Curriculum Vitae

1. Name — Prof. Sukumar Mishra

2. Nationality — Indian

3. Present Position & Official Address

DIRECTOR
IIT(ISM) Dhanbad
&
PROFESSOR
Department of Electrical Engineering
Indian Institute of Technology Delhi
Hauz Khas 110016
Ph: 011-26591074 Fax: 011-26596102

4. Positions held (in chronological order) - Total Experience 25 years

Employer	Post	Period of Employment	
		From	To
Indian Institute of Technology (Indian School Mines), 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	____
Indian Institute of Technology Delhi, India	HAG Professor	1.07.2019	Continuing
Indian Institute of Technology Delhi, India	Associate Dean Research and Development, IIT Delhi	1.03.2020	31.03.2023
Indian Institute of Technology Delhi, India	Professor	27.12.12	30.06.2019
Indian Institute of Technology Delhi, India	Associate Professor	11.08.08	26.12.12
Indian Institute of Technology Delhi, India	Assistant Professor	27.10.03	10.08.08
Vice-Chancellor BPUT, Rourkela, Orissa, India	Reader	21.08.01	26.10.03
Vice-Chancellor Sambalpur University, Jyoti Vihar, Burla, Orissa, India	Lecturer	11.06.92	20.08.01

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	Organisation	**Year**
1.	**Award for Excellence**	PowerGrid, IEEE India Council (IC)	2023
1.	**Leadership in Innovation Award**	World Leadership Academy and Kalinga Institute of Industrial Technology (KIIT) Deemed to be University, Bhubaneswar	2023
2.	**Distinguished Alumnus Award**	Veer Surendra Sai University of Technology (old UCE Burla), Burla	2023
3.	**Prof. K.L. Chopra Applied Research Award**	Indian Institute of Technology Delhi	2023
4.	**Outstanding Teachers Award**	Indian National Academy of Engineering (INAE)	2021
5.	**NASI- Reliance Industries Platinum Jubilee Award in Physical Sciences**	National Academy of Sciences (NASI)	2019
6.	**National Mission Innovation Champion Award**	Ministry of Science & Technology, Govt. of India	2019
7.	**Bimal Bose Award**	Institution of Electronics & Telecommunication Engineers (IETE)	2019
8.	**Distinguished Investigator Award**	Science & Energy Research Board (SERB)	2019

9.	**Samanta Chandra Shekhar Award**	Odisha Bigyan Academy	2016
10.	**Outstanding Chapter Engineer Award**	PES-IAS Delhi Chapter	2012
11.	**Silver Jubilee Young Engineer Award**	Indian National Academy of Engineering, New Delhi. **(INAE)**	2012
12.	**Young Engineers Award**	IEEE-Delhi Section	2005
13.	**INSA-Royal Society exchange programme.**	Indian National Science Academy, New Delhi. (**INSA**) and **Royal Society of London**, UK	2005
14.	**Career Award for Young Teachers**	All India Council for Technical Education **(AICTE)**	2004
15.	**Young Engineer Award**	Indian National Academy of Engineering, New Delhi. **(INAE)**	2002
16.	**INSA Medal for Young Scientist**	Indian National Science Academy, New Delhi. (**INSA**)	2002
17.	**Young Scientist Award**	Orissa Bigyan Academy**.**	1999

9. Industrial Recognitions received

Sl No.	Recognition	Organization	Year
1.	Chair Professor	ABB	2020-till today
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**	INAE-SERB, DST Abdul Kalam Technology Innovation National Fellowship	2023
2.	**Fellow**	The Institution of Engineers, India (FIE)	2016
3.	**Fellow**	National Academy of Sciences India. **(FNASc)**	2014

4.	**Fellow**	Institution of Engineering and Technology, London, UK (FIET)	2011

5.	**Fellow**	Institute of Electronics and Telecommunication Engineers (FIETE)	2006
6.	**Fellow**	Indian National Academy of Engineering, New Delhi. **(INAE)**	2009
7.	**Editor**	IEEE Transactions on Sustainable Energy	2019
8.	**Editor**	IEEE Transactions on Smart Grid	2016
9.	**Editor**	IET-Generation, Transmission and Distribution	2015
10.	**Senior Member**	Institution of Electrical and Electronics Engineers, USA (SMIEEE)	2004
11.	**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
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	UP RajkiyaNirman 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

S.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
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 grid-interactivc and off-grid electricity system	0.9 million	3-years	International Devision of 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. 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**.
2. **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.**

3. **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.**
4. **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.**
5. **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.**
6. **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.**
7. **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**.
8. **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**.
9. **Sukumar Mishra**, Deepak Pullaguram and Dhiman Das, "Low Disruption Current Estimated Boost Converter For PV Maximum Power Extraction," Indian Provisional Patent Application No. 201611044660, post grant journal on May 13, 2021, **Patent no. 491276.**
10. 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.**
11. 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:

12. Madan Kumar Das, **Sukumar Mishra**, "An asymmetrical 31-level inverter system", Indian Patent Application No. 202211023058, published on December 22, 2023.
13. 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.

14. **Sukumar Mishra**, Bhim Singh and Dhiman Das, “A Hybrid Powered Air Conditioning System”, Indian Patent Application No. 202111031919, published on March 3, 2023.
15. **Sukumar Mishra**, Madichetty Sreedhar, “Variable high gain DC to DC boost converter", Indian Patent Application No. 202011052968, reply to FER on May 11, 2023.
16. Bhim Singh**, Sukumar Mishra**, P. Shah and V. L. Srinivas, “Optimization of Leakage Current in a Solar Photovolataic (PV) System and Method Thereof", Indian Patent Application No. 202111002117, reply to FER on April 11, 2023.
17. **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 November 23, 2022.
18. **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.
19. **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, reply to FER on January 12, 2022.
20. 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, reply to FER on January 10, 2022.

14. List of significant book chapters/ papers

Book Chapters:-

1. 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.
2. 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.
3. **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.

4. **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.
5. **S. Mishra** and Dushyant Sharma, "Control of Photovoltaic Technology", Chapter 19 of Electric Renewable Energy Systems, Academic Press publications, 2016.
6. **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].
7. 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].
8. **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].
9. 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. 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.

Year 2023

2. 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**.
3. Abhishek Nayak, **S. Mishra**, Ali Mehrizi-Sani, "Unified Compensation for Network Latency in Synchrophasor based System Control", **accepted for publication in IEEE Transactions on Power Delivery.**
4. 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 .**

5. 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.**
6. Suprabath Koduru, Siva Prasad, Sreedhar Madichetty and **S. Mishra** and "A Deep Learning Based Cyber Attack Detection Scheme in DC Microgrid Systems", **accepted for publication in IEEE - CPSS Transactions on Power Electronics and Applications**.
7. 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**.**
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.

14. 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.
15. 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**.**
16. 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.
17. 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.
18. 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

19. 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.
20. 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.
21. 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.
22. 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.

23. 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.
24. Dhiman Das, M. Jahangir Hossain, **S. Mishra** and Bhim Singh " Bidirectional Power Sharing of Modular DABs to Improve Voltage Stability in DC Microgrids", **IEEE Transactions on Industry Applications**, vol. 58, no. 2, March – April 2022, pp. 2369 – 2377.
25. Yashi Singh, Bhim Singh and **S. Mishra,** "An Uninterruptable PV Array-Battery Based System Operating in Different Power Modes with Enhanced Power Quality", **IEEE Transactions on Industrial Electronics,** Vol. 69, No. 4, pp. 3631 – 3642, April 2022.
26. Sreedhar Madichetty, Yellepeddi Venkata Sai Manoj, Shaik Abdul Kareem and **S. Mishra**, “A Novel High-Speed Sensorless Faulty Panel Detection Technique for an SPV String/Array: An accurate and cost-effective approach for SPV industry," **IEEE Power Electronics Magazine**, Vol. 9, no. 1, Feb. 2022, pp. 33-39.
27. Sreedhar Madichetty and **S. Mishra**, "Cyber Attack Detection and Correction Mechanism in Distributed DC Microgrid", **IEEE Transactions on Power Electronics,** Vol. 37, No. 2, Feb.2022, pp. 1476-1485.
28. Sayandev Ghosh, Dhiman Das, Bhim Singh, S, Janardhanan, **S. Mishra** “Frequency Domain Modelling of Dual Active Bridge Converter based on Harmonic Balance Approach ”, **IEEE Journal of Emerging and Selected Topics in Industrial Electronics,** Vol. 3, No. 1, Jan.2022, pp. 166-176.
29. Dhiman Das, **S. Mishra** and Bhim Singh, “ An aggregated Energy Management Methodology for Air Conditioning System with DAB Converter”**, IEEE Journal of Emerging and Selected Topics in Industrial Electronics**, Vol. 3, No. 1, Jan.2022, pp. 124-132.
30. Arpan Malkhandi, **S. Mishra** and Nilanjan Senroy “A Dynamic Model of Impedance for Online Thevenin's Equivalent Estimation”, **IEEE Transactions on Circuits and Systems--II,** Vol. 69, No. 1, Jan.2022**,** pp. 194-19dhiman8**.**

Year 2021

31. Vaibhav Nougain, **S. Mishra**, George S. Misyris and Spyros Chatzivasileiadis, “Multi-Terminal DC Fault Identification for MMC-HVDC Systems based on Modal Analysis -- A Localized Protection Scheme”, **IEEE Journal of Emerging and Selected Topics in Power Electronics,** Vol. 9, No. 6, pp. 6650-6661, Dec.2021.
32. Abhishek Nayak, Madan Mohan Rayguru, **S. Mishra** and M.J. Hossain, " A Quantattive Approach for Convergence Analysis of a Singularly Perturbed Inverter Based

Microgrid", **IEEE Transactions on Energy Conversion,** Vol. 36, No. 4, Dec.2021, pp. 3016-3030.

33. Sreedhar Madichetty, **S. Mishra** and A. J. Neroth, "Maximum Power Point in a Single Step: A Novel Method for PV Industry," **IEEE Power Electronics Magazine**, Vol. 8, no. 3, Sept. 2021, pp. 48 - 54.
34. Sreedhar Madichetty, **S. Mishra** and Malabika Basu " New trends in electric motors and selection for electric vehicle propulsion systems", **IET Electrical Systems in Transportation,** vol. 11, no. 3, Sept. 2021 **,** pp. 186-199**.**
35. S. Prakash and **S. Mishra**, " A Three Sample Based PLL-Less Hysteresis Current Control and Stability Analysis of a Single-Phase Active Distribution System", **IEEE transactions on Industrial Electronics**, Vol. 68, No. 8, Aug.2021, pp. 7045-7060.
36. Dhiman Das, **S. Mishra** and Bhim Singh, "Design Architecture for Continuous Time Control of Dual Active Bridge Converter," **IEEE Journal of Emerging and Selected Topics in Power Electronics**, vol. 9, no. 3, June 2021, pp. 3287 - 3295.
37. S. Prakash, V. Nougain and **S. Mishra**, "Adaptive Droop based Control for Active Power Sharing in Autonomous Microgrid for Improved Transient Performance" **IEEE Journal of Emerging and Selected Topics in Power Electronics**, vol. 9, no. 3, pp. 3010-3018, June 2021.
38. Shivraman Mudaliyar and **S. Mishra**, "Real-Time Coordinated Control of Low Voltage DC Distribution Network with Soft Opening Point" **IEEE Transactions on Power Electronics,** vol. 36, no. 6, June 2021, pp. 7123-7137.
39. Rishi Kant Sharma, Shivraman Mudaliyar and **S. Mishra**, "A DC Droop Based Optimal Dispatch Control and Power Management of Hybrid Photovoltaic-Battery and Diesel Generator Standalone ac/dc System", **IEEE Systems Journal,** vol. 15, no. 2, June 2021, pp. 3012-3023.
40. Vedantham Lakshmi Srinivas, Shailendra Kumar, Bhim Singh and **Sukumar Mishra**, "A Normalized Adaptive Filter for Enhanced Optimal Operation of Grid Interfaced PV System", **IEEE Transactions on Industry Applications**, vol. 57, no. 2, pp. 1715-1724, March-April, 2021.
41. V. L. Srinivas, B. Singh and **S. Mishra**, "Harmonic Voltage Control in Distributed Generation Systems Using Optimal Switching Vector Strategy," **IEEE Systems Journal,** Vol. 16, No. 2, April 2021, pp. 1861-1872.
42. Arnab Bhattacharjee, Ashu Verma, **S. Mishra** and Tapan. K. Saha, "Estimating State of Charge for xEV batteries using 1D Convolutional Neural Networks and Transfer Learning", **IEEE Transactions on Vehicular Technology,** Vol. 70, No. 4, April 2021, pp. 3123-3135.

