.; Malik, J.; Ismail, A.M.; Yasin, M.N.M.; Johari, S., "Multimode OAM antenna with reduced beam divergence for 6G networks," Scientific Reports, Vol:16, Issue:1, DOI: 10.1038/s41598-025-34745-2	3.9
Ramachandran, H.; Nageswaran, S., "Green-engineered MoS_2-functionalized nonwoven fabric: washable, biocompatible, and pressure-sensitive smart textile," Frontiers in Nanotechnology, Vol:8, DOI: 10.3389/fnano.2026.1755550	3.8

OVERALL SUMMARY



GUEST LECTURES

The School of Electronics Engineering organized a diverse range of guest lectures featuring renowned professionals from leading industries and research institutions. These sessions spanned key domains such as data analytics, VLSI design, quantum computing, cybersecurity, IoT, embedded systems, and advanced wireless communications, reflecting the dynamic and interdisciplinary nature of modern engineering.

During the first quarter of 2026, the School of Electronics Engineering organized a series of 35 guest lectures featuring prominent professionals and researchers from leading industries and academic institutions. These sessions aimed to provide students and faculty with valuable insights into the latest advancements in the field of electronics and communication engineering. The topics covered a broad spectrum of emerging domains, including Frequency Selective Surface-Enabled Miniaturized MIMO Antennas for X-Band Communication, Artificial Intelligence, 6G Communications, Wireless Ad hoc and Sensor Networks, and Semiconductor Devices. Each lecture combined theoretical knowledge with practical applications, fostering a deeper understanding of current industry trends and research breakthroughs.

Furthermore, the series of lectures contributed significantly to strengthening the Institute's reputation at national and international levels. By hosting distinguished speakers and facilitating meaningful discussions on state-of-the-art research, the Institute demonstrated its commitment to academic excellence and industry collaboration. The event also fostered potential partnerships with industry leaders and research organizations, opening avenues for joint research projects and internships.

INDUSTRIAL VISITS

Faculty: Dr Sri Adibhatla Sridevi, Dr Sakthivel R, Dr Nithish Kumar V, Dr Kumaravel S
Industry: Microchip, Bangalore, India
Date: 26-02-2026





Faculty: Kannadassan D, Sakthivel R, Govardhan K
Industry: Nokia Solution, Chennai, India
Date: 03-02-2026

Faculty: Sakthivel R
Industry: Amara Raja, Chittoor, India
Date: 12-03-2026



PhD COMPLETED

Name	Guide Name	Title
Ms. Vinodhini M	Dr. Sujatha R	Performance Evaluation and Optimization of V2X Communication Using Low Power Wide Area Networks and Deep Learning for Intelligent Transportation Systems
Mr. Chandra Sekaran D S	Dr. Christopher Clement J	Designing and Implementing the Deep Learning Based Architecture for Brain Tumor Segmentation
Mr. Jayakrishna S S	Dr. Sankar Ganesh S	Unveiling the Morphological Behaviour of Infective Microbes in Banana Crops Using Novel Artificial Intelligence Strategies and Electrified Treatment for Terminating Pathogens
Ms. Ravala Lavanya	Dr. Rajini G K	Abnormality Detection in Retinal Images Using Deep Learning Approach
Ms. Aarthy P	Dr. Elizabeth Rufus	Design and Fabrication of Textile-Based Electrodes for Wearable Healthcare System
Ms. Jaipriya D	Dr. Sriharipriya K C	Motor Imagery Based EEG Signal Classification Using Machine Learning and Deep Learning Techniques
Mr. Gondhi Navabharat Reddy	Dr. Ravi Kumar C V	Channel Estimation and Hybrid Precoding in Millimeter-Wave Massive MIMO System Using a Heuristic-Based Deep Learning
Mr. Harish Gnanasambanthan G	Dr. Debashis Maji	Flexible and Wearable Microelectrode Array Patch for Electrical Stimulation Induced Accelerated Wound Healing

PhD COMPLETED

Name	Guide Name	Title
Ms. Soniya S	Dr. Sriharipriya K C	Enhanced U-Net for Edge and Texture-Aware Image Denoising
Ms. Priyadharshini B	Dr. Mythili A	Adaptive Energy-Based Segmentation and Radiomics-Driven Classification Framework for Breast Tumor Grading Using DCE-MRI
Ms. Gajula Rukshanabi	Dr. Sumit Kumar Jindal	Structural Design Strategies for Performance Investigation of MEMS Capacitive Pressure Sensors in Touch Mode Across Diverse Operational Conditions
Ms. Jenita Subash	Dr. Kalaivani S	Lung Cancer Diagnosis in CT Images Using Soft Computing Techniques
Mr. Haroon Rasheed S	Dr. Rajeev Pankaj Nelapati	Design and Analysis of Memristor Based Digital System
Ms. Malini B	Dr. Noor Mohammed V	Resource Optimization of Massive MIMO Enabled Heterogeneous Network
Ms. Saranya M	Dr. Rajeshkumar V	Investigations on Frequency Selective Surfaces for C/X-Band Applications
Ms. Srigiri Krishna Priya	Dr. Yepuganti Karuna	Development of Improved Deep Learning Models for Brain Tumor Detection
Mr. Rajesh Polepogu	Dr. Vaegae Naveen Kumar	Analysis and Estimation of Coherence Between Heart and Brain of Healthy and Unhealthy Subjects Using ECG and EEG Signals

PhD COMPLETED

Name	Guide Name	Title
Ms. Radha K	Dr. Yepuganti Karuna	Retinal Vessel Segmentation Using Advanced Deep Learning Techniques for Early Diagnosis of Diabetic Retinopathy
Mr. Shashi Kumar S	Dr. Prakash R	Intelligent Compressive Sensing ECG Signal Processing Framework
Ms. Pavihaalakshmi B	Dr. Vidhya S	Design and Development of VR-Enabled and Mechanical Therapy Device Assisted with Multi-Model Based Early Diagnosis of Deep Vein Thrombosis
Ms. Patil Kasturi Sudam	Dr. Elizabeth Rufus	Miniaturization of Implantable Antenna for Biomedical Applications

CONGRATULATIONS AND BEST WISHES TO ALL!!!

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