Green Revolution in Electronics Engineering and Networks Conference (GREENCON) 2025
19th - 20th March, 2025
An International Conference organized by

School of Electronics Engineering
Vellore Institute of Technology, Chennai

Track Chairs   Dr. A Prathiba   Dr. S Umadevi

Invited Talk 1   1.30 pm – 2.00 pm   Dr. Aniruddha Kanhe
Assistant Professor, Dept of ECE,
National Institute of Technology, Puducherry

Invited Talk 2   2.00 pm – 2.30 pm   Mr. Siddhanta Roy
Device/Process Modeling Engineer, Global
foundries, Bangalore

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T1-44	2.30 pm – 2.45 pm	Low power Arithmetic logic unit using reversible logic gates *R. Kawin Kishore, Velmathi Guruviah*
D1-T1-173	2.45 pm – 3.00 pm	Innovations in Energy-efficient Automated Street Lighting Technologies *Lijo Jacob Varghese, Prasath S R, Prasath S R* *Rathi Prabha E*
D1-T1-131	3.00 pm – 3.15 pm	Low-Power Content Addressable Memory: A Multi-Topology SRAM Perspective *Muthu Kumar G, Kalavathi Devi T, Sakthivel P, Sumathi S, Malathika J*
D1-T1-132	3.30 pm – 3.45 pm	Real-Time Detection, Measurement, and Tracking of Oil Spillage Using FPGA-Based Systems *Akash Kumar Vruddhula, Vishal Pranao Amarnath Kumar, Sundar S*
D1-T1-143	3.45 pm –4 .00 pm	Automated FSM extraction and analysis from digital systems *Rudraksh Chourey, Umadevi S, Prathiba A*
D1-T1-212	4.00 pm – 4.15 pm	Design and Implementation of Traffic Light Control System Using Verilog (HDL) *Devika R, Sandhya U, Kalaiarasi P, Ramiya R, Ramyalakshmi M, Renuka J*

TRACK 1: SUSTAINABLE INNOVATIONS IN VLSI DEVICES CIRCUITS AND SYSTEMS

DATE: 20/03/2025 **VENUE: AB1 806**

Track Chairs **Dr. A Prathiba** **Dr. S Umadevi**

Invited Talk 1 **10.00 am –11.15 am** **Mr. Murugeswaran Surulivel**
Senior Director DFT - Insemi Technology
Services Pvt Ltd, Bangalore

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T1-156	11.15 am – 11.30 am	Comparative Analysis of Controllers for EV Applications *Jahnavi Dandala Sai, Achal Upase, Sangeeta Modi*
D2-T1-54	11.30 am – 11.45 am	Design and Simulation of a Threshold-Based Memristor for Non-Volatile Memory Applications *Jalpaben Pandya, Ramji Gupta*
D2-T1-182	11.45 am – 12.00 pm	MEMS-Based Biomechanical Energy Harvesting for Leadless Pacemakers *Rishabh Lahkar, Reena P*
D2-T1-192	12.15 pm – 12.30 pm	Hardware Accelerated Implementation of CNN for Character Recognition *Abhinav Ajith, Jino Vinod, Vaishnav V, Augusta Sophy Beulet P*
D2-T1-260	12.30 pm – 12.45 pm	Assessment of Voltage Level Shifter Performance Across Several Technology Nodes *J. Kruthika, Dhandapani Vaithiyanathan, Manish Verma, Preeti Verma, Baljit Kaur, V. Jeyalakshmi*

Track Chairs   Dr. Usha Kiran Kommuri   Dr. Niraj Kumar

Invited Talk   1.30 pm – 2.00 pm   Dr. Sreenath Reddy
IIITDM, Kancheepuram

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T2-29	2.15 pm – 2.30 pm	Ultra – Miniaturized Meander Line Implantable Antenna For Leadless Pacemaker System at 1.4 GHz WMTS Band *Archana Mohan and Niraj Kumar*
D1-T2-30	2.30 pm – 2.45 pm	Material Analysis for Patch Antennas in Terahertz Communication *Selvakumar George, Kanthimathi N, Ramkumar Ramanujam, Dhanalakshmi D, Ezhil E. Nithila and Relin Francis raj J*
D1-T2-110	2.45 pm – 3.00 pm	Broad Band MIMO Tunable Antenna for 5G Wireless Application Using AI *Kowshik. B, Gayathri P K, G. Supriya, Sai Keerthana and HBM Ajjaiah*
D1-T2-113	3.00 pm – 3.15 pm	Design of Wideband Modified Crossed Dipole Antenna with Parasitic Patches For 5G Sub 6 GHz *Praveen Kumar B, Usha Kiran K and Nagajayanthi B*
D1-T2-146	3.30 pm – 3.45 pm	Wideband Reflect Array Antenna using Polarization Rotating Unit Cell *Usha Kiran Kommuri, Jayakanth Reddy Velagala, Likhith Srinivas Boddu and Aashish Rapaka*

