

Faculty Profile



Dr.S.Narendiran , M.Tech., Ph.D

Associate Professor / Electrical and Electronics Engineering

HIGHLIGHTS:

- Number of Journal Publications: 20
- H-Index: 7
- i10 index: 8
- Patents Published: 3

PROFESSIONAL LINKS:

- Scopus ID: 57838601200
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57838601200>
- Google Scholar ID: https://scholar.google.com/citations?hl=en&user=34jBoZQAAAAJ&view_op=list_works&sortby=pubdate
- AICTE Faculty ID: **2681021987**
- LinkedIn: <https://www.linkedin.com/in/dr-s-narendiran-m-tech-ph-d-vit-84a97157/?isSelfProfile=true>

PROFESSIONAL BACKGROUND:

- Teaching Experience : 14 Years
- Research Experience: 0.7 Months

FDP Conducted:

- Applied a seminar symposia proposal to SERB on Jan 2022 and received a fund of Rs.50,000/- for conducting a seminar on “BIO-ROBOTICS: Trends, Challenges, and Future Research Directions”.
- Applied a proposal to ATAL on Aug 2022 and received a fund of Rs.93,000/- for conducting a FDP on “Biomedical Instrumentation & IoT”.

AREA OF SPECIALIZATION:

- Renewable Energy
- Power Electronics
- Electrical Machines
- Power Plant Instrumentation
- Basic Electrical and Electronics Engineering
- Measurement and Instrumentation
- Testing of Electric Vehicles
- Biomedical Instrumentation
- Linear Integrated Circuits
- Digital Logic Circuits
- VLSI Design
- PCB Design & Manufacturing

RESEARCH INTEREST

- Renewable Energy Sources
- Power Converters
- Power Electronics
- Electric Vehicles

PATENTS PUBLISHED/GRANTED:

- A smart home energy management system using artificial intelligence and the internet of things – 202341065509- Indian Utility Patent – 2024.
- Solar Panel Roof Design for Electric Vehicles - 6444012 – UK Design Patent – 2025.
- Machine learning–driven adaptive energy optimization architecture for enhancing electric vehicle battery longevity and driving efficiency – 202541123934 – Indian Utility Patent – 2026.

PUBLICATIONS

ARTICLE PUBLISHED:

- S.Narendiran, Sarat Kumar Sahoo," Smart Transformer For Distribution System", Electrical India Magazine, pp-30-32,July-2015.

JOURNAL PUBLICATIONS

- Rathika N, Jaisiva S, Narendiran S, and Nithiyananthan K, Fuzzy Logic-Based DSTATCOM for an Optimal Reactive Power Dispatch Solution in a Grid-Connected System. IJEER 14(2), 320-328. DOI: 10.37391/IJEER.140208, 2026. (SCOPUS)
- Dr.Ajith.B.Singh, Dr.S.Jaisiva, A.Anie Selva Jothi, Dr.S.Narendiran, “Investigation of Setpoint Tracking Control Schemes for Digital Twin of Industrial Finned Heater”, Optimal Control Applications and Methods-Wiley, 2025. (SCI-A1)
- Dr.S.Narendiran Dr.S.Jaisiva, Dr.J.Karthika, Dr.Kinde Anlay Fante, “Optimized DBN-Based Control Scheme For Power Quality Enhancement In A Microgrid Cluster Connected With Renewable Energy System, IET Renewable Power Generation-2024. (SCI-A1)

