



Contact

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Education

PhD (Ongoing)

2024 onwards
Sardar Patel College of Engineering, Mumbai
Research Area- Solar PV Systems

M.Tech (Power System)

2012 - 2014
Veermata Jijabai Technological Institute (VJTI), Mumbai
CPI-9.3

B.Tech (Electrical)

2007-2011
Rajarambapu Institute of Technology, Sakharale
Percentage: 72.25 %

Vishal Dake

Asst. professor, Electrical Dept., SPCE, Mumbai
PhD Researcher in Solar PV Systems

About Me

Dedicated Assistant Professor with expertise in Power Systems, Power Electronics and Renewable Energy, currently pursuing a PhD in Solar PV Systems. I am passionate about mentoring students, advancing solar energy technologies, and contributing to academic research. As a motivational speaker, I guide students in their personal and professional development, aiming to inspire future leaders in engineering and beyond.

Experience

January 2015 - Present

Sardar Patel College of Engineering, Mumbai

Assistant Professor, Electrical Department

- Teach undergraduate and postgraduate courses, including High Voltage Engineering, Power System Dynamics and Renewable Energy Systems.
- Guide several undergraduate and postgraduate projects related to renewable energy, power electronics, and energy management systems.
- Active member of various departmental and institutional committees, including Project Coordinator and Lab In-charge roles.
- Deliver motivational lectures to students, focusing on leadership, personal development, and academic success.

Departmental and Institutional Responsibilities:

1. Departmental Project coordinator
2. Co-coordinator of first year engineering FC and ARC activity
3. Member of institute library committee.
4. Member of institute building and works committee.
5. Member of institute obsolete committee.
6. Lab in charge of Electrical and electronic measurement lab, PG hardware lab

HSC

2007

Laxmanrao Kirloskar
Junior College, Palus

Percentage: 70.17%

SSC

2005

Laxmanrao Kirloskar
Vidya mandir, Palus

Percentage: 72.40%

Publications

Number of publications

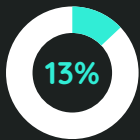
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National 30%

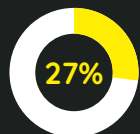
International 70%

Domain wise publications

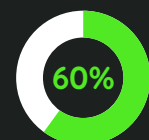
Power System



Renewable Energy



Power Electronics & Electric Vehicle



July 2014 - December 2014

Veermata Jijabai Technological Institute (VJTI), Mumbai

Assistant Professor, Electrical Department

- Teach undergraduate course in Basic Electrical Engineering
- Part of NBA committee

2011 - 2012

PVPIT Budhgaon

Lecturer, Electrical Department

- Teach undergraduate course in Basic Electrical Engineering
- Part of Electrical maintenance committee of Institute

Research & Publications

1. Harsha Mahore, Vishal Dake "Modelling and analysis of grid integrated solar system with energy management scheme using battery" 2019, 2nd international conference on intelligent computing, instrumentation and control technology, July 2019.
2. Teja Mhatre, Vishal Dake "Design and optimization of 20 KW bidirectional DC-DC converter and comparison of different topology" 2019, 2nd international conference on intelligent computing, instrumentation and control technology, July 2019.
3. Nilesh R. Ahire and Vishal Dake, "Analysis of Voltage Profile, its Issues and Mitigation Techniques Used In Western Regional Grid of India," 2018 Fourth International Conference on Advances in Electrical, Electronics, Information, Communication and Bio-Informatics (AEEICB), Chennai, 2018
4. Sandeep Ushkewar, Vikram Shinde, Vishal Dake "Modeling and analysis of split core pulse transformer for solid state modulator" 2017 Second IEEE International conference on Electrical, Computer and communication Technologies at Coimbatore, India.
5. Sandeep Ushkewar, Vishal Dake, Vikram Shinde, "Designing of Solid State Pulse Power Modulator by Fabrication of Pulse Transformer" 2017 IEEE International Conference on Innovations in Power and Advanced Computing Technologies [i-PACT2017] at VIT Vellore, India.
6. Sandeep Ushkewar, Vikram Shinde, Vishal Dake "Modeling and analysis of split core pulse transformer for solid state modulator" Scopus Indexed National Journal of Electrical system (proceedings of ICECCT 2017)
7. Vishal Dake, A. Tillu, K. P. Dixit, H. Sarukte and H. A. Mangalvedekar; Implementation and initial test result of a prototype solid state modulator for pulsed magnetron; 2015 International Symposium on Discharges and Electrical Insulation in Vacuum (ISDEIV), Mumbai, 2015, pp. 377-380. doi: 10.1109/DEIV.2014.6961698
8. Vishal Dake, Vishvadeep J. Dhawale, Prafulla A. Desale (VJTI Mumbai), "Blocking the Distance Relay 3rd Zone Operation during Power Swings by DTLR Enhancement in MATLAB/Simulink" International Journal of Electronic and Electrical Engineering. ISSN 0974-2174 Volume 7, Number 7 (2014), pp. 757-765
9. A. Kadam, V. Dake "Modelling & Analysis of Solid-State Transformer for Integration of Renewable Energy Sources To The Grid" SPICON 2023

Academic Projects

● M.Tech. Project

Modelling and analysis of solid-state Pulse Power Modulator using IGBT" at Bhabha Atomic Research Centre, Mumbai.

