# Curriculum Vitae

1. Name — Sukumar Mishra

2. Nationality — Indian

3. Present Position & Official Address — DIRECTOR
IIT (ISM) Dhanbad
Dhanbad, Jharkhand
PIN – 826004
Ph: 0326 2235201

**4. Positions held (in chronological order) - Total Experience 32 years**

| Employer | Post | Period of Employment | |
|---|---|---|---|
| | | From | To |
| Indian Institute of Technology, ISM Dhanbad | Director | 15.05.2024 | Continuing |
| Indian Institute of Technology Delhi, Abu Dhabi Campus | Dean, Research and External Engagement, IIT Delhi- Abu Dhabi | 21.01.2024 | 10.05.2024 |
| Indian Institute of Technology Delhi, India | HAG Professor | 01.07.2019 | Continuing |
| Indian Institute of Technology Delhi, India | Associate Dean Research and Development, IIT Delhi | 01.03.2020 | 31.03.2023 |
| Indian Institute of Technology Delhi, India | Professor | 27.12.2012 | 30.06.2019 |
| Indian Institute of Technology Delhi, India | Associate Professor | 11.08.2008 | 26.12.2012 |
| Indian Institute of Technology Delhi, India | Assistant Professor | 27.10.2003 | 10.08.2008 |
| BPUT, Rourkela, Orissa, India | Reader | 21.08.2001 | 26.10.2003 |
| Sambalpur University, Burla, Orissa, India | Lecturer | 11.06.1992 | 20.08.2001 |

**5. Company Startup:**

The nominee has incorporated a new company named **SILOV SOLUTIONS PRIVATE LIMITED** under the Companies Act, 2013 (18 of 2013) with an official website www.silovsolutions.com. The company aims to carry on the business of indigenous technology development of high quality, cost effective and reliable electrical and electronics equipment related to generation, transmission and distribution of power as per international standards. The company specifically deals in products related to renewable energy sources utilizable at household scale as well as at commercial setups for example bidirectional electric vehicle supply equipment, AC based EV charger, DC based EV charger, grid connected solar inverters, smart DC home management

systems, online UPS etc.

**6. Technical Research Area of Interest**

- Smart Grid
- Grid integration of Renewable Energy Sources
- Intelligent control, modelling and optimization of power systems
- Power system stability and control
- Technologies for smart grids
- Electric Vehicle (EV) charging infrastructure
- MPPT for PV and wind energy conversion system
- Voltage and frequency control of Microgrid having both inverter and rotating machine-based sources
- Stability of inverter-based system

**7. Academic Qualifications (Bachelor's degree onwards)**

| Degree/Diploma | Subject | University/Institution | Year |
|---|---|---|---|
| B.Sc (Engg) | Electrical Engineering | University College of Engineering Burla, Orissa | 1990 |
| M.Sc (Engg) | Electrical Engineering | Regional Engineering College, Rourkela | 1992 |
| Ph.D. | Electrical Engineering | Regional Engineering College, Rourkela | 2000 |

**8. Academic Recognitions received**

| Sl. No. | Award/Recognition | Organization | Year |
|---|---|---|---|
| 1 | **Distinguished Alumnus Award - 2024** | NIT Rourkela | 2025 |
| 2 | **Award for Excellence in Solar Photovoltaic Systems** | Hingorani awards (IEEE PES) | 2024 |
| 3 | **Award for Excellence Leadership in Innovation Award** | PowerGrid, IEEE India Council (IC) | 2023 |
| 4 | **Distinguished Alumnus Award** | World Leadership Academy and Kalinga Institute of Industrial Technology (KIIT) Deemed to be University, Bhubaneswar | 2023 |
| 5 | **Prof. K.L. Chopra Applied Research Award** | Veer Surendra Sai University of Technology (old UCE Burla), Burla | 2023 |
| 6 | **Outstanding Teachers Award** | Indian Institute of Technology Delhi | 2023 |
| 7 | **NASI- Reliance Industries Platinum Jubilee Award in Physical Sciences** | National Academy of Sciences (NASI) | 2021 |
| 8 | **National Mission Innovation Champion Award** | National Academy of Sciences (NASI) | 2019 |
| 9 | **Award for Excellence in Solar Photovoltaic Systems** | Ministry of Science & Technology, Govt. of India | 2019 |
| 10 | **Bimal Bose Award** | Institution of Electronics & Telecommunication Engineers (IETE) | 2019 |