- Ajith.B.Singh, Dr.P.Manju, Dr.S.Narendiran ,K.Saravanakumar, “RTD-A Controller For Spherical Tank System”, Eur. Chem. Bull. ,12, PP. 517-527, 2023. SCOPUS.
- Dr.S.Narendiran, Dr.P.Manju, Dr.K.Muralibabu, “An Iot-Based Water Monitoring System And A Floating Waste Collection Robot, Eur. Chem. Bull. ,12, PP. 507-516, 2023. SCOPUS.
- Dr.S.Narendiran , Dr.P.Manju , Dr.K.Muralibabu, “Creating A Dynamic Wireless Power Transfer System To Provide The Car With Electricity, Eur. Chem. Bull. ,12, PP. 498-506, 2023. SCOPUS.
- Dr.S.Narendiran Aswin Krishna.S, Bharath Anand, Hrithik Shyam.P, “Smart Agriculture Based on IoT & Cloud Computing” International Journal for Science and Advance Research In Technology, 2022.
- Narendiran S and Albert Alexander Stonier Sivamani D, Shyam D, Nazar Ali A, Premkumar K, “Solar Powered Battery Charging System Using Optimized PI Controller for Buck Boost converter”, Materials Science and Engineering-IOP, 2021.
- D Shyam, D Sivamani, R Jaiganesh, S Narendiran, “Solar PV Fed Parallel SEPIC Converter for Highly Efficient Multilevel Inverter Integration”, International Transaction on Power and Energy Systems, 2021.
- S.Narendiran, J.Karthika, “Performance enhancement of hybrid SCM_WDM system using ANN-trained Raman amplifier”, Materials Today, 2020. SCOPUS.
- Dr.S.Narendiran Ms.K.Shanthi, Dr.V.Bhanumathi, Mr.Ajith.B.Singh, Dr.P.Manju,” Investigation Of Intelligent PID Controller Intended For Heat Ex-changer”, International Journal of Future Generation Communication and Networking, 2020. ESCI, WOS.
- Dr.T.Chinnadurai,Dr.S.Narendiran,Dr.M.Karthigaipamdian,K.Saravanakumar, J.Dhanaselvam, “Review on Design and Fabrication of Safety Suit for Sensing Different Parameters”, Journal of critical reviews, 2020. SCOPUS.
- Manju Perinchery, S.Narendiran, Ajith.B.Singh, K.Shanthi, “Effect of Changing Membership Functions in the Operation of Fuzzy Controllers for FACTS Devices in a Power System Network”, International Research Journal of Engineering and Technology, 2020.
- Manju Perinchery, S.Narendiran, Ajith.B.Singh,” Effect of Fuzzy Controller and Changing Membership functions in the operation of static synchronous series compensators and power system stabilizer” , International journal of creative research thoughts, 2020.
- S.Narendiran, M.Balamurugan, Sarat kumar sahuo, Manju Perinchery, K.Shanthi, Ajith.B.Singh, “Analysis of High Performance MPPT Controllers for Solar Photovoltaic System”, International Journal of Psychosocial Rehabilitation, 2020. SCOPUS.
- S.Narendiran, Sarat Kumar Sahoo," A Single Phase Reduced Device Count Multilevel Inverter Topology Using MCPWM for Renewable Energy Systems", Elsevier Energy Procedia, 2017. SCOPUS.
- S.Narendiran, Sarat Kumar Sahoo, Raja Das, "Control and Analysis of MPPT Techniques for Maximizing Power Extraction and Eliminating Oscillations in PV System", International Energy Journal, Volume-16,Issue-3, pp.107-117, 2016. SCOPUS, ESCI, WOS.
- S.Narendiran, Sarat Kumar Sahoo, Sweekruti Mishra, Shashank Mundra, "Transient Performance and Stability Analysis of Grid Connected Power System", International Journal of Applied Engineering Research, Volume 9, No.21, pp.9799-9822, 2014. SCOPUS.
- S.Narendiran, Sarat Kumar Sahoo," Modelling and Simulation of Solar Photovoltaic Cell for Different Insolation Values Based on MATLAB/Simulink Environment", Applied Mechanics and Materials, Volume 55, pp.550-556, 2014. SCOPUS.

- S.Narendiran, Mayur Bansal, Sarat Kumar Sahoo," Islanding issues of grid-connected PV systems", International Journal of Engineering & Technology, Vol 5 No 2, pp.726-733, Apr-May 2013. SCOPUS.

