

Name Mrs. MADHUMATI P.MOHIRE
M.TECH ELECTRICAL ENGINEERING

Designation Assistant Professor

Department ELECTRICAL

Date of Joining the Institute 03/09/2025

Education M.TECH ELECTRICAL ENGINEERING-2019

Branch / Specialization ELECTRICAL ENGINEERING

Areas of Interest Control System Basic & Design, Electric Circuit Analysis, Digital Electronics, Signal System, Basic Electrical

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Work Experience / Academic Appointments

Name of the University / Institute	Duration	Designation
1. Finolex Academy of Management and Technology, Ratnagiri	03/09/2025 to till date	Assistant Professor
2. Nanasaheb Mahadik College of Engg and Technology, Islampur, (Dis.Sangli)	15/12/2021 to 31/05/2023	Assistant Professor
3. Ashokrao Mane Group of Institutions. Vathar (Dis.kolhapur)	10/01/2021 to 13/12/2021	Assistant Professor
4. Vishaveshwaraya Techical Campus, Patgaon (Dis.Miraj)	12/06/2017 to 31/05/2019	Assistant Professor

Total Work Experience 4.5 Years

Awards / Honors / Prizes

1. Conducted workshop on "PCB Designing and Layout" for SE and TE Electrical during 2018 at Viveshwaraya Technical Campus, Patgaon, Miraj and in 2021 also at Ashokrao Mane Group of Institutions, Vathar.
2. Held an Online Poster Making Competition during 2021 at Ashokrao Mane Group of Institutions, Vathar open for FE, SE, TE, BE.
3. Conducted one day workshop on MATLAB of "Introduction to Simulink" at Nanasahab Mahadik College of Engineering and Technology, Islampur for SE, TE, BE Electrical during 2022.
4. Conducted an Industrial Visit for TE, BE students at MEDA's 2.00MW(8×250KW) Demonstration Wind Power Project Chalakewadi Tal & Dis Satara during 2022 at Nanasahab Mahadik College of Engineering and Technology, Islampur
5. Conducted an Industrial Visit for SE & TE Students at "Khare ElecTrans, Tasgaon, MH-416312" District Sangli at Nanasahab Mahadik College of Engineering and Technology, Islampur during 2022.
6. Worked as "Technical Event Coordinator" in "Gravita -2K22" at Nanasahab Mahadik College of Engineering and Technology, Islampur during 2022.
7. Worked as "Cultural Head Event Coordinator" in "Art & Craft" event at Nanasahab Mahadik College of Engineering and Technology, Islampur during 2022.
8. Conducted on day workshop on "Tinkercad Circuits" for SE&TE at Nanasahab Mahadik College of Engineering and Technology, Islampur during 2022.
9. Conducted a Visit on "Solid Waste Management Plant" at Ratnagreen Techno Services Ratnagiri for SE at Finolex Academy of Management and Technology on 19/09/2025 Ratnagiri-
10. Arranged a "Guest Lecture" on "Rain Water Harvesting" as an activity under Environment Science Subject of Shri. Ulhas Paranjape Sir who is Trustee-Jalvardhini Pratishthan, Head RWH-Cell -Indian Water Works Association, Mumbai Centre on 29/09/2025 at Finolex Academy of Management and Technology on 19/09/2025 Ratnagiri-
11. Delivered a "Guest lecture" on Controllers in Control system at Viveshwaraya Technical Campus Patgaon Miraj for TY-Mechanical Students Polytechnic -2018.

Papers Published

Papers Presented/Published in National / International Journals/Book Chapters

- Reducing Grid Dependency and Operating Cost of Micro Grids with Effective Coordination of Renewable and Electric Vehicle's Storage. **Springer** https://doi.org/10.1007/978-981-19-6525-8_49 (doi: 10.1007/978-981-19-6525-8_49) {Book Chapter}
- Design of High Voltage Gain DC-DC Converter with Fuzzy Logic Controller for Solar PV System under Dynamic Irradiation Conditions. **Springer** https://doi.org/10.1007/978-981-19-8742-7_37 (doi: 10.1007/978-981-19-8742-7_37) {Book Chapter}
- Design and analysis of Genetic algorithm optimization based ANFIS controller for Interleaved DC_DC converter fed for PEMFC System. **Springer** https://doi.org/10.1007/978-981-19-9225-4_1 (doi: 10.1007/978-981-19-9225-4_1) {Book Chapter}
- Temperature reduction analysis of solid insulating materials dipped in natural ester plus inorganic oils. **-Elsevier Materials Today Proceeding** -<https://doi.org/10.1016/j.matpr.2023.07.078>
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- Ⓜ Performance analysis of closed loop DC_DC Boost Converter using different controllers.(GIS Science Journal-UGC Care-II) **DOI:20.18001.GSJ.2022.V10I5.23.411022**
- Ⓜ Performance analysis of closed loop DC_DC Buck Converter using different controllers.(GIS Science Journal--UGC Care-II) *VOLUME 10, ISSUE 5, 2023*

