

**Name:**

Dr. Mandar Padmakar Bhawalkar

**Designation:**

Assistant Professor

**Contact Details:**

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**Educational Qualifications:**

- Ph.D. (Electrical Engineering), Savitribai Phule Pune University, Pune, Mar 2018
- M.E. (Electrical Power Systems), Pune University, Pune, Dec 2001.
- B.E. (Electrical), Pune University, Pune, May 1997
- ADCSSA BTE, Mumbai, Aug 1994
- D.E.E. BTE, Mumbai, Aug 1992
- Certified Energy Auditor, 2004

**Experience:**

- Industrial: 2 Years
- Teaching: 27 Years
- Research – 4 year

**Research Interests:**

- Renewable energy
- Grid Integration
- Power Quality
- FACTS Devices

**Research Projects:**

- Development of EV test setup under MODROBs
- Development of Brushless Doubly Fed Reluctance Generator for Wind Power Application
- Grid Integration of renewable energy sources.

## Field of Consultancy (Aspiring):

- Energy Management
- Power Quality
- Renewable Energy
- Electrical machines

## Consultancy offered:

- **Century Enka Ltd.**, Pune: Testing and Calibration of Panel Energy Meters.
- **Mahati Electricals**, Pune: Testing of transformer and testing of meters.
- **Neptune India Ltd.:** Testing of electronic trivector meter.
- **Wheels India Ltd.:** Testing of brush less dc motors.
- **Shree steels Industries**, Pune: Harmonics measurements and analysis.
- **Sakal Press:** Harmonics measurements.
- **Tata Consultancy services**, Pune: Harmonics measurements.
- **Zedan Consultant, Saudi Arabia:** Calculation of Electrostatic and Electromagnetic stresses at 380kV substation located at Hawihay, Saudi Arabia.
- **Smita Enterprises:** Testing of electronic ballast.
- **Exide Batteries**, Pune : Harmonic measurements and analysis.
- **Defense Research and Development Organization, Dighi**, Pune : Validation of Prototype design of Dual Frequency DG set for defense applications.
- **Rotary Club Sinhagad Rd.**, Pune - Safety audit survey of distribution transformers located in Pune city in association with.
- **Cummins India Ltd.**, Pune. Energy audit.
- **MSEB** - Energy audit of 11kV feeder,
- **Spin Instruments:** Testing of tri-vector meters.
- **Ambik Harmonic Filters:** Testing of APFC.
- **PVG's COET.** – Energy Audit & HT substation and DG set installation
- **NSK Engineers:** Power system studies by using ETAP-PSCAD software.
- **CG- Corel ( CoLogics)-** Testing of panel type energy meters.
- **NOVA Engineers** – Testing of 1500kW, 6.6kV IM at Mather & Platt Pune for Crompton Greves.
- **Spin Instruments-** Testing of L&T Make Trivector Meter under simulated abnormal conditions.
- **Kirloskar Brothers Ltd.** – Residual Voltage Test on Pump Motor to be installed at Narora Nuclear power plant.
- **Amul Crankshafts** – Trouble shooting of thyristor control induction hardening furnace
- **Royal Electrical** - Earth mat design for 22kV Switching Station.
- **Cologix** – Testing of panel type energy monitors to be fitted with Cummins Diesel Genset.
- **Kirloskar Brothers Ltd.** – Residual Voltage Test, Run Down Test and Inrush Current Test on 150HP Pump being installed in nuclear power plant.
- **Kraft Powercon India Pvt. Ltd.** – Testing of rectifier transformer units
- **Kraft Powercon India Pvt. Ltd.** – Harmonic measurements of rectifier transformer units
- **Kirloskar Brothers Ltd.** – Measurement and analysis of inrush current of 35kW motor.

- **Taj Mahal Hotel Mumbai** – Energy Audit
- **Bajaj Auto Pro-biking Showroom, Pune** – Energy Audit
- **Jubilient Organics, Neera** – Energy Audit
- **R & D E Dighi DRDO Labs** – Validation of design of dual frequency generator
- **Mahati Electrics Pune** – Leakage inductance calculations and force calculations for shell type furnace transformer
- **Bombay Presidency Golf Club** – Electrical Safety Audit.

### **Number of Publications:**

International Journal: **05**

National Journal: **10**

International Conference: **11**

National Conference: **07**

### **Number of Books / Book chapters Published: 01**

### **Number of PG Students Guided: 12**

### **Recognition/ Awards:**

- Felicitation on hands of Yogatadnya Dadaji Vaishampayan as a ‘Adarshya Shikshak’(Best Teacher award) in 2004.
- Felicitation by Energy Forum of Institute of Engineers, Pune local center for qualifying the first ever examination held for National certification examination for energy auditors, conducted by Bureau of Energy efficiency in 2004.
- Received Best Paper Award for paper “Brushless Doubly fed Reluctance machine and its control”, IEEE International Conference ICACDOT Sept 2016 at I<sup>2</sup>IT.
- Received Best Paper Award for paper “Comparison of Two Robust Phase Locked Loops used for Electric Utility Applications” presented at The Institution of Engineers(I)- Pune Local Centre, Technical Journal No: 38, ISBN No: 978-81-924990-2-4.
- Received Second prize in Dipex 2016 for BE Project. 2016.

### **Professional Society Memberships:**

- Senior Member of Institute of Electrical and Electronic Engineers(IEEE), USA.
- Member of IEEE Power and Energy Society
- Member of IEEE Industry Application Society
- Life Member of Institute of Engineers
- Life Member of Indian Society for Technical Education India(LMISTE)

**Number of FDPs / STTPs organized: 09**

**Number of Workshops organized: 40**

**Number of Conferences / Seminars organized: 20**

**Number of FDPs / STTPs attended: 24**

**Number of Workshops attended: 40**

**Number of Conferences / Seminars attended: 35**

**Number of Online Certification Courses done: 10**

**Number of Webinar attended: 15**

**Number of times served as a Resource Person: 16**

**Number of times served as a Reviewer / Judge: 25**

**Details of FDPs / STTPs attended in last 5 years: 14**

**Major Portfolios Handled: (college level and department level)**

- AICTE Affiliation work
- NBA Coordinator at department level
- Academic Coordinator at department level
- Purchase coordinator
- Co-Principal Investigator MODROBS
- NAD Coordinator
- IIC member
- Finance officer

**Role in University Bodies....**

- Member LIC Committee, SPPU
- Subject Expert, interview committee, SPPU
- Chairman for Various subject at UG and PG level

**Any other information which is not covered in above points:**

- Vice Chair – IEEE Pune Section 2025-2026
- Treasurer, IEEE Pune Section 2023 and 2024
- Chair PES-IAS Chapter IEEE Pune Section 2021-22
- Council member Electrical Division Board, Pune Local Centre, Institution of Engineers 2019-2021
- Development of e-Content, Virtual laboratory for Power Electronics by using 3D experience, for 3D-PLM, Dassult System.
- Member of Subject Core Group, Electrical Department, Cusrow Wadia Institute of Technology, Pune