

Sri Sai Ram Engineering College

Department of Electronics and Instrumentation Engineering

Name: B.PUVIYARASI	
Designation:	Associate Professor
Qualification:	Ph.D
Area of Specialization:	Control and Instrumentation Engineering
Number of Workshops/FDP Attended:	Worshops-9 FDP-09
Publication:	Journal: SCI: 5 SCOPUS:14 Other International Journal:4 Conference: National:-5 International:13
Research Guidance:	Guided 15 UG projects till date
General:	Smart India Hackathon Coordinator, Edumate Coordinator
Staff Achievement	<ul style="list-style-type: none">• Have won Cash awards for producing 100% results 5 times• Recognized research in a Q1 journal by the Centre for Research, Anna University.

WORK EXPERIENCE:

S.No	Institution	Designation	Department	Period of Experience
1	Sri Sairam Engineering College	Assistant Professor	Electronics and Instrumentation Engineering	June2012-Sep.2023
2	Sri Sairam Engineering College	Associate Professor	Electronics and Instrumentation Engineering	Oct.2023-Till date

THEORY SUBJECTS HANDLED:

- Industrial Communication Networks
- Sensors and Transducers
- Digital Signal Processing
- Robotics and Automation
- Industrial Data Networks
- Computer Networks
- Analytical Instrumentation
- Computer Vision
- Digital Logic Circuits
- Biomedical Engineering
- Control Systems
- Digital Image Processing
- Applied Soft Computing
- Process Control
- Logic And Distributed Control System
- Digital Electronics

INTERNATIONAL JOURNAL

1. **B. Puviyarasi**, C. Murukesh, M.Alagiri (2022), “Design and implementation of gain scheduling decentralized PI/PID controller for the fluid catalytic cracking unit”, **Biomedical Signal Processing and Control, Elsevier**, DOI Link: <https://doi.org/10.1016/j.bspc.2022.103780>, ISSN: 1746-8094, Vol. 77, **Impact Factor: 5.1 (Q1 Journal)**
2. **B. Puviyarasi**, C. Murukesh (2023), “Design and implementation of Adaptive Mixed Fuzzy Controller for MIMO nonlinear systems”, **Mathematics and Computers in Simulation, Elsevier**, DOI Link: <https://doi.org/10.1016/j.matcom.2022.06.019>, ISSN: 0378-4754, vol. 203, **Impact Factor: 4.6 (Q1 Journal)**
3. **B Puviyarasi**, T Sheela, T Sathies Kumar, S Muthumanickam, Comparative Study of Adaptive Mixed Fuzzy Controller and Adaptive Traditional Fuzzy Controller for Fluid Catalytic Cracking Unit Using Real-Coded Genetic Algorithm, **Iranian Journal of Chemistry and Chemical**

Engineering, 43 (12), 2024, **Impact Factor: 1.903 (Q2 Journal)**

4. Pavithra Karthikesan, Jayachandran Madhavan, Harshini Sharan, Sugasri Chinnasamy, Priyanga Devi Gothandaraman, **Puviyarasi Balakrishnan**, Alagiri Mani (2025), “Rational design of ternary-metal LDH nanoflowers anchored on reduced graphene oxide for bifunctional electrocatalysis in alkaline water splitting”, *Diamond and Related Materials*, Elsevier, DOI: <https://doi.org/10.1016/j.diamond.2025.113197>, Vol. 161, **Impact Factor: 5.1 (Q1 Journal)**
5. Jayachandran Madhavan, Deepak Arumugam , Sugasri Chinnasamy , Pavithra Karthikesan , Harshini Sharan, Shankar Ramasamy, **Puviyarasi Balakrishnan**, Alagiri Mani, Morphology-phase coupled engineering of NiCuCo layered double hydroxide towards efficient alkaline overall water splitting, *Fuel* Volume 417, 1 August 2026, 138613. , **Impact Factor: 7.5 (Q1 Journal)**
6. **B. Puviyarasi**, R. Nagesh , M. Prakash and S.G. Prasanna Kumara, “Innovations in memory devices and circuits-enhancing storage performance and efficiency in modern electronics”, *ICTACT Journal on microelectronics*, vol. 10(3), 2024.
7. **B. Puviyarasi**, D. Raaghavi, A. Dharshini, R. Vinesha Ravi, D. Deepika (2020) “ Optical character recognition system for visual impaired people and audio conversion using dataset” *Test Engineering and Management*, ISSN NO: 0193-4120, vol. 83, Pages: 13859-13862, **Impact Factor: 0.399**
8. **B Puviyarasi**, N Nithyarani, T Tamilselvi, K Srivdya (2019), “Adaptive pid control of an autonomous sailboat”, *International Journal of Engineering and Advanced Technology*, DOI Link: [10.35940/ijeat.F9358.088619](https://doi.org/10.35940/ijeat.F9358.088619), vol. 8 (6), **Impact Factor: 3.43**
9. **B.Puviyarasi**, A.Anuswetha, R.Vinobha, M.Nithya (2017), “Clean Energy Fabricator using Thermionic Energy Converter”, *International Journal of Advanced in Management, Technology and Engineering Sciences*, vol. 7 (12), ISSN NO:2249- 7455.

