



**VIT**<sup>®</sup>  
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

**E-NEWSLETTER**

**Volume 6 Issue 2**

**APR – JUN 2025**

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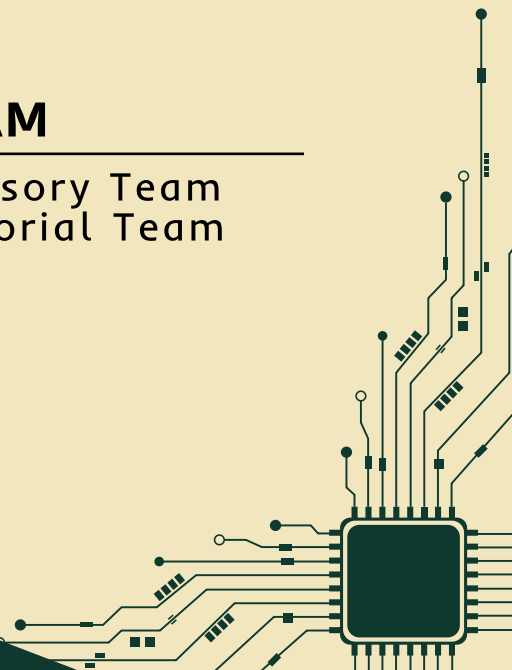
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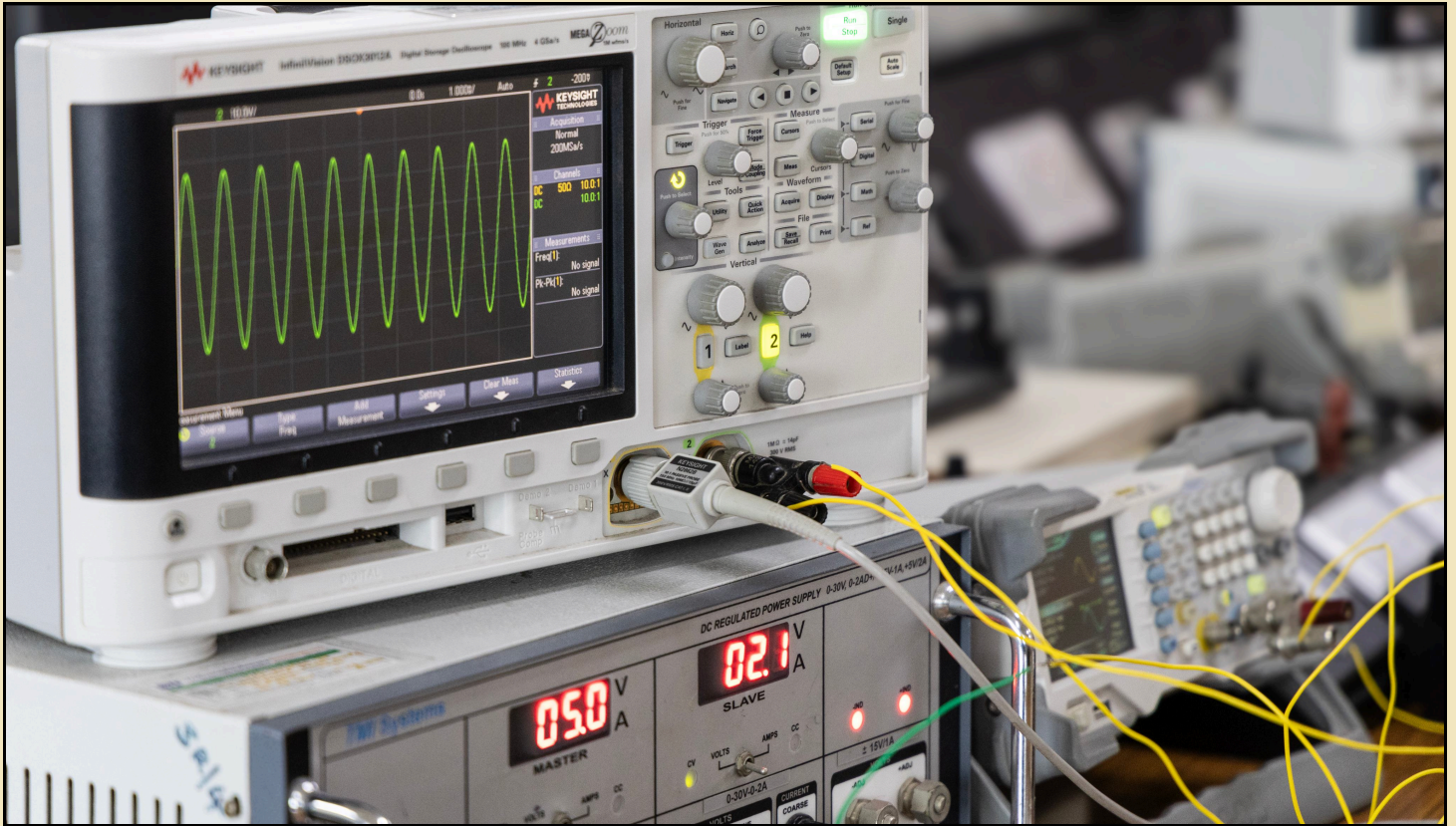
## **TEAM**

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Advisory Team  
Editorial Team





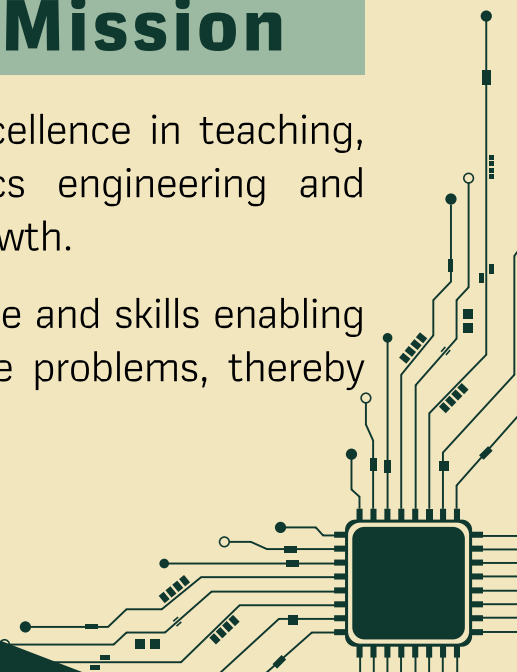


## Vision

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 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.



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.

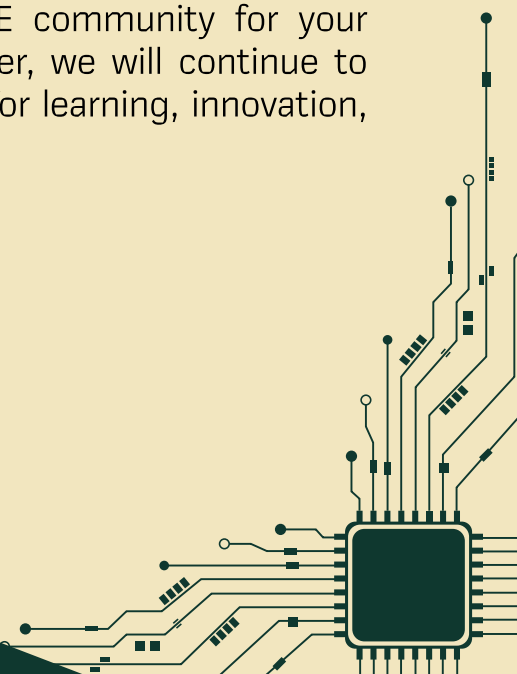
To bridge the gap between the classroom and the corporate world, we are forging partnerships with top technology companies. Through internships, training programs, live projects, and expert guest sessions, students will have increased opportunities to engage directly with the industry and develop practical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

It also gives me immense pleasure to present the 6th Volume, 2nd Issue of Electroverse: Showcasing the Excellence of SENSE — the official e-Newsletter of SENSE for the second quarter of 2025. This issue celebrates the remarkable achievements of our faculty and students during April to June 2025.