CONFERENCE PUBLICATIONS

- Mr.D.Shyam, Dr.S.Narendiran, "PUC Optimal Switching Strategies For Renewable Applications In Single Phase Inverter", IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), 2022.
- Dr.S.Narendiran, et.al, "Hybrid ANN - slidingmode control for MPPT of PV system", IEEE Industrial Electronics Society Annual On-Line Conference-ONCON-2022.
- Dr.S.Narendiran, et.al, "Novel controller for power quality improvement in PV wind based standalone Microgrid", IEEE Industrial Electronics Society Annual On-Line Conference-ONCON-2022.
- Dr.S.Narendiran, M. Arumugam , K.S. Dinesh , M. Dinesh kumar , S. Prabhu , Dr. P. Manju, " Measurement Of Electrolyte Solution In Lead Acid Battery Using Iot" 2022/02/14, AICTE-International Conference on Communication and Computing Technologies For Sustainable Development ICCCTSD-2022.
- Dr.S.Narendiran, M. Arumugam , K.S. Dinesh , M. Dinesh kumar , S. Prabhu , Dr. P. Manju, " Simulation Of Measurement On Electrolyte Solution In Lead Acid Battery Using Iot" 2022/02/14, AICTE-International Conference on Communication and Computing Technologies For Sustainable Development ICCCTSD-2022.
- Dr.P.Manju, P.Muthusamy, K.Naren, As.Sameer Ahamed, M.Sourav, Dr.S.Narendiran, "Advanced IoT based shopping Trolley for shopping mall", 2022/02/14, AICTE-International Conference on Communication and Computing Technologies For Sustainable Development ICCCTSD-2022.
- D Shyam, K Premkumar, D Sivamani, S Narendiran, "Symmetrical and Asymmetrical Multilevel Inverter with configurational parameters for power quality applications", 2020/11/27, IEEE 7th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON).
- Dr.S.Narendiran, Dr.M.Balamurugan, Dr.Sarat Kumar Sahoo, Dr.P.Manju, K.Shanthi, Ajith.B.Singh, "Analysis on High Performance MPPT Controllers for Solar Photovoltaic System", 6 th International Conference on E2IC2, Karpagam College of Engineering, Coimbatore, February 2020.
- S. Narendiran, Sarat Kumar Sahoo, Samiksha Nayak, S.Prabhakar Karthikeyan "Analysis on performance of MCPWM Techniques for a Multilevel Inverter fed PV System", IEEE-i-PACT, 2019.
- Sarat Kumar Sahoo, M.Balamurugan, S.Narendiran, Prabhakar Karthikeyan.S, "A novel control strategy of battery management for grid connected photovoltaic system", Australian universities power engineering conference, Melbourn, Australia, Nov-2017.
- S. Narendiran, Sarat Kumar Sahoo, Raja Das, Ashwin Kumar Sahoo, "Fuzzy logic controller based maximum power point tracking for PV system", IEEE- 3rd International Conference on Electrical Energy Systems, 2016/7, pp. 29-34, 2016.
- Balamurugan.M, Narendiran.S, Sarat Kumar Sahoo, Raja Das, Ashwin Kumar Sahoo, "Application of Particle Swarm Optimization for Maximum Power Point Tracking in PV System", IEEE-3rd International Conference on Electrical Energy Systems, 2016/7, pp. 35-38, 2016.

- Nupur Khera, Nancy Rana, S Narendiran, Sarat Kumar Sahoo, M Balamurugan, S Prabhakar Karthikeyan, I Jacob Raglend," Design of charge controller for solar PV systems", IEEE-International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT), 2015/12/18, pp. 149-153, 2015.
- A Peer Mohamed, S Narendiran," Interleaved converter based PV connected BLDC motor with MPPT controller", IEEE 2nd International Conference on Electrical Energy Systems (ICEES), 2014/1/7, pp. 92-99, 2014.
- S Narendiran," Grid tie inverter and MPPT-A review", IEEE-International Conference on Circuits, Power and Computing Technologies (ICCPCT), 2013/3/20, pp. 564-567, 2013.
- S Narendiran, Sarat Kumar Sahoo," Grid connected photovoltaic energy conversion system—A case study". IEEE-International Conference on Power, Energy and Control (ICPEC), 2013/2/6, pp. 23-25, 2013.
- S Narendiran, S Ravi, Ram Kumar, Harish Kittur, "Design of optimal final adder for parallel multiplier", IEEE-International Conference on Signal Processing, Communication, Computing and Networking Technologies (ICSCCN), 2011/7/21, pp.436-441, 2011.