INTERNATIONAL CONFERENCE

1. **Puviyarasi, B.** , Gubhenthiran, P. , Keerthana, P. , Megala, S, “Water Quality Monitoring and Cleaning System”, 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT), IEEE Xplore (**Scopus Indexed**)
2. **B Puviyarasi**, R Umarajeshwaran, T Srikrithigaa, S Nivash, S Karthikeyan, Energy Optimization and Control of Reverse Osmosis Desalination Plant Using MATLAB Simulink, 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), 2024. (**Scopus Indexed**)
3. **B Puviyarasi**, G Logaashini, PD Shruthi, S Suveka, Smart Mushroom Cultivation with

- Classification of Mushrooms and Disease Detection using Image Processing, 2024 International Conference on Power, Energy, Control and Transmission Systems (ICPECTS), 2024. (**Scopus Indexed**)
4. **B Puviyarasi**, P Gubhenthiran, P Keerthana, S Megala, Water Quality Monitoring and Cleaning System, 2024 International Conference on Communication, Computing and Internet of Things (IC3IoT), 2024. (**Scopus Indexed**)
 5. **Puviyarasi, B** , Alagiri, M. , Gubhenthiran, P. , Keerthana, P. , Megala, S. “Smart Solutions for Hand Rub Dispenser”, 2023 Intelligent Computing and Control for Engineering and Business Systems, ICCEBS 2023, 2023. (**Scopus Indexed**)
 6. **Puviyarasi, B.** , Suveka, S. , Logaadhashini, G. , Shruthi, P.D. “Design of Aircraft Control System for Accident Prevention”, 2023 Intelligent Computing and Control for Engineering and Business Systems, ICCEBS 2023, 2023. (**Scopus Indexed**)
 7. **Puviyarasi, B.**, Murukesh, C., (2022), “Design and Implementation of PID Controller and Fuzzy Logic Controller for Liquid Level System”, 8th International Conference on Advanced Computing and Communication Systems, IEEE Xplore, ICACCS 2022, pp. 1463–1466 (**Scopus Indexed**)
 8. Nagaraj, S., Srividya, K., **Puviyarasi, B.**, Santhosh, K., Sabareeswaran, N., “Smart Elevator Cabin Sanitization and Disinfection for COVID, 2022 International Conference on Communication, Computing and Internet of Things”, IC3IoT 2022 – Proceedings, IEEE Xplore, (**Scopus Indexed**)
 9. **Puviyarasi, B.**, Srividya, K., Madhuprabha, S., Renuka Devi, E. Sindhusha, K. “Inline Electrolytic Disinfected Water Supply System Using Programmable Logic Controller”, Proceedings of the 2021 4th International Conference on Computing and Communications Technologies, ICCCT 2021, 2021, pp. 423–427, IEEE Xplore, (**Scopus Indexed**)
 10. Srividya, K., Nagaraj, S., **Puviyarasi, B.**, Vani, S. “Infection prevention and control using UV-disinfectant bot for COVID”, 2021 2nd International Conference for Emerging Technology, INCET 2021, 2021, 9456444, IEEE Xplore, (**Scopus Indexed**)
 11. Srividya, K., Nagaraj, S., **Puviyarasi, B.**, Rufus, A.R.S., Sreeja, G., “Deep learning Based Bird Deterrent System for Agriculture”, Proceedings of the 2021 4th International Conference on Computing and Communications Technologies, ICCCT 2021, 2021, pp. 555–559, IEEE Xplore, (**Scopus Indexed**)
 12. **B.Puviyarasi**, S.Sowmiya, L.Nanthinisri.L, S.V.Aishwaryashree, “Control and Implementation of an Autonomous Sail Boat”, 2rd International Conference on Power Electronics and Renewable Energy System held at Rajalakshmi Engineering College, Chennai, April 2018