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](mailto:dean.sense@vit.ac.in)







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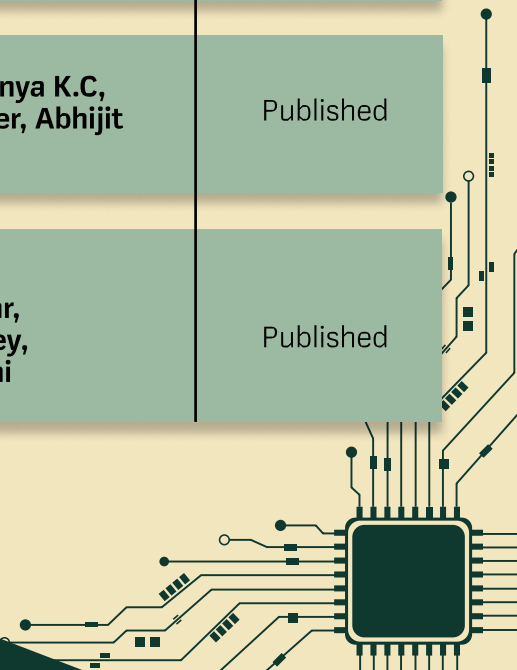
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**Publications**

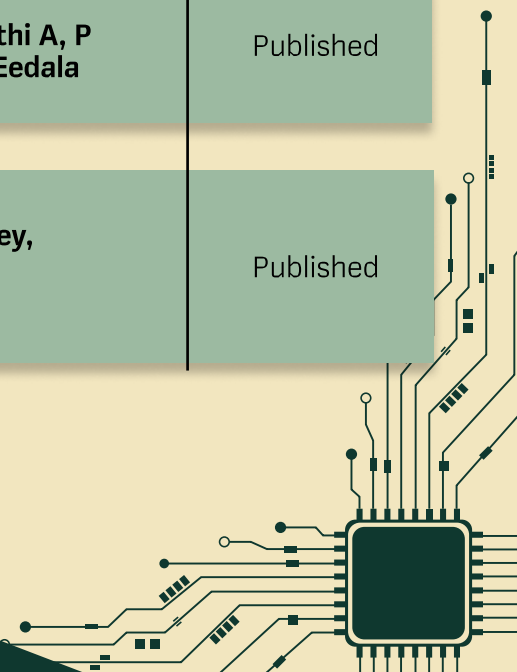
| <i>Patent Title</i>                                                                                        | <i>Inventors</i>                                                                                                     | <i>Status</i> |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|---------------|
| A MEDICATION MANAGEMENT SYSTEM FOR VISUALLY IMPAIRED USERS                                                 | Joshva Devadas T, Naveenkumar J, <b>Hemalatha K</b> , Vasu Somani, Shailesh Mishra, Siddharth Sanjeev, Ayush Kumar   | Published     |
| INTEGRATED SMART CHARGING SYSTEM                                                                           | Rashmi Ranjan Das, <b>Sumit Kumar Jindal, Deepika Rani Sona, Bhaargav Rathor, Om Patel, Shreyashi</b>                | Published     |
| METHOD FOR SECURED COMMUNICATION BETWEEN RESOURCE CONSTRAINED DEVICES                                      | Naveenkumar J, Joshva Devadas T, <b>Hemalatha K</b> , John Linus Miracle, Niraj Namjoshi                             | Published     |
| TERRAIN AWARE SMART SENSOR SYSTEM FOR ROAD SAFETY IN HILLY REGIONS USING AI, GIS AND AUTONOMOUS NAVIGATION | <b>Sumit Kumar Jindal, Dhoriyani Urva Rajnikant, Souvik Mukherjee</b>                                                | Published     |
| GESTURE-BASED WEARABLE WHEELCHAIR CONTROL SYSTEM                                                           | <b>Naushad Manzoor Laskar, Vikas Vijayvargiya, Rakshith Parthipan, Raajaprasanna M, Vigneshwaran V, Lakshmanan R</b> | Published     |
| METHOD FOR BEAMFORMING OPTIMIZATION IN A WIRELESS COMMUNICATION SYSTEM                                     | <b>Sudhanshu Arya, Saranya K.C, Yogesh Kumar Choukiker, Abhijit Bhowmick</b>                                         | Published     |
| WEARABLE ANTENNA APPARATUS                                                                                 | <b>Rajkishor Kumar, Sarthak Varshney, Samridhi Bajpai</b>                                                            | Published     |





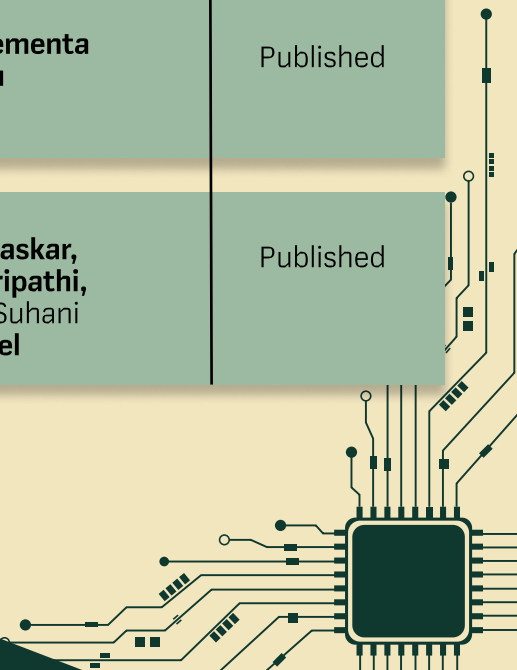
| <i>Patent Title</i>                                                                                                    | <i>Inventors</i>                                                                                               | <i>Status</i> |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|---------------|
| ENHANCED AUTONOMOUS POWER SUPPORT FOR SYSTEM FOR PORTABLE ELECTRONIC DEVICES                                           | <b>Sumit Kumar Jindal, V.S. Prithiviraj, Sannidanam Srivani, R. Sushmitha</b>                                  | Published     |
| REAL-TIME GESTURE RECOGNITION GLOVE FOR SIGN-TO-SPEECH TRANSLATION                                                     | <b>Naushad Manzoor Laskar, Vikas Vijayvargiya, Sanjay Elavarasan Karthikeyan, Tejas Ghatte, Kalpaj Kashyap</b> | Published     |
| FREQUENCY SELECTIVE SURFACE BASED FLEXIBLE ELECTROMAGNETIC SHIELDING CLOTH FOR MOBILE BAND SAR REDUCTION               | <b>Suresh Kumar T R, Zachariah C Alex</b>                                                                      | Published     |
| A HYBRID SENSOR AND VISION-BASED SIGN LANGUAGE INTERPRETATION SYSTEM FOR REAL-TIME GESTURE RECOGNITION AND TRANSLATION | <b>Hementa Kumar Sahu, Bijaylaxmi Das, Shanidul Hoque</b>                                                      | Published     |
| AUTOMATED DAIRY FARM MANAGEMENT POWERED BY IOT AND ML                                                                  | <b>Vidhyapathi C.M, Posam Suriya, G Likhith Kumar Reddy</b>                                                    | Published     |
| FAST LOOP IN LOOP COMPRESSIVE SENSING FOR ELECTROCARDIOGRAM USING DWT SENSING FOLLOWED BY DISCRETE H                   | <b>Prakash R, Shashi Kumar S</b>                                                                               | Published     |
| SYSTEM AND METHOD FOR CONTROLLING SPEED OF MIXER GRINDER MOTOR USING FIELD PROGRAMMABLE GATE ARRAY                     | <b>Ragunath G, Yash Sinha, Jigyasu Shekhar, Kanak Rai Choudhary</b>                                            | Published     |
| DRA AND FSS INSPIRED HIGH GAIN WAVEGUIDE APERTURE ANTENNA WITH ENHANCED                                                | <b>Avinash Chandra, Rajkishor Kumar, Vijay Kumar</b>                                                           | Published     |