TRACK 2: MICROWAVE AND ANTENNAS EMERGING TECHNOLOGIES (MAGNET)

DATE: 20/03/2025   **VENUE: AB1 707**

Track Chairs   Dr. Usha Kiran Kommuri   Dr. Niraj Kumar

Invited Talk 1   10.00 am – 10.30 am   Ankit Bhattacharjee
Technical Lead, HCL Technology (ERS-Engineering and R&D Services Team, Chennai)

Invited Talk 2   10.45 am – 11.15 am   Dr. Lee Yong Hong
Assistant Professor, Universiti Tunku Abdul Rahman (UTAR), Malaysia

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T2-171	11.15 am – 11.30 am	Design of Dual-Band and Multi-Band Microstrip Patch Antennas at Sub-6 GHz and Millimeter Frequencies For 5G *Sangam Prafulla Borkar and Nitesh B. Guinde*
D2-T2-178	11.30 am – 11.45 am	Offset Fed Slot Antenna for Quad Band Applications *Shruti, Revanasiddappa Kinagi, Vilaskumar Patil, Padmavati*
D2-T2-189	11.45 am – 12.00 pm	Low-Power Autonomous Sensing Mode Lora Technology-Based Miniature Antenna *Ummaka Venkatesh, Ummaka Subba Rao and N. Sugitha*
D2-T2-230	12.00 pm – 12.15 pm	A Novel Design of Rectangular Frame Slot Loaded Monopole Hybrid Microstrip Antenna *Swati Shelar and Rajeshwari Biradar*
D2-T2-315	12.15 pm – 12.30 pm	Dielectric Resonator Antennas for 5G: A Review Focusing on MIMO Applications *Peter Adejumo, Sadiq Batcha Abdul Rahim, Hanisah Zali and Md Sakib*
D2-T2-28	12.30 pm – 12.45 pm	Design of UWB Monopole MIMO Antenna with RFID for Automotive Applications *S. Kolangiammal and S. T. Aarthy*

TRACK 3: GREEN INNOVATIONS IN PHOTONICS AND OPTICAL COMMUNICATION NETWORKS

DATE: 20/03/2025   **VENUE: AB1 506A**

Track Chairs   **Dr. A. Sivasubramanian**   **Dr.T.Ilavarasan**

Invited Talk 1   **10.45 am – 11.15 am**   **Dr. Prabu K**
NIT Surathkal

Invited Talk 2   **12.30 pm – 1.00 pm**   **Dr. Meenakshi M**
Professor, Anna University

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T3-45	11:30 am – 11:45 am	Malaria Detection using PCF over Surface Plasmon Resonance Sensor *Humscikha S, Pavithra V, Keerthana S, Dhinakaran Vijayalakshmi*
D2-T3-193	11:45 am – 12:00 pm	Finite Element Method-based Photonic Crystal Fiber Sensor with Surface Plasmon Resonance for Clinical Diagnostics *Parthiban M, Dineshkumar TR, Sivasaravana babu S, Sureshchinnathampy M, Barathwaj, Balaji M, Balavignesh S*
D2-T3-273	12:00 pm – 12:15 pm	Numerical Study of Surface Plasmon Resonance-Based Polished Nano-Pillar Photonic Crystal Fiber Refractive Index Sensor (SPR-PCF-RI Sensor) *Revathi S, Christina Josephine Malathi A, Kousalya S, Roheet saha, Yemireddy Vignesh Reddy, Vennapusa Ganesh Kumar Reddy, Parthiban M*