| Sl. No. | Award/Recognition | Organization | Year |
|---|---|---|---|
| 11 | **Distinguished Investigator Award** | Science & Energy Research Board (SERB) | 2019 |
| 12 | **Samanta Chandra Shekhar Award** | Odisha Bigyan Academy | 2016 |
| 13 | **Outstanding Chapter Engineer Award** | PES-IAS Delhi Chapter | 2012 |
| 14 | **Silver Jubilee Young Engineer Award** | Indian National Academy of Engineering, New Delhi. (INAE) | 2012 |
| 15 | **Young Engineers Award** | IEEE-Delhi Section | 2005 |
| 16 | **INSA-Royal Society exchange programme.** | Indian National Science Academy, New Delhi. (INSA) and Royal Society of London, UK | 2005 |
| 17 | **Career Award for Young Teachers** | All India Council for Technical Education (AICTE) | 2004 |
| 18 | **Young Engineer Award** | Indian National Academy of Engineering, New Delhi. (INAE) | 2002 |
| 19 | **INSA Medal for Young Scientist** | Indian National Science Academy, New Delhi. (INSA) | 2002 |
| 20 | **Young Scientist Award** | Orissa Bigyan Academy. | 1999 |

## 9. Industrial Recognitions received

| Sl. No. | Recognition | Organization | Year |
|---|---|---|---|
| 1 | Chair Professor | ABB | 2020-14.05.2024 |
| 2 | Chair Professor | Indian National Academy of Engineering, New Delhi. (INAE) | 2018-2020 |
| 3 | Independent Director | River Engineering Pvt. Ltd. | 2017 |
| 4 | Vice Chair | Intelligent System Subcommittee of Power and Energy society of IEEE | 2013-2019 |
| 5 | Independent Director | Cross Border Power Transmission Company Ltd. | 2015 |
| 6 | Member | CIGRE C6.28 WG - Hybrid Systems for Off Grid Power Supply | 2015 |
| 7 | Chair Professor | NTPC | 2015-2018 |
| 8 | Chair Professor | Power Grid Corporation of India Limited | 2010-2015 |
| 9 | Industry Academic Distinguished Professor | Indian National Academy of Engineering, New Delhi. (INAE) | 2012-2013 and 2013-2014 |
| 10 | Invited Speaker | Power Management Institute, NTPC, Noida | 2005- Continuing |

**10. Professional Recognitions received**

| Sl. No. | Recognition | Organization | Year |
|---|---|---|---|
| 1 | **Fellow** | Asia-Pacific Artificial Intelligence Association (AAIA) | 2025 |
| 2 | **Fellow** | Institute of Electrical and Electronics Engineers (FIEEE) | 2025 |
| 3 | **Fellow** | INAE-SERB, DST Abdul Kalam Technology Innovation National Fellowship | 2023 |
| 4 | **Fellow** | The Institution of Engineers, India (FIE) | 2016 |
| 5 | **Fellow** | National Academy of Sciences India. (FNASc) | 2014 |
| 6 | **Fellow** | Institution of Engineering and Technology, London, UK (FIET) | 2011 |
| 7 | **Fellow** | Institute of Electronics and Telecommunication Engineers (FIETE) | 2006 |
| 8 | **Fellow** | Indian National Academy of Engineering, New Delhi. (INAE) | 2009 |
| 9 | **Editor** | IEEE Transactions on Sustainable Energy | 2019 |
| 10 | **Editor** | IEEE Transactions on Smart Grid | 2016 |
| 11 | **Editor** | IET-Generation, Transmission and Distribution | 2015 |
| 12 | **Senior Member** | Institution of Electrical and Electronics Engineers, USA (SMIEEE) | 2004 |
| 13 | **Star Alumni Award** | National Institute of Technology Rourkela | 2015 |