13. **B.Puviyarasi**, S.Sowmiya, L.Nanthinisri, S.V.Aishwaryashree, “Adaptive Fuzzy Logic Control of an Autonomous Sail Boat”, 4th International Conference on Science Engineering and Technology held at Jeppiaar Engineering College, Chennai, March 2018
14. **B.Puviyarasi**, C.Anand, V.Arunkumar, R.Mani Raj, “Control and Implementation of liquid level system using LabVIEW”, 4th International Conference on Science Engineering and Technology held at Jeppiaar Engineering College, Chennai, March 2018
15. **B.Puviyarasi**, S.Sowmiya, L.Nanthinisri, S.V.Aishwaryashree, “Adaptive PID Control of an Autonomous Sail Boat”, 7th International Conference on Informatics and Computing in Engineering Systems held at S.A Engineering College, Chennai, March 2018
16. **B.Puviyarasi**, “Modelling and Control of Magnetic Levitation System”, International Conference on Recent Trends in Electrical, Electronics and Communication Engineering held at PSR Engineering College, Sivakasi, March 2017
17. **B.Puviyarasi**, V.R. Ravi, “Gain Scheduling Adaptive Fuzzy Logic Controller for Two conical Tank Interacting Level System”, International Conference on Science ,Engineering and technology (SET-2012) at VIT University, Vellore, May 2012
18. Ravi, V.R., Thyagarajan, T., **Puviyarasi, B.**, “Centralised neuro controller for two conical tank interacting level system”, Proceedings of 2012 IEEE International Conference on Advanced Communication Control and Computing Technologies, ICACCCT 2012, 2012, pp. 343–347, 6320799, IEEE Xplore, (**Scopus Indexed**)

NATIONAL CONFERENCE

1. **B.Puviyarasi**, “Line Air quality index using G-MAPS”, National Conference on Smart Computing and Advanced Communication(scac’19) held at PSNA College of Engineering, Chennai, Tamilnadu, March 2019
2. **B.Puviyarasi**, M.kadhambari, P.Radhika, A.Ragavi, E.Shreelekha “Toll Management with Mobile Computing”, National Conference on Recent Innovations In Advanced Material Science RIAMS’19 held at Rajalakshmi Engineering College, Chennai, Tamilnadu, March 2019
3. **B.Puviyarasi**, N.Nithyarani “Advanced Controller Designing for Temperature Process in LabVIEW”, National Level Program on contemporary approaches of Industrial IoT in Real time Environment held at KCG College of Technology , Chennai, Tamilnadu, December 2017
4. **B.Puviyarasi**, N.Nithyarani “Adaptive PID Controller for Magnetic Levitation System”, National Level Program on contemporary approaches of Industrial IoT in Real time Environment held at KCG College of Technology , Chennai, Tamilnadu, December 2017

PATENT - PUBLISHED:

Intelligent mushroom cultivation system with image based disease detection: Published Date: 15.11.2024

PROJECT DETAILS:

1. **Applied for SERB–Advanced Research Grant** for the project “*Automatic Level Control in Quadruple Spherical Tank Systems using a Deep Neural Sliding Mode FOPID Controller and Mixed Fuzzy Logic Controller*” (₹32 Lakhs), **Status: Accepted for Evaluation**, Role: Principal Investigator.
2. **Applied for SERB–POWER Fellowship** for the project “*Automatic Level Control in Quadruple Tank Systems using Deep Reinforcement Learning and a Deep Neural Sliding Mode FOPID Controller*” (₹28 Lakhs), **Status: Under Review**, Role: Principal Investigator.
3. **Applied to the Tamil Nadu State Council for Science and Technology (TNSCST)** for the project “*Arduino-Based Smart Obstacle-Avoiding Vacuum and Floor Cleaner*” (₹12,000), **Status: under review**, Role: Principal Investigator.

INTERACTION WITH EXTERNAL WORLD:

- Acted as Resource person at “AICTE Sponsored STTP on Energy Harvesting” organized By Panimalar Institute of Technology on 18.3.2021.
- Acted as Resource person at “workshop on dynamic response of non linear system using fuzzy logic controller” held at Sri Sairam Engineering College on 19.9.2021.

ORGANIZED FDP / CONFERENCE

- Organized five days Faculty Development Programme on “Bio-Inspired Learning” Coordinator for FDP Anna University for the period of 20.12.2021 -24.12.2021.
- Organized 4th National level technical ROBOFEST Coordinator for “CREOISTA 4.0” on 15th November 2022.