TRACK 4: SIGNAL AND IMAGE PROCESSING FOR SUSTAINABLE DEVELOPMENT

DATE: 19/03/2025   **VENUE: AB1 706**

Track Chairs   **Dr. Vijayarajan R**   **Dr. Sankar Ganesh S**

Invited Talk   **1.30 pm – 2.00 pm**   **Ms. K. Chitra**
Scientist-F, NIOT

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T4-86	2.00 pm – 2.15 pm	Automated Screening of Diabetic Retinopathy Using Explainable AI with Grad-CAM *Pradeep Kumar G, Sridevi B, Sivakami D, Nallamani J, Sree Yegappan M, Niranjan S*
D1-T4-197	2.15pm – 2.30 pm	Automatic Panoramic Radiographs Segmentation for Dental Disease Detection Using Yolo11 *Priscilla Whitin, S. Sivakumar, K. Anish Pon Yamini, P. Sivaraj, S. Jebarose Juliyana*
D1-T4-90	2.30 pm – 2.45 pm	Advanced Static and Dynamic Object Detection and Identification Leveraging YOLOv11 *K Stella, Chandru P, S Hemajothy, M D Faheem M N, Suresh Chinnathampy M, Mohamed Zuhail Akhtar S*
D1-T4-122	2.45 pm – 3.00 pm	Enhanced Night Vision Image Processing Algorithm for Autonomous Robots: Integrating Diffusion Models and Adaptive Optimization *Logeshwaran R, Saravanan Mohan, Markkandan S, Somasekar Muthusamy*
D1-T4-151	3.00 pm – 3.15 pm	Focus Track: A Multi-Faceted AI - Powered Framework for Real - Time Attention and Distraction Monitoring *Kiruthik Kumar Jayakumar, Shree Sathiyaa Sankaralingam kannagi, Thiruvarshan Mohan, Mohammed Naazil Abdul Azeem, Sri Pavithra Balraj, Sam Varghese George*
D1-T4-153	3.30 pm – 3.45 pm	Comparative Analysis of GAN'S And GNN'S For Enhanced Stock Price Prediction *Abhinav, Avika Porwal, Suhasini S*
D1-T4-164	3.45 pm – 4.00 pm	AI-Driven Adaptive Traffic Signal System Using Real-Time Vehicle Detection and Distance Estimation *Devadharshini S, Lavanya S, Kiruba Wesley*
D1-T4-179	4.00 pm – 4.15 pm	Music Genre Detection with Live Audio *Sasank Devabhakthuni, Lokesh Boda, Bandaru Ratna Siva Kumar, Manmohan Sharma*

TRACK 4: SIGNAL AND IMAGE PROCESSING FOR SUSTAINABLE DEVELOPMENT

DATE: 20/03/2025   **VENUE: AB1 706**

Track Chairs **Dr. Vijayarajan R**   **Dr. Sankar Ganesh S**

Invited Talk 1 **10.00 am – 10.30 am**   **Dr. S Sakthivel Murugan**
Professor, NITTTR, Chennai

Invited Talk 2 **11.30 am – 12.15 pm**   **Prof. Dr. Chi-wen Lung**
Professor, Asia University, Taiwan

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T4-116	10.45 am – 11.00 am	Cancer Detection in Chest CT Scan Imagery Using CNN Architectures and ML Classifiers *Akshit Saxena, Yugal Pande, Aryan Blauria, Sundar S*
D2-T4-196	11 am – 11.15 am	Classification of AI generated images and real Images using Deep learning *Muthaiah U, Divya A, Swarnalaxmi T N*
D2-T4-208	11.15 am – 11.30 am	Deep Learning Based Disaster Image Segmentation Using U-NET *L Sai Ramesh, A. M. Admidilsen, A. Akshay*
D2-T4-243	12.15 pm – 12.30 pm	Real-Time Sign Language Interpretation in Google Meet for Inclusive Communication *Thamizazhagan B, Ram Sri Vathssa C R, Samyuktha C S, Deepa D*
D2-T4-279	12.30 pm – 12.45 pm	Optimizing Traffic Flow: Real-Time Traffic Congestion Detection Using Computer Vision for Improved Road Management *Arunvignesh K, Gowtham P, Ashwini S*
D2-T4-300	12.45 pm – 1.00 pm	Potato Leaf Disease Classification Using Convolutional Neural Networks: A Computational Approach for Early Detection and Diagnosis *M R Vinoth Kumar, S. Praveenkumar, T. Aravind, T K Srinivasan*

Track Chairs   Dr. Gugapriya G   Dr. Abraham Sudharson Ponraj

Invited Talk   1.30 pm – 2.00 pm   Dr. Pethuru Raj
Chief Architect and Vice President, Edge AI
Division, Reliance Jio Platforms Ltd