**11. Some Important Industrial Consultancies**

| Sl. No. | Title | Agency | Cost (INR) |
|---|---|---|---|
| 1 | Analysis of Technical Feasibility, Vetting & Financial Implication of Estimate for "Construction of 33 KV Underground Line from 132/33 KV Mandishyamnagar 17 A and 22 A Greater Noida". | Yammuna Expressway Industrial Development Authority India | 0.374 million |
| 2 | Analysing and Determining the Resistive Property of the given Items | Subros Limited, Noida, India | 0.15 million |
| 3 | Analytical Assesment and Suggestion for Improvement of Technical Loss in TPDDL Power Distribution Network | Tata Power Delhi Distribution Ltd, Delhi, India | 0.79 million |
| 4 | Analysis of the Technical Feasibility and its Financial Implication of Revised Estimate of Internal Electrification Work of Multi Specificity Hospital at Sector 39, Noida | Uttar Pradesh Rajkiya Nirman Nigam Ltd, India | 0.25 million |
| 5 | Development of Technical Loss Analysis procedure and its Improvement | TATA Power | 0.5 million |

| Sl. No. | Title | Agency | Cost (INR) |
|---|---|---|---|
| 6 | Technical Evaluation and Vetting of Master Plan (Electrical) for Development of land at Sector-128, Noida | Jaiprakash Associates Limited | 0.035 million |
| 7 | Technical Evaluation and Vetting of Master Plan (Electrical) for Development of land at Sector-96, 97 & 98, Noida | Unitech High - Tech Developers Ltd. | 0.035 million |
| 8 | Testing of Microtek UPS-EB Models | Microtek International Pvt. Ltd. | 0.013 million |
| 9 | Vetting of Design for Reservation Upgradation of Electrical Installation (Transformer) Standby Diesel Generator and HVAC Work at Building | Bank of Baroda | 0.111 million |
| 10 | Technical Evaluation and Vetting of Electrical Layout Plan for 'Wish Town' Jaypee Greens, Noida | Jaypee Infratech Ltd, (Jaypee Group) | 0.050 million |
| 11 | Analysis and Checking of Estimate for Electrification Works of Central Park at Sector-95, Noida | U.P. Rajkiya Nirman Nigam Ltd. | 1.125 million |
| 12 | Analysis and Justifying on Behaviour of 3Ph 4 Wire Meter when (a) DC Voltage Injects to the Floating Neutral (b) the Meter is exposed | North Delhi Power Limited | 0.450 million |
| 13 | Technical Analysis of Patent IN 202302 | M/s Anand&Anand | 0.150 million |
| 14 | Technical due diligence of deployment of solar panel and electrical fixture / design for fountain at Central Park, Sector-95, Noida | U.P. Rajkiya Nirman Nigam Ltd. | 0.550 million |
| 15 | Validation of Selection and location of Surge Protection devices in Electrical Circuit at BTS Sites | Indus Towers Ltd | 1.665 million |

**12. Sponsored Projects Handled**

| Sl. No. | Title | Cost (INR) | Duration | Agency |
|---|---|---|---|---|
| 1 | Off-Grid PV-VRFB-SC based electric vehicle charging infrastructure | 19.155 million | 3 years | DST |
| 2 | Development of Indigenous Simulation Model for Design and Validation of Traction Power Supply System (ISIMTRAC) | 14.4 million | 3 years | High Speed Railways Innovation Center (HSRIC) Trust |
| 3 | Facilitation of Global Cooling Prize by DST Mission Innovation program | 32.943 million | 3 years | DST |

