

**Name:**

Prof. Mrs. Gauri Mandar Karve

**Designation:**

Assistant Professor

**Contact Details:**

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**Educational Qualifications:**

- Pursuing PhD in Energy Storage Systems
- M.E. (Electrical Power Systems), Pune University, Pune, January 2006.
- B.E. (Electrical), Pune University, Pune, May 1997

**Experience:**

- Teaching: 24 Years

**Research Interests:**

- Microgrid
- Renewable Energy
- Energy Storage
- Electric Vehicle

**Research Projects:**

- Research Grant of Rs. 2, 60,000/- received from BCUD of Savitribai Phule Pune University for AY 2016- 2018. The Project is completed in 2019.

**Number of Publications:**

International Journal:05

National Journal:02

International Conference:09

National Conference: 02

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

**Number of PG Students Guided: 08: Completed**

**Number of FDPs / STTPs organized: 15**

**Number of Workshops organized: 03**

**Number of FDPs / STTPs attended: 10**

**Number of Workshops attended: 06**

**Number of Conferences / Seminars attended: 07**

**Number of Online Certification Courses done: 00**

**Number of Webinar attended: 15**

**Number of times served as a Resource Person: 10**

**Number of times served as a Reviewer / Judge: 07**

**Details of Research papers presented and or published:**

- Mrs. Gauri M. Karve, Dr. Mangesh Thakare, Dr. Mrs. Geetanjali Vaidya, “Optimal Siting and Sizing of Battery Energy Storage System in Distribution System in View of Resource Uncertainty”, *Energies* 2025, 18(9), 2340; 3 May 2025.
- Mrs. Gauri M. Karve, Dr. Mangesh Thakare, Dr. Mrs. Geetanjali Vaidya, “Optimal Sizing of Photovoltaic and Battery Energy Storage Systems Incorporating Constant Current and Constant Power Load Models”, SSRG, IJEEE-V12I5P108, May 2025.
- Vivek Dahifale, Madhura Keskar, Vastav Kakyalia, Samyak Rodge, Gauri M. Karve, “Fault Detection of 3 Phase Induction Motor Using Vibration Analysis”, *International Journal for Multidisciplinary Research (IJFMR)*, E-ISSN: 2582-2160, IJFMR 23058257 Volume 5, Issue 5, September-October 2023.
- Mrs. Gauri M. Karve, Dr. Mangesh Thakare, Dr. Mrs. Geetanjali Vaidya, “Impact of Extreme Weather Parameters on Optimum Sizing of Solar Photovoltaic- Battery System Considering Case Study of India and Iran”, *International Conference on Multidisciplinary Research - 2022, Sharnbasva University, (ICMR-2022), Kalburgi, Karnataka, 23<sup>rd</sup> -24<sup>th</sup> November 2022. (BEST Paper Award for the Paper).*
- Mrs. Gauri M. Karve, Dr. Mangesh Thakare, Dr. Mrs. Geetanjali Vaidya, “Optimum Sizing of Photovoltaic System with Battery Energy Storage Considering Load Modelling and Variation in System Voltage”, *JOURNAL OF OPTOELECTRONICS LASER*, ISSN:1005-0086, Volume 41, Issue 9, 9<sup>th</sup> September 2022.
- Mrs. Gauri M. Karve, Dr. Mangesh Thakare, Dr. Mrs. Geetanjali Vaidya, “Optimum Sizing of Solar/Wind/Battery Storage in Hybrid Energy System Using Improved Particle Swarm Optimization and Firefly Algorithm”, *International Conference in Artificial Intelligence & Machine Learning (ICIAIML), Bangkok, 20<sup>th</sup> August 2022.*
- Devarsh Wali, Mohit Brahikar, Sujay Pawar, Vivek Navgire, Vivekanand Bagul, Prof. Mrs. G.M. Karve, “Design, Implementation and Monitoring of the Performance of Hybrid Electric Vehicles”, *2021 International Conference on Smart Generation Computing, Communication and Networking (SMARTGEN), Pune, India, 29-30 October 2021.*
- Mrs. Kalyani Kurundkar, G. M. Karve, Dr. Mrs. G. A. Vaidya, “Comparative performance analysis of Firefly algorithm and Particle swarm Optimization for Profit Maximization of Grid connected Microgrid providing energy and ancillary service”, published in SCOPUS indexed Journal, ‘*Journal of Solid-State Technology*’ Vol.64. No.2 (2021), pp 4607-4626.
- Mrs. Kalyani Kurundkar, G. M. Karve, Dr. Mrs. G. A. Vaidya co-authored a research paper titled, “Optimal placement of reactive power compensation devices in Distribution Network By IEHO-TOPSIS Approach” to be presented at “*International Virtual Conference on Emerging Trends in Engineering and Management Science-2021 (ICETEMS-2021)*” On 23<sup>rd</sup> - 24<sup>th</sup> July 2021 at Marathwada Mitra Mandal Trust, Pune.
- Mrs. Kalyani Kurundkar, G. M. Karve, Dr. Mrs. G. A. Vaidya, “Techno-Economic Analysis and Optimal Sizing of Stand-alone Hybrid AC-DC Microgrid by Nature

inspired Firefly algorithm and Particle Swarm Optimization in 2021 International Conference on Intelligent Technologies (CONIT) during 25th to 27th June. This is published on IEEE Xplore, digital library, Electronic ISBN:978-1-7281-8583-5.