● B.Tech. Project

"Modelling of Integrated Wind Energy System using MATLAB."

Projects Supervised

● B.Tech. Projects supervised

- Solar Bicycle (2015-16)
- Foot step generator using peizo-electric crystal (2015-16)
- Wireless power transmission in Railway application (2015-16)
- Electromagnetic Launcher (2016-17)
- PV Powered Bicycle (2017-18)
- Standalone PV System with Energy Management Scheme (2018-19)
- Automatic power factor correction using system connected to grid (2018-19)
- Automotive waste segregator (2019-20)
- A Dual Control Regenerative Braking strategy for Electric vehicle (2020-21)
- Dynamic Power Management for stand alone PV system (2020-21)
- Multiport Multi-level EV charging station using Solid State Transformer (2021-22)
- Solid State Transformer in Future Smart electrical system (2021-22)
- Modeling and analysis of on grid and off grid PV system of SPCE (2022-23)
- Solar powered electric vehicle charging station (2022-23)
- Experimental analysis of stand alone solar photo voltaic cell for improver power quality using MPPT (2023-24)
- Comparative performance analysis of SPCE solar PV project (2023-24)
- Real Time Monitoring & Fault Detection of EV (2024-25)
- Performance of Mono-facial and Bifacial PV array with fixed tilt by using reflectors (2024-25)

**Number of M. Tech.
project Guidede**

8

**Number of
conference &
workshop attended**

9

M.Tech Dissertations supervised

- "Design and fabrication of split core pulse transformer for prototype solid-state pulse power modulator" by Sandeep Ushkewar (2017).
- "Modeling, optimal allocation, and assessment of impact of shunt compensation in the Western Regional Grid of India" by Nilesh Ahire (2018).
- "Modelling and analysis of grid connected PV system with energy management scheme" by Harsha Mahore, (2019)
- "Design of 20 KW DC-DC isolation converter using dual active bridge" by Teja Mhatre (2019).
- "Bi-directional EV charger" by Shraddha Pawar (2020)
- "Mitigation of SSR problems in power system" by Madhav Gangane (2020)
- Modelling & Analysis of Solid-State Transformer for Integration of Renewable Energy Sources to The Grid (2022)
- Charging station for electric vehicle using hybrid sources

Conferences & Workshops Attended:

Course Name	Organizer	Duration
Green Energy	SPCE Mumbai	December 2023
Outcome based education : A step towards excellence	GCE, Karad	May 2021
Electrical equipments and machine : Finite element analysis	IIT Bombay	November 2020
Practical Optimization	IIT Bombay	January 2020
E-Yantra Robotics Workshop	IIT Bombay	December 2019
Electromagnetic Fields and Waves: Pedagogy	IIT Bombay	November 2018
Nano Science and Nanotechnology	SPCE Mumbai	January 2017
Honing Research and Publication Skills	Nirma University, Ahmedabad	October 2016
Micro-Electromechanical Systems (MEMS) Design	SPCE Mumbai	January 2016