| Sl. No. | Title | Cost (INR) | Duration | Agency |
|---|---|---|---|---|
| 4 | Indo-Danish collaboration for data-driven control and optimization for a highly Efficient Distribution Grid (ID-EDGe) | 1.1 million | 3 years | DST |
| 5 | Mission Innovation Challenge #7: Affordable Heating and Cooling of Buildings Innovation challenges-Setting up of MI Resource Center at IIT Delhi. | 7.547 million | 4 years | DST |
| 6 | Improvement of Power Sharing and Stability in Inverter Based Microgrids | 5.889 million | 3-years | SERB, DST |
| 7 | Development and Prototyping of ICT enabled Smart Charging Network Components | 54.253 million | 2-years | Department of Heavy Industry, India |
| 8 | Self-Healing and Energy-Efficient Internet of Energy | 8.237 million | 4-years | SPARC, India |
| 9 | Energy Efficient and Secured Communication for CPS: Algorithm Design, Application, and Hardware Implementation | 3.00 million | 3-years | SERB |
| 10 | Demonstration of MW scale solar energy Integration in weak grid using distributed energy storage architecture (D-SIDES) | 2.049 million | 5-years | DST |
| 11 | Demonstration of grid supportive EV charger and charging infrastructure at LT level (D-EVCI) | 20.626 million | 5-years | DST |
| 12 | Design and Development of Biomass -Solar Electricity and Cooling Solutions for Rural India | 39.8 million | 4-years | DST |
| 13 | Zero Peak Energy Building Design for India (ZED-i) | 5.33 million | 5-years | DST |
| 14 | Identification and Demonstration of Cost effective Technologies to Maximize habitat Energy self-sufficiency | 12.42 million | 5-years | DST |
| 15 | UK India Clean Energy Research Institute (UKICERI) | 8.53 million | 5-years | DST (UK) |
| 16 | e-PV Diesel Generator | 4.875 million | 2-years | UAY of Govt. of India |
| 17 | Electric Vehicle Charging Station as a Voltage and Frequency Regulatory Within the Real Time Capability of EVs Available in Presence of Intermittant Renewable Energy Sources | 12.436 million | 3-years | DST |
| 18 | Photovoltaic (PV) based | 0.9 million | 3-years | International Division of |

| Sl. No. | Title | Cost (INR) | Duration | Agency |
|---|---|---|---|---|
| | | | | DST |
| 19 | Integration and Intelligent Management of Renewables Via ICT For Smart Microgrid Networks | 3.012 million | 3.5-years | SERI-DST |
| 20 | High Energy and Power Density (HEAPD) Solutions to Large Energy Deficits | 7.79million | 3-years | DST-EPSRC |
| 21 | Design and Development of Robust Controller for Seamless Operation of Microgrid | 5.4994 million | 3-years | DST |
| 22 | Voltage and Frequency Control of Microgrid | 3.932 million | 3-years | DST |
| 23 | Analysis of the Stability of Grid Connected Wind Energy Conversion Systems | 2.66496 million | 3.5years | DST |
| 24 | Assessment and Control of Electric Power Quality in Distribution Networks | 2.737558 million | 3.5years | DST |
| 25 | Coordinated tuning of PSS and TCSC /STATCOM | 2.39 million | 3.5-years | DST |
| 26 | Developing Intelligent Techniques for Power Quality Improvement | 0.221 million | 3-years | DST |
| 27 | Optimal Placing of FACTS Devices to reduce inter-area Oscillation | 0.15 million | 3-years | INSA |
| 28 | Loss Minimisation | 1.05 million | 3-years | AICTE |

