

Faculty Profile

? **Faculty Name** : Vinaya kaustubh Thombare (Chavan)
? **Designation** : Assistant Professor
? **Department** : Electrical Engineering
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deanresearch@amgoi.edu.in

• Educational Qualification

Sl.	Degree	University	Class
1	B.E.- Electrical Engineering	Rajarambapu Institute of Technology	First with Distinction
2	M.E.- Power System Engineering	Government College of Engineering, Karad	First with Distinction
3	Ph. D (Electrical & Electronics)	National Institute of Technology, Goa.	

• Professional experience:-

Total experience in years:-12

Teaching: - 12

Industrial: -

Research: -

Sl.	Organization	Post	Period
1	Ashokrao Mane Group of Institutions, Vathar	Assistant Professor	1 July 2015 to Till Date
2	Arvind Gavali college of engineering satara.	Assistant Professor	15 Jun 2014 to 31 Dec 2014
3	Government College of Engineering, Karad	Lecturer	1 Jan 2013 to 31 May 2014

➤ Subject Taught:-

Undergraduate Subjects			
1	Basic Electrical Engineering	8	Power System-II
2	Network analysis and synthesis	9	Basic Electrical & Electronics
3	Power System-I	10	Power system stability and control
4	Power System-III	11	Numerical Methods and Computer Programming
5	Electrical Measurement	12	Power System Analysis
6	Engineering Operations and Project Management	13	Innovation and Entrepreneurship
7	C programming	14	Patent & IPR

➤ Project Work at U.G.:-

High Frequency Chopper

➤ Project Work at P.G.:-

Development of Model for Load Flow Analysis With and

without Series Compensation

- **Title of PhD Thesis:-** Development of Novel PV Array Reconfiguration Techniques to Enhance Maximum Power under Partial Shading Conditions
- **Research Area of Interest:-** Renewable energy sources, power system, power electronics application to renewable energy.
- **Paper Presented in National & International Conference:-**

Sl.	Title	Name of Conference & Institute	Type* (NC/IC)	Date
1	Design an Efficient Battery Management System for Two Wheeler EV	International Conference on Integrated Research and Sustainable Development (ICIRSD-2025), organized by Ashokrao Mane Group of Institutions, Vathar, Kolhapur, Maharashtra, India	IC	October 30–31 & November 1, 2025
2	Matrix Magic Shifting to Extract Maximum Power Under Partial Shading Conditions	<i>In Smart Technologies for Power and Green Energy, Lecture Notes in Networks and Systems, Vol. 443, Springer, Singapore</i>	IC	2023
3	A Review on Recent Trends in Charging Stations for Electric Vehicles	<i>In Robotics, Control and Computer Vision, Lecture Notes in Electrical Engineering, Vol. 1009, Springer, Singapore</i>	IC	2023
4	Optimal Sudoku, Skyscraper and Proposed Reconfiguration Techniques for Extraction of Maximum Power under Partial Shading Conditions	19th Annual IEEE International Conference (INDICON 2022), Kochi, India	IC	November 24–26, 2022
5	Novel Shade Dispersion Method to Extract Maximum Power under Partial Shading	47th Annual Conference of the IEEE Industrial Electronics Society (IEEE IECON 2021), Toronto, Canada	IC	October 13–16, 2021
6	Hardware Implementation of Multi-Usable Solar Operated Module with MPPT	Second International Conference on Electronics, Communication and Aerospace Technology (ICECA 2018)	IC	March 29–31, 2018

7	Effectiveness of Series and Shunt Compensation on Power Transmission	International Conference on Science and Technology (ICST-2K14), organized by S. B. Patil College of Engineering, Indapur, Pune	IC	December 21–22, 2014
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*NC- National Conference