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T5-06	2.00 pm – 2.15 pm	Smart Security Personal Assistant *Sagunthala G, Tanisha Sinha, Dhrishya Ramaswamy, Gugapriya G*
D1-T5-27	2.15 pm – 2.30 pm	Fall Detection for Patients with Mobility Issues *Rupam Dutta, Gagan Gowda, V Sumitra*
D1-T5-53	2.30 pm – 2.45 pm	Prosthetic Hand Arm using Flex Sensors and Servo Motors *A Sakthi Preetha, K Kavitha, Vaibhavi K R, Preethi S, Rithika S*
D1-T5-71	2.45 pm – 3.00 pm	IoT-based Intrusion Detection on Security Camera Using Machine Learning Techniques *Sivashankar S, Kavitha S, Kamalanaban E, Rohan M, Reshikanth M*
D1-T5-97	3.00 pm – 3.15 pm	Digital Twins In Agriculture: Precision Farming For Sustainable Yield *S. Surya, E. Yuvaraj, A Balachandar*
D1-T5-108	3.30 pm – 3.45 pm	Enhanced Accuracy and Customization In Hand Gesture Cursor Control Using Python And OpenCV *V. Sabapathi, E Kamalanaban, Lathish P, Naveen N, Nihitha T*

TRACK 5: SUSTAINABLE INTELLIGENT SYSTEM

DATE: 20/03/2025   **VENUE: AB1 607B**

Track Chairs   **Dr. Gugapriya G**   **Dr. Abraham Sudharson Ponraj**

Invited Talk 1   **10.00 am – 10.30 am**   **Dr. Pradheep Balaji**
Global Delivery Manager, Nokia

Invited Talk 2   **10.45 am – 11.15 am**   **Dr. Yoshiro Okazaki**
Waseda University, Tokyo

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T5-135	11.15 am – 11.30 am	An Intelligent Intrusion Detection for Enhanced Cybersecurity *Joshua Shaji, Pranav Ramesh, Lekshmi. S. Raveendran*
D2-T5-227	11.30 am – 11.45 am	Intelligent Vehicle Access Control System Using Breath Alcohol Detection and Automated Locking Mechanism *Tharani R, Rani K S, Menaka M, Aazeen farahana S, Asvadhani A, Barkavi B U*
D2-T5-239	11.45 am – 12.00 pm	Comprehensive Accident Prevention Device for Vehicles *Sumanth N Prabhu, Himanshu Singh, Anany Sharma, Saksham Kaiastha, Aman Gupta, Velmathi G, Jamuna K*
D2-T5-255	12.00 pm – 12.15 pm	Enhancing Computer Interaction Through Media Pipe Based Hand Gesture Control for Accessibility and Efficiency *Devika. R, Sandhya. U, Kalaiarasi.P, Sachin. N, Saaim Afnaanuddin Z S, Sakthivel. S*
D2-T5-283	12.15 pm – 12.30 pm	The Electric Foot Tiles Embedded with Piezoelectric Sensor *Hanes Harini A, Kalaiarasi P, Sandhya U, Devika R, Gayathri V, Gowri S*
D2-T5-284	12.30 pm – 12.45 pm	Road Traffic Digital-Twin System Via Smart Road Studs *Jianrong Wang, Weizhi He, Kai Zhao, Xiaojiang Ren, Kai Sheng*

TRACK 6: INTELLIGENT WIRELESS COMMUNICATION AND NETWORKS

DATE: 19/03/2025   VENUE: AB1 506A

Track Chairs   Dr. Vijaya Kumar P   Dr. Berlin Hency V

Invited Talk   1.30 pm – 2.00 pm   Dr. M. D. Selvaraj
IIITDM, Kancheepuram

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T6-87	2.00 pm – 2.15 pm	Energy-Efficient Cooperative Attack Algorithms for UAV Swarms in Dynamic Environments *Pradeep Kumar G, Teena S, Meenakshi R, Pooja K V, B.Sridevi, P.Suveetha Dhanaselvam*
D1-T6-150	2.15 pm – 2.30 pm	Cyber-Bullying Detection on Social Networking using NLP Algorithm *Zibeon Samuel Moses, Sandra Maria George, Scinthia Clarinda*
D1-T6-175	2.30 pm – 2.45 pm	Drive Sense Pro *Sivasankari K, Valarmathi G , Anouska P, Anitha Kamalin N, Mahalakshmi S*
D1-T6-228	2.45 pm – 3.00 pm	Real-Time Class Attendance Monitoring via Facial Recognition using Jetson Nano *Chinni Krishna Kowsik P, Uday Reddy H, Mathivanan P, Udhayakumar S*
D1-T6-242	3.00 pm – 3.15 pm	IoT Based on Electric Vehicle Battery Monitoring System *Tharani.R, Menaka M, Pemila, Dhanush Kumar.N, Dhanush.M , Dharnidhar.S*
D1-T6-294	3.30 pm – 3.45 pm	Energy-Efficient 5G beamforming with Embedded systems *Pranav S, Susila M*

