

Faculty Profile



Dr.A.MANONMANI, M.E., Ph.D
Associate Professor / EEE

HIGHLIGHTS:

- Number of Journal Publications: 28
- H-Index: 6
- i10 index: 1
- Patents Published: 9
- Patents Granted: NIL
- Recognized Anna University Supervisor. YES

PROFESSIONAL LINKS:

- Scopus ID: 57192979608
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57192979608>
- Google Scholar ID: <https://scholar.google.com/citations?user=lci249IAAAAJ&hl=en>
- AICTE Faculty ID: 1-1495594031
- Anna University Supervisor ID: 3130029
- LinkedIn: www.linkedin.com/in/dr-manonmani-a-08770589

Ph.Ds GUIDING:

- Full Time Scholars: NIL
- Part Time Scholar : 1 Completed

PROFESSIONAL BACKGROUND:

- Teaching Experience : 18.5 years
- Research Experience: 18.5 years

FDP Conducted: 1

AREA OF SPECIALIZATION:

1. Linear and Digital Integrated circuits
2. Control Systems
3. Modern Control Systems
4. Digital Control Systems
5. Process Control Instrumentation
6. Digital Signal Processing and processor
7. Measurements and Instrumentation
8. Digital Electronics

PATENTS PUBLISHED/GRANTED:

1. SMART MONITORING SYSTEM FOR PLANT GROWTH USING BOT AND CONTROLLING THROUGH IOT **(PUBLISHED)**.
2. DEEP LEARNING ANALYTICAL MONITORING OF IOT BASED SMART VEHICLES TO AVOID CYBER ATTACKS **(PUBLISHED)**.
3. AUTOMATED AIR QUALITY MONITORING SYSTEM IN REAL TIME CABIN ENVIRONMENT AND ENHANCED DRIVER HEALTH **(PUBLISHED)**.
4. IDENTIFICATION OF LEAD METAL CONCENTRATION IN AGRICULTURAL SOIL USING IOT & AI BASED ROBOTIC VEHICLE **(PUBLISHED)**.
5. PREDICTION AND CLASSIFICATION OF SKIN DISEASE USING ENSEMBLE DATA MINING **(PUBLISHED)**.
6. DEVELOPMENTS OF IOT BASED GROWTH MONITOR AND YIELD PROMOTER IN TOMATO PLANT **(PUBLISHED)**.
7. REINFORCEMENT LEARNING BASED AUTONOMOUS CONTROL OF ELECTRIC VEHICLE CHARGING STATIONS FOR GRID STABILITY **(PUBLISHED)**.
8. SELF-CALIBRATING SMART SENSOR NETWORK USING AI-BASED DRIFT DETECTION FOR INDUSTRIAL INSTRUMENTATION **(PUBLISHED)**.
9. AUTONOMOUS SENSOR CALIBRATION SYSTEM USING AI BASED REFERENCE PATTERN RECOGNITION **(PUBLISHED)**.

PUBLICATIONS

1. A. Manonmani, T.Thyagarajan, G.Guruprasath, S,Sutha 2015, “Modeling of Greenhouse System Using Adaptive Neuro-Fuzzy Inference Techniques (ANFIS) Techniques”, International Journal of Control Theory, Vol. 8, No. 5, pp. 1719-1733. **(ANNEXURE II)**.
2. A.Manonmani, T.Thyagarajan, S.Sutha V.Gayathri, 2016, “Design of soft computing based optimal PI controller for Greenhouse MIMO system”, Circuits and Systems, Vol. 7, pp. 3431-3447. **(Anna University Updated 2016 ANNEXURE I & SCOPUS INDEXED)**
3. A.Manonmani, T.Thyagarajan, M.Elango, S.Sutha, 2016, “Modeling and control of Greenhouse system using Neural Network”, Transactions of the Institute of Measurement and Control, pp. 1-12, DOI: 10.1177/0142331216670235. **(Anna University ANNEXURE I & SCOPUS INDEXED)**
4. A.Manonmani, T.Thyagarajan, S.Sutha 2017 “Multi-objective control scheme for Food Drying Process (FDP)”, International Journal of Food Engineering, DOI: 10.1515/ijfe-2016-0219 **(Anna University ANNEXURE I, WEB OF SCIENCE & SCOPUS INDEXED)**
5. A.Manonmani, T.Thyagarajan, S,Sutha, 2017, “ANN Based Modeling And Control Of GHS For Winter Climate”, IEEE, 978-1-5090-3001-9. **(SCOPUS INDEXED)**.
6. A.Manonmani, M.Arivalagan, M.Lavanya, S.Sellakumar, 2020, “Coma Patient Monitoring Using Brain Computer Interface”, International Journal of Psychosocial Rehabilitation, Vol. 24, No. 3, pp. 3709 - 3710.