IC- International Conference

➤ **Paper Published in National & International Journal:-**

Sl. No.	Title	Name of Journal	Type (NJ/IJ)	Date	Volume (Issue)	ISSN No.
1	Hardware Implementation of Sudoku, Optimal Sudoku, Sky-Scraper, Novel Shade Dispersion and Magic Matrix Shifting PV Reconfiguration Techniques with MPPT Algorithm to Enhance Maximum Power	CPSS Transactions on Power Electronics and Applications	IJ	June 2025	Vol. 10, No. 2	ISSN 2096-5317
2	Modelling and Analyzing the Performance of Series-Parallel Ladder (SPL) PV Arrays Under Various Partial Shade Scenarios	Transactions of the Indian National Academy of Engineering	IJ	2025	Vol. 10, No. 2	ISSN 2454-8658
3	Enhancement of PV Array Performance through Reconfiguration with P&O MPPT for Shading Resilience	International Journal of Ambient Energy	IJ	2024	Vol. 45, No. 1	ISSN 2162-8246
4	Hardware Implementation of Proposed and Conventional PV Array Reconfiguration Techniques to Extract Maximum Power under Various Shading Conditions	International Journal of Circuit Theory and Applications	IJ	November 2023	Vol. 51, No. 11	ISSN 1097-007X
5	Hardware Implementation of Sensor-less Matrix Shifting Reconfiguration Method to Extract Maximum Power under Various Shading Conditions	CPSS Transactions on Power Electronics and Applications	IJ	July 2023	Vol. 8	ISSN 2096-5317
6	Experimental Validation of Novel Shade Dispersion PV Reconfiguration Technique to Enhance Maximum Power Under PSCs	CPSS Transactions on Power Electronics and Applications	IJ	June 2023	Vol. 8, No. 2	ISSN 2096-5317
7	Repositioning of Series-Parallel, Total-Cross-Tied, Bridge-Link and Honey-Comb PV Array Configurations for Maximum Power Extraction	IETE Journal of Research	IJ	2023	Vol. 69, No. 9	ISSN 0974-780X
8	Effect of PV Array Positioning on Mismatch and Wiring Losses in Static Array Reconfiguration	IETE Journal of Research	IJ	2023	Vol. 69, No. 7	ISSN 0974-780X

9	Hardware Implementation of Novel Shade Dispersion PV Reconfiguration Technique to Enhance Maximum Power under Partial Shading Conditions	Energies	IJ	May 2022	Vol. 15, No. 10	ISSN 1996-1073
10	Solar Operated Weather Forecasting Station	Asian Journal for Convergence in Technology (AJCT)	IJ	2021	Vol. 7, No. 1	ISSN 2350-1146
11	Design and Implementation of Stand-Alone Solar Home System with Electrical Fencing	Asian Journal for Convergence in Technology (AJCT)	IJ	2021	Vol. 7, No. 2	ISSN 2350-1146
12	A Typical Review on Static Reconfiguration Strategies in Photovoltaic Array under Non-Uniform Shading Conditions	CSEE Journal of Power and Energy Systems	IJ	October 2020	Vol. 9, No. 6	ISSN 2096-0042
13	Hybrid PVT – A Novel Method for Improvement of Solar Panel Efficiency	Asian Journal for Convergence in Technology (AJCT)	IJ	2019	Vol. 5 (Issue details not available)	ISSN 2350-1146
14	Load Flow Analysis of Transmission Network with Series Compensation	International Journal of Research in Engineering and Technology (IJRET)	IJ	June 2014	Vol. 3, No. 6	ISSN 2319-1163

* NJ- National Journal

IJ- International Journal

➤ **No. of Project Guided at U.G. Level:-** 09

➤ **No. of Project Guided at P.G. Level:-** -

➤ **Certification Courses:-** 02

Sl.	Course Details	Institute	Date
1	MATLAB onramp self-paced training course	Mathwork Training Services	05 February, 2021
2	Design Of Photovoltaic System (12 week)	NPTEL	July- October 2018

➤ **STTP/FDP/Workshops/Attended/Participated:-**

Sl.	Name of STTP/FDP/Workshop	Institute	Date
1	Faculty AI Masterclass under the Google for Education AI Implementation Program 2026	UpEducators, Google for Education Partner	26 May 2026
2	FDP on Innovative Research Prospects in Electrical Systems Integrating Artificial Intelligence (AI)	Dr. D. Y. Patil Institute of Technology, Pimpri, Pune (in association with IET)	20–24 January 2026
3	FDP on Ancient and Computational Mathematics	ISTE Chapter, AMGOI Vathar	20 February 2024
4	Five-Day FDP on Role of Green Energy Towards Sustainable Smart Cities	JSS Academy of Technical Education, Noida	13–17 February 2024

