PROFILE



Dr. SWATI LAVAND

Mob: - 09969000784

E-mail: - swati.lavand@spce.ac.in

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 |

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. | SVM based Event Detection Algorithm using PMU | 5 th IEEE International conference on Electrical, | Nov. 2018 |

| | A. Lavand | measurements | Electronics and Computer Engineering, Gorakhpur, India, | |
|----|---|---|---|--------------|
| 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 Bhubaneshwar, India | July 2018 |
| 6. | Ayyaj Maner and S. A. Lavand | Fault Location Estimation of High Voltage Transmission Line using Disturbance Record | Ist 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 |

National Journals

| Sr. No. | Authors | Title of paper | Publisher | Year |
|------------|---------|----------------|-----------|------|
| 1. | | | | |
| 2. | | | | |

National Conference

| Sr. No. | Authors | Title of paper | Publisher | Year |
|------------|---------|----------------|-----------|------|
| 1. | | | | |
| 2. | | | | |

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 |

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|----|---|---|---|------------------------------|
| 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.201 2 (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 |
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WORKSHOP/COURSES CONDUCTED

| Sr. No. | Organizer | Title | Year |
|------------|--------------|--|----------|
| 1. | with CEPIITB | One week Workshop on Practical Optimization for SPCE faculty under TEQIP III | Jan 2020 |

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. | | | |
| 2. | | | |

EVENTS ORGANIZED

| Sr. No. | Organizer | Title | Year |
|------------|-----------|-------|------|
| 1. | | | |
| 2. | | | |

PROJECTS GUIDED

PG Level

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

SUBJECTS TAUGHT

| Sr. No. | Name of subject | UG/ PG |
|------------|--|--------|
| 1. | Design, Management & Audit of Electrical Systems | UG |
| 2. | Power System I, II | UG |
| 3. | Power System Protection | UG |
| 4. | Advanced Techniques of Power System Protection | UG |
| 5. | Power Plant Engineering | UG |
| 6. | Numerical Techniques | UG |
| 7. | Electrical Network | UG |
| 8. | Audit Course on ETAP & WAMS | UG |

ACHIEVEMENT

| 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 |
| 2. | Patent filed on 'Method and system predicting power swing and detecting event during power swing in transmission line.' by S. A. Lavand & S. A. Soman No. 201721002019' | 2017 |

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 |
| 6. | Member, Exam Committee | Institute | 2016- 18 |
| 7. | Member, Building & Works Committee | Institute | 2016- 18 |

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 |

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 HTB | 3 days' workshop on Power System Protection for Reliance Industries | Sept. 2018 |

EXPERT LECTURE CONDUCTED / ORGANIZED

| Sr. No. | Organizer | Title | Year |
|------------|--|---|------|
| 1. | Research scholar conclave, COEP Pune | WAMS based analytics to supervise Distance Relay | 2017 |
| 2. | FDP at Fr. C. Rodrigues Institute of | Reliability of Power system Protection | 2017 |

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 | 85000 | August 2020 | 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 |

CONSULTANCY / TESTING / THIRD PARTY AUDIT

| Sr. No. | Organizer | Type of consultancy | Year |
|------------|-----------|---------------------|------|
| 1. | | | |
| 2. | | | |