| <i>Patent Title</i>                                                                           | <i>Inventors</i>                                                                         | <i>Status</i> |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|---------------|
| CARBON NANOTUBE FIELD-EFFECT TRANSISTOR BASED VOLTAGE-CONTROLLED OSCILLATOR                   | Abdul Majeed K, Antony Xavier<br>Glittas Xavier Chelliah,<br>Ganesamoorthy B             | Published     |
| REDUCED INSTRUCTION SET COMPUTING-FIVE (RISC-V) PROCESSOR ARCHITECTURE                        | Sumit Kumar Jindal, Beeram<br>Yuvaraj Reddy, V V K Karthikeya<br>Surampudi, Muthke Vivek | Published     |
| DETECTION OF HUMAN BLOOD PERMITTIVITY THROUGH A NON-INVASIVE APPROACH USING SENSING TECHNIQUE | Christina Josephine Malathi A, P<br>Pavan Kumar, Suhas RP Eedala                         | Published     |
| DUAL-BAND CIRCULARLY POLARIZED DIELECTRIC RESONATOR ANTENNA                                   | Rajkishor Kumar, Avinash Chandra,<br>Priyanka Das                                        | Published     |
| SMART ELECTRONIC LOCK FOR TWO-WHEELER VEHICLES AND REMOTE MONITORING SYSTEM                   | Sujatha R, Vijay Sathappan M                                                             | Published     |
| NON-INVASIVE CBC                                                                              | Christina Josephine Malathi A, P<br>Pavan Kumar, Suhas RP Eedala                         | Published     |
| INJECTION GATE-BASED N-STACKED NANOSHEET FET DEVICE FOR LOW-POWER APPLICATIONS                | Rajan Kumar Pandey,<br>Shubham, Bala<br>Seshanth R                                       | Published     |

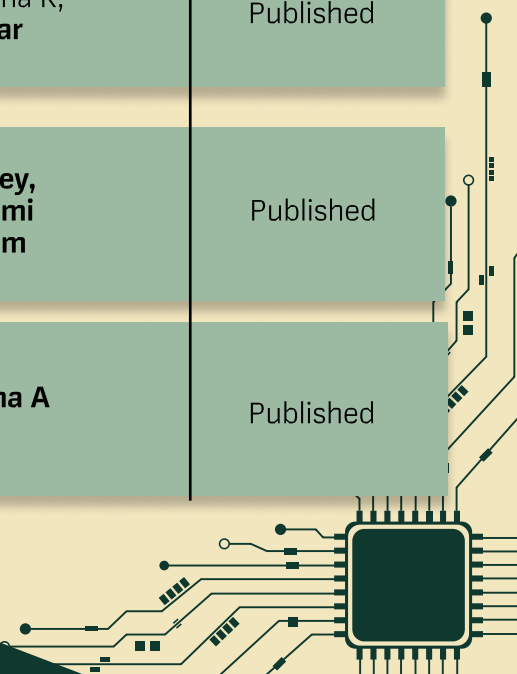




| <i>Patent Title</i>                                                                          | <i>Inventors</i>                                                                                       | <i>Status</i> |
|----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------|
| AI-DRIVEN MULTIMODAL COGNITIVE BIOMARKER ANALYSIS FOR EARLY ALZHEIMERS DETECTION             | Shynu P.G,<br><b>Subhathirai S P</b>                                                                   | Published     |
| SUSTAINABLE SYNTHESIS OF NOVEL COMPOUNDS                                                     | <b>Prakash R, Kushagra Narang, Jhanvi Chaturvedi</b>                                                   | Published     |
| MAXIMUM POWER POINT TRACKING FOR PHOTOVOLTAIC SYSTEM                                         | <b>Kathirvelan J, Nethaji G</b>                                                                        | Published     |
| NIGHT VISION COMBAT HELMET WITH MULTI-DIRECTIONAL ENEMY DETECTION AND REAL-TIME AUDIO ALERTS | <b>Sujatha R, Arunbalaji M, Muhil S R</b>                                                              | Published     |
| A SMART JUICE AND WATER VENDING MACHINE                                                      | <b>Ragunath G, Arunkumar G, Karuppusamy S, Kannabiran T, Jelin Praisay</b>                             | Published     |
| CUSTOM-BUILT POTENTIOSTAT SYSTEM AND METHOD TO OPERATE THE SAME                              | <b>Kathirvelan J, Vijayaraghavan R</b>                                                                 | Published     |
| ADAPTIVE NIGHTTIME IMAGE DEHAZING USING DUAL-CHANNEL AND GUIDED IMAGE FILTERING              | <b>Bijaylaxmi Das, Hementa Kumar Sahu</b>                                                              | Published     |
| SMART HELMET WITH CLOUD-BASED SAFETY ALERTS                                                  | <b>Naushad Manzoor Laskar, Abhishek Narayan Tripathi, Vikas Vijayvargiya, Suhani Singh, A S Rassel</b> | Published     |

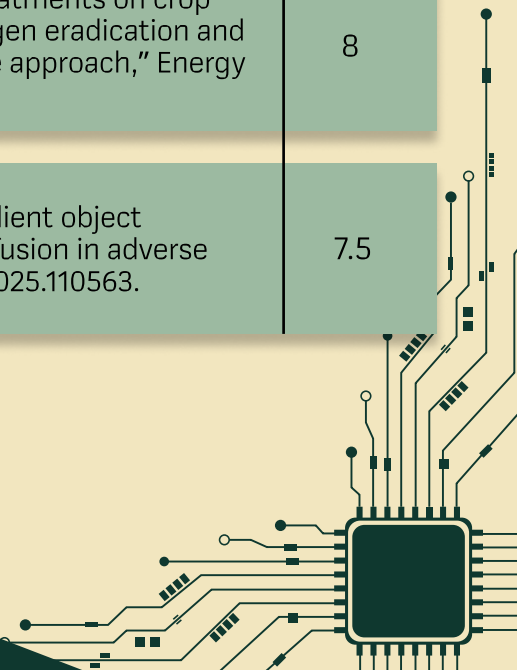


| <i>Patent Title</i>                                                                                                                     | <i>Inventors</i>                                                                                                                          | <i>Status</i> |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| A METHOD OF MITIGATING PHASE ERROR IN RIS-ASSISTED WIRELESS COMMUNICATION NETWORK AND SYSTEM THEREOF                                    | <b>Sudhanshu Arya, Saranya K.C, Yogesh Kumar Choukiker, Abhijit Bhowmick</b>                                                              | Published     |
| SYSTEM AND METHOD FOR ALLOCATING RIS ELEMENTS USING DRL-BASED SPARSE ALLOCATION TECHNIQUE TO ENHANCE SINR                               | <b>Sudhanshu Arya, Saranya K.C, Yogesh Kumar Choukiker, Abhijit Bhowmick</b>                                                              | Published     |
| BAND TUNABLE FILTERING POWER DIVIDER                                                                                                    | <b>Rohit Mathur, Dilip Kumar Choudhary</b>                                                                                                | Published     |
| RECYCLED MOSQUITO REPELLENT GRAPHITE COMPOSITE FILMS FOR SPRING ASSISTED TRIBOELECTRIC NANOGENERATORS IN ENERGY HARVESTING APPLICATIONS | <b>Arunkumar Chandrasekhar, Karthick N, Rajasekar P, Nimmi Sharma, Diya Maria Sanjay, Rishab Pillai, Sayyid Abdul Basith V, Pramila V</b> | Published     |
| AN ENGINEERED 4H-SIC ENHANCED N-STACKED FORKSHEET FET FOR SELF-HEATING REDUCTION IN SEMICONDUCTOR DEVICES                               | <b>Rajan Kumar Pandey, Shubham, Kannam Sai Lakshmi Prasanth</b>                                                                           | Published     |
| SYSTEM AND METHOD FOR MEASURING PRESSURE FOR BELLOW USING A HYBRID MACHINE LEARNING MODEL                                               | <b>Venkata Lakshmi Narayana K, Vaegae Naveen Kumar</b>                                                                                    | Published     |
| METAL-INSULATOR TRANSITION (MIT) ENHANCED CONTACT INTERFACE FOR SEMICONDUCTOR DEVICES                                                   | <b>Rajan Kumar Pandey, Kannam Sai Lakshmi Prasanth, Shubham</b>                                                                           | Published     |
| CONVOLUTIONAL NEURAL NETWORK (CNN)-BASED FRAUD DETECTION SYSTEM FOR E-COMMERCE TRANSACTIONS                                             | <b>Mythili N, Sangeetha A</b>                                                                                                             | Published     |



