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

SCHOOL OF ELECTRONICS ENGINEERING



ELECTROVERSE

Showcasing the Excellence of SENSE

NEWSLETTER

Volume 7 Issue 2 APR – JUN 2026

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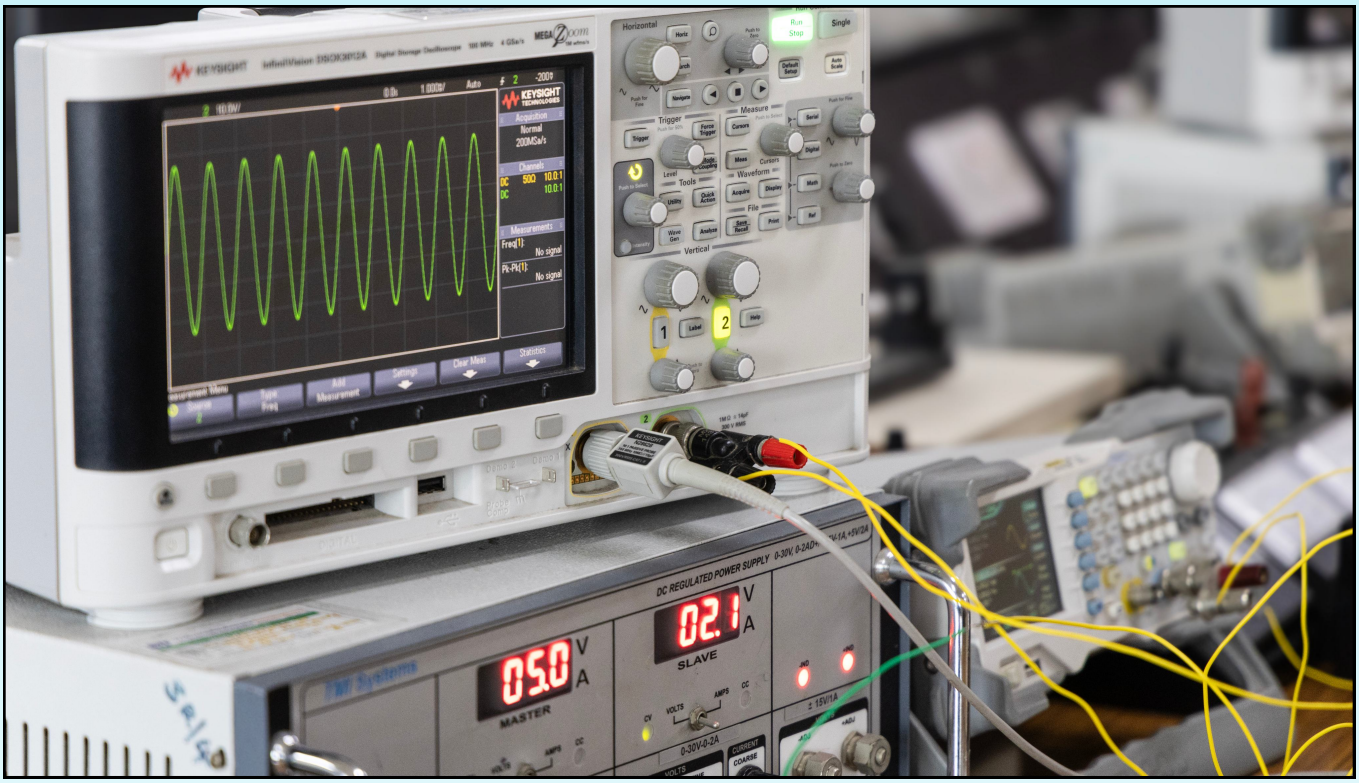
ABOUT



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 the fields of electronics, communication engineering and allied disciplines.
- 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, 2nd Issue of Electroverse: Showcasing the Excellence of SENSE — the official e-Newsletter of SENSE for the second quarter of 2026. This issue highlights and celebrates the remarkable achievements of our faculty and students during April to June 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



101
Patents Published

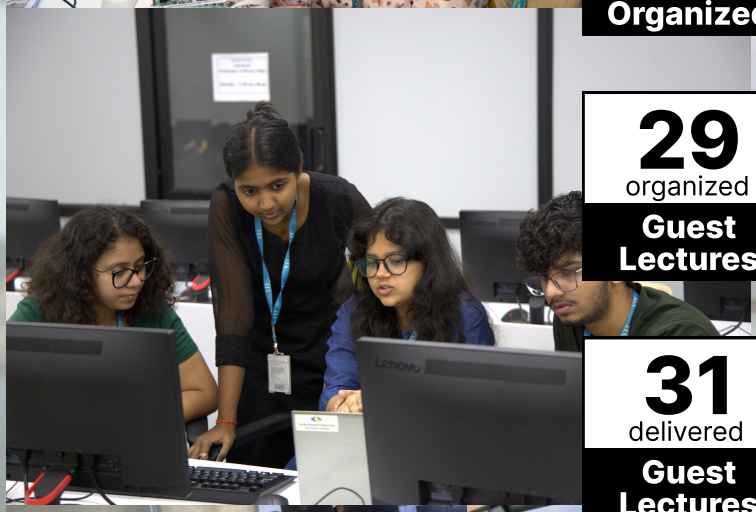


04
Foreign Visits





37
Events Organized



29
organized
Guest Lectures



31
delivered
Guest Lectures



234
Publications

STUDENT ACHIEVEMENTS

The April to June publications in 2026 introduces key research contributions in engineering, focusing on computational modeling, materials science, and advanced sensor technologies.