- Ms. Ravina R. Kale, Prof. Mrs. Gauri Karve, Prof. Mrs. Kalyani Kurundkar, Prof. Dr. Mrs. Geetanjali Vaidya. My ME Student- presented paper titled as - "Implementation Of Fuzzy Logic Controller (FLC) For Energy Management Of HESS (Hybrid Energy Storage System) of Battery and Supercapacitor in PV Based Microgrid" at - "All India Seminar on Green Energy Technologies for Sustainable Environment " on 20th October 2019 at The Institution of Engineers(India), Pune Local Centre, Pune
- Pranav Patil, Radheya Patil, Shreyash Kanere and Sourabh Tajane, Prof. Mrs. Gauri Karve, "Design and Implementation of Charging of Battery Energy Storage System using Buck Converter and C2000 MCU's Launchpad in PV based Microgrid" at - "All India Seminar on Green Energy Technologies for Sustainable Environment " on 20th October 2019 at The Institution of Engineers(India), Pune Local Centre, Pune. The paper is co authored by Prof. Mrs. Gauri Karve (Guide).
- Mrs. Gauri Karve, Mrs. Kalyani Kurundkar, Prof. Dr. Mrs. Geetanjali Vaidya, "Implementation of Analytical Method and Improved Particle Swarm Optimization Method for Optimal Sizing of a Standalone PV/Wind and Battery Energy Storage Hybrid System", 5th IEEE International Conference on Convergence in Technology (I2CT-2019), I2CT, Pune 29<sup>th</sup> -31<sup>st</sup> March 2019, **Date Added to IEEE Xplore:** 12 March 2020. **INSPEC Accession Number:** 19453374. DOI: [10.1109/I2CT45611.2019.9033540](https://doi.org/10.1109/I2CT45611.2019.9033540); Publisher: IEEE; ISBN Information: Electronic ISBN: 978-1-5386-8075-9, Print on Demand (PoD) ISBN:978-1-5386-8076-6.
- Aniruddha Kulkarni, Prof.Mrs. Gauri Karve, "Fuzzy Logic Based Maximum Power Point Tracker For Photovoltaic Based Distributed Generation System", 3rd National Conference on Recent Trends in Mechanical Engineering (NCRTME-2018), Walchand college, Sangli. WCE, Sangli, June 2018.
- Rajesh Kamble, Prof.Mrs. Gauri Karve, Amarnath Chakradeo, Prof. Dr. Mrs Geetanjali Vaidya, "Optimal sizing of Battery Energy Storage System in Microgrid by using Particle Swarm Optimization Technique", International Conference on Interdisciplinary Engineering and Sciences (ICIES -2018), Pune, 23-24 March 2018, Pune.
- Rajesh Kamble, Prof.Mrs. Gauri Karve, "Optimal Sizing of a Grid Independent Standalone Photovoltaic System With Battery Energy Storage", International Journal of Recent Trends in Engineering & Research (IJRTER) Journal, Volume 3, Issue 10; ISSN (ONLINE):2455-1457, Impact Factor:4.101, Online Publication in October 2017.
- Mrs. Gauri Karve, Amarnath Chakradeo, Prof. Dr. Mrs Geetanjali Vaidya, "Sodium Batteries: A New Era of Electrical Energy Storage", 3rd National Conference on Electric Power & Power Electronic Control Systems (NCEPPECS - 2016), organised by Dept. of Electrical and Electronics Engineering on 6<sup>th</sup> – 7<sup>th</sup> May 2016, Andhra University, Visakapatnam, Andhra Pradesh, India.

#### **Details of book chapter published:**

- Gauri M. Karve, Kalyani M. Kurundkar, Geetanjali A. Vaidya, "Chapter 7- COMMUNITY ENERGY STORAGE: NATIONAL AND INTERNATIONAL SCENARIO- A REVIEW", BOOK CHAPTER in Research Challenges in Science, Engineering and Technology, NOVA Publications, USA, 29th July 2021.