7. A.Manonmani, M.Arivalagan, M.Lavanya, S.Sellakumar, 2020, "Smart Assistant For Blind People Using Raspberry PI 3", International Journal of Psychosocial Rehabilitation, Vol. 24, No. 3, pp. 3711 – 3724.
8. M.Arivalagan, M.Lavanya, D.Vijayanandh, A.Manonmani 2020, "Design And Implementation Of Intelligence System For Potholes Detection Using LABVIEW", International Journal of Psychosocial Rehabilitation, Vol. 24, No. 3, pp. 3695 – 3700.
9. M.Arivalagan, M.Lavanya and A.Manonmani, 2020, "Agricultural Robot for Automized Fertilizing and Vigilance for Crop", IEEE International Conference On Advances And Developments In Electrical And Electronics Engineering (ICADEE 2020). **(SCOPUS INDEXED& WEB OF SCIENCE)**.
10. Lakshmi S, Manonmani, Gayathri L U, Sujitha J Sharon and Pooja R V, 2020 "Monitoring and Tracking of Cattle Using IoT", Intelligent Systems and Computer Technology, pp: 168 – 173.
11. Lakshmi S, Manonmani. A, 2020, "A Review Paper on Big Data Analytics in Process Industry", Intelligent Systems and Computer Technology, pp: 591 – 598.
12. S. Lakshmi , Dr.Manonmani.A, Jagadeeshwaran P, Akash S, Janani K , Akilandeswari D, 2021 "Discriminating Parkinson and Healthy People Using Machine Learning", Smart Intelligent Computing and Communication Technology. **(SCOPUS INDEXED)**
13. Dr.Manonmani.A, 2022, "Head motion control wheelchair", Gradiva Review Journal, Vol.8, No: 6. **(UGC GROUP II JOURNAL)**
14. Dr.A.Manonmani, Praveen Kumar R, Karthik Raja K and Naveen.M.D, 2024, "Analysis and Detection of Gas Leakage in Industries", Disruptive Technologies for Sustainable Development, Taylor & Francis Group, London, DOI:10.1201//9781003428473. (Yet to be indexed).
15. Dr.A.Manonmani, A. Sarigasri, G.Brindha, 2024, "Green Energy Charging Systems", Disruptive Technologies for Sustainable Development, Taylor & Francis Group, London, DOI:10.1201//9781003428473. (Yet to be Indexed)
16. Dr.A.Manonmani et.al. 2024, Monitoring and Controlling of Tomato for Quality Storage Using IOT", Lecture Notes in Networks and Systems, Vol. 2. Pp. 309-317. **(SCOPUS INDEXED)**.
17. Dr.A.Manonmani et.al. 2024, "Efficient Design and Analysis of Inverse Definite Minimum Time Overcurrent Relay: A MATLAB Approach" 4th International Conference on Power, Energy, Control and Transmission Systems: Harnessing Power and Energy for an Affordable Electrification of India, ICPECTS 2024 **(SCOPUS INDEXED)**.
18. Dr.A.Manonmani et.al. 2024, "Intelligent Decision Making in Molasses Extraction through Neural Network Modeling and Fuzzy Logic Control", 4th International Conference on Power, Energy, Control and Transmission Systems: Harnessing Power and Energy for an Affordable Electrification of India, ICPECTS 2024 **(SCOPUS INDEXED)**.
19. Dr.A.Manonmani et.al. 2024, "IoT based Home Automation Control using Feedback System", International Conference on IoT based Control Networks and Intelligent Systems (ICICNIS) 2024 **(SCOPUS INDEXED)**.
20. Dr.A.Manonmani, et.al. 2025, "Review on IoT-Enhanced Predictive Maintenance and Safety for Energy Generating Facilities", Proceedings of the International Conference on Electronics and Renewable Systems (ICEARS 2025), pp. 481-486. **(SCOPUS INDEXED)**.
21. Dr.A.Manonmani, et.al. 2025, "Literature Review on Advanced Cloud Robotics for Enhanced Industrial Automation", Proceedings of the International Conference on Electronics and Renewable Systems (ICEARS 2025), pp. 46-51. **(SCOPUS INDEXED)**.
22. Dr.A.Manonmani, A. et.al. 2025, "Review on Advancements in Coal Mine Safety and Comprehensive Overview of IoT-based Monitoring Systems", Proceedings of the International Conference on Electronics and Renewable Systems (ICEARS 2025), pp. 539-545. **(SCOPUS INDEXED)**.
23. Sundaravelu Lakshmi and Dr.A.Manonmani, 2025 "Optimizing thermal power plant efficiency through washout filter based proportional integral derivative controller", Heliyon, pp. 1 – 14. **(Anna University ANNEXURE I & SCOPUS INDEXED)**
24. Dr. A. Manonmani, et.al. 2026, "A Review on Hybrid PD–MPC Stepper Motor Position Control using PLC and ESP8266 for Enhanced Industrial Automation", Proceedings of the 4th International Conference on Automation, Computing and Renewable Systems (ICACRS-2025) IEEE Xplore Part number: CFP25CB5-ART; ISBN: 979-8-3315-4886-5. Pp. 89-94. **(SCOPUS INDEXED)**.
25. Dr. A. Manonmani, et.al. 2026, "A Review on Smart Traffic Light Management and Energy Optimization with Artificial Intelligence(AI) enabled Programmable Logic Controller(PLC) using