This edition highlights recent scholarly work published in peer-reviewed venues, including the World Journal of Engineering (Vol. 23, No. 2). The included research focuses broadly on the fields of micro-electromechanical systems (MEMS), multi-physics finite element analysis, and high-performance device design for hostile or high-pressure operational environments.

1. D. Kanekal, V. Ravichandran, P. Shukla, S. K. Jindal, and S. P. Sahoo, "Finite element and circuit modeling of SiC MEMS multi-turn piezoresistive sensor device for reliable high-pressure sensing in hostile environments," World Journal of Engineering, vol. 23, no. 2, pp. 493–504, 2026.

CONSULTANCY PROJECTS

Design, Develop and Optimise DSP Algorithms for Radar Signal Processing Including Target Detection, Tracking and Imaging – Phase III



Faculty: Dr Valarmathi J

Funding Agency: Capegemini Engineering, India
Sanctioned Amount: INR 1416000
Date: 01-04-2026 to 31-01-2027

PEM Hydrogen Electrolyzer for SI Engine Performance and Emission Attributes





Faculty: Dr. Mohamed Ibrahim M, Dr. Rammohan A, Dr. Muthu Raja



Funding Agency: Ti Anode Fabricators Private Limited, India
Sanctioned Amount: INR 413000
Date: 01-05-2026 to 31-10-2026

MoU SIGNED

Institute: Janitri Innovations Private Ltd., India
Date Signed: 20-04-2026
Duration: 20-04-2026 to 30-06-2026

Institute: Ti Anode Fabricators Pvt. Ltd., Chennai, India
Date Signed: 16-04-2026
Duration: 16-04-2026 to 20-10-2026

Institute: Rochester Institute of Technology, United States of America
Date Signed: 23-04-2026
Duration: 23-04-2026 to 05-05-2026