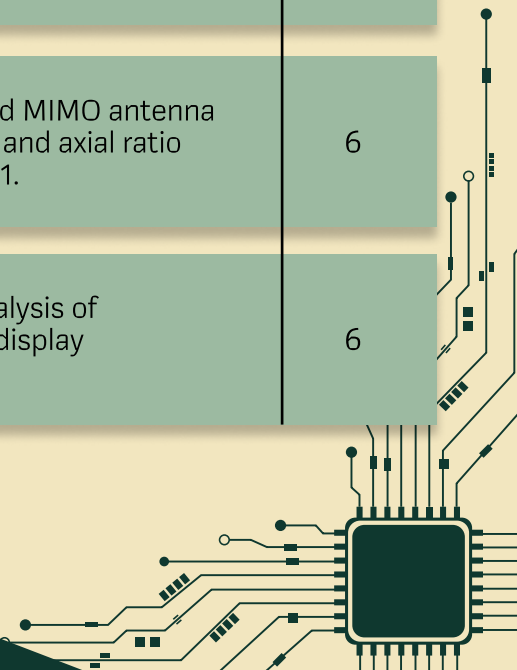
## High Impact Factor Publications

| Details                                                                                                                                                                                                                                                                                                                                             | IF   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| Ramesh K., Venkidusamy S., Ramasamy M., Murugesan R., Chandrasekhar A., and Mayandi J., "Strategic on-demand combat against preformed mature bacterial biofilms using a sustainable and flexible chia mucilage-based triboelectric nanogenerator," Chem. Eng. J., vol. 519, 2025, doi: 10.1016/j.cej.2025.164810                                    | 13.3 |
| Chittibabu S.K., Chandrasekhar A., and Chintagumpala K., "From energy to intelligence: MXenes transforming triboelectric nanogenerators," J. Mater. Chem. A, 2025, doi: 10.1039/d5ta02391b.                                                                                                                                                         | 10.7 |
| Jeba Prasanna Idas S., Hemalatha K., Naveenkumar J., and Joshva Devadas T., "Recent trends on mammogram breast density analysis using deep learning models: neoteric review," Artif. Intell. Rev., vol. 58, no. 8, 2025, doi: 10.1007/s10462-025-11232-8.                                                                                           | 10.7 |
| Mohamed Ali M.S., Hasan M.N., and Laskar N.M., "Flexible and stretchable out-of-plane thermoelectric generator with PEDOT:PSS/SWCNT films and serpentine electrodes," J. Power Sources, vol. 653, 2025, doi: 10.1016/j.jpowsour.2025.237737.                                                                                                        | 8.1  |
| Kewate O.J., Lin J.-Y., and Punniyakoti S., "Unleashing the potential of vanadium based MXenes for supercapacitors," J. Power Sources, vol. 650, 2025, doi: 10.1016/j.jpowsour.2025.237518.                                                                                                                                                         | 8.1  |
| Jayakrishna S.S. and Ganesh S.S., "Unveiling the effects of electric field treatments on crop cultivation: a game-changing sustainable energy strategy for plant pathogen eradication and boosting yield growth in agriculture, validated with an artificial intelligence approach," Energy Nexus, vol. 18, 2025, doi: 10.1016/j.nexus.2025.100438. | 8    |
| Thottempudi P., Jambek A.B.B., Kumar V., Acharya B., and Moreira F., "Resilient object detection for autonomous vehicles: Integrating deep learning and sensor fusion in adverse conditions," Eng. Appl. Artif. Intell., vol. 151, 2025, doi: 10.1016/j.engappai.2025.110563.                                                                       | 7.5  |



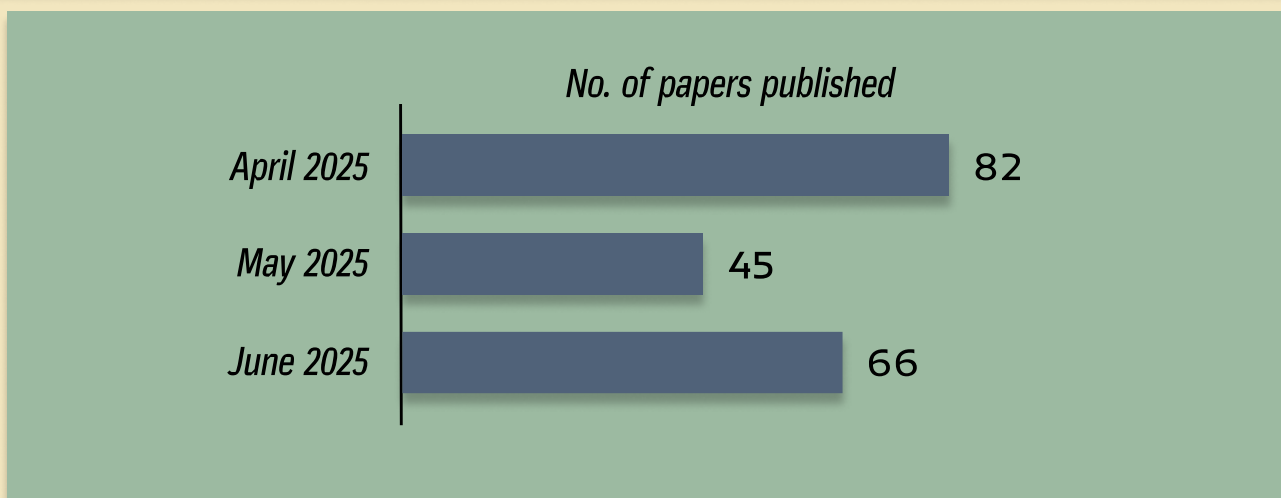


| <i>Details</i>                                                                                                                                                                                                                                                                                       | <i>IF</i> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Noel M.M., L. A., Trivedi A., and Dutta P., "Oscillating activation functions can improve the performance of convolutional neural networks," Appl. Soft Comput., vol. 175, 2025, doi: 10.1016/j.asoc.2025.113077.                                                                                    | 7.2       |
| Benarjee S. and Vaegae N.K., "Hadamard code based numerical mapping approach for the identification of protein coding regions in genomic sequences using digital filters," Comput. Biol. Med., vol. 195, 2025, doi: 10.1016/j.compbimed.2025.110565.                                                 | 7         |
| Mani A., Chandrasekaran S.K., and Goutham V., "Enhancing NOMA-MEC Based Intelligent Farming: Performance Analysis and HSBOO Optimization," IEEE Open J. Commun. Soc., 2025, doi: 10.1109/OJCOMS.2025.3576776.                                                                                        | 6.3       |
| Mallick B., Parida P., Nayak C., Ali N., Panda M.K., Prasad B., Sahu G., and Palai G., "Secure real-time transmission of multi-spectral satellite images inducing a 6D hyper-chaotic system and BB84 QKD protocol," Alexandria Eng. J., vol. 122, pp. 364–384, 2025, doi: 10.1016/j.aej.2025.02.113. | 6.2       |
| Himavanth N., Arshad M., Kumaravel S., Natarajan R., Chandra A., and Karthikeyan M., "Compact circle-shaped circularly polarized implantable antenna with combined e and hexagonal shaped patch for wireless biotelemetry," Results Eng., vol. 27, 2025, doi: 10.1016/j.rineng.2025.105758.          | 6         |
| Yogeshwar J.B., Laskar N.M., Samuel A., Solomon A., and Vijayvargiya V., "Design and analysis of low noise, low power OTA considering design trade-offs for biomedical applications," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.105103.                                                | 6         |
| Pandurangan D. and Mishra N., "Circularly polarized four-element wideband MIMO antenna for C-band applications using sinusoidal decoupling structure for isolation and axial ratio enhancement," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.105301.                                     | 6         |
| Anusha K. and Dwivedi A.D.D., "Numerical simulation and performance analysis of amorphous zinc oxynitride thin film transistor (a-ZnON TFT) for large area display applications," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.105294.                                                    | 6         |



| <i>Paper Title</i>                                                                                                                                                                                                                                               | <i>IF</i> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| Harshdeep K., Sumalatha K., and Mathur R., "DeepTransIDS: Transformer-Based Deep learning Model for Detecting DDoS Attacks on 5G NIDD," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.104826.                                                          | 6         |
| S. A. and Kathirvelan J., "Computer vision-based detection and classification of chemically ripened bananas and papayas at vendor site through deep learning AI models using real-time dataset," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.104730. | 6         |
| Madheswaran S. and Venkatesan R., "Design of wide band SIW based Reflective Mode FSS with Angular Stability for X-band application," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.104970.                                                             | 6         |
| C. V.K. and Selvaprabhu P., "Utilizing ethereum blockchain and smart contracts to transform cord blood procurement in health care supply chains," Results Eng., vol. 26, 2025, doi: 10.1016/j.rineng.2025.104867.                                                | 6         |

