Faculty Profile

Basic Information:



NAME : **Dr. M.Padma Lalitha**

DESIGNATION : **Professor**

DEPARTMENT: **EEE**

DATE OF BIRTH : **04/07/1972**

DATE OF JOINING : **22/10/1999**

EMAIL ID : **mpl@aitsrajampet.ac.in**

EMPLOYEE ID: **:06**

Academic Profile:

Qualification	Name of the Board/University	YEAR
Ph.D*	**Ph.D***	2011
M.Tech(PSOC)	**M.Tech(PSOC)**	2002
B.Tech(EEE)	**B.Tech(EEE)**	1994

Research Details:

1. Areas of Specialization	:	Smart grid, integration of renewble energy sources. Soft computing techniques, ML applications in electrical engineering
2. No. of Publications	:	150
3. Awards Received	:	1. Received **"State Teacher Award"** of Andhra Pradesh State government in the year 2023. 2. Received **"Global Best Teacher Award"** from Global Gyaan Academy, Bangalore in the year 2025. 3. Received **"Appreciation Certificate by RDO, Rajampet** in the year 2024. 4. Received ISTE AP section **"Best Woman Engineering Teacher"** for the year 2022. 5. Received "APJ Abdul Kalam National Level Teaching Excellence Award" in the year 2023. **6.** Received ISTE AP section **"Best Electrical and Electronics Engineering Teacher"** in the year 2019.
4. Research Guidance		
	No. of PhD Guided:	2
	No. of MTech. Guided:	24

No. of B.Tech. Guided:	30
5. Details of Professional Membership:	Senior Member IEEE, Fellow IEI, Member ISTE, Member IAENG, Member SAE
6. Subjects Taught :	Control Systems, Network Theory, Electrical Circuits, Network Analysis and Synthesis, EADSM,Analysis Of Linear Systems, Power System Analysis, Power Systems II, Modeling Of Power System Components, Computer Methods In Power Systems, Electrical Measurements, Electro Magnetic Fields, Electromechanics-I, Electrical Distribution Systems, Modern Control Theory, System Modeling And Simulation, smart grid technologies, Battery Management systems, Renewable energy sources, soft computing techniques,.

Publication Details:

Title	Publisher	Published Year
Pragmatic simultaneous scheduling of machines, AGVs, tool transporter and tools in a multi machine FMS using flower pollination algorithm	European Journal of Industrial Engineering	**2024**
Optimum Scheduling of a Multi-Machine FMS with Alternative Routing Using Crow Search Algorithm	SAE Technical Paper,2023-28-014	**2025**
Development of scheduling methodology in a multi-machine flexible manufacturing system without tool delay employing flower pollination algorithm	Engineering Applications of Artificial Intelligence	**2022**
Optimum Scheduling of a Multi-Machine Flexible Manufacturing System Considering Job and Tool Transfer Times without Tool Delay	**Mathematics, 11(9)**	**2023**
Concurrent Scheduling of Machines and Tools without Tool Delay in a Multi Machine FMS using Flower Pollination Algorithm	Industrial Engineering & Management Systems, 22(3)	**2023**
Optimizing Concurrent Scheduling of Machines and Tools in a Flexible Manufacturing System with Alternating Machines Using the Flower Pollination Algorithm	SAE Technical Paper,2023-28-0141	**2023**
Parallel Scheduling of Machines and Tools without Tool Delay Using Symbiotic Organisms Search Algorithm	SAE Technical Paper,2023-28-0142	**2023**
Optimal Generation and Transmission Loss Allocation for Outage and non -Outage Conditions Using Lightning Search Algorithm	Turkish Journal of Electrical Engineering & Computer Sciences, 31(6)	**Feb 2023 (online)**