Link for the BOOK...<https://novapublishers.com/shop/research-challenges-in-science-engineering-and-technology/>

### Details of FDPs / STTPs attended in last 5 years:

- A Five Days Hands-on Workshop on “Design of Transformer”, organized by Department of Electrical Engineering in association with Techno-Electrical Pune, during 4<sup>th</sup> February - 8<sup>th</sup> February 2024.
- One Day Mendeley Reference Manager: An Effective Way to Organize Research (210 minutes) at PVG COET, Pune, Presented by Mendeley Advisor Dr Minakshi Pradeep Atre Mendeley Advisor on 18/08/2023.
- 5 Days Online STTP on "How to Analyze and Write Quality Research Paper", Organized by Late Purushottam Hari (Ganesh) Patil Shikshan Sanstha's MAULI GROUP OF INSTITUTION'S COLLEGE OF ENGINEERING & TECHNOLOGY SHEGAON, Amravati, during 03-10-2023 to 07-10-2023.
- Three Days FDP ON "LabVIEW for Engineers" Organised By Department of Mechanical Engineering, PVG'S COET & GKPWIOM, Pune during 26-05-2023 to 28-05-2023.
- Three 3 Days FDP on "Optimization Techniques for Engineering Applications", Organised by Electrical Engineering Department of Guru Gobind Singh College of engineering & Research Centre, Nashik during 28-03-2023 to 30-03-2023.
- Two Days Training Program on "Ansys Maxwell" Organised by Electrical Engineering Department and Conducted by ARK Infosolution Pvt Ltd, during 09-03-2023 to 10-03-2023.
- Two days online international conference on 'Smart Generation computing, Communication and Networking' organised by AISSMS, COE. Pune during 29-10-2021 to 30-10-2021.
- One week Faculty Development Programme on “Interactive Teaching Learning Strategies With Affective & Cognitive Approach (ITLS)” organized by Department of Electronics and Telecommunication Engineering at PVG’s COET & GKPIM, Pune, 21<sup>st</sup> to 25<sup>th</sup> June 2021 (Thro' Online Interaction).
- One Week Online Short-Term Course (STC) on "Large scale grid integration of renewable energy sources: challenges, issues, modeling and solutions organizing by EED, NIT Srinagar 23<sup>rd</sup> to 27<sup>th</sup> September 2020.
- AICTE Training And Learning (ATAL) Academy Online FDP on "Electrical & Computer Engineering" at College of Engineering Pune 21<sup>st</sup> to 23<sup>rd</sup> September 2020.
- One Week FDP on ‘Optimization Techniques With Application to Electrical Engineering’, organized by Department of Electrical Engineering of SIT, Lonavala 15<sup>th</sup> – 19<sup>th</sup> June 2020 (Thro' Online Interaction).
- One Week FDP on ‘Advances in Electrical Engineering’, organized by Department of Electrical Engineering of PVG’s COET, Pune 8<sup>th</sup> – 13<sup>th</sup> June 2020 (Thro' Online Interaction).
- Six Days AICTE Sponsored Quality Improvement Training program on ‘Recent Trends in Power System Operation, Control and Protection’ at Govt College of Engg, Amravati 26<sup>th</sup> November to 1<sup>st</sup> December 2018.

- Two Week ISTE FDP on 'Electric Power System' Organized by IIT Kharagpur & Conducted at PVG's COET, Pune 10<sup>th</sup> - 15<sup>th</sup> July 2017 (& 1 Week Online Interaction).
- One Week ISTE FDP on 'Advances in Energy Storage Devices' Organized by & at PVG's COET, Pune 28<sup>th</sup> November – 2<sup>nd</sup> December 2016.
- Two Days FDP on 'Arduino Basics, Applications and Hands on Practice' Organized by & at MMCOE, Pune 13<sup>th</sup> - 14<sup>th</sup> December 2016.

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

- Scholarship Coordinator (AY July 2025- till date) ... **college level**
- Remote Centre (AY 2011 - till date) ... **college level**
- Mentor Coordinator (AY 2013- AY 2019).... **college level**
- Gathering Committee (**Exhibition:-** Incharge 1 Year & Committee Member- 3 Years).... **college level**
- Gathering Committee (**Snacks** Incharge:- 1 Year).... **college level**
- Gathering Committee (Dinner-4 Years).... **college level**
- Custodian (AY 2010- AY 2011).... **college level**
- Dead Stock In charge (AY 2011- till date)... **department level**
- Mentor Coordinator (AY 2013- till date) ... **department level**
- NBA Coordinator – Criterion 5 till 2023 ... **department level**
- Coordinator for FDP/Workshops (AY 2010- till date) ... **department level**
- UHV coordinator (AY 2022- till date) ... **department level**
- Vidyarthini Manch Coordinator (AY 2014 - till date)... **department level**
- Alumni Coordinator (AY 2011 - till date)... **department level**
- EESA Coordinator (AY 2012 - AY 2014)... **department level**
- NSS Coordinator (AY 2017 - AY 2019)... **department level**
- Class Teacher ... **department level**
- ME Admission (AY 2010- AY 2011) ... **department level**