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
Smart Adaptive Vehicle Safety And Energy Optimization System Using Real-time Sensing And Lora Communication	**Sumathi Gokulanathan**, Deepak Kumar K S, Vigneshwaran V, Lakshmanan R	Published
Adaptive Dust Filtering and Control Method With Dynamic Clog Dust Growth Prediction and Monitoring	**Sujatha R**, Moydul Islam Mondal, Lingeswar C, Sachin Bhaskar S, Irish Varun S	Published
Kyber KEM and Aegis Quantum-Resistant Authentication Protocol for 6G-Enabled Smart Home IoT Systems	**Rajkishor Kumar,** Mohit Priyaj Gandhi	Published
Machine Learning Guided Adaptive RF Communication System With Dynamic FFT and Multiplier Reconfiguration	**Sumathi Gokulanathan**, Soham Das, A S Rassel	Published
A System and Method for Adaptive Observation Length Determination in Automatic Modulation Classification for Wireless Receivers	**Abdul Rahim VC**	Published
A System and Method for Weather-Aware Adaptive Bandwidth Allocation in Satellite Communication Networks	**Sangeetha N**, Dhruvakumar Maniyar, Himali Vijay	Published
Segment-Selective Ternary Content Addressable Memory Architecture With Index-Based Activation	**Aarthy M**, M. Kavipriya	Published
A Quad-Band Microstrip Patch Antenna System With Dual Circular Slots and Defected Ground Structure	**Vijay Kumar**, G Venkata Sai Gokul	Published
System and Method for Autonomous Home Cleaning Using a Dual-ESP Robotic Platform With IoT Hazard Monitoring and AI Interaction	**Deepika Rani Sona**, Ayush Jaiswal, Saunok Roy, Aarush Lenka	Published
Method for Spatial Variability Analysis of Electrical Parameters in Hetero-Dielectric Double-Gate Tunnel Field-Effect Transistors	**Shanidul Hoque**, Riddhi Dutta, Aryan Bose	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
System and Method for Quantum Key Distribution Using Hybrid Error Correction and Adaptive Key Resizing	Swetha N G, **Mugelan R K**, SarahNadeem	Published
Wide Band Coplanar Waveguide Fed MIMO Antenna Design for Sub 6 GHz 5G Communication	**Vijay Kumar**, Prasanjeet Kumar	Published
System for Circuit Fault Detection Using Learnable Spike Encoding	**Naushad Manzoor Laskar**, Raajaprasanna M, Adhavan K, Kailash Prian RS, Prasanna Kumar R	Published
Integrated Microfluidic and Optical Sensing System for Maternal-Fetal Transport Analysis	**Sangeetha N**, A S Rassel, Soham Das	Published
System and Method for Bluetooth Low Energy-Based Wireless Display Management With Dynamic Content Rendering	**Prakash R**, Madhimaran P. S, Abdullah S, Nikhith S	Published
System and Method for Autonomous Fault Detection and Self-Healing of Peripheral Devices in Embedded Microcontroller-Based Architectures	**Sumathi Gokulanathan**, Bhaargav Rathor, Vaibhav Nangia, Shah Mukt Bhavin	Published
FPGA-Based Hardware Accelerator for Seismic Event Classification	**Aarthy M**, Gokulapriya S, Shah Mukt Bhavin, R Balavasanth	Published
Reverse Shoulder Implant System	**Sharmila N**, Pearline Beulah J	Published
System and Method for FPGA-Based Smart Vending With Offline Customer Reward and Random Discount Generation	**Poongundran Selvaprabu**, **Vetriveeran Rajamani**, **Vinoth Babu K**, Anirudh P, Aravind Srinivas V, Hariharan Ganesan, Shreyas RP	Published
A LiDAR-Synchronized Robotic System for Autonomous Wi-Fi Signal Strength Mapping	Anindita Kundu, Arpan Garai, **Budhaditya Bhattacharyya**, Ashutosh Bhardwaj, A Ramesh Kumaran	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
A Secure Power Grid Monitoring System	**Nisha J S, Gopinath P, Veerapu Goutham**, Dhimant Tewari, Saanji Kohli	Published
Multimodal Stress Detection System Using Instrumented Computer Input Devices and Method of Operation	**Jayakumar K**, Ponharish Kumar J, Dheeptha R	Published
A Low-Power Embedded Driver Fatigue Detection and Prevention System	**Idrasen Singh**, Gopu J Sekhar	Published
Hybrid Emergency Stop Module With Dual-Mode Activation	**Denis Ashok S**, Kundala Kushaal, VineiHP, Rohan Jacob, Paras Jain, R Nikhil	Published
Motor Health Monitoring System With Edge-Based Machine Learning and Digital Twin	**Sujatha R**, Harshit Harsh, Mohamed Ziyath, Barath Kumar, Preethi Ramani	Published
Frequency-Aware Transformer for Remote Sensing Image Classification	**Avinash Chandra**, Shinde Vikrant Rajendra	Published
Personalized Timetable Generator With Activity and Schedule Sync Alarm Clock With Visual Display	**Hementa Kumar Sahu**	Published
Quantum Relay-Assisted Free-Space Optical Communication System Under Atmospheric Turbulence	**Hementa Kumar Sahu**, Kodela Jyothisri	Published
A Low-Profile Microstrip Antenna With Enhanced Multi-Radar-Band Coverage 4GHz-40GHz	**Christina Josephine Malathi A, Revathi S,** Koilada Bharath Surya, Vallam Yaswanth, Pothireddy Manoj Kumar Reddy	Published
System for Electroencephalogram-Based Seizure Detection Using Attention-Enhanced Neural Network	**Malaya Kumar Hota**, TV Manju, Naren Rithvik S, Pranav Atmuri, Battamsetty Vijay Prabhat Sai, Jai Kishore D	Published

FACULTY ACHIEVEMENTS

PATENTS

Patent Title	Inventors	Status
Hybrid SSA-EHO Metaheuristic Approach for Energy-Efficient Clustering and Routing to Increase the UWSN Network Lifetime	**Shankar T**, Kabilan S	Published
Embedded Ransomware Detection Device With Multi-Modal Sensing and AI Inference	**Jaffino**, Aditya, Swastik Singh, Harshvardhan Sharma	Published
System and Method for Plant Stress Detection and Autonomous Agricultural Control	**Konguvel Elango**, Abisek S	Published
Integrated Cardiopulmonary Resuscitation System	**Poongundran Selvaprabu**, Shailesh A, Sarvesh S, Aravintha Krishnan V, Ashwini U	Published
Chiral Carbon Dot-Based Sensing Platform for Protein Aggregate Discrimination	Pranav, **Sukanta Kumar Tulo**, Aswathi Unni	Published
Digital Memristor Modelling Method and System	**Vishal Gupta**, Pranav Atmuri	Published
System and Method for Coordinate-Space Multi-Signal Anomaly Detection and Automated Data Breach Response	**Poongundran Selvaprabu**, **Rajeshkumar V**, Shailesh A, Sarvesh S, Aravintha Krishnan V	Published
Deterministic FPGA-Based Vehicular Accident Detection and Event Data Recording System With Multi-Parameter Severity Classification	**Konguvel Elango**, Avandhica S R	Published
A Cell-Level Predictive Thermal Runaway Detection and Diagnostic ECU for Fire Prevention in Lithium-Ion Battery Packs of Two-Wheeler Electric Vehicles	**Sujatha R**, Ramya Ganesan	Published
Wavelength Optimization for Non-Line-of-Sight Underwater Wireless Optical Communication	**Subhra Sankha Sarma**, Tanmay Mishra, Aniket Kumar Singh, Sohom Dasgupta, Viraj Jitendra Khairnar, Sagar Pareshkumar Ramanbhai	Published

FACULTY ACHIEVEMENTS

AWARDS & CERTIFICATIONS



- Dr. Arunkumar Chandrasekhar received the Best Researcher Award from AMET University on 17-05-2026.


SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
KATTANKULATHUR - 603 203, TAMIL NADU, INDIA

IEEE

5th INTERNATIONAL CONFERENCE

RAEEUCCI-2026

Recent Advances in Electrical, Electronics, Ubiquitous Communication, and Computational Intelligence

CERTIFICATE OF APPRECIATION

This is to certify that **Mr. Alaqmar Karampurwala** from **School of Electronics, VIT Vellore** has presented the paper titled **"Design and analysis of 8T SRAM-Based Full Subtractor using 3S Nanosheet FET Device"**, co-authored by **Vikas Vijayvargiya, Abhishek Narayan Tripathi, Abhishek Kumar Upadhyay**, and won the **BEST PAPER** award in **RAEEUCCI-2026**, held during **22nd - 24th April 2026**.

Dr. M. Sangeetha
HOD/ECE
Convenor - RAEEUCCI-2026

Dr. K. Vijayakumar
Chairperson/SoEE

- Dr. Vikas Vijayvargiya received the Best Paper Award at RAEEUCCI 2026, organized by SRM Institute of Science and Technology, on 22-04-2026.

- Dr. Suresh Kumar T. R. was recognized by Wiley for authoring one of the Top 10 Most Cited Papers published in the International Journal of Communication Systems in 2024 on 09-04-2026.
- Dr. Sharmila N received the Best Paper Award at the 15th International Conference on Recent Challenges in Engineering and Technology, organized by IFERP Academy and Primus School of Management Studies, on 23-04-2026.

AWARDS & CERTIFICATIONS

MARQUIS Who'sWho®

May 26, 2026

Dear Vishal Gupta,

Congratulations on your inclusion in Who's Who in America! We feel strongly that your involvement with our prestigious network will allow you to commemorate your body of work and achieve your goals for establishing, enhancing and fortifying your online brand.

Marquis Who's Who has been the world's preeminent biographer since 1899. Each year we strive to continue the tradition established by our founder, Albert Nelson Marquis, over 117 years ago with the first publication of Who's Who in America. That mission is to profile those individuals who have made a difference by virtue of the positions of responsibility they hold and/or due to noteworthy accomplishments they have made.

I would like to congratulate you on the accomplishments that have captured the attention of the Marquis Who's Who Selection Committee. We are honored to recognize you among others in your specialized field and within the Marquis Who's Who organization and wish you all the best in your future endeavors.

Sincerely,

Erica Lee
Chief Executive Officer
Marquis Who's Who

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INFO@MARQUISWW.COM | WWW.MARQUISWHOSWHO.COM



Vishal Gupta is selected for inclusion in Marquis Who's Who in America! Established in 1899, this prestigious organization recognizes individuals who have made a difference through positions of responsibility and outstanding professional achievements.

EVENTS ORGANIZED

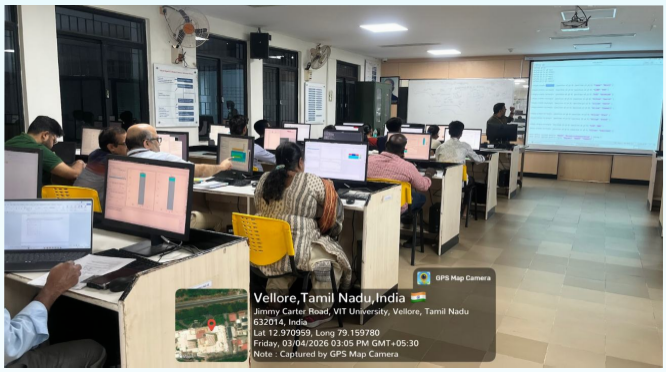
Hackathon on AI and IoT for Digital Health Care was organized by Dr. Mythili A and Dr. Sasikumar K from 02-04-2026 to 04-04-2026





From Chips to Cells: Uniting Semiconductor and Bioelectronics for a Collaborative Future was organized by Dr. Sukanta Kumar Tulo from 04-05-2026 to 08-05-2026.

One Day Hands-On Workshop on Device Simulation Using Sentaurus TCAD was organized by Dr. Shelja and Dr. Sandeep Moparthi on 03-04-2026.