43. Arpan Malkhandi, Nilanjan Senroy and **S. Mishra**, "Return Ratio Shaping Approach to Stabilize Inverter-Weak Grid System", **IEEE Transactions on Energy Conversion,** Vol. 36, No. 1, March 2021, pp. 253-263.
44. Neethu Elizabeth Michael, Shazia Hasan and **Sukumar Mishra**, "Virtual Inertia provision through Data Center and Electric Vehicle for ancillary services support in microgrid", **IET Renewable Power Generation**, vol. 14, no. 18, February 2021, pp. 3972-3801.
45. Shamik Bhattacharyya, Dattu Sampath Kumar Patnam, Susovon Samanta and **S. Mishra**, "Steady Output and Fast Tracking MPPT (SOFT MPPT) for P&O and InC Algorithms", **IEEE Transactions on Sustainable Energy**, vol. 12, no. 1, Jan 2021, pp. 293-302.

Year 2020

46. Yashi Singh, Bhim Singh and **S. Mishra**, " Photovoltaic-battery powered grid connected system using multi-structural adaptive circular noise estimation control", **IET Power Electronics,** vol. 14, no. 2, pp. 397-411, Dec 2020.
47. Ayesha Firdaus, Dushyant Sharma, and **S. Mishra**, "Dynamic Power Flow Based Simplified Transfer Function Model to Study Instability of Low-Frequency Modes in Inverter Based Microgrids", **IET Generation, Transmission and Distribution,** vol. 14, no. 23, Dec. 2020, pp. 5634 – 5645.
48. Yashi Singh, Bhim Singh and **S. Mishra**, " Multifunctional Control for PV Integrated Battery Energy Storage System with Improved Power Quality", **IEEE Transactions on Industry Applications,** vol. 56, no. 6, Nov-Dec 2020, pp. 6835 – 6845.
49. K. K. Prabhakaran, A. Karthikeyan, S. Varsha, B. Venkatesa Perumal and **Sukumar Mishra,** "Standalone Single Stage PV-Fed Reduced Switch Inverter Based PMSM for Water Pumping Application", **IEEE Transactions on Industry Applications, v**ol. 56, no. 6, Nov-Dec 2020, pp. 6526 – 6535.
50. Roopa Viswadev , Arjun Mudlapur , Vanjari Venkata Ramana , B. Venkatesaperumal, and **Sukumar Mishra**, "A Novel AC Current Sensorless Hysteresis Control for Grid-Tie Inverters", **IEEE Transactions on Circuits and Systems**, vol. 67, no. 11, Nov. 2020, pp. 2577-2581.
51. Rishi Kant Sharma, **S. Mishra**, and Deepak Pullaguram, "A Robust H∞ Multivariable Stabilizer Design for Droop Based Autonomous AC Microgrid**," IEEE Transactions on Power Systems,** vol. 35, no. 6, pp. 4369-4382, Nov. 2020.
52. Shatakshi Jha, Bhim Singh and **S. Mishra**, "Performance Enhancement of PV–DG–BS Distributed Generation System in Islanded Mode", **Journal of The Institution of Engineers (India): Series B** , vol. 102, no. 2, pp. 311-321, Nov. 2020.

53. Deepak Pullaguram, Rubi Rana, **S. Mishra** and Nilanjan Senroy "A Fully Distributed Hierarchical Control Strategy for Multi-inverter Based AC Microgrids", **IET Renewable Power Generation,** vol. 14, no. 13, Oct. 2020, pp. 2468-2476**.**
54. Shivraman Mudaliyar, Bhanu Duggal and **S. Mishra**, "Distributed Tie-line Power Flow Control of Autonomous DC Microgrid Clusters", **IEEE Transactions on Power Electronics,** vol. 35, no. 10, Oct. 2020, pp. 11520-11266.
55. M.Vetri selvi and **S. Mishra**, "Investigation of Performance of Electric Load Power Forecasting in Multiple Time Horizons with New Architecture Realized in Multivariate Linear Regression & Feed-forward Neural Network Techniques", **IEEE Transactions on Industry Applications,** vol. 56, no. 5, Sep. -Oct. 2020 **,** pp. 5603 - 5612**.**
56. M. Rayguru, Sreedhar Madichetty, S. Mishra and Malabika Basu, "Battery super-capacitor hybrid system for electrical vehicle transportation's systems – an energy integrated approach", **IET Energy Systems Integration,** vol. 2, no. 3, Sept. 2020, pp. 282-288.
57. V. L. Srinivas, Bhim Singh, and **S. Mishra**, "Self-Synchronizing VSM with Seamless Operation during Unintentional Islanding Events", **IEEE Transactions on Industrial Informatics,** vol. 16, no. 9, Sep. 2020**,** pp. 5680-5690**.**
58. V. L. Srinivas, Bhim Singh, and **S. Mishra**, "Seamless mode transition technique for virtual synchronous generators and method thereof", **IEEE Transactions on Industrial Informatics,** vol. 16, no. 8, Aug. 2020 **,** pp. 5254-5266**.**
59. Subham Sahoo, Jimmy Peng, Devakumar Annavaram, **S. Mishra** and Tomislav Dragicevic, "On Detection of False Data in Cooperative DC Microgrids - A Discordant Element Approach", **IEEE Transactions on Industrial Electronics,** vol. 67, no. 8, Aug. 2020 **,** pp. 6562-6571**.**
60. Subham Sahoo, JCH Peng, **S. Mishra** and Tomislav Dragicevic, "Distributed Screening of Hijacking Attacks in DC Microgrids", **IEEE Transactions on Power Electronics**, vol. 35, no. 7, July 2020, pp. 7574-7582**.**
61. H. Malik, R. Sharma, and **S. Mishra,**"Fuzzy reinforcement learning based intelligent classifier for power transformer faults", **ISA Transactions,** vol. 101, June 2020, pp. 390-398.
62. Surya Prakash and **S. Mishra** " A Fast Terminal Sliding Mode Control for Improved Transient State Power Sharing Between Parallel VSCs in an Autonomous Microgrid for Different Loading Condition", **IET Renewable Power Generation,** vol. 14, no. 6, April 2020, pp. 1063-1073.
63. Subham Sahoo, **S. Mishra**, Shatakshi and Bhim Singh, "A Cooperative Adaptive Droop Based Energy Management & Optimal Voltage Regulation Scheme for DC Microgrids",

IEEE Transactions on Industrial Electronics, vol. 67, no. 4, April, 2020, pp. 2894-2904**.**

64. Shatakshi, Bhim Singh and **S. Mishra** , " Economic Operation and Quality Control in PV-BES-DG Based Autonomous System", **IEEE Transactions on Industrial Informatics,** vol. 16, no. 4, April 2020, pp. 2346-2356**.**
65. S. Rahman, J. Hossain, J. Lu, F. Rafi and **S. Mishra**, "A Vehicle-to-Microgrid (V2M) Framework with Optimization-Incorporated Distributed EV Coordination for a Commercial Neighborhood", **IEEE Transactions on Industrial Informatics,** vol. 16, no. 3, March 2020, pp. 1788-1798.
66. Ayesha Firdaus and **S. Mishra** "Mitigation of Power and Frequency Instability to Improve Load Sharing Among Distributed Inverters in Microgrid Systems", **IEEE Systems Journal,** vol. 14, no. 1, March 2020, pp. 1024-1033**.**

Year 2019

67. Dushyant Sharma and **S. Mishra**, "Disturbance Observer Based Frequency Regulation Scheme for Low Inertia Microgrid Systems", **IEEE Systems Journal**, vol. 14, no. 1, March 2019, pp. 782-792**.**
68. P. Mathew, Sreedhar Madichetty, and **S. Mishra** "A Multi-Level Distributed Hybrid Control Scheme for Islanded DC Microgrids", **IEEE Systems Journal,** vol. 13, no. 4, February 2019 **,** pp. 4200-4207**.**
69. Surya Prakash, **S. Mishra** , "VSC Control of Grid connected PV For Maintaining Power Supply During Open Phase Condition in Distribution Network", **IEEE Transactions on Industry Applications**, vol. 55, no. 6, November-December 2019, pp. 6211-6222.
70. Subham Sahoo, **S. Mishra**, Seyed Fazeli, Furong Li and Tomislav Dragičević "A Distributed Fixed-Time Secondary Controller for DC Microgrid Clusters", **IEEE Transactions on Energy Conversion,** vol. 34, no. 4, December 2019, pp. 1997 - 2007.
71. V. L. Srinivas, B. Singh and **S. Mishra**, "Fault Ride-Through Strategy for Two-Stage GPV System Enabling Load Compensation Capabilities," **IEEE Transactions on Industrial Electronics**, vol. 66, no. 11, November 2019, pp. 8913-8924.
72. R. Rana, S Bhattacharjee and **S Mishra** ,"Energy Trading Framework for ElectricVehicles: An Assignment Matching-Theoretic Game", **IET Smart Grid**, vol. 2, no. 3, October 2019, pp. 371 - 380.
73. Sreedhar Madichetty, Malbika Basu, **S. Mishra** and Josep M Guerrero,"Double Deadbeat Plus Repetitive Control Scheme for Microgrid System", **IEEE Systems Journal**, vol. 13, no. 03, September, 2019, pp. 3194-3202.
74. Chandrashekhar N Bhende, Swasti Panda, **Sukumar Mishra,** Arun Narayanan, Tero Kaipia, Jarmo Partanen," Optimal Power Flow Management and Control of Grid

Connected Photovoltaic-Battery System", **International Journal of Emerging Electric Power Systems**, vol. 20, September 2019, no. 5.

75. Subham Sahoo, **S. Mishra** , Jimmy Chih-Hsien Peng, Tomislav Dragicevic , "A Stealth Cyber Attack Detection Strategy for DC Microgrids", **IEEE Transactions on Power Electronics**, vol. 34, no. 8, Aug. 2019, pp. 8162-8174.
76. Ayesha Firdaus and **S. Mishra** " Auxiliary Signal Assisted Droop based Secondary Frequency Control of Inverter Based PV Microgrids for Improvement in Power Sharing and System Stability", **IET Renewable Power Generation,** vol. 13, no. 13, July 2019, pp. 2328 - 2337.
77. Nirakar Nayak, **S. Mishra**, Dushyant Sharma and Binod Kumar Sahu, " Application of modified sine cosine algorithm to optimally design PID/fuzzy-PID controllers to deal with AGC issues in deregulated power system " , **IET Generation Transmission and Distribution**, vol. 13, no. 12, July 2019, pp. 2474 - 2487.
78. Dushyant Sharma and **S. Mishra**, "Non-Linear Disturbance Observer Based Improved Frequency and Tie-line Power Control of Modern Interconnected Power Systems", **IET Generation Transmission and Distribution**, vol. 13, no. 16, July 2019, pp. 3564 - 3573.
79. Vaibhav Nougain, **S. Mishra**, and A.K.Pradhan "MVDC Microgrid Protection using a Centralized Communication with a Localized Backup Scheme of Adaptive Parameters", **IEEE Transactions on Power Delivery,** vol. 34, no. 3, June 2019, pp. 869-878**.**
80. A Rajput, N Beniwal, B Singh, **S Mishra**, "Second Order Sequence Filter Based Control Algorithm for Single-Phase Grid Interfaced Solar PV System", **IET Generation Transmission and Distribution**, vol. 13, no. 12, May 2019, pp. 2382 - 2390.
81. P. Mathew, Sreedhar Madichetty, and **S. Mishra**,"Multi-Level Control and Optimization Scheme for Islanded PV Based Microgrids- A Control Frame Work", **IEEE Journal of Photovoltaics**, vol. 9, no. 3, May 2019, pp. 822-831.
82. Sreedhar Madichetty and **S. Mishra**, "High Voltage Repetitive Pulsed Power Generator by Using Modular Multilevel converter", **International Journal of Ambient Energy** ,vol. 40, no.4, May 2019, pp.427-433.
83. S. Mudaliyar and **S. Mishra, "**Coordinated Voltage Control of a Grid Connected Ring DC Microgrid With Energy Hub**," IEEE Transactions on Smart Grid,** vol. 10, no. 2, March 2019, pp. 1939-1948.
84. V. V. Ramana, A. Mudlapur, R. V. Damodaran, V. Balasubramanian and **S. Mishra**," Global Peak Tracking of Photovoltaic Array Under Mismatching Conditions Using Current Control", **IEEE Transactions on Energy Conversion**, vol. 34, no. 1, March 2019, pp.313-320.

