Curriculum Vitae

1. Name Sukumar Mishra

2. Nationality Indian

3. Present Position & Official Address

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 Delhi, India	Professor	27.12.12	Continuing
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, JyotiVihar, Burla, Orissa, India	Lecturer	11.06.92	20.08.01

5. Technical Research Area of Interest

- Smart Grid
- Grid integration of Renewable Energy Sources
- FACTS based controller to improve angle and voltage stability of power system
- Power quality analysis and mitigation
- Intelligent control, modelling and optimization of power systems
- Optimal controller for AGC of a power system
- Power system stability and control
- Vehicle-to-Grid (V2G) and Grid-to-Vehicle (G2V)
- MPPT for PV and wind energy conversion system
- Putting inertial response into renewable energy system
- Voltage and frequency control of Microgrid having both inverter and rotating machine based sources.
- Stability of inverter based system

6.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

7. Academic Recognitions received

Sl No.	Award/ Recognition	Organisation	**Year**
1.	**Samanta Chandra Shekhar Award**	Odisha Bigyan Academy	**2016**
2.	**Fellow**	National Academy of Sciences India. **(FNASc)**	**2014**
3.	**Outstanding Chapter Engineer Award**	PES-IAS Delhi Chapter	**2012**
4.	**Silver Jubilee Young Engineer Award**	Indian National Academy of Engineering, New Delhi. **(INAE)**	**2012**
5.	**Fellow**	Indian National Academy of Engineering, New Delhi. **(INAE)**	**2009**
6.	**Young Engineers Award**	IEEE-Delhi Section	**2005**
7.	**INSA-Royal Society exchange programme.**	Indian National Science Academy, New Delhi. (**INSA**) and **Royal Society of London**, UK	**2005**
8.	**Career Award for Young Teachers**	All India Council for Technical Education**(AICTE)**	**2004**
9.	**Young Engineer Award**	Indian National Academy of Engineering, New Delhi. **(INAE)**	**2002**
10.	**INSA Medal for Young Scientist**	Indian National Science Academy, New Delhi. (**INSA**)	**2002**
11.	**Young Scientist Award**	Orissa Bigyan Academy**.**	**1999**

8. Industrial Recognitions received

Sl No.	Recognition	Organisation	Year
1.	Independent Director	River Engineering Pvt. Ltd.	2017
2.	Independent Director	Cross Border Power Transmission Company Ltd.	2015
3.	Chair Professor	NTPC	2015-2020
4.	Chair Professor	Power Grid Corporation of India Limited	2010-2015
5.	Industry Academic	Indian National Academy of Engineering, New	2012-2013 and

	Distinguished Professor	Delhi. (INAE)	2013-2014
6.	Invited Speaker	Power Mangement Institute, NTPC, Noida	2005- Continuing

9. Professional Recognitions received

Sl No.	Recognition	Organisation	Year
1.	**Fellow**	The Institution of Engineers, India (FIE)	2016
2.	**Fellow**	Institution of Engineering and Technology, London, UK (FIET)	2011
3.	**Fellow**	Institute of Electronics and Telecommunication Engineers (FIETE)	2006
4.	**Editor**	IEEE Transactions on Smart Grid	2016
5.	**Associate Editor**	IET-Generation, Transmission and Distribution	2015
6.	**Senior Member**	Institution of Electrical and Electronics Engineers, USA (SMIEEE)	2004
7.	**Star Alumni Award**	National Institute of Technology Rourkela	2015

10. 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 Authorit India	3.74 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	JaypeeInfratech	0.050 million

	Town' Jaypee Greens, Noida	Ltd, (Jaypee Group)	
11.	Analysis and Checking of Estimatefor Electrification Works of Central Park at Sector-95, Noida	U.P. RajkiyaNirman 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