EVENTS ORGANIZED

- AIoT Technologies for Climate Resilience was organized by Dr. Hemalatha K and Dr. Jeeva J.B on 04-04-2026.
- One Day Workshop on Next-Generation IoT and Smart Network Communications: NOMA and Rate-Splitting Approaches was organized by Dr. Shweta B Thomas and Dr. Vijaya Durga Chintala on 04-04-2026.
- A FDP on Startup Launchpad: Idea to Impact was organized by Dr. Kathirvelan J and Dr. Mythili A from 04-05-2026 to 08-05-2026.
- Next-Gen mmWave Radar: A Multidisciplinary Engineering on a Chip was organized by Dr. Valarmathi J, Dr. Poonkuzhali R, and Dr. Ramesh Kumar C from 04-05-2026 to 05-05-2026.
- Explore Electronics: From Curiosity to Career was organized by Dr. Sujatha R and Dr. Rajesh N on 08-05-2026.
- One Day National Level Workshop – Qniverse Unlocked: Hands-On Quantum Programming was organized by Dr. Arunkumar Chandrasekhar and Dr. Rajalakshmi S from 01-06-2026 to 02-06-2026.
- Next-Generation Communication Systems and AI-Driven Signal Processing: Trends and Applications was organized by Dr. Hementa Kumar Sahu and Dr. Malaya Kumar Hota from 08-06-2026 to 12-06-2026.
- Exposure to Final Year Project Domains in Electronics and Communication Engineering: From Idea Selection to Project Development was organized by Dr. Shilpi Ruchi Kerketta and Dr. Sukanta Kumar Tulo on 10-06-2026.
- One Day National Level Workshop on AI, Machine Learning and Deep Learning was organized by Dr. Venugopal P and Dr. Gerardine Immaculate Mary on 13-06-2026.
- Machine Learning for Image Processing: Fundamentals, Recent Advances, and Real-World Applications was organized by Dr. Shanidul Hoque and Dr. Bijaylaxmi Das on 13-06-2026.
- Next-Generation Printed Antennas and Amplifiers for 5G-Enabled IoT: Design to Deployment was organized by Dr. Vijay Kumar and Dr. Avinash Chandra on 17-06-2026.
- Hands-On Workshop on RF & Microwave Circuits for Wireless Communication was organized by Dr. Shanidul Hoque and Dr. Dilip Kumar Choudhary on 20-06-2026.
- Next-Generation Semiconductor Devices for Sensing and THz Applications was organized by Dr. Prachi Sharma and Dr. Sri Adibhatla Sridevi on 26-06-2026.

EVENTS ORGANIZED

Next Generation Electronics Summit (NELEX-2026)

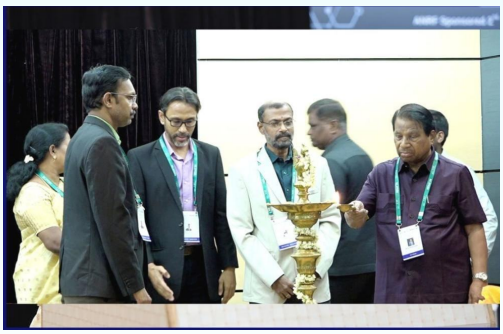
2nd International Conference on Next Generation Electronics (NELEX-2026) was organized by Dr. Sivanantham S, Dr. Kannadassan D, and Dr. Chittaranjan Nayak from 08-05-2026 to 10-05-2026.

The Next Generation Electronics Summit NEleX is a premier international conference in the emerging areas of Electronics and Communication Engineering and the allied field of Science and Engineering. This conference is going to held at Vellore Institute of Technology (VIT) Vellore in this year. NEleX is Organized by School of Electronics Engineering (SENSE), Vellore Institute of Technology, Vellore, India. Over the years, the conference has evolve to the leading forum and expected as one of the most important conferences in the field of Electronics. NEleX 2026 is a leading international conference on Electronics and related fields, hosted by VIT Vellore from 8th-10th May 2026, organized by SENSE. It features keynotes, panels, tutorials, and industry sessions across Electronics, Electrical, CS, and IT domains.