- Particle Swarm Optimization	https://www.doi-i.org/journals/view/301	
Optimum scheduling of machines, automated guided vehicles and tools without tool delay in a multi-machine flexible manufacturing system using symbiotic organisms search algorithm	Concurrency and Computation: Practice and Experience 34(15)	**2022**
Simultaneous Scheduling of Machines, Tool Transporter and Tools in a Multi Machine Flexible Manufacturing System Without Tool Delay Using Crow Search Algorithm	Jordan Journal of Mechanical and Industrial Engineering 16(3), pp. 403-419	**2022**
Concurrent Scheduling of Machines and AGVS in Multi-Machine FMS with Alternative Routing Using Symbiotic Organisms Search Algorithm	Journal of Advanced Manufacturing Systems https://doi.org/10.1142/S0219686723500233	2022 (online)
Parallel Scheduling of Machines, Tool Transporter and Tools in a Multi Machine FMS with Alternative Routing Using Flower Pollination Algorithm	Journal of Advanced Manufacturing Systems https://doi.org/10.1142/S0219686723500245	2022 (online)
Enhancement of Voltage Profile in the Distribution system by Reconfiguring with DG placement using Equilibrium Optimizer	Alexandria Engineering Journal Volume 61,Issue 5, Pages 4081-4093	May 2022
Minimizing the total completion time on a multi-machine FMS using flower pollination algorithm	Soft Computing Volume 26, Issue 3, Pages 1437-1458	FEB 2022
Liquid Metal Battery for Energy Storage	International Journal Of Scientific Research In Engineering And Management (Ijsrem) Volume: 06 Issue: 05	MAY - 2022
Simultaneous Scheduling of Machines and Tools in a Multi Machine FMS with Alternate Machines Using Crow Search Algorithm	Journal of Advanced Manufacturing Systems https://doi.org/10.1142/S0219686722500305	Dec 2021
Simultaneous scheduling of machines and tools in a multi machine FMS with alternative routing using symbiotic organisms search algorithm	Journal of Engineering Research Volume 10, Issue 3A, https://doi.org/10.36909/jer.10653	Dec 2021
Performance analysis of hybrid techniques for evaluation of power transmission cost and loss allocation based on transmission reliability margin	International Transactions on Electrical Energy Systems Volume 31,Issue 11, Pages e13034	Nov 2021
Design and analysis of interlinking converter for renewable energy integration in to hybrid grids	Vidyabharathi international interdisciplinary research journal,special issue 2021	Oct 2021
Integrated simultaneous scheduling of machines, automated guided vehicles and tools in multi machine flexible manufacturing system using symbiotic	Journal of Industrial and Production Engineering Volume 39,Issue 4,Pages 317-339	Oct 2021

organisms search algorithm		
Improved Dynamic Performance using Fuzzy Logic Controlled Current Mode Cascaded Re-Boost 7 Level Inverter Fed Induction Motor System	Journal of Green Engineering (JGE) Volume-11, Issue-2, February 2021	
Practical simultaneous scheduling of machines, AGVs, tool transporter and tools in a multi machine FMS using symbiotic organisms search algorithm	International Journal of Computer Integrated Manufacturing Volume 34,Issue 2,Pages 153-174	Feb 2021
Neural network based MPPT control with reconfigured quadratic boost converter for fuel cell application	International Journal of Hydrogen Energy Volume 46,Issue 9,Pages 6709-6719	Feb 2021
Integrated scheduling of machines, AGVs and tools in multi-machine FMS using crow search algorithm	International journal of computer integrated manufacturing Volume 32,Issue 11,Pages 1117-1133	Nov 2019
Analysis of Transmission Cost Allocation Strategies with Reliability for Deregulated Systems	International Journal of Innovative Technology and Exploring Engineering (IJITEE) Volume 8,Issue-9S3,Pages 391-397	July 2019
A PV Module Integrated Converter for Enhanced Performance in Standalone and DC Microgrid Applications	International Journal of Innovative Technology and Exploring Engineering (IJITEE) Volume 8,Issue Issue-9S3, Pages 340-346	July 2019
Power Theft Detection by Using IOT	International Journal of Engineering Research Volume No.8, Issue Special 1, pp : 023-026	Mar 2019
Enhanced Virtual Synchronous Generator Control with Fuzzy Logic Controller for Parallel Inverters in Microgrids	Indian journal of Science & Technology Volume 10, Issue 29	Aug 2017
Fractional order PID controlled cascaded re-boost seven level inverter fed induction motor system with enhanced response	International Journal of Power Electronics and Drive Systems Volume 9,Issue 4,Pages 1784	Dec 2018
Simultaneous Scheduling of Machines and Tools in Multi Machine FMS Using Crow Search Algorithm	International Journal of Engineering Science and Technology , Volume 9, Issue 9-s, Pages 66-73	June-2017
Design of external inductor for improving performance of voltage controlled DSTATCOM using fuzzy logic controller	International Journal of Electrical Engineering Vol-10, Issue 2, Pages 247-269	2017
Intelligent monitoring system for automobiles	international journal of engineering and techniques	2018

AUTOMATIC LOAD SHARING AND POWER THEFT DETECTION USING GSM AND PLC	international journal of engineering and techniques	2018
A novel control approach for damping of resonance in a grid interfaced inverter system-fuzzy control approach	International Journal of Ambient Energy Volume 42,Issue 14,Pages 1607-1614	2021/19