11. Sponsered Projects Handled

S.No.	Title	Cost (INR)	Duration	Agency
1.	Zero Peak Energy Building Design for India (ZED-i)	5.33 million	3-years	DST
2.	Identification and Demonstration of Cost effective Technologies to Maximize habitat Energy self-sufficiency	12.42 million	3-years	DST
3.	UK India Clean Energy Research Institute (UKICERI)	8.53 million	4-years	DST (UK)
4.	e-PV Diesel Generator	9.75 million	2-years	UAY of Govt. of India
5.	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	16.91744 million	3-years	DST
6.	Photovoltaic (PV) based grid-interactivc and off-grid electricity system	3.4068 million	3-years	International Devision of DST
7.	Integration and Intelligent Management of Renewables Via ICT For Smart Microgrid Networks	11.836 million	3.5-years	SERI-DST
8.	High Energy and Power Density (HEAPD) Solutions to Large Energy Deficits	39.53 million	3-years	DST-EPSRC
9.	Design and Development of Robust Controller for Seamless Operation of Microgrid	5.4994 million	3-years	DST
10.	Voltage and Frequency Control of Microgrid	3.932 million	3-years	DST
11.	Coordinated control of PSS and TCSC /STATCOM	2.39 million	3.5-years	DST
12.	Developing Intelligent Techniques for Power Quality Improvement	0.716 million	3-years	DST
13.	Optimal Placing of FACTS Devices to reduce inter-area Oscillation	0.15 million	3-years	INSA
14.	Loss Minimisation	1.05 million	3-years	AICTE

12. Patents Filed:

1. **Sukumar Mishra** and Shivraman Mudaliyar, " A Loop Power Flow Controller for DC Distribution Networks," Indian Patent Application No. 201711041558, filed on November 20, 2017.
2. **Sukumar Mishra** and Anuradha Tomar, "Co-operative Movement for Photovoltaic Irrigation (CMPVI) based Irrigation System", Indian Patent Application No. 201711032656, filed on September 14, 2017.
3. **Sukumar Mishra** and Surya Prakash,"A Power Distribution System For Supply Of Uninterrupted Power," Indian Provisional Patent Application No. 201711027018, filed on July 29, 2017.
4. **Sukumar Mishra**, Subham Sahoo and Surya Prakash, "Smart Power Management in DC Home," Indian Provisional Patent Application No. 201611030904, filed on March 9, 2017.
5. **Sukumar Mishra**, Ranjan K Mallik, Subham Sahoo and Surya Prakash, "A GridInterfaced Smart Charging Station," Indian Provisional Patent Application No.201611013453, filed on March 7, 2017.
6. **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, filed on February 17, 2017.
7. **Sukumar Mishra**, Deepak Pullaguram and Dhiman Das, "Low Disruption Current Estimated Boost Converter For PV Maximum Power Extraction," Indian Provisional Patent Application No. 201611044660, filed on December 28, 2016.
8. **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, filed on November 18, 2016.

13. List of significant book chapters/ papers

Book Chapters:-

1. **S. Mishra** and Dushyant Sharma, "Control of Photovoltaic Technology", Chapter 19 of Electric Renewable Energy Systems, Academic Press publications, 2016.

2. **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].
3. 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].
4. **S. Mishra**, Y. Mishra, Fangxing Li, Z.Y. Dong, “Application of TS-Fuzzy Controller for Active Powerand 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].
5. 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 2018

---

1. Ram Krishan, Ashu Verma, **S.Mishra** ," Loadability analysis of DC distribution systems," **International Journal of Electrical Power & Energy Systems**, Volume 103, December 2018, Pages 176-184.
2. Ram Krishan, Ashu Verma, and S.Mishra, " A Novel PV Inverter Control for Maximization of Wind Power Penetration" **accepted for publication in IEEE Transactions on Industrial Application**.
3. Rubi Rana and **S. Mishra**,"Day Ahead Scheduling of Electric Vehicles for Overloading Management in Active Distribution System via Web Based Application", **accepted for publication in IEEE Systems Journal.**
4. Rubi Rana, Surya Prakash and **S. Mishra**, "Energy Management of Electric Vehicle integrated Home in a Time-Of-Day Regime", **accepted for publication in IEEE Transactions on Transportation Electrification.**
5. 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", **accepted for publication in Applied Energy .**