PUBLICATIONS

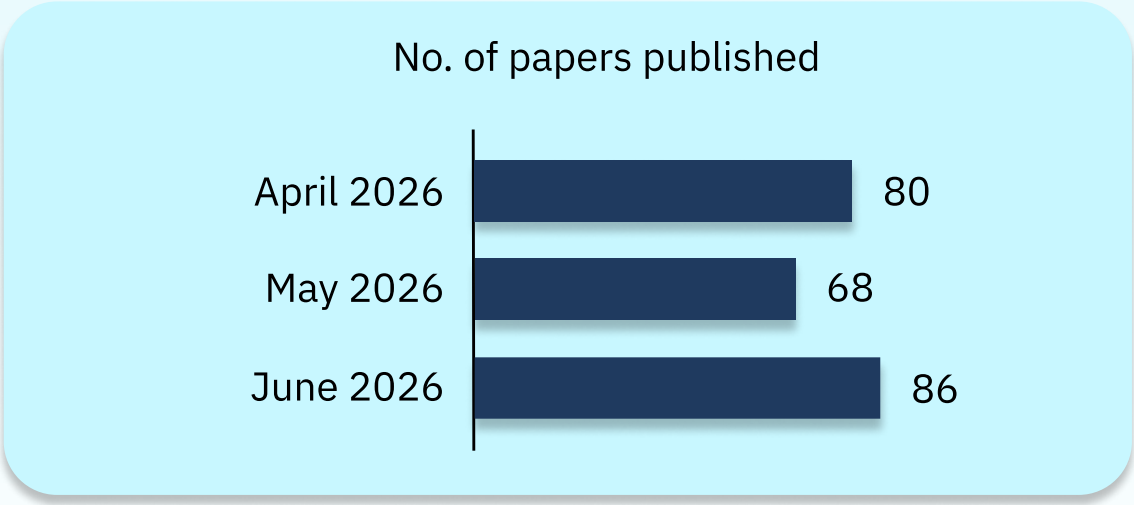
HIGH IMPACT FACTOR PUBLICATIONS

Publication Details	IF
Akhter, J.; Hazra, R.; Khuntia, P.; Sarma, S.S., "Efficient Power and Resource Allocation for NOMA-Enabled V2X Communication Networks," IEEE Transactions on Consumer Electronics, Vol:72, Issue: 1, Pg.No:(2280-2289), DOI: 10.1109/TCE.2025.3633613	10.9
Arulvizhi, M.; Sriharipriya, K.C., "Performance Analysis and QFLO-Based Optimization of RF Energy Harvesting NOMA-MEC under Imperfect CSI and SIC," IEEE Internet of Things Journal, DOI: 10.1109/JIOT.2026.3698830	8.9
K, S.; CV, R., "Directional characteristics and acoustic efficiency of Tonpilz transducers: A FEM-based underwater study," Results in Engineering, Vol:30, DOI: 10.1016/j.rineng.2026.110357	7.9
Vidhya, S.; Karthikeyan, M., "Chessboard-coding metasurface for wideband RCS reduction under wide angle of incidence," Results in Engineering, Vol:30, DOI: 10.1016/j.rineng.2026.110531	7.9
Nema, S.; Thomas, S.B., "An extensive review on ground penetrating radar signal processing for pavement evaluation: Advances, AI integration and applications," Results in Engineering, Vol:30, DOI: 10.1016/j.rineng.2026.110460	7.9
Tera, S.P.; Chinthaginjala, R.; Zhao, X.; Hamdi, M., "Advancing quantum machine learning from conceptual design to practical use," Expert Systems with Applications, Vol:320, DOI: 10.1016/j.eswa.2026.132127	7.5
Thomas, A.; V, A.; Naik, B.C.; Gopi, V.P., "A low-complexity spatially gated depthwise residual network for automated visual inspection of castings," Journal of Intelligent Manufacturing, DOI: 10.1007/s10845-026-02819-1	7.4

Publication Details	IF
Chawla, N.G.; Tripathi, A.; Bhatti, J.S.; Thomas, S.B.; Thomas, B., "Machine learning driven prediction and optimization of tribological performance in CNT/graphene/SiC/TiO? reinforced Al6061 metal matrix composites," Tribology International, Vol:221, DOI: 10.1016/j.triboint.2026.112065	6.9
Unni, A.; Bera, S.; Sabnam, S.; Sivakumar, S.; Tulo, S.K.; Bhunia, S.K.; Pranav, "Chiral Fluorescent Carbon Dots as Multi-Phased Sensors for Hg2+, Pd2+, and Cysteine Enantiomers," Analytical Chemistry, Vol:98, Issue: 16, Pg.No: (11730-11748), DOI: 10.1021/acs.analchem.5c06787	6.7
Baskar, P.; Bhowmick, A.; Choukiker, Y.K., "Enhancing D2D Communication Through RIS-Assisted NOMA Networks: An Underlay Framework With Imperfect SIC," IEEE Open Journal of the Communications Society, Vol:7, Pg.No: (4681-4697), DOI: 10.1109/OJCOMS.2026.3690498	6.1
Kodela, J.; Sahu, H.K., "Performance Analysis of Coherent-State Quantum Optical Wireless Communication Over Turbulent Channels With Pointing Errors," IEEE Open Journal of the Communications Society, Vol:7, Pg.No:(3745-3759), DOI: 10.1109/OJCOMS.2026.3683021	6.1
Duggaraju, V.R.H.P.R.; Dwivedi, A.D.D., "TCAD and AI/ML Assisted Modeling, simulation and performance analysis of MoS2 based thin film transistors," Ain Shams Engineering Journal, Vol:17, Issue: 7, DOI: 10.1016/j.asej.2026.104191	5.9
Benarjee, S.; Vaegae, N.K., "Hybrid STDFT-CEEMD with continuous mean square error based IMF filtering and soft thresholding for identification of protein coding regions in DNA sequences," Measurement: Journal of the International Measurement Confederation, Vol:274, DOI: 10.1016/j.measurement.2026.121205	5.6
Arokiyaraj, V.; Parida, S.K.; Muthuraja, S., "An Electrocatalyst Derived from Graphitic Carbon Nitride?Metal Organic Framework Hybrid for Efficient Electrochemical Oxygen Reduction Reaction," ACS Applied Nano Materials, Vol:9, Issue: 21, Pg.No:(9792-9800), DOI: 10.1021/acsanm.6c01035	5.5
Arya, S.; Bhowmick, A.; Chidambaram, S.K.; Choukiker, Y.K., "Fundamental Limits of RIS-Assisted OAM Communications: Channel Modeling and Interference Analysis Under Turbulence," IEEE Wireless Communications Letters, Vol:15, Pg.No:(2303-2307), DOI: 10.1109/LWC.2026.3677274	5.6