Papers Presented/Published in National/ International Conferences

International Conferences – 02

1. 3rd Congress on Intelligent Systems CIS -2022 Madhumati Narule,Ch.Hussain Basha, presented paper titled "Design and Analysis of Genetic Algorithm Optimization based ANFIS Controller for Interleaved DC-DC Converter fed PEMFC Systems" 05/06/2022.
2. International Conference on Paradigms of Communication computing and data Science PCCDS(2022) Presented paper titled ""Design of high Voltage gain DC-DC Converter with fuzzy logic controller for Solar PV System under dynamic irradiation Condition 05/07/2022.

Number of Workshops, Seminars, STTPs, FDPs, Courses, tutorials Attended –

1. First Prize at state level paper presentation at Manajiraje Bhosale Technical campus ,Islampur-2015.
2. Participated in two days workshop on "Introduction to Robotics" conducted on 12th-13th October 2018 held at Sharad institute of Technology College of Engg. Ichalkaranji Conducted by **ERTS Labs-eyantra** Department of Computer Science and Engineering **Indian Institute of Technology Bombay**.
3. Completed a 12 week online certification course of NBA Accreditation and Teaching & Learning in Engineering ,NATE -2022.
4. Participated in Analog Maker Competition organized by Texas Instrument India at ADCET Ashta during 2015.
5. Two days workshop On "PCB Design Process with Protious Software" by "Fine Circuits" sangli-2018
6. Participated in two days hands on "Hardware Workshop" at Walchand College of Engineering Sangli 2015.
 7. One week FDP "Challenges in Evolving Power Systems", organized by department of electrical engineering, Finolex Academy of Management and Technology, Ratnagiri, 22.11.2021 to 27.11.2021.
 8. Completed One week virtual faculty development program on "Emerging Trend in Electric Vehicles and Infrastructure Development" organized by IEEE Educational Activities Committee ,IEEE Bombay Section RIT-CTL & RIT-IEEE Student Branch in association with Department of Electrical RIT Sakharale 12-17 July 2021
 9. Completed One week virtual faculty development program on "Artificial Intelligence for Electrical Engineering" organized by IEEE Educational Activities Committee ,IEEE Bombay Section RIT-CTL & RIT-IEEE Student Branch in association with Department of Electrical RIT Sakharale 04-08 Oct 2021
 10. Completed online Elementary FDP on Artificial Intellegence in Design and Manufacturing from 26/7/2021-30-7/2021 at Shri G.S.institute of Technology &Science Indore under AICTE Traning and Learning (ATAL) Academy.
 11. Successful participation in one day FDP on "Automation System Design & Simulation Studio software "of M/S Famic Technologies Canada,in association with M/S Dellsoft Technologies Pvt,Ltd,New Delhi. 5 Aug 2022
 12. Successfully completed online program on AI teacher Training by Agnriava - 26/09/2025.
13. Completed one week faculty development program on Recent Trends in Electrical and Electronics Telecommunication Engineering organized by Electrical and Electronics

14. Three days online FDP on Intellectual Property Rights and Patents under ATAL by Acropolis Institute of Pharmaceutical Education and Research,Indore. 4-6 Au 2021

Professional Membership

1. Institute of Engineering Research and Publication (I.F.E.R.P) (12-5-2022-31—12-2022)

Exam Duties

1. Worked as Supervisor for First Half of 2019 Examination, Shivaji University and DBATU Lonere .
2. Carried out exam related duties such as **Examiner and External Examiner** for conducting theory, practical and oral exam as appointed by Board of Examination, Batu University

UG Projects Guided

1. Performance analysis of DC-DC Boost Converter using different Controller –PID,Fuzzy Logic ,ANFIS Controllers
2. Performance analysis of DC-DC Buck Converter using different Controller –PID,Fuzzy Logic ,ANFIS Controllers
3. Real time automatic Electricity Cut Off
4. IoT based smart City control.
5. RIOT Controlling Robot.

Subjects Taught

1. Control System	T.E. ELECT (Sem - V) 2 Years
2. Control System Design	T.E. ELECT (Sem - V) 2 Years
3. Power Quality Harmonic	B.E. ELECT (Sem - V) 1 year
4. Basic Electrical Engineering	F.E ELECT (SEM-I) 1 Year

Use of Teaching-learning methodologies

1. Survey of Industries conducted by the students as a part of Course Project to Start Industry-Academic interactions
2. Hardware based Course projects are given to students to impart project-based learning
3. Field visits arranged for practical understanding
4. Showing actual hardware components/circuits at the time of teaching
5. Showing some concepts using MATLAB simulations,Voltsim App,Tinkercad Circuits ,Protious Software where ever necessity.
6. Due to Smart board Implementation its easy to show animations and conceptual based videos.