85. Arjun M, Vanjari Venkata Ramana, Roopa Viswadev Damodaran, B Venkatesaperumal, and **S. Mishra** , “Effect of Partial Shading on PV fed Induction Motor Water Pumping Systems", **IEEE Transactions on Energy Conversion** , Vol. 34, No. 1, March 2019, pp. 530-539 .
86. Sreedhar Madichetty, Deepak Pullaguram, and **S. Mishra**, "Standalone BLDC Based Solar Air Cooler with MPPT Tracking for Improved Efficiency", **CSEE Journal of Power and Energy Systems**, vol. 5, no. 1, March 2019, pp. 111-119.
87. Dushyant Sharma, A. Dubey, **S. Mishra** and R. K. Mallik., "A Frequency Control Strategy using Power Line Communication in a Smart Microgrid," **IEEE Access,** vol. 7, February 2019, pp. 21712-21721.
88. Dhiman Das, Sreedhar Madichetty, Bhim Singh and **S. Mishra**, “Leunberger Observe Based current Estimated Boost Converter for PV Maximum Power Extraction- A Current Sensor-less Approach”, **IEEE Journal of Photovoltaics**, vol. 9, no. 1, January 2019, pp. 278-286.
89. Subham Sahoo and **S. Mishra**, "A Distributed Finite-Time Average Voltage Regulation and Current Sharing Controller for DC Microgrids", **IEEE Transactions on Smart Grid**, vol. 10, no. 1, January 2019, pp. 282-292.
90. Anbalagan Karthikeyan, Deshpande Gururaj Abhilash Krishna, Sushant Kumar, B. Venkatesa Perumal, **Sukumar Mishra** “Dual Role CDSC-Based Dual Vector Control for Effective Operation of DVR With Harmonic Mitigation**”, IEEE Transactions on Industrial Electronics,** vol. 66, no. 1, pp. 4-13, January 2019.
91. A. Karthikeyan, D.G. Abhilash Krishna, Sushant Kumar, B. Venkatesa Perumal and **S. Mishra**," Dual Role CDSC based Dual Vector Control for Effective Operation of DVR with Harmonic Mitigation”, **IEEE Transactions on Industrial Electronics** , vol. 66, no. 1, January 2019, pp. 4-13.

Year 2018

92. Ram Krishan, Ashu Verma, **S. Mishra** ," Loadability analysis of DC distribution systems," **International Journal of Electrical Power & Energy Systems**, vol.103, December 2018, pp. 176-184.
93. Shatakshi, Ikhlaq Hussain, Bhim Singh, and **S. Mishra**,"Optimal Operation of PV-DG-battery based Microgrid with Power Quality Conditioner", **IET Renewable Power Generation**, vol. 13 no.3, February 2019, pp. 418-426.
94. Subham Sahoo and **S. Mishra**, “An Adaptive Event-Triggered Communication Based Distributed Secondary Control for DC Microgrids”, **IEEE Transactions on Smart Grid**, vol.9, no.6, November 2018, pp.6674-6683.

95. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**," Implementation of grid interfaced photovoltaic system with active power filter capabilities ", **International Transactions on Electrical Energy Systems** , Vol. 28, No. 11, Nov. 2018, pp. e2616.
96. Ram Krishan, Ashu Verma, and **S. Mishra**, " A Novel PV Inverter Control for Maximization of Wind Power Penetration", **IEEE Transactions on Industry Applications,** vol. 54, no. 6, November 2018, pp.6364-6373.
97. Subham Sahoo, Deepak Reddy Pullaguram, **S. Mishra**, Jianzhong Wu and Nilanjan Senroy,"A Containment Based Distributed Finite-Time Controller For Bounded Voltage Regulation & Proportionate Current Sharing in DC Microgrids", **Applied Energy,** vol. 228, October 2018, pp. 2526-2538.
98. Rubi Rana, Surya Prakash and **S. Mishra**, "Energy Management of Electric Vehicle integrated Home in a Time-Of-Day Regime", **IEEE Transactions on Transportation Electrification** , vol. 4, no. 3, September 2018, pp. 804-816.
99. Subham Sahoo and **S. Mishra**, "A Multi-Objective Adaptive Control Framework in Autonomous DC Microgrid", **IEEE Transactions on Smart Grid** , vol. 9, no. 5, September 2018, pp. 4918-4929.
100. Anuradha Tomar and **S. Mishra**, Chandrashekhar Bhende, " AOMH-MISO based PV-VCI Irrigation System Using ASCIM Pump", **IEEE Transactions on Industry Applications** , vol. 54, no. 5, September 2018, pp. 4813-4824.
101. Deepak Pullaguram, **S. Mishra**, and N. Senroy, "Event-Triggered Communication Based Distributed Control Scheme for DC Microgrid," **IEEE Transactions on Power Systems** , vol. 33, no. 5, pp. 5583-5593, September 2018.
102. Rubi Rana and **S. Mishra**,"Day Ahead Scheduling of Electric Vehicles for Overloading Management in Active Distribution System via Web Based Application", IEEE Systems Journal, vol. 99 no.13, July 2018, pp.1-11.
103. Y. Bian, H. Wyman-Pain, F. Li, R. Bhakar, **S. Mishra** and N. P. Padhy , "Demand Side Contributions for System Inertia in the GB Power System," **IEEE Transactions on Power Systems,** vol. 33, no. 4, pp. 3521-3530, July 2018.
104. Anuradha Tomar and **S. Mishra**, "CMPVI based MIDO Scheme under SSE for Optimum Energy Balance & Reduced ROI", **IEEE Transactions on Sustainable Energy**, vol. 9, no. 3, July 2018, pp. 1318-1327.
105. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**," Single-Phase Single-Stage Grid Tied Solar PV System with Active Power Filtering Using Power Balance Theory ", **Journal of The Institution of Engineers (India): Series B** , Vol. 99, No. 3, June 2018, pp. 301-311.

106. P. Garanayak, G. Panda, and **S. Mishra**, “Harmonic elimination using SW based HSAPF system and evaluation of compensation effect employing ADALINE-DFFRLS algorithm” **EPE Journal**, June 2018, pp.1-18.

107. Dushyant Sharma and **S. Mishra**, "A Novel Power System Frequency Stabilizer (PSFS) for Modern Power Systems" , **IET Generation Transmission and Distribution,** vol. 12, no. 9, May 2018, pp. 1961-1969.

108. V. L. Srinivas, Shailendra Kumar, Bhim Singh and **S. Mishra** , "Fuzzy Logic Gain Tuned Adaptive Second Order Generalized Integrator based Multi-Objective Control Scheme for Reliable Operation of GPV System", **IET Generation Transmission and Distribution,** vol. 12, no. 5, March 2018, pp. 1153-1163.

109. Hasmat Malik and **S. Mishra** , "Application of Gene Expression Programming (GEP) to Investigate the Imbalance Faults in Direct-Drive Wind Turbine Using Generator Current Signals", **IET Renewable Power Generation,** vol. 12, no. 3, February 2018, pp. 279-291.

110. V. L. Srinivas, Shailendra Kumar, Bhim Singh and **S. Mishra**, "A Multifunctional GPV System Using Adaptive Observer Based Harmonic Cancellation Technique", **IEEE Transactions on Industrial Electronics,** vol. 65, no. 2, February 2018, pp. 1347-1357.

111. Deepak Pullaguram, **S. Mishra** , Nilanjan Senroy, Monish Mukherjee, "Design and Tuning of Robust Fractional Order Controller for Autonomous Microgrid VSCSystem", **IEEE Transactions on Industry Applications,** vol. 54, no. 1, January-February 2018, pp. 91-101.

112. Subham Sahoo, Surya Prakash and **S. Mishra**, "Power Quality Improvement of Grid Connected DC Microgrids using Repetitive Learning Based PLL under Abnormal Grid Conditions", **IEEE Transactions on Industry Applications,** vol. 54, no. 1, January-February 2018, pp. 82-90.

113. Rishi Kant Sharma and **S. Mishra** , " Dynamic Power Management and Control of PV PEM fuel Cell based Standalone AC/DC Microgrid Using Hybrid Energy Storage", **IEEE Transactions on Industry Applications,** vol. 54, no. 1, January-February 2018, pp. 526-538.

114. V. L. Srinivas, Shailendra Kumar, Bhim Singh and **S. Mishra,** "Partially Decoupled Adaptive Filter Based Multifunctional Three Phase GPV System" , **IEEE Transactions on Sustainable Energy,** vol. 9, no. 1, January 2018, pp. 311-320.

115. Ram Krishan, Ashu Verma and **S. Mishra**, "Design of Multi-Machine Power System Stabilizers with Forecast Uncertainties in Load/Generation", **IETE Journal of Research**, November 2017, pp.1-14.

116. Rubi Rana, Mukesh Singh and **S. Mishra**, "Design of Modified Droop Controller for Frequency Support in Microgrid using Fleet of Electric Vehicles", **IEEE Transactions on Power Systems**, vol. 32, no. 5, pp. 3627-3636, September, 2017.

117. Subham Sahoo, Surya Prakash and **S. Mishra**, "Handshaking V2G Strategy for Grid Connected PV Assisted Charging Station" , **IET Renewable Power Generation**, vol. 11, no. 11, September 2017, pp. 1410-1417.

118. Deepak Pullaguram, **S. Mishra** and Nilanjan Senroy, "Coordinated single phase control scheme for voltage unbalance reduction in LV network", **Phil. Trans. R. Soc. A,** vol. 375, No. 2100, July 2017, pp. 20160308.

119. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Single-Phase Solar Grid Interfaced System with Active Filtering Using ALCF Based Control Algorithm", **IET Generation Transmission and Distribution**, vol. 11, no. 8, June 2017, pp. 1976-1984.

120. S. Shukla, **S. Mishra**, B. Singh and S. Dwivedi, "Implementation of Empirical Mode Decomposition based Algorithm for Shunt Active Filter", **IEEE Transactions on Industry Applications**, vol. 53, no. 3, May-June 2017, pp. 2392-2400.

121. Anuradha Tomar and **S. Mishra**, "Synthesis of a New DLMPPT Technique with PLC for Enhanced PV Energy Extraction under Varying Irradiance and Load Changing Conditions", **IEEE Journal of Photovoltaics**, vol. 7, no. 3, May 2017, pp. 839-848.

122. Yashi Singh, Ikhlaq Hussain, **S. Mishra** and Bhim Singh, "An Adaptive Neuron Detection Based Control of Single Phase SPV Grid Integrated System with Active Filtering," **IET Power Electronics**, vol. 10, no. 6, pp. 657-666, May 2017.

123. Hasmat Malik and **S. Mishra**, "Artificial Neural Network and Empirical Mode Decomposition Based Imbalance Fault Diagnosis of Wind Turbine Using TurbSim,FAST and Simulink", **IET Renewable Power Generation**, vol. 11, no. 6, pp. 889-902, May 2017.

124. Ram Krishan, Ashu Verma, **S. Mishra** and P. R. Bijwe, "Analysis of Hopf bifurcation with forecast uncertainties in load/generation", **IET Generation, Transmission & Distribution**, vol. 11, no. 6, February 2017, pp. 1531-1538.

125. **S. Mishra** and Y. Mishra, "Decoupled controller for Single-phase Grid connected rooftop PV systems to Improve Voltage Profile in Residential Distribution Systems", **IET Renewable Power Generation**, vol. 11, no. 2, Feb. 2017, pp. 370-377.