Publication Details	IF
Jamal Mohammed, N.B.; Parasuraman, R.; Veluswamy, P.; Chandrasekhar, A., "An interface-engineered HMS/PANI thermoelectric device for 3D printer waste heat harvesting," Nanoscale, DOI: 10.1039/d6nr00059b	5.1
Varghese, V.M.; S., K., "A Novel Design Paradigm of Arbitrary R2-Parallel Pipelined, Radix-R Constant Rotator FFT Architectures," Computers and Electrical Engineering, Vol:137, DOI: 10.1016/j.compeleceng.2026.111270	4.9
Chintala, V.D.; Joseph, R.D.B.; Suddapalli, S.R.; Tiwari, V.K., "A Joint Statistical Moment-Based Blind Channel Estimation and Modified TL-RCT Companding Approach for DCO-OFDM in VLC-Driven IoT Applications," IEEE Open Journal of Vehicular Technology, DOI: 10.1109/OJVT.2026.3699360	4.8
Vasugi, N.; Karthikeyan, M., "A Conformal Triple-Band Capsule Antenna Based on Hybrid T-Shaped?Rhombus Resonator," IEEE Antennas and Wireless Propagation Letters, DOI: 10.1109/LAWP.2026.3688177	4.8

OVERALL SUMMARY



GUEST LECTURES

The School of Electronics Engineering hosted a diverse series of guest lectures featuring experts from reputed academic and research institutions across India and abroad. These sessions explored cutting-edge advancements in AI/ML, VLSI, semiconductor technologies, neuromorphic computing, and digital systems. Discussions focused on emerging technologies, research developments, and real-world applications, providing students with valuable insights into current trends in engineering.

With a strong emphasis on artificial intelligence, semiconductor technologies, VLSI architectures, advanced communication systems, and emerging electronic technologies, the lectures bridged theoretical knowledge with practical and research-oriented applications. These sessions fostered interdisciplinary learning, innovation, and knowledge exchange while providing students opportunities to interact with experts from leading institutions.

From April to June 2026, SENSE organized 31 guest lectures and academic engagements across various departments and emerging technological domains.

GUEST LECTURES DELIVERED

Exploring Design Perspectives of Optimized VLSI Architectures for Wireless Communication Systems on FPGA SoC Platform	Dr. Antony Xavier Glittas Xavier Chelliah	NIT Jamshedpur & NIT Patna
TCAD and physics-informed neural network-assisted modelling and performance analysis of OTFTs	Dr. Arun Dev Dhar Dwivedi	NIT Patna
Flexible and Wearable Sensors for Biomedical Applications	Dr. Elizabeth Rufus	Rochester Institute of Technology, USA

INDUSTRIAL VISITS



Faculty: Dr. Konguvel Elango, Dr. Vidhya S, Dr. Mythili A
Industry: SRL International, Chennai, India
Date: 11-06-2026

Faculty: Dr. Debashis Maji
Industry: Spot Healthcare Solutions Pvt. Ltd., Bangalore., Bangalore, India
Date: 16-06-2026

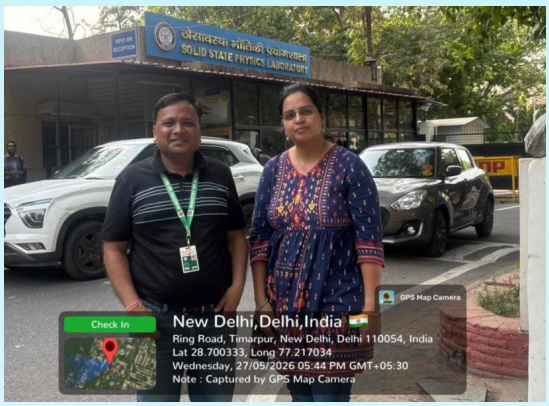




Faculty: Dr. Arunachalam V, Dr. Thanikaiselvan V, Dr. Prakash R
Industry: RF2 Digital, Chennai, India
Date: 23-06-2026

INDUSTRIAL VISITS

Faculty: Dr. Prachi Sharma
Industry: SSPL, DRDO, NEW DELHI, India
Date: 27-05-2026