## Overall Summary



**Development of Human Resource Management Software****Faculty:** Dr. Mythili N, **Dr. Sangeetha A****Funding Agency:** Viralli Enterprises, India**Sanctioned Amount:** INR 590000**Date:** 01-04-2025 to 09-10-2025**Development of a Computer vision based motion tracking feature for gamified Rehabilitation****Faculty:** Dr. N Sharmila**Funding Agency:** Cathoren Pvt Ltd, India**Sanctioned Amount:** INR 118000**Date:** 11-06-2025 to 10-09-2025**AI Software Development under Project Biryani****Faculty:** Dr. Sasikumar P, Dr. Karthikeyan S,  
Dr. Samuel Rajkumar V, Dr. Sathis Kumar B**Funding Agency:** TECDIA CO LTD, Japan**Sanctioned Amount:** INR 2024137**Date:** 16-06-2025 to 31-12-2025**Development of Configurable Audio Chain (CAC)****Faculty:** Dr. Zachariah Alex, Dr. Prakash R,  
Dr. Rajeshkumar M**Funding Agency:** RF2DIGITAL INC, South Korea**Sanctioned Amount:** INR 354000**Date:** 01-04-2025 to 31-03-2026



## Smart Supply Chain Management for Agricultural and Marigold Production using IoT Sensors and TXC Analysis

**Faculty:** Dr. Karthikeyan S, Dr. Jayaraman G, Dr. Arabi Mohammed Saleh, **Dr. Sasikumar P**, Dr. Balakrishnan P, Dr. Anny Leema A

**Funding Agency:** OmniActive Health Technologies, India

**Sanctioned Amount:** INR 663750

**Date:** 15-06-2025 to 31-12-2025



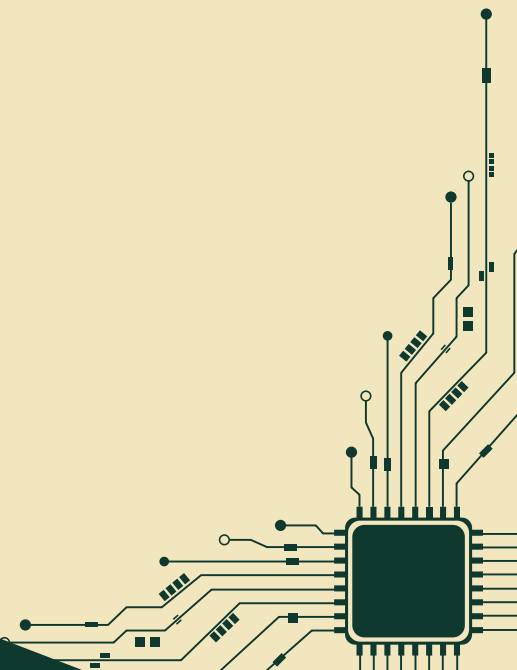
## Autonomous navigation and mapping of underwater environments with ROS based UAVs

**Faculty:** Dr. Zachariah Alex, Dr. Abraham Sampson

**Funding Agency:** IIT Tirupati Navavishkar I-Hub Foundation

**Sanctioned Amount:** INR 2148000

**Date:** 15-06-2025 to 31-12-2025





| Faculty Coordinator     |           |                                          |
|-------------------------|-----------|------------------------------------------|
| Dr. Thanikaiselvan V    | 10888     | Professor, SENSE<br>Asst. Director, DQAA |
| Dr Renuga Devi S        | 10291     | Professor, SENSE<br>Dy. Director, DQAA   |
| Executive Board 2024-25 |           |                                          |
| Aditya Mani             | 21BEC0468 | Chairperson                              |
| Arish P                 | 21BEC2348 | Secretary                                |
| Aditya Menon            | 22BEC0584 | Vice-Chairperson                         |
| Kavi Rohith M           | 22BEC0147 | Co-Secretary                             |
| Srishti Shukla          | 21BCE3977 | Technical Head                           |
| Akash Manikantan N      | 22BEC0056 | Editorial Head                           |
| Gurpreet Singh          | 22BEC0416 | Design Head                              |
| Shoumik Adhikary        | 22BEC0437 | Projects Head                            |
| Jiya Sugla              | 22BEC0114 | Finance Head                             |
| Aniruddh Russiya        | 22BEC0441 | Publicity Head                           |

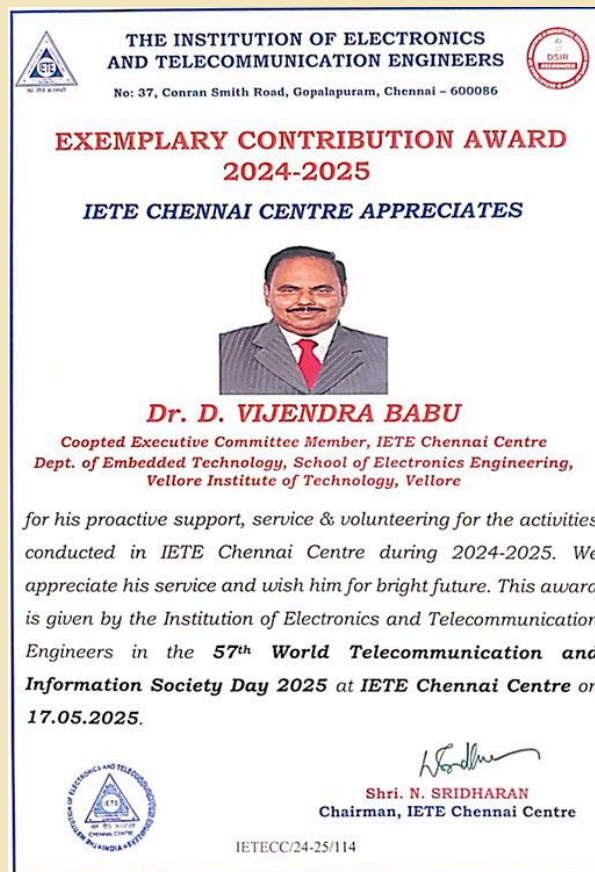
IEEE Communications Society (IEEE ComSoc) VIT has been awarded the **Best Chapter Award** for the year 2024–25 under the IEEE category by the Office of Students' Welfare at University Day 2025 held on 05-04-2025.



Dr. Konguvel Elango received the **Anveshan Fellowship Program 2024–2025** award from Analog Devices on 07-04-2025.



Dr. Vetriveeran Rajamani received the **Best Paper Award** at RAEEUCCI-2025 International Conference held at SRMIST, Kattankulathur from 23-25 April, 2025.



Dr. Vijendra Babu D received the **Exemplary Contribution Award** from IETE Chennai Centre on 17 May, 2025

The months of **April to June 2025** marked a truly remarkable chapter for VIT, with students making waves across cultural, technical, and academic platforms, both nationally and internationally. While students from various schools of VIT showcased exceptional talents during this period, this newsletter spotlights the outstanding achievements of students from the School of Electronics and Communication Engineering (SENSE).

