

**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 1: SUSTAINABLE INNOVATIONS IN VLSI DEVICES
CIRCUITS AND SYSTEMS**

DATE: 19/03/2025

VENUE: AB1 806

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

**TRACK 1: SUSTAINABLE INNOVATIONS IN VLSI DEVICES
CIRCUITS AND SYSTEMS**

DATE: 20/03/2025

VENUE: AB1 8o6

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

**TRACK 2: MICROWAVE AND ANTENNAS EMERGING
TECHNOLOGIES (MAGNET)**

DATE: 19/03/2025

VENUE: AB1 707

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-T2-28	2.00 pm – 2.15 pm	Design of UWB Monopole MIMO Antenna with RFID for Automotive Applications <i>S. Kolangiammal and S. T. Aarthy</i>
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 <i>Archana Mohan and Niraj Kumar</i>
D1-T2-30	2.30 pm – 2.45 pm	Material Analysis for Patch Antennas in Terahertz Communication <i>Selvakumar George, Kanthimathi N, Ramkumar Ramanujam, Dhanalakshmi D, Ezhil E. Nithila and Relin Francis raj J</i>
D1-T2-110	2.45 pm – 3.00 pm	Broad Band MIMO Tunable Antenna for 5G Wireless Application Using AI <i>Kowshik. B, Gayathri P K, G. Supriya, Sai Keerthana and HBM Ajjaiah</i>
D1-T2-113	3.00 pm – 3.15 pm	Design of Wideband Modified Crossed Dipole Antenna with Parasitic Patches For 5G Sub 6 GHz <i>Praveen Kumar B, Usha Kiran K and Nagajayanthi B</i>
D1-T2-146	3.30 pm – 3.45 pm	Wideband Reflect Array Antenna using Polarization Rotating Unit Cell <i>Usha Kiran Kommuri, Jayakanth Reddy Velagala, Likhith Srinivas Boddu and Aashish Rapaka</i>

**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 <i>Sangam Prafulla Borkar and Nitesh B. Guinde</i>
D2-T2-178	11.30 am – 11.45 am	Offset Fed Slot Antenna for Quad Band Applications <i>Shruti, Revanasiddappa Kinagi, Vilaskumar Patil, Padmavati</i>
D2-T2-189	11.45 am – 12.00 pm	Low-Power Autonomous Sensing Mode Lora Technology-Based Miniature Antenna <i>Ummaka Venkatesh, Ummaka Subba Rao and N. Sugitha</i>
D2-T2-230	12.00 pm – 12.15 pm	A Novel Design of Rectangular Frame Slot Loaded Monopole Hybrid Microstrip Antenna <i>Swati Shelar and Rajeshwari Biradar</i>
D2-T2-315	12.15 pm – 12.30 pm	Dielectric Resonator Antennas for 5G: A Review Focusing on MIMO Applications <i>Peter Adejumo, Sadiq Batcha Abdul Rahim, Hanisah Zali and Md Sakib</i>

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 <i>Humscikha S, Pavithra V, Keerthana S, Dhinakaran Vijayalakshmi</i>
D2-T3-193	11:45 am – 12:00 pm	Finite Element Method-based Photonic Crystal Fiber Sensor with Surface Plasmon Resonance for Clinical Diagnostics <i>Parthiban M, Dineshkumar TR, Sivasaravana babu S, Sureshchinnathampy M, Barathwaj, Balaji M, Balavignesh S</i>
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) <i>Revathi S, Christina Josephine Malathi A, Kousalya S, Roheet saha, Yemireddy Vignesh Reddy, Vennapusa Ganesh Kumar Reddy, Parthiban M</i>