**13. Patents:**

**Patents Granted:**

1. **Sukumar Mishra**, Deepak Pullaguram and Dhiman Das, “A Back to Back DC-DC-PV Battery Isolated System to Mimic Inverter to Drive Daily Appliances,” Indian Provisional Patent Application No. 201711005776, post grant journal on May 3, 2024, **Patent number 535174.**
2. Bhim Singh**, Sukumar Mishra**, P. Shah and V. L. Srinivas, “Optimization of Leakage Current in a Solar Photovoltaic (PV) System and Method Thereof", Indian Patent Application No. 202111002117, post grant journal on April 26, 2024, **Patent number 533993.**
3. Bhim Singh, **Sukumar Mishra**, Vedantham Lakshmi Srinivas and Priyank Shah, "Ride-through operation of two-stage grid interfaced solar PV system under grid-side abnormalities", Indian Patent Application No. 201911025465, post grant journal on March 29, 2024, **Patent number 529541.**
4. Bhim Singh, Sukumar **Mishra**, Priyank Shah and Vedantham Lakshmi Srinivas, “A flexibly

operated virtual synchronous machine for synchronizing three phase inverters with a grid", Indian Patent Application No. 201911042199, post grant journal on March 8, 2024, **Patent no. 519973**.

5. **Sukumar Mishra**, Ranjan K Mallik, Subham Sahoo and Surya Prakash, "A Grid Interfaced Smart Charging Station," Indian Provisional Patent Application No. 201611013453, post grant journal on March 8, 2024, **Patent no. 518755.**
6. **Sukumar Mishra**, Subham Sahoo and Surya Prakash, "Smart Power Management in DC Home," Indian Provisional Patent Application No. 201611030904, post grant journal on March 1, 2024, **Patent no. 515439.**
7. **Sukumar Mishra** and Surya Prakash, "A System and method of Power restoration for Supply of Uninterrupted Power", Indian Provisional Patent Application No. 201911008188, post grant journal on December 8, 2023, **Patent no. 477115.**
8. **Sukumar Mishra** and Anuradha Tomar, "Co-operative Movement for Photovoltaic Irrigation (CMPVI) based Irrigation System", Indian Patent Application No. 201711032656, post grant journal on December 8, 2023, **Patent no. 478312.**
9. **Sukumar Mishra** and Surya Prakash, "A Power Distribution System For Supply Of Uninterrupted Power", Indian Provisional Patent Application No. 201711027018, post grant journal on August 25, 2023, **Patent no. 446906.**
10. **Sukumar Mishra** and Anuradha Tomar, "A PV Power Generating System for Improving Power Extraction of Solar PV Module Arrays," Indian Provisional Patent Application No. 201611039481, post grant journal on August 4, 2023, **Patent no. 441194**.
11. **Sukumar Mishra** and Shivraman Mudaliyar, "A Loop Power Flow Controller for DC Distribution Networks," Indian Patent Application No. 201711041558, post grant journal on June 03, 2022, **Patent no. 397885**.
12. **Sukumar Mishra**, Deepak Pullaguram and Dhiman Das, "Photo-Voltaic Module," Indian Provisional Patent Application No. 201611044660, post grant journal on May 13, 2021, **Patent no. 491276.**
13. Bhim Singh, **Sukumar Mishra**, V. L. Srinivas and Priyank Shah, "A Self-Synchronizing Microgrid and Method Thereof", Indian Patent Application No.: 201811043809, post grant journal on October 27, 2023, **Patent no. 461655.**
14. Bhim Singh, **Sukumar Mishra**, Vedantham Lakshmi Srinivas and Priyank Shah, "Ultra-battery energy storage system for load frequency control in a multi-area power network", Indian Patent Application No. 201911049727, post grant journal on December 12,2023, **Patent number**

**489222.**

**Patents filed:**

15. Madan Kumar Das, **Sukumar Mishra**, “An asymmetrical 31-level inverter system”, Indian Patent Application No. 202211023058, published on December 22, 2023.
16. Bhim Singh, **Sukumar Mishra** and Yashi Singh, “A Single -Phase Residential Solar Photovoltaic System with Grid Synchronization”, Indian Patent Application No. 202111057542, published on June 16, 2023.
17. **Sukumar Mishra**, Bhim Singh and Dhiman Das, “A Hybrid Powered Air Conditioning System”, Indian Patent Application No. 202111031919, reply to FER on August 5, 2024.
18. **Sukumar Mishra**, Madichetty Sreedhar, “Variable high gain DC to DC boost converter", Indian Patent Application No. 202011052968, reply to FER on May 11, 2023.
19. **Sukumar Mishra**, Bhim Singh and Dhiman Das, “System and Method for Primary Control Loop of a Dual Active Bridge Converter Based on Analog Circuitry", Indian Patent Application No. 202011050351, reply to FER on August 5, 2024.
20. **Sukumar Mishra**, Shivraman Mudaliyar, and Rishi Kant Sharma, "DC Synchronized optimal regulator for Hybrid PV-Battery-Diesel-Generator", Indian Patent Application No. 201911035830, reply to FER on June 22, 2022.