CREDENTIALS

- Life Member of ISTE (LM 131510), Current Annual Member of IEEE (98115258), Annual Member of IEEE Control System Society, IEEE Robotics and Automation Society and IEEE Industrial Electronics Society
- Reviewer of SCI indexed journals like Neural Computing and Applications, ISATransactions and biomedical signal processing and control.
- Co-Convenor for International Conference for Computing, Communication and Control
- Department Level Coordinator for NAAC , NBA and ISO
- Acted as Department Coordinator for workshops and guest lectures.

- Acted as Coordinator for Anna University Sponsored Faculty Development Programme.

ONLINE COURSES COMPLETED

NPTEL

- Automatic Control
- Effective Engineering Teaching in Practice
- Modelling and Simulation of Dynamic Systems
- Fuzzy Logic Control

NITTTR

Module 1: Orientation towards technical education and curriculum aspects

Module 3: Communication skills modes sound knowledge dissemination

Module 5: Technology enabled learning and lifelong self learning

Module 6: Student assessment and evaluation

Module 8: Institutional management and administrative procedures

Coursera

- AI For Everyone
- Deep Learning with Tensor Flow
- Healthy Practices: Nutrition, Physical Activity, and Community and Family Participation
- Materials Science: 10 Things Every Engineer Should Know
- Introduction to Data Science in Python

WORKSHOPS/SEMINARS ATTENDED:

- Attended six days short term training programme sponsored by AICTE and organised by Anna University on “Data Science Apply to Measurement and Control” MIT Campus, Anna University during 31.1.2022 to 5.2.2022.
- Attended five days AICTE Training and Learning on “Data Science” organized by Aligarh Muslim University during 21.10.2020 to 25.10.2020.
- Attended three days National Level Workshop on “Machine Learning and AI in automation” organized by St. Joseph College of Engineering during 21.8.2019 to 23.8.2019.
- Attended two days National Level Workshop on “Internet of things (IoT) for Industrial Applications” organized by Velammal Engineering college, Chennai, Tamil Nadu during 19.1.2018

to 20.1.2018.

- Attended one day Workshop on “National Level Program on contemporary approaches of Industrial IoT in Real time Environment” organized by KCG College of Technology , Chennai, Tamilnadu during 4.12. 2017.
- Attended three days Workshop on “Emerging Trends and Future Perspective in Image Processing and Computer Vision” conducted by Trend Instrumentation and Automation Private Limited” at Sri Sairam Engg College, Chennai, Tamil Nadu during 4.1.2017- 6.1.2017
- Attended a Workshop on “Instrumentation Detail Engineering Workshop” conducted by Trend Instrumentation and Automation Private Limited” at Sri Sairam Engg College, Chennai, Tamil Nadu during 30.6.2016.
- Attended three days National Workshop on “Intelligent modeling and control using MATLAB and LABVIEW”, organized by Easwari Engineering college, Ramapuram, Chennai, Tamil Nadu during 25.9.2011-27.9.2011

FDPs/SDPs Attended:

- Attended five days Faculty development program on “Electron devices and circuits, industrial instrumentation and process control” organized by SRM Valliammai Engineering College during 5.5.2025 to 9.5.2025.
- Attended six days Faculty development program on “Industrial Internet of Things and connected things” organized by Sri Sairam Engineering College during 1.2.2024 to 6.2.2024.
- Attended six days Faculty development program on “Electrical Circuits, Devices and Control System” organized by SRM Valliammai Engineering College during 12.6.2023 to 16.6.2023.
- Attended Faculty Development programme on “Inculcating Universal Human Values in Technical Education” organised by All India Council for Technical Education(AICTE) during 26.7.2021-30.7.2021.
- Faculty Development programme on “Get Ready for AI with MATLAB and SIMULINK” organised by Sri Sairam Engineering College, Chennai, Tamilnadu during 18.6.2020- 20.6.2020.
- Attended Faculty Development on programme “Recent Innovations in Electrical, Electronics, Instrumentation, Automation & Teaching Pedagogy” organised by Sri Sairam Engineering College, Chennai, Tamilnadu during 18.5.2020 to 30.5.2020.
- Attended Faculty Development programme on “Entrepreneurship Career Development Program” organised by Sri Sairam Institute of Management Studies, Chennai during 8.4.2019 to 12.4.2019.
- Attended Faculty Development programme on “Teaching Excellence in Engineering and

Management Curriculum” organised by Sri Sairam Institute of Management Studies, Chennai,
20.6.2016.