Faculty: Dr. Vishal Gupta
Industry: Mirafra Technology Private Limited, Bangalore, India
Date: 03-06-2026

Faculty: Dr. Vishal Gupta, Dr. Sakthivel R
Industry: IZMO Microsystems, Bangalore, India
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Industry: Anabond Fuelcell Pvt Ltd, Chennai, India
Date: 18-06-2026





Faculty: Dr. Jaffino, Dr. Jeeva J.B
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Industry: Tachlog Pvt Ltd, Trivandrum, India
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PhD COMPLETED

Name	Guide Name	Title
Ms. D.D. Devi Sasikala	Dr. Valarmathi J	Array Thinning for Sidelobe Level Reduction in Ring Antenna Arrays Using Evolutionary Algorithms
Mr. Kalburgi Shivaraj Sharanabasappa	Dr. Manimozhi M	Optimization Driven Techniques for Clustering and Data Routing in WSN
Ms. Lipsa Dash	Dr. Anand S	Performance Evaluation of Massive MIMO Systems for 5G Communication
Ms. Ajitha S Kumari	Dr. Nandakumar S	Implementation and Evaluation of a Multimodal Engagement Recognition System: Impact on Student Academic Performance
Ms. Keerthi Nalliboyina	Dr. Sakthivel R	Design and Analysis of Energy-Efficient Low-Power Spiking Neuron Models with Memristive Synapse for Neuromorphic Computing Applications
Ms. Hena Rubavathy A	Dr. S. Sundar	Enhancing Communication Reliability in Cooperative Wireless Body Area Networks through Bit Error Mitigation Strategies
Mr. Suresh Kumar C	Dr. Krishnamoorthi C	MXene-Engineered Triboelectric Nanogenerators for Energy Harvesting and Internet of Things (IoT)-Driven Self-Powered Intelligent Systems
Mr. Sandeep Y	Dr. Venugopal P	Optimizing Network Stability and Data Dissemination in VANETs by Using Nature Inspired Meta-Heuristic Strategies to Support Next-Generation ITS

PhD COMPLETED

Name	Guide Name	Title
Mr. Sufiyan Mukadam Bashir	Dr. Hemprasad Yashwant Patil	Medical Image-Based Cancer Classification Using Machine Learning
Ms. Pavithra R	Dr. Prakash R	Deep Learning Framework for Predictive Machine Health Monitoring Using Vibration Analysis and Classification
Mr. Vinayagam K	Dr. Rajesh N	Design and Implementation of Planar Reconfigurable Antennas for Advanced Wireless Communication
Mr. Anbazhagan S	Dr. Mugelan R K	Energy Efficient Architecture towards Green Communication for NB-IoT
Ms. N Kusuma	Dr. Venugopal P	Design and Analysis of Passive, Active LC-VCO's and Optimized PFD/Charge Pump for Low Power Low Phase Noise Sub-6 GHz CP-PLL Used in Bluetooth/ WLAN Applications
Mr. Dipinkrishnan R	Dr. Vinoth Babu K	Investigation of Power Allocation Strategies for Enhancing Sum Spectral Efficiency and Reliability in Multi-User NOMA under Generalized Fading and Channel Imperfections
Ms. Shaik Ruksanabegum	Dr. Arunkumar Chandrasekhar	Bioinspired Microstructured Triboelectric Nanogenerators through Soft Lithography for Sustainable Energy Harvesting and Self-Powered Sensing

PhD COMPLETED

Name	Guide Name	Title
Mr. Bipin Samuel	Dr. Malaya Kumar Hota	Extraction of Fetal Electrocardiogram from Abdominal Electrocardiogram to Detect Fetal Arrhythmia Based on Adaptive Signal Processing and Deep Learning Techniques
Mr. N R Sivaraaj	Dr. Abdul Majeed K K	Design and Implementation of PLL with LCVCO and TG Based LPFD for Millimeter-Wave Range Applications
Ms. Helen Sheeba J	Dr. Vinoth Babu K	Intelligent Omni-Surface-Assisted Hybrid Non-Orthogonal Multiple Access: Enhancing Spectral Efficiency under Receiver Non-Idealities
Ms. M Neelavathy	Dr. Yogesh Kumar Choukiker	Design and Development of Next-Generation Aperture-Coupled Bandpass Frequency Selective Surfaces for Lightweight Satellite Applications
Ms. Ajitha S Kumari	Dr. Arun M	Implementation and Evaluation of a Multimodal Engagement Recognition System: Impact on Student Academic Performance
Dinah Ann Varughese	Dr. Sri Adibhatla Sridevi	High performance edge computing CNN hardware for the early prediction of cancer cells using dimentionality reduction and hybrid pretrained model approaches

CONGRATULATIONS AND BEST WISHES TO ALL!!!

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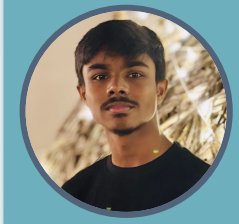

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