Year 2016

126. Hasmat Malik and **S. Mishra**, "Application of Gene Expression Programming (GEP) in Power Transformers Fault Diagnosis Using DGA", **IEEE Transactions on Industry Applications**, vol. 52, no. 6, Nov.-Dec. 2016, pp 4556-4565.

127. Kuljeet Kaur, Rubi Rana, Neeraj Kumar, Mukesh Singh and **S. Mishra**, "A Colored Petri Net Based Frequency Support Scheme using Fleet of Electric Vehicles in Smart Grid Environment", **IEEE Transactions on Power Systems**, vol.31, no. 6, November 2016, pp. 4638 – 4649.

128. **S. Mishra**, Deepak Pullaguram, B Srikant Achary and Deepak Rama Subramanian, "Single Phase Synchronverter for a Grid Connected Roof Top Photovoltaic System", **IET Renewable Power Generation**, vol. 10, no. 8, September 2016, pp. 1187–1194.

129. P. C. Sekhar and **S. Mishra**, "Storage Free Smart Energy Management for Frequency Control in a Diesel-PV-Fuel Cell-Based Hybrid AC Microgrid", **IEEE Transactions on Neural Networks and Learning Systems**, vol. 27, no. 8, August 2016, pp. 1657-1671.

130. Jincy Philip, Chinmay Jain, Krishan Kant, B. Singh, **S. Mishra**, Ambrish Chandra and Kamal Al Haddad, "Control and Implementation of a Standalone Solar Photovoltaic Hybrid System", **IEEE Transactions on Industry Applications**, vol. 52, no. 4, July-August 2016, pp 3472-3479.

131. Somesh Bhattacharya and **S. Mishra**, "Efficient Power Sharing Approach for Photovoltaic Generation Based Microgrids", **IET Renewable Power Generation**, vol. 10, no. 7, July 2016, pp. 973–987.

132. **S. Mishra**, Zarina P.P. and P. C. Sekhar, "Gas assisted doubly fed induction generator with ramp rate controller", **IET Renewable Power Generation**, vol. 10, no. 7, July 2016, pp. 955–963.

133. Anish Jindal, Amit Dua, Kuljeet Kaur, Mukesh Singh, Neeraj Kumar and **S. Mishra**, "Decision Tree and SVM-based Data Analytics for Theft Detection in SmartGrid", **IEEE Transactions on Industrial Informatics**, vol. 12, no. 3, June 2016, pp 1005-1016.

134. Himanshu Sekhar Sahu, Sisir Kumar Nayak and **S. Mishra**, "Maximizing the Power Generation of a Partially Shaded PV Array", **IEEE Journal of Emerging and Selected Topics in Power Electronics**, vol. 4, no. 2, June-2016, pp. 626-637.

135. Priya Nayar, Bhim Singh, **S. Mishra**,"A New Control Algorithm for Power Quality Improvement in a Stand-alone Synchronous Reluctance Generator with Energy Storage", **International Journal of Electric Power Component and Systems**, 44 (19): 2016, 2198-2211.

Year 2015

136. Janardan Nanda, Dushyant Sharma and **S. Mishra**, "Performance analysis of automatic generation control of interconnected power systems with delayed mode operation of

area control error", **IET The Journal of Engineering**, vol. 2015, no. 4, April-2015, pp. 164-173.

137. P. C. Sekhar, **S. Mishra**, Rishi Sharma, "Data Analytics Based Neuro-Fuzzy Controller for Diesel-PV Hybrid AC Microgrid", **IET Generation Transmission and Distribution**, vol. 9, no. 2, January-2015, pp 193-207.
138. M. Tripathy, **S. Mishra**, "Coordinated tuning of PSS and TCSC to improve Hopf Bifurcation margin in multimachine power system by a modified Bacteria Foraging Algorithm", **International Journal of Electrical Power and Energy Systems**, vol. 66, 2015, pp 97-109.
139. **S. Mishra**, D. Ramasubramanian, "Improving the Small Signal Stability of a PV-DE-Dynamic Load based Microgrid using an Auxiliary Signal in the PV control loop", **IEEE Transactions on Power Systems**, vol. 30, no. 1, pp.166-176, January-2015.

Year 2014

140. Hasmat Malik, **S. Mishra**, and A. P. Mittal, "Selection of Most Relevant Input Parameters Using Waikato Environment for Knowledge Analysis for Gene Expression Programming Based Power Transformer Fault Diagnosis", **International Journal of Electric Power Component and Systems**, 42 (16): 2014, 1–13.
141. P. C. Sekhar, **S. Mishra**, "Takagi-Sugeno Fuzzy Based Incremental Conductance Algorithm for MPPT of a PV Generating System", **IET Renewable Power Generation**, vol. 8, no. 8, Nov-2014, pp. 900–914.
142. Zarina P.P., **S. Mishra**, P.C. Sekhar, "Exploring Frequency Control Capability of a PV System in a Hybrid PV-Rotating Machine-Without Storage System", **International Journal on Electrical Power and Energy System**, vol. 60, Sep-2014, pp 258-267.
143. P. C. Sekhar, **S. Mishra**, "Sliding Mode Based Feedback Linearizing Controller for Grid Connected Multiple Fuel Cells Scenario", **International Journal on Electrical Power and Energy System**, vol.60, Sep-2014, pp 190–202.
144. S. Shukla, **S. Mishra**, B. Singh, "Power Quality Event Classification under Noisy Conditions using EMD based De-noising Techniques", **IEEE Transactions on Industrial Informatics**, vol.10, no. 2, pp 1044-1054, May-2014.
145. B. Biswal, **S. Mishra**, "Power Signal disturbance identification and classification using a Modified Frequency Slice Wavelet Transform", **IET Generation, Transmission and Distribution**, vol. 8, no. 2, Feb. 2014, pp. 353–362.

146. B. Biswal, M. K. Biswal, **S. Mishra**, R. Jalaja, "Automatic Classification of Power Quality Events Using Balanced Neural Tree", **IEEE Transactions on Industrial Electronics**, vol. 61, no. 1, Jan-2014, pp.521-530.

Year 2013

147. Hasmat Malik, Amit Kumar Yadav, **S. Mishra**, Tarkeshwar Mehto, "Application of neuro-fuzzy scheme to investigate the winding insulation paper deterioration in oil-immersed power transformer", **International Journal on Electrical Power and Energy System**, vol. 53, Dec. 2013, pp 256-271.
148. **S. Mishra**, D. Ramasubramanian, P. C. Sekhar, "A Seamless Control Methodology for a Grid Connected and Isolated PV-Diesel Microgrid", **IEEE Transactions on Power Systems**, vol. 28, no. 4, Nov. 2013, pp.4393-4404.
149. **S. Mishra**, G. Mallesham and P. C. Sekhar, "Biogeography Based Optimal State Feedback Controller for Frequency Regulation of a Smart Microgrid", **IEEE Transactions on Smart Grid**, vol. 4, no. 1, Feb. 2013, pp. 628–637.
150. B. Biswal, M. K. Biswal, P. K. Dash, **S. Mishra**, "Power Quality Event Characterization Using Support Vector Machine and Optimisation Using Advanced Immune Algorithm", **Neurocomputing**, vol. 103, no. 1, March-2013, pp. 75-86.
151. M. Manjula, **S. Mishra**, A.V.R.S. Sarma, "Empirical mode decomposition with Hilbert transform for classification of voltage sag causes using probabilistic neural network," **International Journal of Electrical Power & Energy Systems**, vol. 44, no. 1, January 2013, pp. 597-603.

Year 2012

152. **S. Mishra**, G. Mallesham, A. N. Jha, "Design of Controller and Communication for Frequency Regulation of a Smart Microgrid", **IET Renewable Power Generation**, vol. 6, no. 4, pp. 248–258, July-2012.
153. B. Biswal, **S.Mishra**, P. K. Biswal, Telagarapu Prabhakar, "Detection and power quality disturbance classification based on wavelet packet decomposition and modified immune optimization algorithm", **International Journal of Knowledge-Based and Intelligent Engineering Systems**, vol. 16, no.3, 2012, pp 261-277.
154. B. Biswal, M. K. Biswal, P. K. Dash, **S. Mishra**, "Time Frequency Analysis and Power Signal Disturbance Classification Using Support Vector Machine and Differential EvolutionAlgorithm", **International Journal of Knowledge-based and Intelligent Engineering Systems**, vol. 16, pp 199-214, no.3, 2012 .
155. Y. Mishra, **S. Mishra**, Fangxing Li, "Coordinated Tuning of DFIG Based Wind Turbines And Batteries Using Bacteria Foraging Technique For Maintaining Constant Grid Power Output", **IEEE Systems Journal**, vol. 6, no. 1, March 2012, pp 16-26.

Year 2011

156. C. N. Bhende, **S. Mishra**, S. G. Malla, "Permanent Magnet Synchronous Generator based Standalone Wind Energy Supply System", **IEEE Transactions on Sustainable Energy**, vol. 2, no. 4, Oct. 2011, pp 361-373.
157. L. C. Saikia, **S. Mishra**, N. Sinha, J. Nanda, "Automatic Generation Control of a Multi area Hydrothermal System Using Reinforced learning Neural Network Controller", **International Journal on Electrical Power and Energy System**, vol. 33, no.4, pp 1101-1108, May-2011.
158. L. C. Saikia, J. Nanda, **S. Mishra**, "Performance comparison of several classical controllers in AGC for multi-area interconnected thermal system", **International Journal on Electrical Power and Energy System**, vol. 33, no.3, pp 394-401, March-2011.
159. M. Tripathy, **S. Mishra**, "Interval Type-2 based Thyristor Controlled Series Capacitor to Improve Power System Stability", **IET Generation, Transmission and Distribution**, vol. 5, no.2, pp 209-222, Feb-2011.

Year 2009

160. Y. Mishra, **S. Mishra**, Fangxing Li, Z. Y. Dong, R. C. Bansal, "Small-Signal Stability Analysis of a DFIG-BasedWind Power System Under Different Modes of Operation", **IEEE Transactions on Energy Conversion**, vol. 24, no. 4, December 2009, pp 972-982.
161. S. Shukla, **S. Mishra**, B. Singh, "Empirical Mode Decomposition with Hilbert Transform for Power Quality Assessment", **IEEE Transactions on Power Delivery**, vol. 24, no. 4, October 2009, pp 2159-2165.
162. **S. Mishra**, G.A. Taylor, J.B.V.Reddy, M. H. Naeem "DGA Based VAR Rescheduling for Transmission Loss Reduction", **International Journal of Power and Energy Systems**, vol.29, no.4, 2009, pp 255-260.
163. Y. Mishra, **S. Mishra**, M. Tripathy, N. Senroy, Z. Y. Dong, "Improving Stability of a DFIG based wind power system with tuned damping controller", **IEEE Transactions on Energy Conversion**, vol. 24, no. 3, Sep-2009, pp 650-660.
164. J. Nanda, **S. Mishra**, L. Saikia, "Maiden Application of Bacterial Foraging Based Optimization Technique in Multiarea Automatic Generation Control", **IEEE Transactions on Power Systems**, vol. 24, no. 2, pp 602-609, May-2009.

Year 2008

165. Y. Mishra, **S. Mishra** and Z.Y. Dong, "Rough fuzzy control of SVC for power system stability enhancement", **International Journal of Electrical Engineering & Technology**, vol. 3, no. 3, Sep 2008, pp. 337 – 345.

166. **S. Mishra**, C. N. Bhende, B. K. Panigrahi, "Detection and Classification of Power Quality Disturbances Using S-Transform and Probabilistic Neural Network", **IEEE Transactions on Power Delivery**, vol. 23, no. 1, Jan-2008, pp 280-287.

167. C. N. Bhende, **S. Mishra**, B. K. Panigrahi, "Detection and Classification of Power Quality Disturbances using S-Transform and Modular Neural Network", **International Journal of Electric Power System Research**, vol. 78, no.1, Jan-2008, pp 122-128.

Year 2007

168. **S. Mishra**, M. Tripathy, J. Nanda, "Multi-machine power system stabilizer design by rule based bacteria foraging", **International Journal of Electric Power System Research**, vol. 77, no.12, pp 1595-1607, Oct-2007.