Setting the stage ablaze at **Milan 2025**, SRM University's cultural extravaganza, the **VIT Dance Club** shone brightly in the Folk Fiesta category. **Team Chargers** clinched **1st Place**, mesmerizing the audience with a vibrant blend of rhythm and tradition. Congratulations to **Somasskandan M S (22BEC0886)**, **Rishwandth C S (24BEC0687)**, and **Niranjan Kumar S (24MVD0081)**.

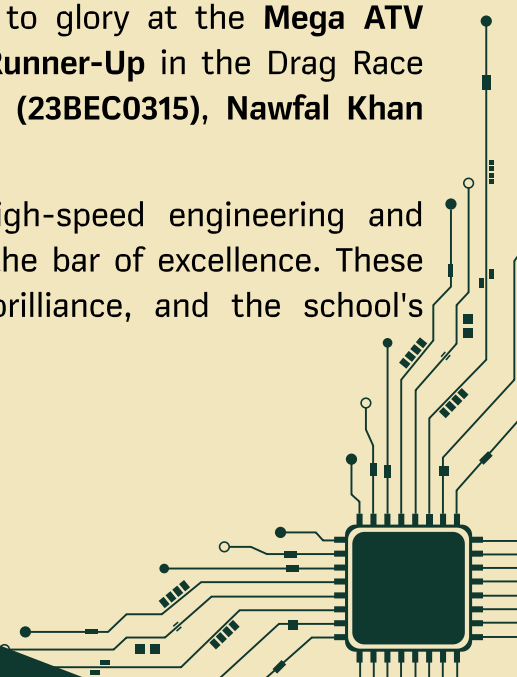
Crossing international borders, **Team Assailing Falcons** from the **SAE VIT Chapter** demonstrated engineering excellence at **SAE Aero Design West 2025** in Van Nuys, California. Competing in the Advanced Class category, the team secured **1st Place in Design Report**, **3rd in Overall Presentation**, and **3rd Overall**, achieving a stellar flight score of 97.7361 and a Mission Performance Rank of 4th. The team featured **Adheesh Mathur (23BEC0334)**, **Adhvaith Shivkumar (22BEC00200)**, **Dhruv Bobby Johnson (21BEC0984)**, **Diljith Ragesh (21BEC2028)**, **Jaywant Nitin Nikam (21BEC0127)**, **Praneel Nimbalker (22BML0071)**, and **Sisir Lakkaraju (23BEC0248)**.

Innovation met imagination as the **AI & ML Club (TAM)** made its mark at **Kuruksastra 2025**, hosted by Sastra University. In the Logo Wars design challenge, **Team Design Dynamo**, represented by **Nandagopal Ravi (23BML0010)**, emerged as **Runners-Up**, under the guidance of **Dr. Sivakumar R.**

Diplomacy and intellect took center stage as **VITMUNSOC** secured the prestigious **Best Delegation Award** at **SRMR MUN 2025**, held at SRM Ramapuram, Chennai. The team earned 10 individual recognitions, with **Kasturi Saketh Manikrishna (24BVD0053)** receiving High Commendation in the AIPPM committee.

In the thrilling world of motorsports, **Team Kshatriya** roared to glory at the **Mega ATV Championship 2025** in Coimbatore, clinching the title of **2nd Runner-Up** in the Drag Race event. Their high-octane performance came from **Jovan Lloyd (23BEC0315)**, **Nawfal Khan (23BEC0286)**, and **Tia Rachel Fernandez (23BEC0202)**.

From dazzling performances and airborne innovations to high-speed engineering and strategic diplomacy, the students of SENSE continue to raise the bar of excellence. These achievements reflect their unwavering dedication, creative brilliance, and the school's commitment to nurturing talent across every domain.

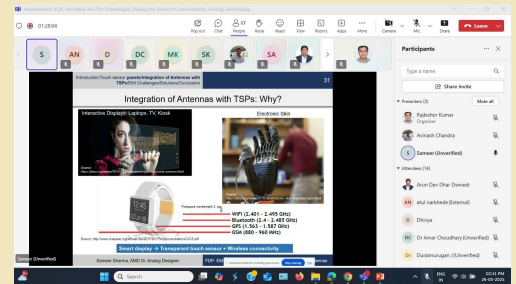




# EVENTS ORGANIZED

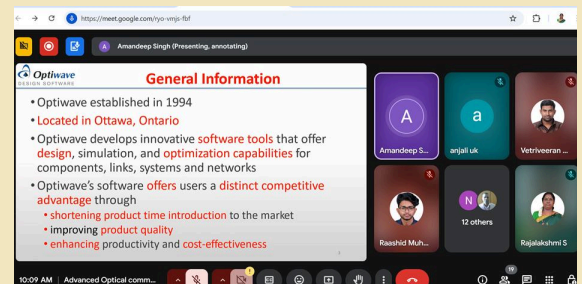
# 09

FDP on **Advancements in RF, mm-Wave, and THz Technologies: Shaping the Future of Communication, Sensing, and Imaging** was organized by Dr. Rajkishor Kumar and Dr. Avinash Chandra from 26-05-2025 to 30-05-2025.



10 Days Summer Internship on **IoT-Cloud and AI Driven Sustainable Solutions** was organized by Dr. Sujatha R and Dr. Rajalakshmi S from 05-05-2025 to 14-05-2025.

Workshop on **Advanced Optical Communication and Photonics (OptiSystem Software)** was organized by Dr. Poongundran Selvaprabhu and Dr. Rajalakshmi S on 18-05-2025.



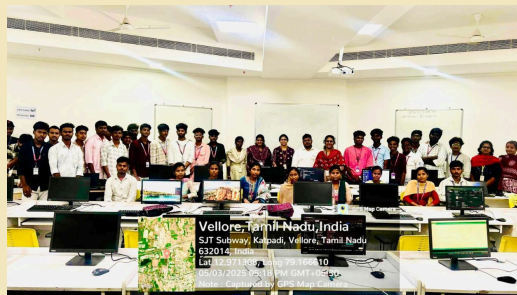
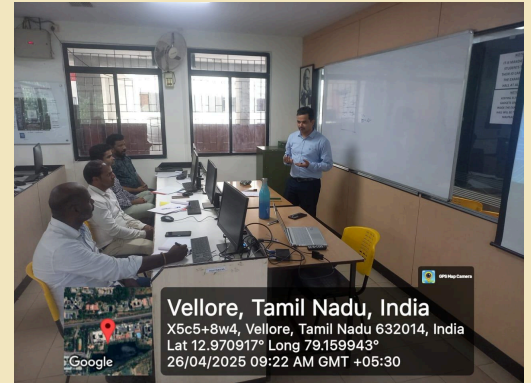
10 Days Summer Internship on **Digital Hardware Architecture Design: Verilog, Pipeline Processors & FPGA Exposure** was organized by Dr. Naushad Manzoor Laskar and Dr. Vikas Vijayvargiya from 16-06-2025 to 26-06-2025.

FDP on **Topological Structures for Next Generation Devices** was organized by Dr. Chittaranjan Nayak and Dr. Rajesh N from 12-05-2025 to 23-05-2025.

# 09

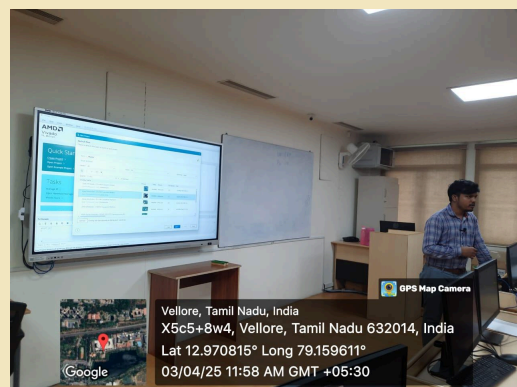
# EVENTS ORGANIZED

3-Day National Workshop on **ASIC Design using Synopsys EDA Tools** was organized by Dr. Jagannadha Naidu K and Dr. Sivanantham S from 25-04-2025 to 27-04-2025.



Workshop on **Harnessing IoT and Cloud for Scalable and Sustainable Intelligent Systems** was organized by Dr. Sriharipriya K C and Dr. Aparna Mohanty on 03-05-2025.