## 14. List of significant book chapters/papers

**Book Chapters:-**

1. Priyatosh Mahish, Manas Ranjan Mishra, and **S. Mishra**, "Distributed Generating System Integration: Operation and Control", Chapter 2 of Microgrid Cyber Physical Systems, Elseveir, 2022.
2. Madan Kumar Das, Parusharamulu Buduma, Perwez Alam and **Sukumar Mishra**, “Generalized Hybrid Symmetrical and Asymmetrical Multilevel Inverter Topology with Reduced Number of Switches”, Sustainable Energy and Technological Advancements, (Advances in Sustainability Science and Technology), Springer Singapore, 2022.
3. Parusharamulu Buduma, Madan Kumar Das, Ashwani Kumar Sharma, Gayadhar Panda and **Sukumar Mishra**, “Automatic Generation Control for Hybrid Power System in Deregulated Environment”, Sustainable Energy and Technological Advancements, (Advances in Sustainability Science and Technology), Springer Singapore, 2022.
4. **S. Mishra** and Dushyant Sharma, “Power System and Power Plant Control”, Chapter 3 of Applications of Modern Heuristic Optimization Methods in Power and Energy Systems,

Wiley-IEEE Press, 2020.

5. **S. Mishra**, and Deepak Pullaguram, “Integration of Renewable Energy in Smart Grid”, Chapter 5 of Applications of Modern Heuristic Optimization Methods in Power and Energy Systems, Wiley-IEEE Press, 2020.
6. **S. Mishra** and Dushyant Sharma, "Control of Photovoltaic Technology", Chapter 19 of Electric Renewable Energy Systems, Academic Press publications, 2016.
7. **S. Mishra**, P. C. Sekhar, “Real and Reactive Power Control of Voltage Source Converter-Based Photovoltaic Generating Systems”, Chapter 17 of Solar Cell Nanotechnology,Scrivener-Wiley Publication, 2013, [ISBN: 978-1-118-68625-6].
8. Y. Mishra, **S. Mishra**, Fangxing Li, Z.Y. Dong, “Eigenvalue Analysis of a DFIG Based Wind Power System under Different Modes of Operations”, Chapter 8 of Wind Power Systems: Application of Computational Intelligence,Springer-Verlag Berlin Heidelberg, 2010, pp 191-214, [ISBN: 978-3-642-13249-0].
9. **S. Mishra**, Y. Mishra, Fangxing Li, Z.Y. Dong, “Application of TS-Fuzzy Controller for Active Power and DC Capacitor Voltage Control in DFIG-Based WindEnergy Conversion Systems” Chapter 13 of Wind Power Systems: Application of Computational Intelligence, Springer-Verlag Berlin Heidelberg, 2010, pp 367-382, [ISBN: 978-3-642-13249-0].
10. Y Mishra, Z. Y. Dong, R. Bansal, **S. Mishra**, “Rough-Fuzzy control of SVC for power system stability enhancement”, Chapter 2 of Computational Intelligence in Power systems, Research Signpost, 2009. [ISBN: 978-81-308-0366-1].

