

PROFILE



Dr. SWATI LAVAND

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PROFESSIONAL QUALIFICATION

Sr. No.	Degree	Program/Specialisation	University	Year of Passing
1.	B.E./B.Tech.	Electrical Engineering	Govt. Engg. College Karad, Shivaji University	1998
2.	M.E./M.Tech.	Electrical Power System	Govt. Engg. College Karad, Shivaji University	2004
3.	Ph.D.	Electrical Engineering	IIT Bombay	2017

EXPERIENCE

Sr. No.	Organisation	Duration
1.	Sardar Patel College of Engineering, Andheri	2005 till Date
2.	Vibha Enterprises (Control Panel Manufacturer)	2002 to 2004
3.	St. Francis Institute of Technology, Mumbai	2001 to 2002
4.	Government Polytechnic, Karad	1999 to 2000

PROFESSIONAL MEMBERSHIP

Sr. No.	Name of professional society	Membership ID
1 .	Institute of Engineering & Technology (IET)	1100552579

PAPERS PUBLISHED

International Journal

Sr. No.	Authors	Title of paper	Publisher	Year
1.	S.A. Lavand & S.A.Soman	Predictive Analytic to Supervise Zone 1 of Distance Relay using Synchrophasors	IEEE Transactions on Power Delivery	Aug. 2016

PATENT GRANTED

Sr. No.	Name of the Faculty	Patent Details
1.	Dr. Swati Lavand	Method For Reliable Power Swing Detection and Event Detection, Indian patent 414180.

ACHIEVEMENTS

Sr. No.	Type of achievement	Year
1.	POSOCO Power System Award by Power System Operation Corporation Ltd. (under Ministry of Power) & IIT Delhi for the PhD research	2018

International Conference

Sr. No.	Authors	Title of paper	Publisher	Year
1.	Royden F., Yogesh B., M.S.S. Rao, Lavand S.A., Soman S.A.	Anomalous data detection for short term load forecasting	26 th European Conference on Operational Research Forecasting Stream	2013
2.	S. A. Lavand, G. Gajjar, R. Gajbhiye and S. A. Soman	Mining Spatial Frequency Time Series Data for Event Detection in Power Systems	IET International conference on Developments in Power System Protection., Edinburgh	March 2016
3.	S. A. Lavand and S. A. Soman	Local Supervision of Distance Relay using Hodrick-Prescott Filter	20th Power Systems Computation Conference, Dublin, Ireland.	June 2018
4.	Pratiksha Urkude and S. A. Lavand	SVM based Event Detection Algorithm using PMU measurements	5 th IEEE International conference on Electrical, Electronics and Computer Engineering, Gorakhpur, India,	Nov. 2018
5.	Vidushi N., Sanjana K., Aniket P., Pavan G., and S. A. Lavand	Identification of Distance Relays Vulnerable to Power Swing in Power System	IEEE International conference on Recent Innovations in Electrical, Electronics and Communication Engineering, NIT Bhubaneswar, India	July 2018
6.	Ayyaj Maner and S. A. Lavand	Fault Location Estimation of High Voltage Transmission Line using Disturbance Record	1 st IEEE International conference on Power, Energy, Control Transmission Systems, Chennai, India	Feb. 2018
7.	Shraddha Jadhav, S. A. Lavand, Gopal Gajjar	Wide Area Measurement System based Frequency Data Mining for Event Detection in Power System	8th International Conference on Power Systems, MNIT Jaipur, India	2019
8.	Pooja Chaurasiya and Swati Lavand	Power System Oscillation Modes identification using TLS-ESPRIT and optimization of its parameters	SPICON 2022	2022

WORKSHOP / COURSES CONDUCTED

Sr. No	Name & Venue of the FDP	Faculty Coordinators	Description	Date
1	AICTE sponsored one week ATAL FDP at SPCE on "Green Energy :Challenges & Mitigation Strategies"	Dr. Swati Lavand & Dr. B. B. Pimple	The course addressed various performance issues of the power grid in presence of high penetration of EV and RE, design of power system protection scheme in presence of renewable energy sources, need of state of art technologies and strategies to mitigate the challenges in Green Energy and model & simulate distributed generation or micro-grid.	18th December 2023 to 23rd December 2023
2	TEQIP III sponsored 1 week workshop on " Practical Optimization" at CEP IIT Bombay under Twinning activity with Govt. Engg. College, REWA, M.P.	Dr. Swati Lavand	Optimization plays a critical role in nature, Engineering and social sciences. The course aimed to present those aspects of optimization methods which are of foremost importance in solving the real life problems.	6th January 2020 to 11 January 2020