Project Expo on **Wireless Communications** was organized by Dr. Tangudu Ramji and Dr. Vijaya Durga Chintala on 09-04-2025.



One-Day Workshop on **Custom Overlay Development for ZCU104** was organized by Dr. Prayline Rajabai C and Dr. Antony Xavier Glittas Xavier Chelliah on 03-04-2025.

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.

With focused discussions on emerging technologies like AI-empowered 5G, UVM-based verification, real-time edge vision, and low-power processor design, the lectures provided students with in-depth exposure to current industry practices and innovations. Topics also included domain-specific applications in automotive, healthcare, aviation, and renewable energy.

By connecting theoretical concepts with practical challenges, the lecture series offered a robust learning platform that fostered critical thinking, technical proficiency, and research-oriented mindsets among students, empowering them to contribute meaningfully to tomorrow's technological ecosystem.

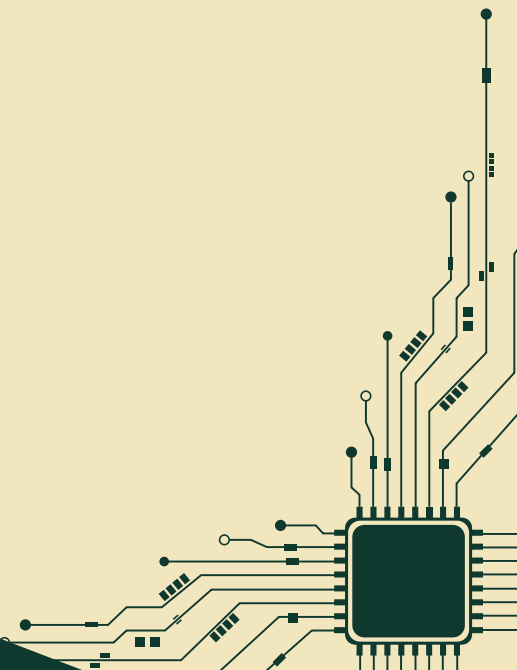
In this second quarter of the year 2025, we have organized 53 guest lectures over various departments.

## Guest Lecture Delivered

Recent Innovations and Trends in  
Electrical & Electronics  
Engineering and Computing  
(RITEEC)

Dr. Arun Dev Dhar Dwivedi

NIT Patna



**Faculty:** Dr. Sakthivel R

**Institute:** University of Tor Vergata, Rome, Italy

**Date:** 01-04-2025 to 30-04-2025

**Proposal:** Dual Degree on M.Tech (VLSI), Summer Internship programme



**Faculty:** Dr. Zachariah C Alex

**Institute:** Mid Sweden University, Sweden

**Date:** 28-05-2025 to 30-06-2025

**Proposal:** Dual Degree on B.Tech (ECE ,VLSI, Bio and Embedded), Summer Internship programme



**Faculty:** Dr. Arunkumar Chandrasekhar

**Institute:** National University of Taiwan, Taiwan

**Date:** 28-05-2025 to 30-06-2025

**Proposal:** Dual Degree on M.Tech(VLSI), Summer Internship program



**Faculty:** Dr. Revathi

**Institute:** University of Bristol, University of Bath, and City, University of London

**Date:** 09-06-2025 to 15-06-2025

**Proposal:** Collaborative Activities

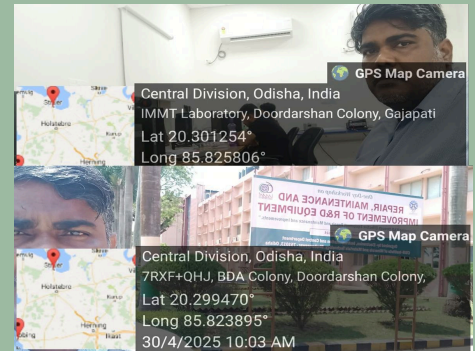




**Faculty:** Dr. Chitharanjan Nayak

**Industry:** IMMT Labs, Odisha

**Date:** 28-04-2025



**Faculty:** Dr. Sivanantham S, Dr. Sridevi S ,  
Dr. Arunachalam V, Dr. Kumaravel S, Dr. Jagannatha  
Naidu K, Dr. Jayakrishnan P, Dr. Rajeev Pankaj N, Dr.  
Nitish Kumar V, Dr. Ragunath G ,Dr. Abdul Mazeed K K

**Industry:** Marvell Technologies, Bangalore

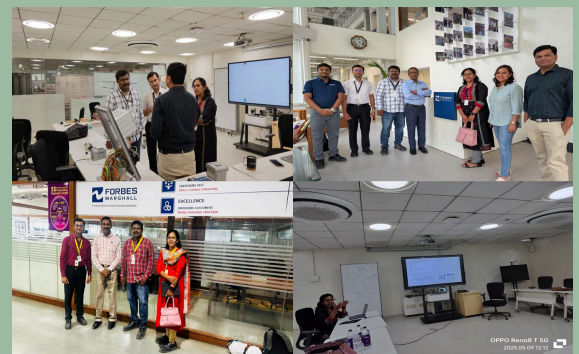
**Date:** 06-05-2025 to 09-05-2025



**Faculty:** Dr. Karthikeyan B, Dr. Sujatha R,  
Dr. Sumit Jindal

**Industry:** Forbes Marshall Pvt. Limited, Pune

**Date:** 07-05-2025 to 08-05-2025



**Faculty:** Dr. K. C. Saranya, Dr. Yogesh Kumar C,  
Dr. Abhijith Bhowmick

**Industry:** Carborundum Universal Limited (CUMI)

**Date:** 26-05-2025 to 30-05-2025



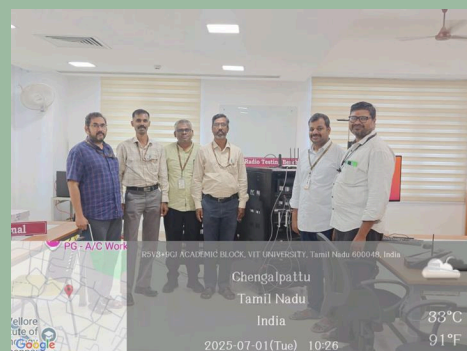
**Faculty:** Dr. Sangeetha A, Dr. Aarthi G  
**Industry:** Deutz - Fahr Groups, Ranipet  
**Date:** 02-06-2025



**Faculty:** Dr. Sangeetha A  
**Industry:** Ocean Institute of Technology and PRS, Semicon Technologies, Chennai  
**Date:** 08-06-2025



**Faculty:** Dr. Shankar T, Dr. Gautham Narayanan, Dr. Hariharan, Dr. Govardhan  
**Industry:** Nokia Chennai  
**Date:** 01-07-2025



**Faculty:** Dr. Kathirvelan, Dr. Sivacoumar, Dr. Sasikumar K  
**Industry:** Syscon Instruments Private Limited, Bangalore  
**Date:** 17-06-2025



