

Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam – 603110.

Faculty Publications 2025-2026

DEPARTMENT OF ECE

Academic year	Journals	Conferences	Books	Book chapters
2025-2026	8	10	0	0

FACULTY PUBLICATIONS LIST

ACADEMIC YEAR 2025-2026

JOURNALS:

1. R. Pavithra Guru, V. Vaithianathan, “Cellular automata-based framework for yield optimization in VLSI physical design of large-scale benchmark circuits” Journal of Ambient Intelligence and Humanized Computing, pp. 1-14, July 2025. (Published Online). (Scopus Indexed, SJR: 0.834) DOI: <https://doi.org/10.1007/s12652-025-04990-4> Q1
2. Satyakam Baraha, Buddepu Santhosh Kumar, Abhijit Mishra, Monalisa Ghosh, “CNN-augmented SAR image despeckling using modified speckle reducing anisotropic diffusion and discrete wavelet transform” journal Signal Processing: Image Communication, vol. 138, October 2025. (Clarivate Analytics, IF: 2.7) DOI: <https://doi.org/10.1016/j.image.2025.117380> Q1
3. K. Subhashini, R. Amutha, B. A. Mohammed Hashim, “Chaotic Image Encryption using Two Level Scrambling” Advances in Electrical and Computer Engineering, vol. 25 (2), pp. 27-36, August 2025. (Clarivate Analytics, IF: 0.7) DOI: <https://doi.org/10.4316/AECE.2025.02004> Q3
4. K. Vijayalakshmi, S. Radha, K. Muthumeenakshi, “Bunched Ag-BiOBr nanoflower modified carbon paste electrode with insitu DMG for nickel detection in effluent water” Microchemical Journal, vol. 216, pp. 1-11, September 2025. (Clarivate Analytics, IF: 5.1) DOI: <https://doi.org/10.1016/j.microc.2025.114668> Q1
5. B. Bharathi, S. Saranya, P. Vijayalakshmi, T. Nagarajan “Multi-Dialect Speech Corpus Creation for Enhancing Tamil Automatic Speech Recognition” Circuits, Systems, and Signal Processing, July 2025 (Published Online). (Clarivate Analytics, IF: 2.0) DOI: <https://doi.org/10.1007/s00034-025-03181-y> Q2
6. A. J. Bhuvaneshwari, P. Kaythry, R. Kishore, R. MuthuHarish, “Post-Quantum enhanced Ascon for secure vehicular IoT data integrity” Springer Nature’s Scientific Reports, vol. 15, pp. 1-18, July 2025. (Clarivate Analytics, IF: 3.9) DOI: <https://doi.org/10.1038/s41598-025-10503-2> Q1
7. G. Durga, B. Girish Babu, Ela. Ezhilarasi, G. Isha Ambika, “Performance Comparison of Junctionless TreeFET with Vertically Stacked Nanosheet” Journal Russian

Microelectronics, vol. 54, pp. 297-302, August 2025. (Scopus Indexed, SJR: 0.194, Q4)
DOI: <https://doi.org/10.1134/S1063739725600013>

8. Thilak Sabareesh Malayalam Amarnath, S. Divya, Subramanian Sakthinathan, Ching-Lung Chen, N. Venkateswaran, Te Wei Chiu “Hybrid Electrospun Carbon Nanofiber/Bi₂MoO₆ Nanocomposites for Trace-Level Detection of Phenolic Aldehyde Vanillin in Food Samples” Journal ACS Applied Nano Materials, September 2025 (Published Online). (Clarivate Analytics, IF: 5.5) DOI: <https://doi.org/10.1021/acsanm.5c02595> Q1
9. K. J. Jegadish Kumar, A. J. Bhuvaneswari, P. Kaythry, “Enhanced cryptosystem for resource-constrained devices with streamlined randomness analysis” Journal Cogent Engineering, vol. 12 (1), pp. 1-20, September 2025. (Clarivate Analytics, IF: 2.5). DOI: <https://doi.org/10.1080/23311916.2025.2565364> Q2

INTERNATIONAL CONFERENCES:

1. Mr. P. Vijayaraghavan, PG-VLSI 2023-2025 Batch, Dr. R. Amutha, Prpf/ECE published a paper titled "ASIC vs FPGA Realization of a Cryptographically Secure Random Number Generator Using Chaotic Map" in the Proc. of 2025 IEEE 5th International Conference on VLSI Systems, Architecture, Technology and Applications (VLSI SATA) organized by Amrita Vishwa Vidyapeetham, Bengaluru Campus during May 23-24, 2025, pp. 1-6. DOI: 10.1109/VLSISATA65374.2025.11070201
2. **ECE/2025-26/ICP/3** Ms. V. S. Hemamala, UG-ECE 2022-2026 Batch, Mr. D. Kiruthick Raja, Dr. P. Kaythry, ASP/ECE published a paper titled "Use Case 9: Environment-Based Endurance Testing in Autonomous Vehicles" in AI for Good Global Submit 2025, pp. 793-803. <https://www.itu.int/hub/publication/t-ai4g-ai4good-2025-1/>.
3. Dr. K. Muthumeenakshi, ASP/ECE, Ms. K. Vijayalakshmi, RS/ECE, Dr. S. Radha, Principal/SSN CE, Mr. R. Giridharan, Summer Intern 2024 published a paper titled "Green Colorimetric Detection of Nickel Ions Using Halim Mediated Polyvinylpyrrolidone Silver Nanoparticles in Treated Effluent with Onsite Monitoring" in the Proc. of 8th International Conference on Recent Innovation in Modern Science and Technology held at SSN CE during July 09-11, 2025.
4. **ECE/2025-26/ICP/7** Ms. K. K. Mythili, RS/ECE, Dr. S. Radha, Principal/SSN CE, Dr. K. Muthumeenakshi, ASP/ECE, Dr. B. S. Sreeja, Faculty/CEG published a paper titled "Electrochemical Detection of Ethanol in Alkaline Medium Using MnO₂ Nanostructures" in the Proc. of 8th International Conference on Recent Innovation in Modern Science and Technology held at SSN CE during July 09-11, 2025.
5. **ECE/2025-26/ICP/8** Ms. D. Sowmika, UG-ECE 2022-2026 Batch student, Dr. K. Muthumeenakshi, ASP/ECE, Ms. Anamika Arivu, Ms. R. N. Sirisha, UG-ECE 2022-2026 Batch students published a paper titled "Eco-Friendly Red Beet-Based Colorimetric Sensor for Cu²⁺ Detection in Water Using Embedded System and Machine Learning" in the Proc. of 8th International Conference on Recent Innovation in Modern Science and Technology held at SSN CE during July 09-11, 2025.
6. **ECE/2025-26/ICP/9** Ms. K. Vijayalakshmi, RS/ECE, Dr. S. Radha, Principal/SSN CE, Dr. K. Muthumeenakshi, ASP/ECE published a paper titled "Sustainable Synthesis of Bimetallic Oxide Nanomaterials for Hexavalent Chromium Detection" in the Proc. of 8th International Conference on Recent Innovation in Modern Science and Technology held at SSN CE during July 09-11, 2025.
7. **ECE/2025-26/ICP/10** Ms. S. Divya, RS/ECE, Dr. N. Venkateswaran, Prof/ECE published a paper titled "Optimization of a Nanostructured Thin Film Based One Dimensional Photonic Crystal Bandpass Filter for NIR Satellite Imaging" in the Proc. of IEEE Space, Aerospace and Defence Conference (SPACE) 2025 held during July 21-23, 2025.
8. **ECE/2025-26/ICP/14** Ms. B. Sowjanya, Mr. H. Mohamed Yaser, Mr. P. S. Abishek, Dr. N. Venkateswaran, Prof/ECE published a paper titled "U+Seq-Net: Detection of Anemia Using Palpebral Conjunctiva by Deep Learning Techniques" in the Proc. of 2025 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT) held at Bengaluru.
9. **ECE/2025-26/ICP/15** Dr. P. Kaythry, ASP/ECE, Dr. P. Sangeetha, ASP/Civil published a paper titled "Machine Learning-Based Prediction of Load-Slip Behaviour

in Composite Space Trusses for Sustainable Structural Design” in the Proc. of 2025 IEEE 13th Region 10 Humanitarian Technology Conference (R10-HTC), pp. 335-340 held at Ichikawa, Japan.

10. **ECE/2025-26/ICP/16** Dr. P. Sangeetha, ASP/Civil, Dr. P. Kaythry, ASP/ECE published a paper titled “Natural Fibre Reinforced Steel Concrete Composite Wall Panel for Sustainable Building” in the Proc. of 2025 IEEE 13th Region 10 Humanitarian Technology Conference (R10-HTC), pp. 198-203 held at Ichikawa, Japan.