SENGUNTHAR ENGINEERING COLLEGE
(AUTONOMOUS)
NAAC Accredited with 'A' Grade,
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Recognized Under Section 2(f) & 12(B) of the UGC Act, 1956
TIRUCHENGODE- 637 205

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

## ACADEMIC YEAR: 2025-2026

## FACULTY PUBLICATIONS

| S.No. | Name of the Faculty | Title | Details |
|---|---|---|---|
| 1. | Dr.C.Aarthi<br>Prof & Head / ECE | RF Magnetron Co-Sputtered TiN-$Ga_2O_3$ Thin Films for EGFET pH Sensor Applications | IEEE Sensors Journal<br>1558-1748<br>JULY 2025 |
| 2. | Dr.C.Aarthi<br>Prof & Head / ECE | Integrated Vehicle Monitoring System | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 3. | Dr.C.Aarthi<br>Prof & Head / ECE | Attendance monitoring system using Raspberry Pi | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |

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| 4. | Dr.C.Aarthi<br>Prof & Head / ECE | Universal Asynchronous Receiver / Transmitter (UART) Communication System for Embedded Applications | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 5. | Dr.C.Aarthi<br>Prof & Head / ECE | Real-Time IoT System for Driver Monitoring and Vehicle Safety Automation | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 6. | Mr.A.Rahul<br>AP/ECE | Heterogeneous Edge-Enhanced circular Dilated Convolutional Graph Attention Network Based PAPR Reduction Scheme for Enhanced MIMO-OFDM Systems | International Journal of Communication Systems<br>1074-5351 &<br>April 2026 |
| 7. | Mr.A.Rahul<br>AP/ECE | LoRa IoT Integration smart healthcare tracking emergency response system | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 8. | Mr.A.Rahul<br>AP/ECE | Safety System and Indication in Stairs of Public Road Transports | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |

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| 9. | Mr.A.Rahul<br>AP/ECE | Efficient VLSI Implementation of Neural Networks with Hyperbolic Tangent Activation Function | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 10. | Dr.N.Sangeetha Priya<br>AsP/ECE | Revolutionizing Congestion Control Protocols for Robust WSN Routing Dynamics Through Optimized Dual<br>Aggregated Attention Capsule Network | International Journal of Communication Systems<br>1074-5351 |
| 11. | Dr.N.Sangeetha Priya<br>AsP/ECE | Enhanced QoS-aware secure routing protocol for WAHNs using advanced fast double decker new binary archimedes kepler pure convolutional transformer network and cryptographic techniques | Peer-to-Peer Networking and Applications<br>1936-6450 |
| 12. | Dr.N.Sangeetha Priya<br>AsP/ECE | FinDET Based Power and Delay Optimized Computational Unit for Medical Image Compression | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 13. | Dr.N.Sangeetha Priya<br>AsP/ECE | Stress Detection using Wearable sensor | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |

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| 14. | Dr.P.Sivasankaran, AP/ECE | Optimized deep learning models for stress-based stroke prediction from EEG signals | Discover Applied Sciences *3004-9261* |
| 15. | Dr.P.Sivasankaran, AP/ECE | Smart Guard Helmet IoT based Accident Prevention and Detection system | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 16. | Dr.P.Sivasankaran, AP/ECE | A Smart Home Appliance Control system for Physically Disabled People | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 17. | Lt.Dr.M.Arunkumar, AP/ECE | Real Time IoT system for Driver monitoring and Vehicle safety Automation | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 18. | Lt.Dr.M.Arunkumar, AP/ECE | AI-Assisted Resource-Optimized Scheduling for VLSI FPGA High-Level Synthesis A Novel Machine Learning and Evolutionary Meta-Heuristic Approach | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |

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| 19. | Lt.Dr.M.Arunkumar, AP/ECE | A multi-layered IoT based border alert and health monitoring system for commercial fishermen | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 20. | Mrs.D.Ramya AP/ECE | IoT based Wireless Green Energy Charging Station for E-Vehicles. | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 21. | M.Baskaran AP/ECE | Dual-Domain Clock Gate NoC with Event Driven Fit Injection for Ultra Low Power FPGA based IoT systems. | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 22. | M.Baskaran AP/ECE | Laser based Wireless Communication System for Secure multimedia transmission in | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |
| 23. | G.Suresh AP/ECE | Innovative Anemokitetics based Free Energy System from Tree Branches using IoT | International Journal of Innovative Research in Advanced Engineering 2349-2163 & 2026 |

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| 24. | G.Suresh<br>AP/ECE | A multi-layered IoT based border alert and health monitoring system for commercial fishermen | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 25. | G.Suresh<br>AP/ECE | Real Time Attendance System using Facial Recognition | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 26. | V.Gowthaman<br>AP/ECE | Secure Electronic Voting system using IoT and Biometric. | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 27. | V.Gowthaman<br>AP/ECE | IoT based Borewell accident monitoring and Rescue system | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 28. | B.Priyanka<br>AP/ECE | Coin operated Wireless Mobile Charging Station | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |

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| 29. | B.Priyanka<br>AP/ECE | IoT and LoRa based Trekking safety monitoring system. | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 30. | K.Prasanth<br>AP/ECE | Design and Development of a Smart Circuit Fault Monitoring and Protection framework. | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |
| 31. | Mr.R.Tamilselvan<br>AP/ECE | Embedded based Soil Nutrient analyzer and Plant Monitoring using sensors. | International Journal of Innovative Research in Advanced Engineering<br>2349-2163 & 2026 |

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