5	STTP on Design of Experiment and Optimization	AMGOI, Vathar	11–16 December 2023
6	Workshop on Electric Vehicle: Navigating Towards Decarbonized Transportation Sector	AMGOI, Vathar	16–24 October 2023
7	Technical Computing Using MATLAB Course	ISTE, AMGOI Vathar	18–22 June 2023
8	ATAL FDP on Solar PV Partial Shading Mitigation Techniques and its Applications	NIT Goa	4–8 July 2022
9	FDP on Challenges and Opportunities in Integration of Electric Vehicles with Smart Electric Grids	NIT Goa (ATAL Academy)	16–20 August 2021
10	Workshop on Key Scientific Writing Strategies for Building a Strong Manuscript	ACS Publications	10 & 12 August 2021
11	Webinar on Developing DC-DC Converter Control in Simulink	MathWorks	27 July 2021
12	FDP on Electrical Vehicle Technology	NMCOE, Peth	5–9 July 2021
13	One-Month Online Internship on Power Electronics	RCSS Energies, Nashik	24 Aug – 23 Sep 2020
14	FDP on Nearly Zero Energy Building (nZEB)	Sharad Institute of Technology College of Engineering, Yadrav	10–14 August 2020
15	Workshop on Virtual Lab	NIT Goa	23 January 2020
16	Webinar on Introduction to Simscape for Modeling Multidomain Physical Systems	MathWorks / AMGOI Vathar	21 January 2020
17	Webinar on 21 MATLAB Features You Need Now	MathWorks	20 January 2020
18	FDP on Product Design Engineering	AUTODESK, AMGOI Vathar	20–24 December 2018
19	FDP on Neuro-Linguistic Programming for Teachers	AMGOI Vathar	24 March 2018
20	Course on Power Quality Issues and Solutions	ADCET, Ashta	26–27 October 2017
21	Guest Lecture on Research in Engineering titled Why and How?	AMGOI Vathar	26 March 2016
22	Workshop on Electrical Machine Design using AutoCAD	AMGOI Vathar	29–30 December 2015
23	Workshop on MATLAB Applications in Electrical Engineering	ADCET Ashta	25–26 December 2015
24	FDP on The Power of Resourceful	AMGOI Vathar	24 November

	State and Effective Teaching		2015
25	STTP on MATLAB and its Application to Electrical Engineering	RIT, Islampur	17–21 June 2013

➤ **Special Achievements :-**

1. Approved Ph.D. Supervisor at Dr. Babasaheb Ambedkar Technological University (DBATU), Lonere, Currently guiding 3 research scholars in the areas of Renewable Energy Systems and Power Electronics Applications to Power Systems.
2. Received the Best Paper Award at the IEEE 4th International Conference on Smart Technologies for Power, Energy and Control (STPEC-2025), held at NIT Goa on 10-13 December 2025
3. Reviewer for the Springer International Conference on Integrated Research & Sustainable Development (ICIRSD-2025) organized by Shri Balasaheb Mane Shikshan Prasarak Mandal's Ashokrao Mane Group of Institutions (AMGOI), held on 30th, 31st October & 1st November 2025

➤ **Departmental Responsibilities:-** IEEE Coordinator, Research coordinator

➤ **Other Experience/Responsibilities:-**

1. **Working as Dean, Research & Development Cell** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
2. **Working as Member Secretary, Board of Studies (BoS)** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
3. **Working as Vice President, Institution's Innovation Council (IIC)** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
4. **Working as Single Point of Contact (SPOC) for AICTE KAPILA Scheme** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
5. **Worked as Conference Coordinator** for the International Conference on Integrated Research & Sustainable Development (**ICIRSD-2025**) organized by Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
6. **Working as Coordinator of National Symposium "ReFLEX 2K26"** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon.
7. **Working as IEEE Coordinator** at Ashokrao Mane Group of Institutions, Vathar Tarf Vadgaon from **01/01/2026 to Present**.

➤ **Social Contribution If Any:-** Donated Blood, HAM trainer