169. M. Tripathy, **S. Mishra**, "Bacteria foraging based solution to optimize both real power loss and voltage stability limit", **IEEE Transactions on Power Systems**, vol. 22, no.1, pp 240-248, Feb-2007.

170. **S. Mishra**, C. N. Bhende, "Bacterial Foraging Technique Based Optimized Active Power Filter for Load Compensation", **IEEE Transactions on Power Delivery**, vol. 22, no. 1, pp 457-465, Jan-2007.

Year 2006

171. M. Tripathy, **S. Mishra**, L. L. Lai, and Q.P. Zhang, "Transmission Loss Reduction based on FACTS and Bacteria Foraging Algorithm", **lecture notes of computer science series LNCS, Springer-Verlag**, vol-4193, Nov-2006, pp 222-231.

172. C. N. Bhende, **S. Mishra**, S. K. Jain, "TS-Fuzzy Controlled Active Power Filter for Load Compensation", **IEEE Transactions on Power Delivery**, vol. 21, no. 3, July-2006, pp 1459-1465.

173. **S. Mishra**, "A Neural Network based adaptive UPFC for Improving Transient Stability Performance of Power System", **IEEE Transactions on Neural Network**, vol. 17, no. 2, March-2006, pp. 461-470.

Year 2005

174. **S. Mishra**, "Hybrid Least-Square Adaptive Bacterial Foraging Strategy for Harmonic Estimation", **IEE Proceedings- Generation, Transmission and Distribution**, vol. 152, no.3, pp 379-389, May-2005.

175. **S. Mishra**, "A Hybrid Least Square-Fuzzy Bacterial Foraging Strategy for Harmonic Estimation", **IEEE Transactions on Evolutionary Computation**, vol. 9, no.1, Feb-2005, pp 61-73.

176. **S. Mishra**, "Hybrid-Neuro-Fuzzy UPFC for improving transient stability performance of power system", **Electric Power Component and Systems**, vol. 33, no.1, Jan-2005, pp 73-84.

Year 2004

177. P. K. Dash, Stella Morris, **S. Mishra**, "Design of a nonlinear variable gain Fuzzy Controller for FACTS Devices", **IEEE Transactions on Control Systems Technology**, vol. 12, no.3, May 2004, pp 428-438.

Year 2003

178. P. K. Dash and **S. Mishra** "Damping of Multimodal Power System Oscillations by FACTS devices using Non-linear Takagi-Sugeno Fuzzy Controller", **International Journal of Electrical Power & Energy Systems**, vol. 25, no. 6, pp 481-490, July-2003.

179. **S. Mishra**, P. K. Hota, and P. Mohanty, "A Neuro Fuzzy Based Unified Power Flow Controller for Improvement of Transient Stability Performance", **Journal of Electrical Division of Institution of Engineers (India)**, vol. 84, pp 148-153, Dec-2003.

Year 2002

180. **S. Mishra**, P. K. Dash, P. K. Hota and M. Tripathy "Genetically optimized Neuro-Fuzzy IPFC for damping modal oscillations of power system", **IEEE Transactions on Power Systems**, vol. 17, no.4, Nov-2002, pp 1140-1147.

Year 2000

181. **S. Mishra**, P. K. Dash, and G. Panda, "TS-fuzzy controller for UPFC in a multimachine power system", **IEE Proceedings- Generation, Transmission and Distribution**, vol. 147, no.1, Jan. 2000, pp 15-22.

182. P. K. Dash, **S. Mishra**, M. M. A. Salama, and A. C. Liew, "Classification of Power System Disturbances using a fuzzy expert system and a Fourier linear combiner", **IEEE Transactions on Power Delivery**, vol. 15, no.2, April-2000, pp 472-477.

183. P. K. Dash, **S. Mishra**, and G. Panda, "A radial basis function neural network controller for UPFC", **IEEE Transactions on Power Systems**, vol. 15, no.4, Nov-2000, pp 1293-1299.

184. P. K. Dash, **S. Mishra**, and G. Panda, "Damping Multimodal Power System Oscillation using a Hybrid Fuzzy controller for series connected Facts Devices", **IEEE Transactions on Power Systems**, vol. 15, no.4, pp 1360-1366, Nov-2000.

185. **S. Mishra**, A. K. Pradhan, and P. K. Hota, "Development and Implementation of fuzzy logic based constant speed D. C. Drive", **Journal of Electrical Division of Institution of Engineers (India)**, vol. 81, pp 10-13, Jun-2000.

Year 1999

186. P. K. Dash, Aurobinda Routray, and **S. Mishra**, "A neural network based feedback linearising controller for HVDC links", **International Journal of Electric Power System Research**, vol. 50, pp 125-132, 1999.

Year 1998

187. A. K. Pradhan, **S. Mishra**, and P. K. Hota, "ANN based indicator of the risk of voltage instability", **Journal of Electrical Division of Institution of Engineers (India)**, vol. 79, pp 146-149, Dec-1998.

Year 1997

188. P. K. Hota, **S. Mishra**, and A. K. Pradhan, "Prediction of rotor angle variations using Neural Networks", **Journal of Electrical Division of Institution of Engineers (India)**, vol. 77, pp 220-223, Feb-1997.

International/National Conferences

1. Vineeth Patil, **S. Mishra** and Deepak Reddy Pullaguram "Performance Analysis of Homogeneous and Heterogeneous Microgrid based on Droop and VSG based Control", IEEE international conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE), trivandrum, kerala, 17-20 December, 2023.
2. Pritha Paitandy, Surya Prakash and **S. Mishra**, "Real Power Restoration based LVRT Control Strategy for Weak Grid-Tied VSC System", 3rd International Conference on Smart Technologies for Power, Energy and Control (STPEC 2023), KIIT, Bhubaneshwar, Odisha, India, 10-13 December, 2023.
3. Utkarsh kumar and **S. Mishra**, "A data-driven Global Sensitivity Analysis of Output Power to Electrical faults in different SPV Array Topologies", IEEE ETFG, Wollongong, Australia, 3-6 December, 2023.
4. Annavaram Devakumar, Abhishek Nayak and **S. Mishra**, "Discrete Time Distributed Secondary Control of AC Microgrid: A Digital Control Approach", 22nd National Power System Conference (NPSC), IIT Delhi, New Delhi, India, 17-19 December, 2022.
5. Anyuti Tiwary, Shivam Garg and **S. Mishra**, "Impact of Driving Behaviour on Energy Consumption of Electric Vehicle", 22nd National Power System Conference (NPSC), IIT Delhi, New Delhi, India, 17-19 December, 2022.

6. Anyuti Tiwary, Vaishali Purohit and **S. Mishra**, "Impact Gauging of EV User Driving Patterns on Battery Parameters", IEEE PES Asia Pacific Power and Energy Engineering Conference, APPEEC 2022, Melbourne, Australia, 20- 23rd November, 2022.
7. Shatakshi Jha, Bhim Singh and **S. Mishra**, "Rule-Based Power Management and Quality Enhancement in a Standalone Microgrid", 2022 IEEE IAS Global Conference on Emerging Technologies (GlobConET), Arad, Romania, 20-22 May, 2022.
8. Devakumar Annavaram, Shubham Sahoo and **S. Mishra**, "Stealth Attacks in Microgrids: Modeling Principles and Detection", 9th International Conference on Power Systems (ICPS) – 2021, IIT Kharagpur, India, 16-18 December, 2021.
9. Yashi Singh, Bhim Singh and **Sukumar Mishra**, " Control Strategy for Multiple Residential Solar PV Systems in Distribution Network with Improved Power Quality", 2021 IEEE Energy Conversion Congress and Exposition (ECCE), Vancouver, BC, Canada, 10-14 Oct. 2021.
10. Archana Aggarwal; A.S. Siddiqui and **Sukumar Mishra**, "Bi-directional Power Flow Through an Interlinking Converter in an Autonomous Hybrid Micro-Grid", 2021 IEEE 4th International Conference on Computing, Power and Communication Technologies (GUCON), Kuala Lumpur, Malaysia, 24-26 Sept. 2021.
11. Madan Kumar Das, Parusharamulu Buduma, **S. Mishra**, "Generalised Hybrid Symmetrical and Asymmetrical Multilevel Inverter Topology with Reduced Number of Switches",1st International Symposium on Sustainable Energy and Technological Advancements (ISSETA), NIT Meghalaya, Shillong, India, 24th -25th September 2021.
12. Parusharamulu Buduma, Madan Kumar Das, Ashwani Kumar Sharma, **S. Mishra** and Gayadhar panda "Automatic Generation Control for Hybrid Power System in Deregulated Environment",1st International Symposium on Sustainable Energy and Technological Advancements (ISSETA), NIT Meghalaya, Shillong, India, 24th -25th September 2021.
13. Amit Kumar, **Sukumar Mishra**, "Three-Phase AC-DC converter with algorithm based adaptive direct power control technique and backstepping controller," 3rd IEEE International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, India, 05th-07th March 2021.
14. Madan Kumar Das, Parusharamulu Buduma, **Sukumar Mishra**, "An Asymmetrical Reduced Switch Multilevel Inverter based Grid-connected PV system" 3rd IEEE International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, India, 05th-07th March 2021.
15. Parusharamulu Buduma , Madan Kumar Das, **Sukumar Mishra** and Gayadhar Panda "Robust Power Management and Control for Hybrid AC-DC Microgrid", 3rd IEEE

International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, 05th-07th March 2021.

16. Parusharamulu Buduma , Madan Kumar Das, R.T. Naayagi, **Sukumar Mishra**, Gayadhar Panda "Seamless Operation of Master-Slave Organized AC Microgrid with Robust Control and Islanding Detection", 3rd IEEE International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, 05th-07th March 2021.
17. Madan Kumar Das, Kartick Chandra Jana, **Sukumar Mishra**, Parusharamulu Buduma "Novel 13-level Asymmetrical Photovoltaic Inverter with Reduce switches" 3rd IEEE International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, India, 05th-07th March 2021.
18. Madan Kumar Das, Sandeep Singh Chauhan, Parusharamulu Buduma, **Sukumar Mishra**, Kartick Chandra Jana, "A Hybrid Novel Cascaded Asymmetrical 21-level Inverter with Reduced Switches," 3rd IEEE International Conference on Energy, Power and Environment (ICEPE) 2020, NIT Meghalaya, Shillong, India, 05th-07th March 2021.
19. Kalyan Dash, Manas Ranjan Mishra and **S. Mishra**, "Adaptive SOGI Gain Based Control of Single Phase Inverter Under Distorted Grid Condition", 3rd International Conference on Energy, Power and Environment:Towards Clean Energy Technologies (ICEPE 2020), NIT Meghalaya, Shillong, India, 05-07th March 2021.
20. Pritha Paitandy and **Sukumar Mishra**, " Nonlinear Disturbance Observer based DC-Link Voltage Control for Grid – connected VSC", 3rd International Conference on Energy, Power and Environment:Towards Clean Energy Technologies (ICEPE 2020)", NIT Meghalaya, Shillong, India, 05-07th March 2021.
21. Utkarsh Kumar, **Sukumar Mishra** and Sreedhar Madichetty, "Residual Error Modelling based Hybrid Wavelet-ConvLSTM Deep Learning Model to Estimate SOC of EV Batteries," "3rd International Conference on Energy, Power and Environment:Towards Clean Energy Technologies (ICEPE 2020)", NIT Meghalaya, Shillong, India, 05-07th March 2021.
22. Utkarsh Kumar, **Sukumar Mishra** and Sreedhar Madichetty, "An Efficient SPV Power Forecasting using Hybrid Wavelet and Genetic Algorithm based LSTM Deep Learning Model," *2020* 21st National Power Systems Conference (NPSC), Gandhinagar, India, December 17-19, 2020.
23. V. L. Srinivas, B. Singh and **S. Mishra**, "Finite Control-Set Model Predictive Control for Leakage Current Suppression in Grid Interfaced Solar PV System," 2020 IEEE 5th International Conference on Computing Communication and Automation (ICCCA), Greater Noida, India, 2020.