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

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 <i>Akshit Saxena, Yugal Pande, Aryan Blauria, Sundar S</i>
D2-T4-196	11 am – 11.15 am	Classification of AI generated images and real Images using Deep learning <i>Muthaiah U, Divya A, Swarnalaxmi T N</i>
D2-T4-208	11.15 am – 11.30 am	Deep Learning Based Disaster Image Segmentation Using U-NET <i>L Sai Ramesh, A. M. Admidilsen, A. Akshay</i>
D2-T4-243	12.15 pm – 12.30 pm	Real-Time Sign Language Interpretation in Google Meet for Inclusive Communication <i>Thamizazhagan B, Ram Sri Vathssa C R, Samyuktha C S, Deepa D</i>
D2-T4-279	12.30 pm – 12.45 pm	Optimizing Traffic Flow: Real-Time Traffic Congestion Detection Using Computer Vision for Improved Road Management <i>Arunvignesh K, Gowtham P, Ashwini S</i>
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 <i>M R Vinoth Kumar, S. Praveenkumar, T. Aravind, T K Srinivasan</i>

TRACK 5: SUSTAINABLE INTELLIGENT SYSTEM

DATE: 19/03/2025

VENUE: AB1 607B

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

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

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

TRACK 7: DATA DRIVEN INNOVATIONS IN ELECTRONICS ENGINEERING

DATE: 19/03/2025

VENUE: AB1 505A

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 <i>Rohith R., Gokul Girish, Sudhakaran G., Hema R, Logeswari G.</i>
D1-T7-43	2.15 pm – 2.30 pm	Forecasting Carbon Dioxide Emissions In India: Leveraging Historical Fuel Consumption Data <i>Gayathri J, Kavitha Subramani, Bhavadharani C, Maheswari M, Sathiya V, Vinmathi M S</i>
D1-T7-50	2.30 pm – 2.45 pm	Hate Speech Detection Using Machine Learning And NLP Techniques <i>Sritama Roy</i>
D1-T7-66	2.45 pm – 3.00 pm	AI-Driven Plant Care and Disease Detection Treatment System <i>Shobha Rani P, Ashwini B, Chandanavalli P, Priyadharshini K, Lalith Kishore V P, Keerthivasan A</i>
D1-T7-69	3.00 pm – 3.15 pm	Optimized Sustainable Harvest Planning with Multi Objective Metaheuristic Algorithms <i>Kavitha S, Selvarani P, Brinda P, Santhiya M, Priyanka M, Shakthi Deepti SS</i>
D1-T7-82	3.30 pm – 3.45 pm	AI-Driven Plant Care and Disease Detection Treatment System <i>Shobha Rani P, Ashwini B, Chandanavalli P, Priyadharshini K, Lalith Kishore V P, Keerthivasan A</i>
D1-T7-123	3.45 pm – 4.00 pm	An Explorative Study of Big Data Analytics in IoT <i>Mercy Sharon Devadas, W. Nancy, Jessy Sujana G</i>
D1-T7-160	4.00 pm – 4.15 pm	Comprehensive survey on Phishing Detection Using Machine Learning <i>Nailah Fathima Khan, Sameen Mehnaz Fathima, Ravi Kumar J</i>
D1-T7-167	4.15 pm – 4.30 pm	Timely Synchronized Analysis of Traffic Control Using Machine Learning <i>Hussana Johar R B, Manushree M V, Pooja S, Vidhatri M, Yashaswini S</i>
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 <i>Nazar Ali A, Manimegalai D, Kavın V, Kamalesh T</i>

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 <i>Harshavarthan S, Hafeel Ahmed S, Sabareesawaran M, Kavitha T</i>
D2-T7-250	12:30 pm – 12:45 pm	Enhancing AI Climate Change Resilience Using Machine Learning <i>Khallikkunaisa, Soha Rumana, Rifat Riazahmed Desai, Saba Fathima</i>
D2-T7-287	12:45 pm – 1:00 pm	Deep Learning Approaches to Diagnosing Skin Malignancies <i>R.Breesha, Jalaja S, Merlin Cm, Mohana Priya S, Priyadharshini V</i>