**Reviewed International Journal**

**Year 2024**

1. Anyuti Tiwary, Utkarsh kumar, **S. Mishra** and Yashasvi Bansal, "SoC Depletion Estimation for Urban-City Driving using Long Short-Term Memory and Global False Nearest Neighbor Approach", **accepted for publication in IEEE Transactions on Vehicular Technology.**
2. Madan K. Das, P. Mahish, P. Buduma and **S. Mishra**, “Systematic Approach to improve Performance of Asymmetrical 21-level inverter with fewer components”, **accepted for publication in International Journal of Circuit Theory and Applications.**
3. Devakumar Annavaram, **S. Mishra** and Deepak Pullaguram, "Resilient Event-Driven Distributed control for DC Microgrids Against False data Injection Attacks", **accepted for publication in IEEE Transactions on Smart Grid.**

4. Utkarsh kumar and **Sukumar Mishra**, "A Sensitivity Analysis of Output Power to Electrical Faults in Different SPV Array Topologies", **accepted for publication in IEEE Transactions on Industry Applications.**

5. Riddhi Khatua, Arundhuti Haldar, Arpan Malkhandi, N. Senroy and **S. Mishra**, "A Non-Invasive Measurement Technique of Grid and Converter Wideband Impedance", **IEEE Transactions on Industrial Informatics,** vol. 20, no. 1, Jan. 2024, pp. 886-898.
6. Abhishek Nayak, **S. Mishra**, Ali Mehrizi-Sani, "Unified Compensation for Network Latency in Synchrophasor based System Control", **IEEE Transactions on Power Delivery,** vol. 39, no. 3, June 2024, pp. 1337-1350**.**

**Year 2023**

7. Siva Prasad Machina, Sriranga Suprabath Koduru, Sreedhar Madichetty and **S. Mishra** and "Sensor Attack Detection and Mitigation Using Physics Informed Neural Networks-A Real-time Implementation for DC-DC Converter", **accepted for publication in IEEE Transactions on Industry Applications**.
8. Utkarsh Kumar, **S. Mishra** and Kalyan Dash, "An IoT and Semi-Supervised Learning-based Sensorless Technique for Panel level Solar Photovoltaic Array Fault Diagnosis," **accepted for publication in IEEE Transactions on Instrumentation and Measurement.**
9. Vaibhav Nougain and **S. Mishra**, "Current Limiting Reactors based Time-Domain Fault Location for High Voltage DC Systems with Hybrid Transmission Corridors," **accepted for publication in IEEE Transactions on Instrumentation and Measurement.**
10. Suprabath Koduru, Siva Prasad, Sreedhar Madichetty and **S. Mishra** and "A Deep Learning Based Cyber Attack Detection Scheme in DC Microgrid Systems", **IEEE - CPSS Transactions on Power Electronics and Applications,** vol. 8, no. 2, June 2023, pp. 119-127.
11. Vaibhav Nougain, **S. Mishra**, S.S. Nag and A. Lekic, "Fault location Algorithm for Multi-terminal Radial Medium Voltage DC Microgrid", **IEEE Transactions on Power Delivery,** vol. 38, no. 6, Dec. 2023, pp. 4476-4488**.**
12. Mandarapu Srikanth, Y. V. Pavan Kumar, Mohammad Amir and **S. Mishra,** "Improvement of Transient Performance in Microgrids: Comprehensive Review on Approaches and Methods for Converter Control and Route of Grid Stability", **IEEE Open Journal of the Industrial Electronics Society,** vol. 4, October 2023, pp. 534-572.
13. Manas Ranjan Mishra, Priyatosh Mahish and **S. Mishra**, "An Irradiance Driven Adaptive PQV

Droop for Voltage Regulation in Active Distribution System", **IEEE Transactions on Power Delivery,** vol. 38, no. 5, Oct. 2023, pp. 3192-3204.