24. M.Vetriselvi, **S. Mishra**, "Investigation of Weather Impact on Electric Load Power Forecasting based on Cascade Forward Neural Network Technique", 5th IEEE International Conference on Computing, Communication and Automation (ICCCA-2020), Aurel Vlaicu University of Arad & Galgotias University, Greater Noida (India), 30th - 31st October, 2020.
25. M.Vetriselvi, **S. Mishra**, "Input Features Selection using Relief Algorithm for Electricity Demand Forecasting", First IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC2020),Visvesvaraya National Institute of Technology, Nagpur, 25th - 26th September, 2020.
26. M.Vetriselvi, **S. Mishra**, " Investigation of Performance of Electric Load Demand Forecasting with New Architecture Realized in Long Short-Term Memory Deep Learning Network", First IEEE International Conference on Smart Technologies for Power, Energy and Control (STPEC2020),Visvesvaraya National Institute of Technology, Nagpur,25th - 26th September, 2020.
27. Arpan Malkhandi, **S. Mishra** and Nilanjan Senroy " LQG based Augmented Control for Stability Enhancement of a Grid Tied Inverter" IEEE PES POWERCON, 14-16 September, 2020.
28. Abhishek Nayak, **S. Mishra**, "Self Tuning Wide Area Damping Control for Distributed Power Systems", IFAC World Congress, Berlin, 12-14 July, 2020.
29. P. Paitandy, S. Prakash and S. Mishra, "Adaptive Control for Voltage Source Converter Connected to Weak Grid Based on Backstepping Method",2020 IEEE 9th Power India International Conference (PIICON), SONEPAT, 28 Feb. - 1st March, 2020.
30. A. Kumar, S. Mishra and G. Srungavarapu, "Virtual Flux based Enhanced Predictive DPC Technique for Grid Connected Converter with Improved Power Quality Performance",2020 IEEE 9th Power India International Conference, (PIICON), SONEPAT, India, 28th Feb. - 1st March, 2020.
31. Arpan Malkhandi, Nilanjan Senroy and **S. Mishra**, "Parametric Dependence of the stability of a current controlled Grid Tied Inverter" 20th International Conference on Intelligent System Application to Power Systems (ICAP-2019), IIT Delhi, India, 11-14 December, 2019.
32. M.Vetriselvi and **S. Mishra**, "Investigation of Influence of Derived Weather Variables using two different Approaches for Modeling Day-Ahead Hourly Electric Load Power Forecasting Framework with Standard Long Short-Term Memory Networks", 8th International Conference on Power Systems (ICPS-2019), Malaviya National Institute of Technology (MNIT), Jaipur, India, held during 20th to 22nd December 2019.

33. R. K. Sharma, **S. Mishra** , “Nonlinear Disturbance Observer Based Control of Three Phase Grid Forming Inverter for Distributed Generation System,” 2019 IEEE International Conference on Computing, Power and Communication Technologies (GUCON), NCR,New Delhi, India, 27-28 September, 2019.
34. Rubi Rana, Subham Sahoo, **S. Mishra** , and JCH Peng, “Performance Validation of Cooperative Secondary Controllers in Autonomous AC Microgrids Under Communication Delays, ” IEEE Power and Energy Society General Meeting, Atlanta, USA, 04-08 August, 2019.
35. Manas Mishra, Surya Prakash, **S. Mishra** ,"A Novel Coordinated Control of PV DG System with Battery ESS and Super Capacitor," 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Genova, Italy, 11-14 June, 2019.
36. Dushyant Sharma, **S. Mishra**, Ayesha Firdaus ,"Computation of Delay Margin in a Power System Having Open Channel Communication Based Automatic Generation Control using Pade´ Approximation," 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Genova, Italy, 11-14 June, 2019.
37. Ayesha Firdaus, **S. Mishra**, Dushyant Sharma, " Stability Enhancement of Inverter Based Autonomous Microgrid using Electric Spring," 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Genova, Italy, 11-14 June, 2019.
38. A. Nayak, **S. Mishra**, J. Hossain and M. S. H. Nizami, "Output Feedback Adaptive Control for Inter-area Oscillation Damping Under Power System Uncertainties," 2019 IEEE International Conference on Environment and Electrical Engineering and 2019 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe), Genova, Italy, 11-14 June, 2019.
39. V. L. Srinivas, B. Singh, and **S. Mishra**, “Predictive Optimal Switching Vector Controller based Microgrid Enabling Switching Frequency Constraint,” 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, 18-21 December 2018.
40. R. K. Sharma, **S. Mishra** and S. R. Mudaliyar, "Nonlinear Disturbance Observer Based Control of Three Phase Grid Forming Inverter for Distributed Generation System," 2018 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Chennai, India, 18-21 December, 2018.
41. D. Das, S. Madichetty, S. Mishra and B. Singh, "Design and Modeling of High gain DC-DC Converter in Mixed Signal Domain Control for PV based Microgrid

Application," 8th IEEE India International Conference on Power Electronics (IICPE), Jaipur, India, 13-15 December 2018.

42. M.Vetriselvi and **S. Mishra**, "Investigation of Weather Influence in Day-Ahead Hourly Electric Load Power Forecasting with New Architecture Realized in MultivariateRegression and Artificial Neural Network Techniques", 8th IEEE India International Conference on Power Electronics (IICPE), Jaipur, India, 13-15 December 2018.
43. M. Vetriselvi, and **S. Mishra** , "Selection of Input Features for Day-Ahead Electric Load Power Forecasting Based on Artificial Neural Network Technique with Novel Framework in Matlab Environment – An Composite Approach," 8th IEEE Power India International Conference (PIICON-2018), Kurukshetra, India, 10-12 December 2018.
44. Santosh Kumari and **S. Mishra**, "Decentralized SoC based Droop with Sliding Mode Current Controller for DC Microgrid," IEEE Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON), Gorakhpur, 2-4 November, India, 2018.
45. V. L. Srinivas, S. Kumar, B. Singh, and **S. Mishra** , "A Normalized Adaptive Filter for Enhanced Optimal Operation of Grid Interfaced PV System", 2nd IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), New Delhi, India, 22-24 October, 2018.
46. M. Vetriselvi, and **S. Mishra** , "Impact of Presence of Calendar Feature in the Performance of Day-Ahead Electric Load Power Forecasting with New Framework Realized in Artificial Neural Network Technique using Matlab Programming", 2nd IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), New Delhi, India, 22-24 October, 2018.
47. V. L. Srinivas, B. Singh, and **S. Mishra** , "Adaptive Generalized Predictive Control Scheme for Single Phase GPV System", 4th IEEE International Conference on Universal Village (UV), Boston, MA, USA, 21-24 October, 2018.
48. Ayesha Firdaus and **S. Mishra**, "Empirical Mode Decomposition based Identification of Low Frequency Modes in Inverter based Microgrid," 2018 IEEE Industry Applications Society Annual Meeting (IAS), Portland, OR, USA, 23-27 September 2018.
49. Abhishek Nayak, **S. Mishra** and S. Mudliyar, "Adaptive wide area damping control for renewable integrated system," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
50. Vaibhav Nougain, Vibhuti Nougain, and **S.Mishra** ,"Low-Voltage DC Ring-Bus Microgrid Protection with Rolling Mean Technique," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.

51. Dushyant Sharma and **S. Mishra**, "Impacts of system non-linearities on communication delay margin for power systems having open channel communication based automatic generation control," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
52. Ayesha Firdaus, **S.Mishra**, “A double derivative based droop controller for improved power sharing in inverter based autonomous microgrid” 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
53. Rishi. K. Sharma, S. Mudaliyar and **S. Mishra**, "Decentralized power management and load sharing for parallel operation of diesel generator and PV-battery based autonomous AC microgrid," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
54. Rishi. K. Sharma, S. Mudaliyar and **S. Mishra**, "Power management and economic load dispatch based control of hybrid PV-battery-diesel standalone AC system," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
55. Rishi. K. Sharma, **S. Mishra** and S. Mudliyar, "Robust state feedback current controller with harmonic compensation for single stage grid connected PV inverter with LCL filter," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
56. Shatakshi, B. Singh and **S. Mishra**, "Dual mode operational control of single stage PV-battery based microgrid," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
57. S. Madichetty, B. Duggal, A. Borgaonkar and **S. Mishra**, "Modeling and design of solid state smart transformer for microgrid”, 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
58. J. K. Motwani, S. Madichetty, B. Duggal and **S. Mishra**, "Intelligent control scheme for SPV-wind-BESS based microgrid”, 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
59. Rubi Rana, Shayari Bhattacharjee and **S. Mishra**, " A Consensus based Solution to the Classic Economic Dispatch Problem on a Multi-Agent System Framework," 2018 IEEMA Engineer Infinite Conference (eTechNxT), New Delhi, 13-14 March 2018.
60. S. R. Mudaliyar, **S. Mishra** and R. K. Sharma, "Tertiary load voltage control in an interconnected DC microgrid with energy hub," 2017 7th International Conference on Power Systems (ICPS), Pune, December, 2017.
61. D. Pullaguram, S. R. Mudaliyar, **S. Mishra** and N. Senroy, "Isolated PV battery management system to power home appliances," 2017 7th International Conference on Power Systems (ICPS), Pune, December, 2017.

62. Dushyant Sharma, **S. Mishra** and Ayesha Firdaus, " Multi Objective Gain Tuning Approach for Time Delayed Automatic Generation Control", IEEE TENCON, Malaysia, 5-8 November, 2017.
63. Ayesha Firdaus, **S. Mishra** and D. Sharma, "Quadratic Regulator Based Optimal State Feedback Controller for Stability Improvement of Inverter Based Microgrids", IEEE TENCON, Malaysia, 5-8 November, 2017.
64. Ayesha Firdaus, **S. Mishra** and C.N. Bhende, "Modelling a Droop Controlled Multi PV Inverter System to Study Effects of System Parameters on Oscillatory Modes", IEEE ACEPT, Singapore, 24-26 October, 2017.
65. S. R. Mudaliyar, **S. Mishra** and R. K. Sharma, "Load following capability of fuel cell-microturbine based hybrid energy system for microgrid operation," 2017 6th International Conference on Computer Applications In Electrical Engineering-Recent Advances (CERA), Roorkee, 2017.
66. V. L. Srinivas, S. Kumar, B. Singh and **S. Mishra**, "RLMMN adaptive filtering based control scheme for multi-objective GPV system," 6th International Conference on Computer Applications In Electrical Engineering-Recent Advances (CERA), pp. 556-561, Roorkee, 2017.
67. Subham Sahoo, Chenghua Zhang, Deepak Reddy Pullaguram, **S. Mishra**, Jianzhong Wu and Nilanjan Senroy, "Investigation of Distributed Cooperative Control for DCMicrogrids in Different Communication Medium", 9th International Conference on Applied Energy, Cardiff, August 21-24, 2017.
68. Subham Sahoo, Deepak Reddy Pullaguram, **S. Mishra**, Nilanjan Senroy, "An Adaptive Droop Based Cooperative Control Framework in DC Microgrids", 2017 IEEE PES General Meeting, Chicago, July 16-20, 2017.
69. Deepak Pullaguram, Somesh Bhattacharya, **S. Mishra** , Nilanjan Senroy, "A Fuzzy Assisted Enhanced Control for Utility Connected Rooftop PV", IFAC World Congress, Toulouse, France, July 9-14, 2017.
70. Subham Sahoo and **S. Mishra**, "A Systematic V2G Control Scheme Assisted by Negative Feedforward DC Voltage Stabilization for Frequency Response", IFAC World Congress, Toulouse, France, July 9-14, 2017.
71. Shatakshi, Ikhlaq, B. Singh and **S. Mishra**, "A synchronous generator based diesel-PV hybric micro-grid with power quality controller," IEEE 26th International Symposium on Industrial Electronics (ISIE), pp. 952-956, Edinburgh, United Kingdom, 2017.
72. Anuradha Tomar, Dushyant Sharma, **S. Mishra**, "An Active Power Management Strategy in a Microgrid having Static and Rotating Generator Considering Generation Limits using Water Pumping Loads", IEEE Conference Comptelix-2017, July 2017.