Conference Details

Title of the Paper	Name of the conference	Year
Prediction of Solar Power Using Machine Learning – Annamacharya University Case Study	13th International Conference on Smart Grid (icSmartGrid), Glasgow,UK	2025
IoT Based Preservative System for Food Grade Item Using PV Technique	13th International Conference on Smart Grid (icSmartGrid), Glasgow,UK	2025
Design and Implementation of a Hybrid AC-DC Micro Grid for Voltage and Frequency Stabilization by using Advanced Control Techniques	12th International Conference on Smart Grid (icSmartGrid)	2024
Analysis and Review of Various Motors Used for Electric Vehicle Propulsion	International Conference on Smart Systems for Applications in Electrical Sciences Icsses 2023Open source preview	2023
Advanced Compensation Methods for Isolated Unsymmetrical Three-Phase Multiple Microgrids Employing Energy Storage System	IOP Conference Series: Materials Science and Engineering 1295 (1), 012013	2023
Analysis and Review of Various Motors Used for Electric Vehicle Propulsion	International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)	**2023**
Modelling and Control of DC/DC Converters in Rural PV Microgrid Applications	9th International Conference on Electrical Energy Systems (ICEES)	**2023**
Advanced Control Architecture for Interlinking Converter in Autonomous AC, DC and Hybrid AC/DC Micro Grids	Smart Grids for Smart Cities	**2023**
Implementation of Finite Element Method in Opera Software for Design and Analysis of High-Voltage Busbar Supports	International Conference on Communications and Cyber Physical Engineering-2022	29/4/2022-30/4/2022
Simultaneous scheduling of machines and tools without tool delay using crow search algorithm	Recent Advances in Material, Manufacturing, and Machine Learning (RAMML-22), Vol 1, Chapter 5, T&F, CRC Press	26/4/2022-27/4/2022
Optimal scheduling methodology for machines, tool transporter and tools in a multi-machine flexible manufacturing	Recent Advances in Material, Manufacturing, and Machine Learning (RAMML-22), Vol 1, Chapter 5, T&F, CRC Press	26/4/2022-27/4/2022

system without tool delay using flower pollination algorithm		
Novel ANN Based MPPT Control Strategy for Hybrid PV/Wind and Diesel Generator System	ICDSMLA 2020. Lecture Notes in Electrical Engineering, vol 783. Springer, Singapore.	NOV 2021
Advanced control architecture for interlinking converter in autonomous AC,DC an hybrid AC/DC Microgrid	CES-RES 2021	Oct 2021
A wind and solar based ac micro grid with optimized power quality for local non-linear loads	IEEE ICT-PEP 296-301	Sep 2021
Practical design of an Off-grid Solar PV system for Domestic application	IEEE MASCON 2021	Aug-2021
Evaluation of Automatic Voltage Regulator's PID Controller coefficients using Python	IEEE MASCON 2021	Aug-2021
Modeling and Simulation of Automatic Centralized Micro Grid Controller	Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough.	April 2021
Design & analysis of Fuzzy based Hybrid PV-wind power quality improvement for local non-linear loads using MLMS	ICAECT-2021 Advances in Electrical and Computer Technologies	2021
Effect of Load Model and Load Level on DG Placement by Crow Search Algorithm	ICECIT-2018 Lecture Notes in Electrical Engineering volume 569, pp 185–198	Sep 2019
Two Loop PI Controlled Cascaded Re-Boost Seven Level Inverter Fed Induction Motor System with Superior	ICECIT-2018 Lecture Notes in Electrical Engineering volume 569, pp 259–267	Sep 2019
Theft Detection by using IOT	NC'e-TIDES-19	Mar 2019
Fuzzy logic controller for parallel inverters in microgrids using virtual synchronous generator control	IEEE ICECDS 2017	June 2018
Ideal PMU placement for power system observability using binary particle swam optimization algorithm	ICPEA-2018	July 2018
Control schemes of grid-connected converters with synchronous power controller for renewable power generation	IEEE RTEICT 2017	Jan-2018
Power quality enhancement in microgrid using artificial intelligence controller	IEEE ICCES	Dec 2017
Optimal phasor measurement unit in power network using spinning tree algorithm	ICIOTCS-2017	July 2017

Patent Details:

Title of Patent	Submitted/Published/Awarded
Remote controlled solar agriculture sprayer with onboard power station	**Applied**
Agriculture Drone for monitoring and Spraying Pesticides	**Granted**
Mini Buck Converter Voltage Regulator Module	**Granted**
Driver performance scoring smart system and safety-warning with Accident proneness filtering using Machine Learning	**Granted**
Method for simultaneous scheduling in multi machine flexible manufacturing system to minimize make span	**Published**
Over voltage and under voltage protection, notification using ML and IoT based system	**Published**
Internet of Things Based Automatic Railway Gate Controller	**Published(**50/2021)
System And A Method For An Intelligent/Automatic Tuning Of Power Converter Of Electric Vehicle For Charging The Battery Thereof	**Published(**52/2020)
Evm- Control : Electric Vehicle Controlling System Using Beagle Bone Black Rev C(4G)	**Published(**42/2019)