14. VSP Machina, S Madichetty, SS Koduru, MK Banda, **S. Mishra**, "Detection and mitigation of false data injection attack in DC–DC synchronous boost converter: A real‐time implementation using shallow neural network model", **IET Power Electronics**, Dec. 2023.
15. Yashi Singh, Bhim Singh and **Sukumar Mishra**, "Control of Multiple SPV Integrated Parallel Inverters for Microgrid Applications", **IEEE Transactions on Industry Applications**, vol. 59, no. 3, May-June 2023, pp.3686-3699.
16. Siva Prasad, Suprabhat, Sreedhar Madichetty **and Sukumar Mishra, "**A Novel Standalone Implementation of MDNN Controller for DC-DC Converter Resilient to Sensor Attacks," **IEEE Journal of Emerging and Selected Topics in Power Electronics,** vol. 11, no. 3, June 2023, pp. 2805-2815.
17. Yashi Singh, Bhim Singh **and Sukumar Mishra, "**Control Strategy for Multiple Residential Solar PV systems in Distribution Network with Improved Power Quality," **IEEE Transactions on Industry Applications,** Vol.59, No. 3, May-June 2023**,** pp. 3686-3699.
18. Arnab Bhattacharjee, Arnab Kumar Mondal, Ashu Verma, **S. Mishra** and Tapan K. Saha, "Deep Latent Space Clustering for Detection of Stealthy False Data Injection Attacks against AC State Estimation in Power Systems", **IEEE Transactions on Smart Grid,** Vol.14, No. 3, May 2023, pp. 2338-2351.
19. Dhiman Das, Bhim Singh and **S. Mishra** and "Grid Interactive Solar PV and Battery Operated Air Conditioning System: Energy Management and Power Quality Improvement", **IEEE Transactions on Consumer Electronics,** Vol. 69, No. 2, May 2023, pp. 109-117**.**
20. Akash Kumar Mandal, Arpan Malkhandi, Swades De, Nilanjan Senroy and **S. Mishra** "A Multi-path Model for Disturbance Propagation in Electrical Power Networks", **IEEE Transactions on Circuits and Systems--II,** Vol. 70, No. 4, April 2023, pp. 1460-1464.
21. Priyatosh Mahish and **S. Mishra**, "Synchrophasor Data Based Q-V Droop Control of Wind Farm Integrated Power Systems," **IEEE Transactions on Power Systems,** Vol. 38, No. 1, Jan. 2023, pp. 358-370.
22. Shatakshi Jha, Bhim Singh and **S. Mishra** "Control of ILC in an Autonomous AC-DC Hybrid Microgrid with Unbalanced Nonlinear AC Loads", **IEEE Transactions on Industrial Electronics,** Vol. 70, No. 1, Jan. 2023, pp. 544-554.

**Year 2022**

23. Sreedhar Madichetty, Avram John Neroth, **S. Mishra** and B. Chitti Babu, "Route Towards Road Freight Electrification in India: Examining Battery Electric Truck Powertrain and Energy Consumption", **Chinese Journal of Electrical Engineering**, Vol.8, No. 3, Sept. 2022.
24. Parusharamulu Buduma, Madan Kumar Das, Ramasamy Thaiyal Naayagi, **S. Mishra** and Gayadhar Panda, "Seamless Operation of Master-Slave Organized AC Microgrid with Robust Control, Islanding Detection and Grid Synchronization", **publication in IEEE Transactions on Industry Applications,** Vol. 58, No. 5, Sept. – Oct. 2022, pp. 6724 - 6738.
25. Yashi Singh, Bhim Singh and **S. Mishra** "Control of Single-Phase Distributed PV-Battery Microgrid for Smooth Mode Transition with Improved Power Quality ", **IEEE Transactions on Industry Applications,** Vol. 58, No. 5, Sept. – Oct. 2022, pp. 6286 - 6296.
26. V. L. Srinivas, Bhim Singh and **S. Mishra** "Enhanced Power Quality PV-Inverter with Leakage Current Suppression for Three-Phase SECS", **IEEE Transactions on Industrial Electronics ,** Vol. 69, No. 6, June 2022, pp. 5756-5767.
27. Vaibhav Nougain, **S. Mishra** and S.S. Jena, "Resilient Protection of Medium Voltage DC Microgrids against Cyber Intrusion ", **IEEE Transactions on Power Delivery,** Vol. 37, No. 2, April 2022, pp. 960-971.
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