73. S. R. Mudaliyar, **S. Mishra** and R. K. Sharma, "Coordinated controller design and stability analysis of DC microgrid with constant power load," 2017 IEEE Second International Conference on DC Microgrids (ICDCM), Nuremburg, 2017.
74. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Real Time Implementation of MAD Technique for Single-Phase SPV Grid Interfaced System," 2016 19th National Power Systems Conference, Bhubaneswar, India, December 19-21, 2016.
75. Subham Sahoo, **S. Mishra**, "Dynamic performance of dq0-frame deadbeat controller for VSC based HVDC system", 2016 19th National Power Systems Conference, Bhubaneswar, India, December 19-21, 2016.
76. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Grid Integration of Single-Phase Single-Stage SPV System using An Active Noise Isolation Based Control Algorithm," 2016 IEEE International Conference on Power Electronics, Drives and Energy system, (PEDES 2016), Trivandrum, India, Dec. 14-17, 2016.
77. Zarina.P.P and **S. Mishra**, "Cost Benefit of Using Deloaded PV Instead of Battery", 2016 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), Trivandrum, Kerala, India, December, 14-17, 2016.
78. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Real Time Implementation of EPLL with Generalized Filtering in Single Phase Grid Interfaced SPV System," 2016 3rd IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics 2016 (UPICON-2016), Varanasi, India, Dec. 9-11, 2016.
79. Subham Sahoo, Deepak Reddy Pullaguram, **S. Mishra**, "A Consensus Priority Algorithm Based V2G Charging Framework for Frequency Response", 2016 IEEE 7th Power IndiaInternational Conference (PIICON-2016), Bikaner, Rajasthan, India, November 25-27, 2016.
80. Subham Sahoo, Surya Prakash, Sukumar Mishra, Narayana Prasad Padhy, "A Non-Linear Adaptive Control Strategy for Grid Connected DC Microgrid", 2016 IEEE 7th Power India International Conference (PIICON-2016), Bikaner, Rajasthan, India, November 25-27, 2016.
81. Anuradha Tomar, **S. Mishra**, "Techno-Economical Analysis for PV based Water Pumping System under Partial Shading/Mismatching Phenomena" 2016, IEEE 7th POWER INDIA International Conference (PIICON-2016), Govt. Engineering College Bikaner, India, November 25-27, 2016.
82. Anuradha Tomar, **S. Mishra**, "Modified MISO DC-DC Converter Based PV Water Pumping System" 2016, IEEE 7th POWER INDIA International Conference (PIICON-2016), Govt. Engineering College Bikaner, India, November 25-27, 2016.

83. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Real Time Implementation of Sign-Sign LMS Algorithm in Single Phase SPV Grid Tied System," 2016 IEEE 7th Power India International Conference (PIICON-2016), Bikaner, Rajasthan, India, Nov. 25-27, 2016.
84. Hasmat Malik, **S. Mishra**, "Application of Fuzzy Q Learning (FQL) Approach to Wind Turbine Imbalance Fault Identification Using Generator Current Signals" 2016 IEEE 7th Power India International Conference (PIICON-2016), Govt. Engineering College Bikaner, India, November 25-27, 2016.
85. Dushyant Sharma, **S. Mishra** and J. Nanda, "Micro-grid operation and control of Photo-Voltaic power with canal based small hydro power plant", 2016 IEEE Region 10 Conference (TENCON), Singapore, November, 22-25, 2016.
86. Subham Sahoo, Shatakshi, **S. Mishra** and Bhim Singh, "Fuzzy Logic Based Control of Power Converter System in Autonomous DC Microgrid", 2016 IEEE 7th India International Conference on Power Electronics (IICPE-2016) , Patiala, Punjab, India, November 17-19, 2016.
87. Somesh Bhattacharya, **S. Mishra** and Praveen Nirujogi, "On Enhancing the Inertial Capabilities of Static Sources in Realm of Distribution Network," 2016 IEEE 7th India International Conference on Power Electronics (IICPE-2016) , Thapar University, Patiala, Punjab, India, November 17-19, 2016.
88. **S. Mishra**, Dushyant Sharma and Deepak Pullaguram, "Lyapunov based frequency independent current controller for grid connected single phase PV systems" 2016 IEEE 7th India International Conference on Power Electronics (IICPE 2016), Thapar University, Patiala, India, November 17-19, 2016.
89. Yashi Singh, Ikhlaq Hussain, Bhim Singh and **S. Mishra**, "Improved Adaptive Detection Based Control of Grid Integrating Solar Energy System," 2016 IEEE 7th India International Conference on Power Electronics (IICPE-2016) , Patiala, Punjab, India, Nov. 17-19, 2016.
90. Anuradha Tomar, **S. Mishra**, Chandrashekhar N. Bhende, "Improving the performance of PV based water pumping system for fluctuations in irradiance", 2016 7th IEEE IndiaInternational Conference on Power Electronics, (IICPE-2016), Patiala, Punjab, India, 17-19 Nov. 2016.
91. Hasmat Malik and **S. Mishra**, "Application of Gene Expression Programming (GEP) to Investigate the Health Condition of Direct-Drive Wind Turbine Using FAST and TurbSim" 2016 IEEE 7th India International Conference on Power Electronics (IICPE 2016) , Thapar University, Patiala, India, November 17-19, 2016.

92. Subham Sahoo, **S. Mishra** and N. P. Padhy, "A decentralized adaptive droop based power management scheme in autonomous DC microgrid", 2016 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC), Xi'an, China, October, 25-28, 2016.
93. Surya Prakash, **S. Mishra** and N. P. Padhy, "Coordinated control of a grid connected DC micro-grid with multiple renewable sources", 2016 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC), Xi'an, China, October, 25-28, 2016.
94. Dushyant Sharma, Ranjan K. Mallik, **S. Mishra**, Ankit Dubey, and Vishruti Ranjan "Voltage control of a DC microgrid with double-input converter in a multi-PV scenario using PLC", IEEE PES General Meeting, Boston MA, USA, July 17-21, 2016.
95. Anuradha Tomar, **S. Mishra**, "Multi-Input Single-Output DC-DC Converter based PV Water Pumping System", 1st IEEE International conference on Power Electronics, Control and Energy Systems, July 4-6, 2016.
96. Zarina.P.P and **S. Mishra**, "Power oscillation reduction contribution by PV in deloaded mode", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
97. S. R. Mudaliyar and **S. Mishra**, "Dynamic stability analysis of off-shore SC-OTEC plant in a multi-machine power system", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
98. Somesh Bhattacharya and **S. Mishra**, "Coordinated Decentralized Control for PV-EV based Grid connected Microgrids", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
99. Subham Sahoo, Surya Prakash and **S. Mishra**, "Investigation of voltage template based control of a grid connected DC microgrid under different grid conditions", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
100. Deepak Pullaguram, Monish Mukherjee, **S. Mishra** and Nilanjan Senroy, "Non-Linear Fractional Order Controllers for Autonomous Microgrid System", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
101. Sathiyanarayanan T. and **S. Mishra**, "Model Predictive Control of multi functional inverter for grid tied photovoltaic generators", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.
102. **S. Mishra** and Rishi Kant Sharma, "Dynamic Power Management of PV based Islanded Microgrid using Hybrid Energy Storage", 2016 IEEE 6th International Conference on Power Systems (ICPS), New Delhi, India, March, 4-6, 2016.

103. Rishi Kant Sharma, **S. Mishra** and Prachi Barsaiyan, "Dynamic Response of Nonlinear Electrical Analogue Hydroelectric Turbine Model", 2015 Annual IEEE India International Conference (INDICON), New Delhi, India, December, 17-20, 2015.

104. Warisha Meraj and **S. Mishra**, "An Approach to Increase Power in Partial Shading Condition by Reconfiguration", 2015 Annual IEEE India International Conference (INDICON), New Delhi, India, December, 17-20, 2015.

105. **S. Mishra**, Rishi Sharma and Dushyant Sharma, "Coordinated active power control of Wind, Solar and Diesel Generator in a Microgrid", 9th IFAC Symposium on Control of Power and Energy Systems (CPES) - 2015, New Delhi, India, December 9-11, 2015.

106. **S. Mishra**, Subham Sahoo and Deepak Reddy Pullaguram, "A Systematic State of Charge based V2G Charging Framework for Frequency Response", 9th IFAC Symposium on Control of Power and Energy Systems (CPES) - 2015, New Delhi, India, December 9-11, 2015.

107. **S. Mishra** and T. Sathiyanarayanan, "Improving the Frequency response of a Microgrid using an Auxiliary Signal in the AGC Loop", 9th IFAC Symposium on Control of Power and Energy Systems (CPES) - 2015, New Delhi, India, December 9-11, 2015.

108. **S. Mishra** and Vivek Kumar Singh, "Monthly Energy Consumption Forecasting Based On Windowed Momentum Neural Network", 9th IFAC Symposium on Control of Power
and Energy Systems (CPES)-2015, New Delhi, India, December
9-11, 2015.

109. Stuti Shukla, **S. Mishra** and Bhim Singh, "Implementation of empirical mode decomposition based algorithm for shunt active filter", 2015 Industrial and Commercial Power Systems / Petroleum and Chemical Industry Conference (ICPSPCIC), Hyderabad, India, November 19-21, 2015.

110. Sameer Rokade, B. Bandyopadhyay, Vivek Agarwal and **S. Mishra**,"Control of Single-Stage Grid-Connected Three-Phase Solar Photovoltaic System Using Sliding Mode Control",41st Annual Conference of the IEEE Industrial Electronics Society(IECON) 2015, Yokohama, Japan,November 9-12, 2015.

111. Jincy Philip, Chinmay Jain, Krishan Kant, B. Singh, **S. Mishra**, Ambrish Chandra and Kamal Al- Haddad, "Control and Implementation of a Standalone Solar Photo-Voltaic
Hybrid System", Proc. of IEEE Industry Applications Society Annual Meetings, Addison, TX, Denver, CO, October 18-22, 2015.

112. **S. Mishra**, Subham Sahoo and Aakanksha Dugar, "Hybrid MVMO based Controller for Energy Management in a Grid Connected DC Microgrid", IEEE Power, Communication
and Information Technology Conference (PCITC) - 2015, Bhubaneswar, India, October 15-17, 2015.

113. Jincy Philip, Krishan Kant, Chinmay Jain, B. Singh and **S. Mishra**, "A simplified configuration and implementation of a standalone microgrid", IEEE PES General Meeting, Denver, CO, USA, July 26-30, 2015.

114. Sudipta Ghosh, N. Senroy, **S. Mishra** and Sukumar Kamalasadan, "Fast power system stabilizer tuning in large power systems", IEEE PES General Meeting, Denver, CO, USA, July 26-30, 2015.

115. Ankit Dubey, Dushyant Sharma, Ranjan K. Mallik and **S. Mishra**, "Modeling and performance analysis of a PLC system in presence of impulsive noise", IEEE PES General Meeting, Denver, CO, USA, July 26-30, 2015.

116. Hasmat Malik and **S. Mishra**, "Feature selection using RapidMiner and classification through probabilistic neural network for fault diagnostics of power transformer", 2014 Annual IEEE India International Conference (INDICON), Pune, India, December, 2014.

117. Anamika Sinha, Somesh Bhattacharya and **S. Mishra**, "Phase angle restoration in PV-battery based microgrid including power sharing control", IEEE International Conference
on Power Electronics, Drives and Energy Systems (PEDES), 2014, Mumbai, India, December, 2014.

118. Jincy Philip, Bhim Singh and **S. Mishra**, "Performance evaluation of an isolated system using PMSG based DG set, SPV array and BESS", IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES), 2014, Mumbai, India, December, 2014.

119. Jincy Philip, B. Singh and **S. Mishra**, "Analysis and control of an isolated SPV-DG-BESS hybrid system", Proc. of 6th IEEE India Int. Conf. on Power Electronics (IICPE), Kurukshetra, December 8-10, 2014.

120. Priya Nayar, Bhim Singh, **S. Mishra**,"Neural Network Based Enhancement of Power Quality in Distribution System", Proc. of 6th IEEE India Int. Conf. on Power Electronics (IICPE), Kurukshetra, India, December, 8-10,2014.