Internet of Things(IoT)", Proceedings of the 6th International Conference on IoT Based Control Networks and Intelligent Systems (ICICNIS-2025) IEEE XPlore Part Number: CFP252B2-ART; ISBN: 979-8-3315-1520-1, pp. 495-501. **(SCOPUS INDEXED)**.

26. Dr. A. Manonmani, et.al. 2026, "A Review on FPGA Based Real Time Sobel Edge Detection for medical Imaging using PYNQ-Z2", 2025 International Conference on Electrical, Communication, and Computing Technologies (iCONECCT) | 979-8-3315-7415-4/25/\$31.00 ©2025 IEEE | DOI: 10.1109/ICONECCT67014.2025.11470053. **(SCOPUS INDEXED)**.
27. Dr. A. Manonmani, et.al. 2026, "Optimized feature selection approach for glaucoma detection using logistic-based chaotic whale optimization algorithm", Journal of the National Science Foundation of Sri Lanka, Vol 54, No: 1, pp. 113 – 128. **(Anna University ANNEXURE I, Web of Science & SCOPUS INDEXED)**.
28. Dr. A. Manonmani, et.al. 2026, "Artificial Intelligence (AI) Enabled Programmable Logic Controller (PLCs) for Smart Traffic Light management and Energy Optimization", ICICV 2026. **(SCOPUS INDEXED)**.

COURSES CERTIFIED:

1. AICTE QIP on **Artificial Intelligence and Robotics** at **National Institute of Technology (NIT), Pondicherry**.
2. Completed ONLINE Courses **"Internet of Things (IOT)"** and **"Outcome Based Education (OBE)"** in NPTEL

SPECIAL SESSIONS DELIVERED:

1. A session titled, **"Artificial Neural Networks"**, at **Madras Institute of Technology** in FDP.
2. A session titled, **"Bio Sensors and Measurements"**, EGS Pillay Engineering College.
3. A session titled **"Soft Computing"**, SRM Valliammai Engineering College

PROFESSIONAL MEMBERSHIPS:

1. Life Member at **Indian Society of Technical Education (ISTE)**.