EVENTS ORGANIZED

Sr. No.	Organizer	Title	Year
1.	Dr. Swati Lavand	Industrial visit to Tata Power Skill Development Institute, Shahad	2025
2.	Dr. Swati Lavand & Prof. Vishal Dake	Industrial visit to Uran Gas turbine power plant and Jawaharlal nehru Port Trust (JNPT)	2022

INDUSTRIAL TRAINING ORGANIZED

Sr. No.	Organizer	Title	Year
1.	in collaboration with EED IITB	3 days' workshop on Power System Analysis for Reliance Industries	Aug. 2018
2.	in collaboration with EED IITB	3 days' workshop on Power System Protection for Reliance Industries	Sept. 2018

INDUSTRIAL TRAINING ATTENDED

Sr. No.	Organizer	Title	Year
1.	L&T Switchgear Training Centre, Pune	Training on 'Low Voltage Switchgear Maintenance-combine (LVSM-C)	2007

EXPERT LECTURE CONDUCTED / ORGANIZED

Sr. No.	Organizer	Title	Year
1.	Research scholar conclave, COEP Pune	Expert talk delivered on 'WAMS based analytics to supervise Distance Relay'	2017
2.	FDP at Fr. C. Rodrigues Institute of Technology, Vashi	Expert talk delivered on 'Reliability of Power system Protection'	2017
3.	EED,SPCE	Expert talk arranged on 'Sustainable Development' Speaker - Dr.Sanjay M.G., VJTI	Feb 2021
4.	SPSGIC club of SPCE	Expert talk arranged on 'Sustainable Development' Speaker - Smt. Meha Patkar	May 2023

FUNDED RESEARCH PROJECT

Sr. No.	Funding agency	Title	Sanctioned amount	Duration with dates	Status (Completed / ongoing)
1.	TEQIP III	Seed money proposal on Numerical Relay Emulator	76,700/-	August 2020	Completed
2.	SPCE & SPIT	33 KW Rooftop solar PV plant with different tracker systems and standalone system with battery backup for SPCE- SPIT Institutes	approx 30 lacs	2023-2025	ongoing

REVIEWER

Sr. No.	Title of journal / conference	Year
1.	Springer Electrical Engineering (Journal)	2017 till date
2.	IEEE International Conference on Power System (ICPS)	2019
3.	IEEE International Conference on Nascent Technologies in Engineering (ICNTE)	2019
4.	IEEE Transaction on Power Delivery	2022, 2023, 2024

WORKSHOP / COURSES ATTENDED

Sr. No.	Name of the Course	Name of Organising Institute	Dates	Duration
1	AICTE-ISTE approved STTP under TEQIP 'on 'Power Quality'	Shri Sant Gajanan Maharaj College of Engineering	11 th -15 th Dec 2006	One Week
2	Training on 'Low Voltage Switchgear Maintenance-combine (LVSM-C)	L&T Switchgear Training Centre, Pune	28/05/2007 to 01/06/2007	One Week
3	AICTE-ISTE Approved STTP on 'Light Sources-Control and Applications'	MIT- Pune	10 th -14 th Dec 2007	One Week
4	AICTE approved STTP under QIP on 'Analysis of Modern Power Systems'	Indian Institute of Science, Bangalore	16 th -20 th March 2009	One Week
5	ISTE Approved STTP on 'Journey of Machines from Materials to Applications'	Sardar Patel College of Engineering, Andheri	22 nd -26 th June 2009	One Week
6	ISTE Approved STTP on 'Electromagnetic Waves and its Applications '	Sardar Patel College of Engineering, Andheri	15 th -19 th June 2009	One Week
7	Modular Training Programme on 'Numerical Protection of Power Systems'	CEPT University & BVM College Gujarat	27 th - 31 st Dec 2010	One Week