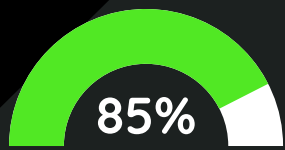
Number of
consultancy
till date

14

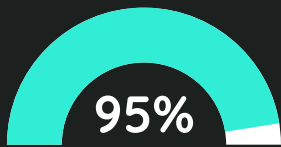
CONSULTANCY / TESTING / THIRD PARTY AUDIT

Sr. No.	Organizer	Type of Consultancy	Year
1	Bhiwandi Municipal Corporation	Third Party Audit: Supply, fixing, and commissioning of Traffic signal at Dharamveer Anand Dighe Chowk, Bhiwandi	2021
2	Bhiwandi Municipal Corporation	Third Party Audit: Providing street light arrangement at Amidhara complex to Munisurat building and Saimandir road, Kamatghar (Moolbhootsuvridha government fund)	2022
3	Bhiwandi Municipal Corporation	Third Party Audit: Providing street light arrangement at Narmada Nagar Nala to Narpoli gaon Sai Baba Mandir (Mool Bhoot suvidha govt. fund)	2022
4	Bhiwandi Municipal Corporation	Third Party Audit: Providing street light arrangement at Ramchandra Hotel to Vasai Highway Hanuman Mandir (Mool Bhoot Suvridha Government Fund)	2022
5	Bhiwandi Municipal Corporation	Third Party Audit: Estimate for Supply, fixing, and commissioning of Traffic signal at Rajiv Gandhi Chowk, Bhiwandi	2022
6	Bhiwandi Municipal Corporation	Third Party Audit: Design, supply, installation, and commissioning of 20 kW on-grid rooftop solar system on BNCCM Prabhag Samite No. 3 Adm. Building, Padmanagar, Bhiwandi	2022
7	Bhiwandi Municipal Corporation	Third Party Audit: Estimate for Supply, fixing, and commissioning of Traffic signal at Bhadwad Temghar Naka Chowk, Bhiwandi	2022
8	Bhiwandi Municipal Corporation	Third Party Audit: Supplying and erecting Highmast at (1) Mishkat Masjid at Raoji Nagar (2) Rehmatpura Qabrastan, Bhiwandi	2023
9	Bhiwandi Municipal Corporation	Third Party Audit: Providing street light arrangement from Anjurphata Railway Bridge to Tirupati Hospital, Padmanagar (Dhamankar Naka), Bhiwandi	2023
10	Bhiwandi Municipal Corporation	Third Party Audit: Supplying and erecting street light arrangement from Devji Nagar to Sathe Nagar, and Sathe Nagar Pump Room to Agra Road (Lokshahir Anna Bhau Sathe Nagari Vasti Sudharana Yojana Fund)	2023
11	Ambarnath Municipal Council	Third Party Audit: Supply, fixing, and commissioning of Traffic signal at Forest Naka, Ambarnath	2023
12	Ambarnath Municipal Council	Third Party Audit: Supply, fixing, and commissioning of Traffic signal at Gandhi Chowk, Ambarnath	2023
13	Ambarnath Municipal Council	Third Party Audit: Supply, fixing, and commissioning of Traffic signal at Mataka Chowk, Ambarnath	2023
14	Ambarnath Municipal Council	Third Party Audit: Supply, fixing, and commissioning of Traffic signal at Mataka Chowk, Ambarnath	2024

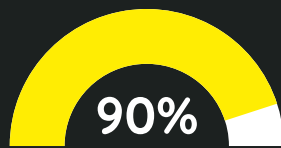
Self analysis on softskills



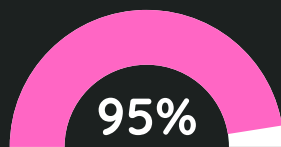
Communication Skills



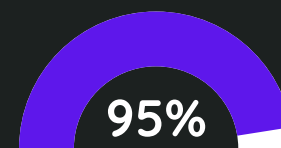
Interpersonal Skills



Leadership Skills



Problem-Solving Skills



Time Management Skills

Technical Skills:

- Basic Electrical Engineering
- Power Systems
- Power Electronics
- High Voltage Engineering
- Solar PV Systems
- MATLAB
- Comsol Multiphysics
- CST Software
- LabVIEW
- ETAP
- FEMM 4.2

Soft Skills

- **Leadership & Teamwork**

Leading teams in research, teaching, and departmental projects.

- **Motivational Speaking**

Inspiring students through motivational lectures on leadership, personal development, and goal-setting.

- **Problem-Solving**

Applying innovative approaches to solve complex technical challenges in electrical systems.

- **Communication & Presentation**

Ability to communicate complex ideas clearly in academic and professional settings.

- **Time Management**

Balancing teaching, research, and administrative duties effectively.

- **Adaptability**

Ability to work across different engineering domains and adapt to new technologies and methods.

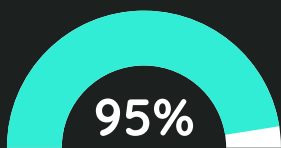
Membership of professional societies

1. IET Member
2. ISTE member

Self analysis on softskills



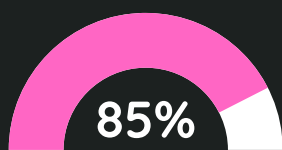
Work Ethic



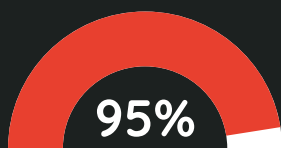
Adaptability Skills



Teamwork Skills



Organizational Skills



Creativity and Innovation

Extracurricular Activities & Social Work:

- **Gas Cylinder Inspection & Technical Assessment:**
Conducted comprehensive gas cylinder inspections and assessed technical facilities in hospitals across Mumbai to ensure availability and safety during the COVID-19 pandemic.
- **National Exam Observer (NEET, JEE, NET):**
Appointed as an Observer for national-level examinations conducted by the National Testing Agency, ensuring smooth and transparent conduct of exams.
- **Blood Donation Camp Organizer:**
Successfully organized a blood donation camp through the Electrical Students' Society of Association (ESSA), contributing to community health and awareness.
- **Motivational Seminar Speaker:**
Delivered motivational seminars to students, focusing on self-development, goal setting, and academic excellence.

Languages

- English
- Marathi
- Hindi