

Mrs. Priya S

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Areas of Expertise

- Power Electronics
- Electric Vehicles (EV)
- Digital Electronics
- Electrical and Electronic Engineering

Education

Degree	Year	Institute
M.Tech (Power Electronics)	2016	Siddaganga Institute of Technology, Tumakuru
B.E (Electrical and Electronics Engineering)	2014	Sridevi Institute of Technology, Tumakuru

Professional Experience

2017 – Present: Assistant Professor, Siddaganga Institute of Technology, Tumakuru

Courses Taught

- Switched Mode Power Supply

- Modeling and Analysis of Power Converters
- High Voltage DC Transmission (HVDC) and FACTS
- Computer Aided Electrical Drawing (CAED)
- Essentials of Information Technology
- FPGA Based System Design
- Engineering Electromagnetics
- Advanced Power Electronics

Research Areas

- Power Electronics Converters
- Electric Vehicle Powertrain Systems
- Renewable Energy Integration
- Bidirectional DC-DC Converters
- High Efficiency Inverter Topologies

Publications (Selected)

1. Analysis and Design of a Multi-Input Multi-Output Buck-Boost Converter for Enhanced Renewable Energy Integration
2. Design of Quasi-Z-Source Bidirectional Converter for EV Application Using Sliding Mode Control
3. Machine Learning-Based DC to AC Dual Quasi Z-Source Converter for Distributed Generation Applications
4. Analysis of Interleaved Bidirectional DC/DC Converter for Battery Charging and Discharging Applications
5. Renewable Energy Fed BLDC Motor with DC-DC Converter by Implementing MPPT Technique for EV Application (Scopus Indexed)
6. PV Inverter Topology with High Efficiency and Reduced Ground Leakage Current (Scopus Indexed)
7. Reduction of Harmonics using DC-Link Shunt Compensator in Single Phase Grid Connected Motor Drive System (Scopus Indexed)
8. MPPT Based LLC Resonant Converter for PV Applications
9. Analysis of BLDC Motor Performance using Space Vector Pulse Width Modulation (Scopus Indexed)

Patent

Electric Vehicle for Transporting Goods – Patent filed for development of an electric vehicle designed for efficient goods transportation.

Sponsored Research Project

Project: Regenerative Electric Vehicle for Material Delivery

Funding Agency: NIDHI-PRAYAS

Funding Amount: ₹10,00,000

Role: CO-Principal Investigator

Awards & Achievements

Best Paper Award for the paper "Renewable Energy fed BLDC Motor with DC-DC converter by implementing MPPT Technique for EV applications" at ICEESM-18, R.G.M College of Engineering Technology, Nandyal, Andhra Pradesh (2018), published in Scopus indexed proceedings.

Project "Standalone Solar Powered Water Purifier for Rural Development" selected and funded by KSCST with ₹7,500 (2018-19).

UG/PG Projects Guided

- Automatic Voltage Regulator using 555 Timer
- Analysis and Simulation of PV Modules using Different DC-DC Converters
- Design of Cuk Converter for Solar Powered Electric Vehicle
- Implementation of MPPT for Buck Converter
- IoT Based Electronic Voting Machine
- Electric Vehicle Battery Management System
- Power Sharing Strategy for Hybrid Renewable Energy Systems
- Solar Panel Cleaning Robot
- Electric Vehicle Assistance System with GPS Tracking

Academic Responsibilities

- Placement Coordinator (2018–2025)
- Mutt Exhibition Coordinator (2022)
- Department Time Table Coordinator (2023–Present)
- Academic Audit Committee Member (2025)
- Department Website Coordinator (2025–Present)