121. Jincy Philip, B. Singh and **S. Mishra**, "Design and operation for a standalone DG-SPV-BES microgrid system", Proc. of 6th IEEE Power India Int. Conf. (PIICON), Delhi, December 5-7, 2014.

122. Hasmat Malik and **S. Mishra**, "Application of gene expression programming (GEP) in power transformers fault diagnosis using DGA", Proc. of 6th IEEE Power India Int. Conf. (PIICON), Delhi, December 5-7, 2014.

123. Somesh Bhattacharya and **S. Mishra**, "Stability enhancement of droop controlled PV based Microgrid with frequency dependent load", IEEE North American Power Symposium (NAPS), September 2014.

124. **S. Mishra** and B. Srikanta Achary, "A Novel Controller For a Grid Connected Single Phase PV System and Its Real Time Implementation", IEEE PES General Meeting, National Harbor, MD (Washington, DC Metro Area), USA, July 27-31, 2014.

125. K Mahesh Dash, Subham Sahoo and **S. Mishra**, "A detailed analysis of optimized load frequency controller for static and dynamic load variation in an AC microgrid", IEEE International Conference on Conditional Assessment Techniques(CATCON) 2013, Kolkata, India, December 6-8, 2013, pp. 17-22.

126. K Mahesh Dash, SubhamSahoo and **S. Mishra**, "An optimised design of controller for UPFC to improve the transient stability performance in power system", IEEE International Conference on Conditional Assessment Techniques(CATCON) 2013, Kolkata, India, December 6-8, 2013, pp. 82-87.

127. Shashank Agrawal, P. C. Sekhar and **S. Mishra**, "Control of Single-Phase Grid Connected PV Power Plant for Real as well as Reactive Power Feeding", IEEE Multi-Conference on Systems and Control (MSC 2013), Hyderabad, India, August 28-30, 2013.

128. **S. Mishra**, Zarina P.P. and P. C. Sekhar, "A Novel Controller for Frequency Regulation in a Hybrid System with High PV Penetration", IEEE PES General Meeting, Vancouver, Canada, July 21-25, 2013.

129. **S. Mishra** and D. Ramasubramanian, "IEEE Phillips-Heffron Model for a PV-DG Grid Connected System", IEEE PES General Meeting, Vancouver, Canada, July 21-25, 2013.

130. **S. Mishra**, P. C. Sekhar, T. Mahesh and Manoj Lonkar, "Fuzzy Controlled Smart Park for Frequency Regulation with Improved LVRT Capability in a Microgrid", Seventeenth

International Conference on Intelligent System Applications to Power Systems-ISAP2013, Tokyo, Japan, July 1-4, 2013.

131. P. P. Zarina, **S. Mishra** and P. C. Sekhar, "Deriving Inertial Response from a Non-Inertial PV System for Frequency Regulation", 2012 IEEE International Conference on Power Electronics, Drives and Energy Systems, (PEDES), 16-19 Dec. 2012.

132. P. P. Zarina, **S. Mishra** and P. C. Sekhar, "Photovoltaic system based transient mitigation and frequency regulation", 2012 Annual IEEE India Conference (INDICON), pp.1245,1249, 7-9 Dec. 2012.

133. **S. Mishra** and P. C. Sekhar, "Frequency Based Power Order Control for A Fuel Cell Power Plant", Conference on Cases & Research in Power Sector, NTPC Limited, Power Management Institute, Noida, India, November 22-23, 2012.

134. G. Mallesham, **S. Mishra** and A. N. Jha, "Automatic generation control of microgrid using artificial intelligence techniques", IEEE PES General Meeting, San Diego, USA, July 22-26, 2012.

135. **S. Mishra** and P. C. Sekhar, "TS fuzzy based adaptive perturb algorithm for MPPT of a grid connected single stage three phase VSC interfaced PV generating system", IEEE PES General Meeting, San Diego, USA, July 22-26, 2012.

136. G. Mallesham, **S. Mishra** and A. N. Jha, "Ziegler-Nichols based Controller Parameters Tuning for Load Frequency Control in a Microgrid", International Conference on Energy, Automation and Signal, Bhubaneswar, Orissa, India, Dec 28-30, 2011.

137. Siva Ganesh Malla, C. N. Bhende and **S. Mishra**, "Photovoltaic based water pumping system", International Conference on Energy, Automation and Signal, Bhubaneswar, Orissa, India, Dec 28-30, 2011.

138. Anuj Sharma, **S. Mishra** and Ganapati Panda, "Wind Power Forecasting Model using Complex Wavelet Theory", International Conference on Energy, Automation and Signal, Bhubaneswar, Orissa, India, Dec 28-30, 2011.

139. **S. Mishra** and P. C. Sekhar, "Sliding mode based feedback linerizing controller for a PV system to improve the performance under grid frequency variation", International Conference on Energy, Automation and Signal, Bhubaneswar, Orissa, India, Dec 28-30, 2011.

140. M. Manjula, **S. Mishra** and A.V.R.S. Sarma, "Empirical mode decomposition based probabilistic neural network for faults classification", International Conference on Power and Energy Systems, Hyderabad, India, Dec 22-24, 2011.

141. Aseem Sayal, P. C. Sekhar and **S. Mishra**, "A Review on Maximum Power Point Tracking Techniques for Photovoltaic Power Generating Systems", National ElectricalEngineering Conference (NEEC-2011) on Power & Energy Systems for Tomorrow, New Delhi, India, Dec 16-17, 2011.

142. **S. Mishra** and P. C. Sekhar, "Hand Shaking of PI and Feedback Linearized Controllers for Smart Handling of Load Transient in a Fuel Cell Based Captive Power Plant", Conference on Cases & Research in Power Sector, NTPC Limited, Power Management Institute, Noida, India, September 22-23, 2011.

143. **S. Mishra**, Y. Mishra and S. Vigness, "Security Constrained Economic Dispatch Considering Wind Energy Conversion Systems", IEEE PES General Meeting, Detroit, Michigan, USA, July 26 - 29, 2011.

144. J. Nanda, **S. Mishra**, P. G. Mishra and K. V. Sajith, "A novel classical controller for automatic generation control in thermal and hydrothermal systems", Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference on , India, Dec 20-23, 2010.

145. K. Palanisamy, **S. Mishra**, I. J. Raglend and D. P. Kothari, "Instantaneous power theory based Unified Power Quality Conditioner (UPQC)", Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference on, India, Dec 20-23, 2010.

146. P. C. Sekhar, **S. Mishra** and M. H. Naeem, "A novel control scheme to improve the transient response of fuel cell", Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference on , India, Dec 20-23, 2010.

147. S. Shukla, **S. Mishra** and B. Singh, "TS fuzzy based intelligent control of a three phase shunt filter under balanced and unbalanced conditions", Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference on , India, Dec 20-23, 2010.

148. S. S. Murthy, **S. Mishra**, G. Mallesham and P. C. Sekhar, "Voltage and Frequency control of wind diesel hybrid system with variable speed wind turbine", Power Electronics, Drives and Energy Systems (PEDES) & 2010 Power India, 2010 Joint International Conference on , India, Dec 20-23, 2010.

149. P. C. Sekhar and **S. Mishra**, "Design of a Feedback Linearized Control Scheme for VSC Based Grid Connected Distributed Generation Source", National Conference on Electrical Power and Energy Systems, NCEPES, Bhubaneswar, India, October 1-3, 2010.

150. Y. Mishra, **S. Mishra**, Fangxing Li and Z. Y. Dong, "Small Signal Stability Analysis of a DFIG Based Wind Power System With Tuned Damping Controller Under Super/Sub-Synchronous Mode of Operation", IEEE PES General Meeting, Calgary, July 26-30, 2009.

151. G. Mallesham, **S. Mishra** and A. N. Jha, "Maiden Application of Ziegler-Nichols Method to AGC of Distributed Generation System", IEEE PSCE 2009, Seattle, March 15-19, 2009.

152. Chandrashekhar Bhende, and **S. Mishra**, "An Integrated Approach of Wavelet-Rough Set Technique for Classification of Power Quality Disturbances", Proc. IEEE ICHQP(2) 2008, Wollongong, Australia, Paper 1042, September 28 - October 1, 2008.

153. B. Santosh Kumar, **S. Mishra** and N. Senroy, "AGC for Distributed Generation", IEEE ICSET, Singapore, Nov 24-27, 2008.

154. B. Santosh Kumar, **S. Mishra**, C. N. Bhende and M. S. Chauhan, "PI Controller Based Frequency Regulator for Distributed Generation", IEEE Tencon-2008, Hydrabad, India, Nov 18-21, 2008.

155. B. Sumanbabu, **S. Mishra**, B. K. Panigrahi, and G. K. Venayagamoorthy, "Robust Tuning of Modern Power System Stabilizers Using Bacterial Foraging Algorithm", IEEE CEC-2007, Singapore, pp. 2317-2324.

156. **S. Mishra**, G. Dilip Reddy, P. Eswar Rao and K. Santosh, "Implementation of New Evolutionary Techniques for Transmission Loss Reduction", IEEE CEC-2007, Singapore, PP 2317-2324.

157. Tripathy, M., and **S. Mishra**. "Optimizing voltage stability limit and real power loss in a large power system using bacteria foraging." In Power Electronics, Drives and Energy Systems, 2006. PEDES'06. International Conference on, pp. 1-6. IEEE, 2006.

158. M. Tripathy, **S. Mishra**, L. L. Lai and Q. P. Zhang, "Transmission Loss Reduction based on FACTS and Bacteria Foraging Algorithm", 9th international conference on parallel problem solving from nature, Sep-9-13, 2006 at Iceland, UK.

159. C. N. Bhende, **S. Mishra** and L. L. Lai, "Optimization of a Distribution Static Compensator by Bacterial Foraging Technique", ICMLC 2006, Aug 13-16, 2006 at Dalian, China.

160. M. Tripathy, **S. Mishra** and G. K. Veenayagamurthy, "Bacteria Foraging: A New Tool for Simultaneous Robust Design of UPFC Controllers", IEEE WCCI-2006, July 16-21, 2006 at Vancouver, BC Canada.

161. **S. Mishra**, B. K. Panigrahi, and M. Tripathy, "A Hybrid Adaptive-Bacterial-Foraging and Feedback Linearization Scheme based D-STATCOM", IEEE power engineering society Conference at Singapore 21-24 Nov, 2004.

162. **S. Mishra**, P. K. Hota, and M. Tripathy, "An Intelligent IPFC for enhancing damping of multi-modal oscillations in power system", Published in the proceedings of 12th National Power System Conference (NPSC–2002), IIT Kharagpur, India, pp. 140-144.

163. **S. Mishra**, P. K. Hota, and R. Mallick, "Design of a Soft Computing based UPFC for improving Transient Stability Performance", Published in the proceedings of International Conference on Energy, Automation and Information Technology (EAIT-2001), I.I.T., Kharagpur, December 10-12, 2001, pp.137-141.

164. B. K. Panigrahi, **S. Mishra**, P. K. Dash and P. K. Hota, "Enhancement of Power System Performance using STATCOM", Published in the proceedings of IEEE ACE-2001: 27th

Annual Convention and Exhibition of IEEE India Council, New Delhi, November 2-3, 2001, pp.113-119.

165. **S. Mishra**, P. K. Hota, K. Vijaya Kumar and B. K. Panigrahi, "A Hybrid ANN Controller for UPFC", Published in the proceedings of IEEE ACE-2001: 27th Annual Convention and Exhibition of IEEE India Council, New Delhi, November 2-3, 2001, pp.107-112.
166. P. K. Dash, **S. Mishra**, G. Panda and B. K. Panigrahi, "Design of an ANN based UPFC improving transient stability performance", Published in the proceedings of 11th National Power System Conference (NPSC–2000), IISC Bangalore, India, pp. 323-328.
167. P. K. Dash, **S. Mishra**, S. Dash and A. C. liew, "Genetic optimization of a self organizing fuzzy-neural network for load forecasting", Published in the proceedings of winter meeting 2000 of IEEE power engineering society.
168. D. P. Patra and **S. Mishra**, "Prediction of self and forced oscillation in exciter control system: Evaluation by Simulink and Neural Model", Published in the proceedings of 10th National Power System Conference (NPSC–1998), VADODARA, India, oct 14-16 1998.