Track Chairs   Dr. Suganthi K   Dr. Logesh R

Invited Talk   1.30 pm – 2.00 pm   Mr. Prem Kumar S R
Head of Engineering Digital & AI Products

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D1-T7-31	2.00 pm – 2.15 pm	Crop Classification and Recommendation System Using Explainable AI *Rohith R., Gokul Girish, Sudhakaran G., Hema R, Logeswari G.*
D1-T7-43	2.15 pm – 2.30 pm	Forecasting Carbon Dioxide Emissions In India: Leveraging Historical Fuel Consumption Data *Gayathri J, Kavitha Subramani, Bhavadharani C, Maheswari M, Sathiya V, Vinmathi M S*
D1-T7-50	2.30 pm – 2.45 pm	Hate Speech Detection Using Machine Learning And NLP Techniques *Sritama Roy*
D1-T7-66	2.45 pm – 3.00 pm	Machine Learning-Based Fault Detection and Life Prediction in Electrical Systems Geethapriya V, Arthika M, Mohana D
D1-T7-69	3.00 pm – 3.15 pm	Optimized Sustainable Harvest Planning with Multi Objective Metaheuristic Algorithms *Kavitha S, Selvarani P, Brinda P, Santhiya M, Priyanka M, Shakthi Deepti SS*
D1-T7-82	3.30 pm – 3.45 pm	AI-Driven Plant Care and Disease Detection Treatment System *Shobha Rani P, Ashwini B, Chandanavalli P, Priyadharshini K, Lalith Kishore V P, Keerthivasan A*
D1-T7-123	3.45 pm – 4.00 pm	An Explorative Study of Big Data Analytics in IoT *Mercy Sharon Devadas, W. Nancy, Jessy Sujana G*
D1-T7-160	4.00 pm – 4.15 pm	Comprehensive survey on Phishing Detection Using Machine Learning *Nailah Fathima Khan, Sameen Mehnaz Fathima, Ravi Kumar J*
D1-T7-167	4.15 pm – 4.30 pm	Timely Synchronized Analysis of Traffic Control Using Machine Learning *Hussana Johar R B, Manushree M V, Pooja S, Vidhatri M, Yashaswini S*
D1-T7-238	4.30 pm – 4.45 pm	AI – Integrated embedded framework for real - Time Health Monitoring & Predictive Anomaly Detection in Geriatric Care Systems *Nazar Ali A, Manimegalai D, Kavin V, Kamalesh T*

TRACK 7: DATA DRIVEN INNOVATIONS IN ELECTRONICS ENGINEERING

DATE: 20/03/2025   **VENUE: AB1 505A**

Track Chairs   **Dr. Suganthi K**   **Dr. Logesh R**

Invited Talk 1   **10.00 am – 10.30 am**   **Mr. Srinivasan Narayanan**
Senior Director
Oracle, Bengaluru

Invited Talk 2   **10.45 am – 11.30 am**   **Dr. Gunasekaran Thangavel**
University of Technology and Applied
Sciences, Muscat, Oman

Invited Talk 3   **11.30 am – 12.15 pm**   **Prof. Dr. Chih-Yang Lin**
Professor, National Central University,
Taiwan

Paper presentation schedule:

Paper ID	Time	Title of the Paper
D2-T7-245	12:15 pm – 12:30 pm	An AI-Driven Approach for Enhancing Patient Healthcare in Resource-Constrained Rural Areas *Harshavarthan S, Hafeel Ahmed S, Sabareesawaran M, Kavitha T*
D2-T7-250	12:30 pm – 12:45 pm	Enhancing AI Climate Change Resilience Using Machine Learning *Khallikkunaisa, Soha Rumana, Rifat Riazahmed Desai, Saba Fathima*
D2-T7-287	12:45 pm – 1:00 pm	Deep Learning Approaches to Diagnosing Skin Malignancies *R.Breesha, Jalaja S, Merlin Cm, Mohana Priya S, Priyadharshini V*