BOOK CHAPTERS/LECTURE NOTES:

- Dr.S.Narendiran, D.Shyam, “Smart Fault-Tolerant Solar Fed Cascaded Multilevel Inverter” - Biomimetic Intelligence and Soft Robotics: Nature-Inspired Approaches to Intelligent Systems- Wiley Scrivener Book – 2026. (Accepted)
- Dr.S.Narendiran, Dr.M.Balamurugan, Dr.Sarat Kumar Sahoo (2024), Electric Vehicles Design: Design, Simulation and Applications- EV Battery Charging System, Wiley.
- S.Dilipkumar, R.Rajesh, Dr.S.Narendiran, Dr.M.Balamurugan (2022), “Machine Learning and AI Techniques in Green Cities” Handbook of Green Engineering Technologies for Sustainable Smart Cities, CRC Press, Taylor & Francis.
- Dr. P. Manju, Dr. S. Narendiran (2020), “Design of Electric Vehicle with the Help of Regenerative Braking System”, Lecture Notes in Electrical Engineering, Advances in Automation, Signal Processing, Instrumentation, and Control, Springer Nature.
- Sarat Kumar Sahoo, M.Balamurugan, S.Narendiran (2018). “Miscellaneous swarm intelligence techniques,” CRC press, Taylor and Francis Group.
- Sarat Kumar Sahoo, M.Balamurugan, S.Narendiran (2017). “Why perovskite and perovskite solar cells,” Elsevier.
- S.Narendiran, Sarat Kumar Sahoo (2017). “Power Electronics for a Photovoltaic System,” Nova science publisher, Inc. USA.

COURSES CERTIFIED:

- Completed NPTEL Course on “Electronic Systems Design: Hands-on Circuits and PCB Design with CAD software” on Oct 2026.
- Completed ALTIUM Designer Certification on “Basic Embedded System Design” on September 2026.
- Completed Schneider Electric Online Certification on “Electric Vehicles: Plugging into Smarter Energy Management” on Dec 2025.
- Completed Schneider Electric Online Certification on “Some Tools to perform Electrical Calculations” on Nov 2025.
- Completed NPTEL Course on “Accreditation and Outcome Based Learning” on Oct 2025.

- Completed Schneider Electric Online Certification on “Energy Audits Instrumentation I: Electrical, Lighting, Temperature and Humidity Measurement” on Oct 2025.
- Completed online course on “Introduction to Generative AI” from Coursera on August 2023.
- Completed online course on “-ChatGPT for Beginners SciFi Writing with Dall-e” from Coursera on September 2023.
- Completed online course on “Business analytics with Excel from Elementary to advance” from Coursera on October 2023.
- Completed online course on “Behavioral Finance” from Coursera on November 2023.
- Completed Energy Literacy Training on “Solar Energy Solutions” from Energy swaraj Foundation on October 2023.
- Got certified as a Top Performing Mentor on the course “Ethics in Engineering Practice” from NPTEL from July to Dec 2023.
- Completed online course on “PLC Basics” from OMRON Automation eLearning on January 2022.

SPECIAL SESSIONS DELIVERED:

- Resource person for “Summer Internship course for PCB Design” held in Saveetha Engineering College, Chennai, June 2026.
- Resource person for “Build your own PCB – Drestin 2026” held in Saveetha Engineering College, Chennai, September 2026.
- Delivered a Online Guest Lecture on “Fundamental Concepts of Electromagnetic Fields” at SCAD College of Engineering & Technology, Tirunelveli – Sep 2025.

PROFESSIONAL MEMBERSHIPS:

- IAENG – Member
- ISTE – Life Member

ACHIEVEMENTS AND AWARDS

- Organized a National Technical Level Symposium “IGNITRA 2K25” in Global Institute of Engineering an Technology, Melvisharam, 07-03-2025.
- Resource person for “project Expo - 2024” in the Department of EEE, Rajalakshmi Engineering College, Chennai, Nov 2024.
- Organized a SERB Sponsored 5 Days FDP On “BIO-ROBOTICS: Trends, Challenges, and Future Research Directions” from 16-20 May 2022.
- Coordinator for 5 Day ATAL supported FDP on “Biomedical Instrumentation & IoT” from Sep 21-25-2020.
- Conducted one-day workshop on “Digital circuit design using Xilinx” in SKCET, Coimbatore on 19-9-2013.
- Best Senior Faculty Award for the AY 2022-2023 from Novel Research Academy.
- Best Young Faculty Award for the AY 2020-2021 from Novel Research Academy.
- Best Faculty Award in the Department of Instrumentation and Control Engineering for the AY 2020-2021 in SKCT.
- Best Young Scientist Award for the AY 2021-2022 from Novel Research Academy.
- Best Researcher Award for the AY 2021-2022 in the Department of Instrumentation and Control Engineering.