8	Digital Protection of Power System	CE & QIP at IIT Bombay	Jan-Apr.2012 (16 weeks)	Equivalent to 2 Weeks
9	STTP on “MEMS: Design, Fabrication and Characterization”	Sardar Patel College of Engineering, Andheri	4 th to 8 th Jan.2016	One Week
10	“FDP for improved competency and Institutional Management Capacity Enhancement” under TEQIP II	Sardar Patel College of Engineering, Andheri	21 st & 22 nd March 2017	2 days
11	TEQIP II sponsored Faculty Development Program under Twinning	Sardar Patel College of Engineering, Andheri	29 th Oct. to 2 nd Nov. 2018	One Week
12	Scientific Computing with Python for Electrical Engineers	CE & QIP at IIT Bombay,	11 th to 15 th Feb. 2019	One Week
13	MATLAB Programming for Numerical Computation	NPTEL co-ordinator: IIT Madras	Jan-Mar 2019 (8 weeks)	Equivalent to One Week
14	QIP, AICTE sponsored short term course on “Engineering Optimization”	CCE at IISc Bangalore	15 th to 19 th July 2019	One Week
15	MHRD-TEQIP-III KITE sponsored Teachers Enrichment Workshop on “Linear Algebra and its Applications to Data Analysis and Control”	IIT Bombay	18 th to 23 rd Nov. 2019	One Week

ONLINE COURSES

Sr. No.	Organizer (AICTE/ Swayam / NPTEL / Coursera)	Title	Year
1.	NPTEL (IIT Madras)	MATLAB Programming for Numerical Computation	2019

CONFERENCE ATTENDED

Sr. No.	Organizer	Title	Year
1.	IET, Scotland	IET International conference on Developments in Power System Protection., Edinburgh	2016
2.	COEP, Pune	7th International Conference on Power Systems (ICPS 2017)	2017

CONFERENCE ORGANIZED

Sr. No.	Organizer	Title	Year
1.	SPCE	SPICON 2022	2022

PROJECTS GUIDED

PG Level

Sr. No.	Title of project	Year	Status (Completed/ Ongoing)
1.	Power System Oscillation Mode Identification using WAMS	2020-21	Completed
2.	Microgrid Protection	2020-21	Completed

3.	Design, Simulation & Analysis of Six-Pulse Thyristor based Rectifier using Digital Controller	2019-20	Completed
4.	WAMS based Frequency Data Mining for Event Detection in Power System	2018-19	Completed
5.	Short circuit Analysis & Relay Coordination using ETAP	2018-19	Completed
6.	Fault Location Estimation for High Voltage Transmission Line	2017-18	Completed
7.	SVM based Event Detection Algorithm using PMU Measurements	2017-18	Completed
8.	Dynamic Security Assessment	2016-17	Completed

Ph.D. Level

Sr. No.	Title of thesis	Year	Status (Completed/ Ongoing)
1.			

SUBJECTS TAUGHT

Sr. No.	Name of subject	UG/ PG
1.	Design, Management & Audit of Electrical Systems	UG
2.	Power System I, II	UG
3.	Switchgear & Protection	UG
4.	Advanced Techniques of Power System Protection	UG & PG
5.	Power Plant Engineering	UG
6.	Numerical Techniques	UG
7.	Electrical Network	UG
8.	Audit Course on ETAP & WAMS	UG
9.	Electrical Simulation Lab	UG
10	Computer Aided Power System Analysis	UG & PG

DEPARTMENTAL AND INSTITUTIONAL RESPONSIBILITIES

Sr. No.	Type of responsibility	Department / Institute	Year
1.	Development of L &T – SPCE Switchgear Lab	Department	2009
2.	S/W procurement ETAP, MATLAB & Wide Area Measurement Systems (WAMS)	Department	since 2009
3.	Member, F.E. Admission Committee	Institute	2006-11
4.	Member, NBA Accreditation Committee	Institute	2009-10
5.	Member, Subject Board	Department	2016-18, 2020-21 2023-24
6.	Member, Exam Committee	Institute	2016- 18
7.	Member, Building & Works Committee	Institute	2016- 18
8.	Member, Mentorship Committee	Department	2019 till date
9.	Member Research & Development Committee	Institute	2022 till date

CONSULTANCY / TESTING / THIRD PARTY AUDIT

Sr. No.	Organizer	Type of consultancy	Year
1.			