**Faculty:** Dr. Kathirvelan, Dr. Sivacoumar, Dr. Sasikumar K

**Industry:** Visteon Technical Services Private Limited, Bangalore

**Date:** 18-06-2025



**Faculty:** Dr. Kathirvelan, Dr. Sivacoumar, Dr. Sasikumar K

**Industry:** Prolyx Microelectronics Private Limited, Bangalore

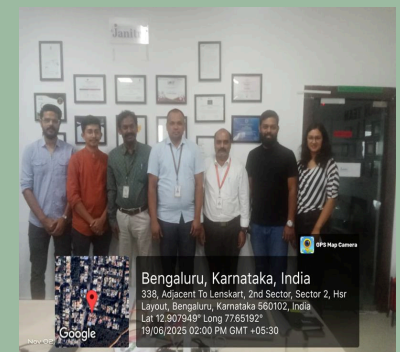
**Date:** 19-06-2025



**Faculty:** Dr. Kathirvelan, Dr. Sivacoumar, Dr. Sasikumar K

**Industry:** Janitri Innovations Private Limited, Bangalore

**Date:** 19-06-2025





**Faculty:** Dr. J. Christopher Clement, Dr. K.C. SrihariPriya, Dr. Manish Kumar, Dr. Aparna Mohanty, Dr. G. Sumathi

**Industry:** Enthru Technology Solutions India Pvt. Ltd. Coimbatore

**Date:** 17-06-2025 to 28-06-2025



**Faculty:** Dr. R.Prakash, Dr. S. Sundar

**Industry:** RF2DIGITAL Inc., Chennai

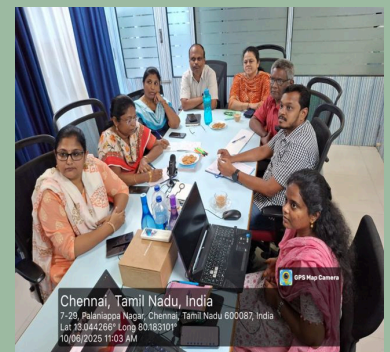
**Date:** 16-06-2025 to 26-06-2025



**Faculty:** Dr. Sivakumar R, Dr. Vidhya S, Dr. Mythili A, Dr. Sharmila N, Dr Konguvel

**Industry:** VYVOXEL India Private Limited, Chennai

**Date:** 10-06-2025 to 20-06-2025



**Faculty:** Dr. J. B. Jeeva

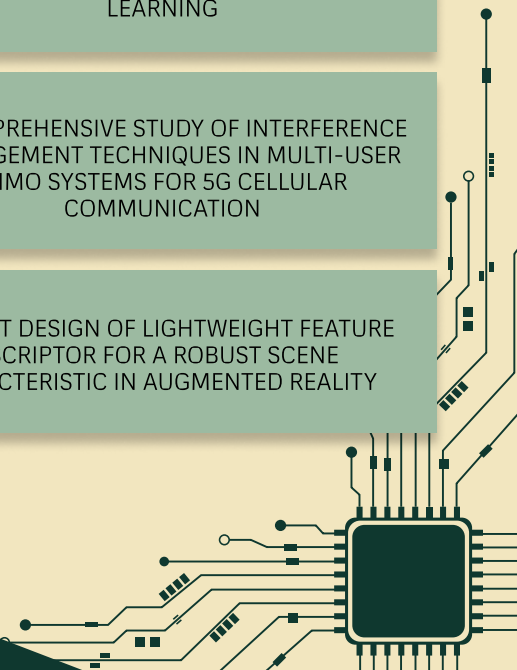
**Industry:** Christian Medical College, Vellore

**Date:** 24-06-2025 to 28-06-2025

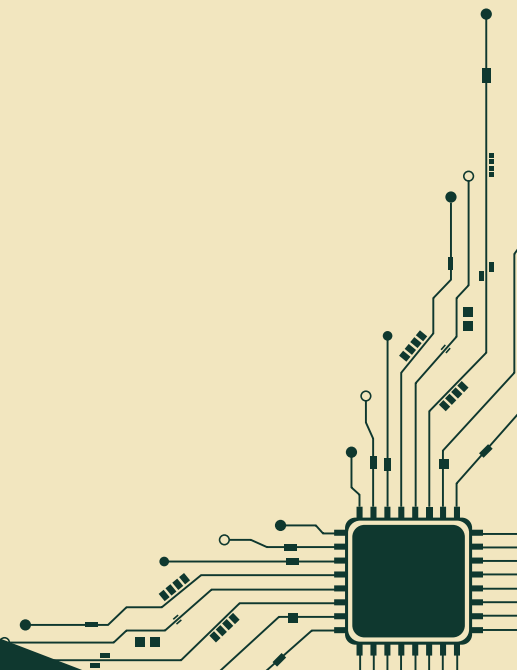




| <i>Name</i>                | <i>Guide name</i>            | <i>Title</i>                                                                                                                           |
|----------------------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Ms. GEETHA K               | Dr. Malaya Kumar Hota        | ENHANCED DIGITAL SIGNAL PROCESSING TECHNIQUES UTILIZING METAHEURISTIC OPTIMIZATION FOR SEISMIC RANDOM NOISE ATTENUATION                |
| PUJA SENGUPTA              | Dr. Kishor Lakshmi Narayanan | NEUROPHYSIOLOGICAL ANALYSIS OF MOTOR AND TACTILE IMAGERY FOR BRAIN-COMPUTER INTERFACE AND REHABILITATION                               |
| Mr. MUNAVAR SHERIFF I      | Dr. Sakthivel                | DESIGN AND IMPLEMENTATION OF GENERALIZED BIO-PLA USABLE NEURON MODEL WITH REFRACTORINESS, FREQUENCY ADAPTATION AND DYNAMIC THRESHOLD   |
| Mr. RIYAZ ALI SHAIK        | Dr. Elizabeth Rufus          | DESIGN AND DEVELOPMENT OF A LOW-COST 3D- SHAPE SENSOR USING FLEXIBLE PIEZORESISTIVE POLYMER NANOCOMPOSITES                             |
| Mr. VADIVELAN R            | Dr. Kishor Lakshmi Narayanan | SENSORIMOTOR-BASED IMAGERY FOR IMPROVEMENT OF HAND FUNCTION                                                                            |
| MUDIREDY<br>BALASUBBAREDDY | Dr. Sivasankaran K           | STUDY OF SELF-HEATING AND DEVICE TO DEVICE THERMAL INTERFERENCE EFFECT ON THE PERFORMANCE OF STACKED NANOSHEET FIELD EFFECT TRANSISTOR |
| Ms. RANI KUMARI            | Dr. Prakash R                | EARLY DIAGNOSIS OF PARKINSON'S DISEASE USING SPEECH SIGNAL ANALYSIS AND MACHINE LEARNING                                               |
| Ms. NIVETHA B              | Dr. Poongundran Selvaprabhu  | A COMPREHENSIVE STUDY OF INTERFERENCE MANAGEMENT TECHNIQUES IN MULTI-USER MIMO SYSTEMS FOR 5G CELLULAR COMMUNICATION                   |
| Ms. INDHUMATHI S           | Dr. Christopher Clement J    | EFFICIENT DESIGN OF LIGHTWEIGHT FEATURE DESCRIPTOR FOR A ROBUST SCENE CHARACTERISTIC IN AUGMENTED REALITY                              |



| <i>Name</i>               | <i>Guide name</i>           | <i>Title</i>                                                                                                                             |
|---------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Mr. KRANTHI KUMAR PULLURI | Dr. Vaegae Naveen Kumar     | DEVELOPMENT OF FOOD QUALITY ASSESSMENT AND DETECTION METHODS USING SOFT ELECTRONIC NOSE                                                  |
| Ms. PREMALATHA B          | Dr. Prakasam P              | AN INVESTIGATION ON OPTIMAL RESOURCE ALLOCATION, FAULT TOLERANCE AND TRUST MANAGEMENT SCHEMES IN IoT-FOG NETWORKS                        |
| Mr. VIJAYANANDAM N        | Dr. S. Vidhya               | DESIGN AND IMPLEMENTATION OF WEARABLE TRIBOELECTRIC NANOGENERATOR AS ENERGY HARVESTER AND SELF-POWERED SENSOR FOR REAL-TIME APPLICATIONS |
| Ms. PRABAVATHI. M         | Dr. Arunkumar Chandrasekhar | DESIGN AND IMPLEMENTATION OF WEARABLE TRIBOELECTRIC NANOGENERATOR AS ENERGY HARVESTER AND SELF-POWERED SENSOR FOR REAL-TIME APPLICATIONS |
| Ms. NITHA P K             | Dr. Arunkumar Chandrasekhar | INVESTIGATING THE POTENTIAL OF METAL ORGANIC FRAMEWORK BASED TRIBOELECTRIC NANOGENERATOR FOR SELF-POWERED AND REAL-TIME APPLICATIONS     |



## ADVISORY TEAM



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SENSE, VIT Vellore



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**Dr. Sri Adibhatla Sridevi**  
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**Dr. Sundar S**  
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**Dr. Sudhanshu Arya**  
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**BALAJI S**  
22BEC0145  
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**HRDYA VR**  
24BVD0076  
Design



**PALLAWI KUMARI**  
23BML0021  
Content