6. Anuradha Tomar and **S. Mishra**, " AOMH-MISO based PV-VCI Irrigation System Using ASCIM Pump", accepted for publication in **IEEE Transactions on Industry Applications.**
7. 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", accepted for publication in **IEEE Transactions on Industrial Electronics .**
8. D. Pullaguram, **S. Mishra**, and N. Senroy, "Event-Triggered Communication Based Distributed Control Scheme for DC Microgrid", **accepted for publication in IEEE Transaction of Power system.**
9. 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, pp. 1961-1969, May 2018.
10. Vedantham 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, pp. 1153-1163, March 2018.
11. 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, pp. 279-291, February 2018.
12. Srinivas Vedantham, 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, pp. 1347-1357, February 2018.
13. Deepak Pullaguram, **S. Mishra** , Nilanjan Senroy, Monish Mukherjee, "Design and Tuning of Robust Fractional Order Controller for Autonomous Microgrid VSC System", **IEEE Transactions on Industry Applications,** vol. 54, no. 1, pp. 91-101, January/February 2018.
14. 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, pp. 82-90, January/February 2018.

15. 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, pp. 526-538, January/February 2018.
16. Srinivas Vedantham, 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, pp. 311-320, January 2018.

Year 2017

---

17. Ram Krishan, Ashu Verma and **S. Mishra**, "Design of Multi-Machine Power System Stabilizers with Forecast Uncertainties in Load/Generation", **accepted for publication in IETE Journal of Research** .
18. Sreedhar Madichetty and **S. Mishra**, "High Voltage Repetitive Pulsed Power Generator by Using Modular Multilevel converter", **accepted for publication in International Journal of Ambient Energy.**
19. Shivraman Mudaliyar and **S. Mishra** , "Coordinated Voltage Control of a Grid Connected Ring DC Microgrid with Energy Hub", **accepted for publication in IEEE Transactions on Smart Grid.**
20. Anuradha Tomar and **S. Mishra**, "CMPVI based MIDO Scheme under SSE for Optimum Energy Balance & Reduced ROI", **accepted for publication in IEEE Transactions on Sustainable Energy.**
21. 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," **accepted for publication in IEEE Transactions on Power Systems.**
22. Subham Sahoo and **S. Mishra**, "A Distributed Finite-Time Average Voltage Regulation and Current Sharing Controller for DC Microgrids", **accepted for publication in IEEE Transactions on Smart Grid.**
23. Subham Sahoo and **S. Mishra**, "An Adaptive Event-Triggered Communication Based Distributed Secondary Control for DC Microgrids", **accepted for publication in IEEE Transactions on Smart Grid**.
24. 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.

25. 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, pp. 1410-1417, July 2017.
26. 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, pp. 20160308, July 2017.
27. 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, pp. 1976-1984, June 2017.
28. 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, pp. 2392-2400, May-June 2017.
29. 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, pp. 839-848, May 2017.
30. 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.
31. 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.
32. Subham Sahoo and **S. Mishra**, "A Multi-Objective Adaptive Control Framework in Autonomous DC Microgrid", **accepted for publication in IEEE transactions on Smart Grid**.
33. 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, pp. 1531-1538, February, 2017.
34. **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, pp. 370-377, January 2017.

Year 2016

35. 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, pp 4556-4565, Nov.-Dec. 2016.
36. 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, pp. 4638 – 4649 November 2016.
37. **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, pp. 1187–1194 September 2016.
38. 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, pp. 1657-1671, August 2016.
39. Jincy Philip, Chinmay Jain, Krishan Kant, B. Singh, **S. Mishra**, Ambrish Chandra and Kamal Al Haddad, "Control and Implementation of a Standalone Solar PhotovoltaicHybrid System", **IEEE Transactions on Industry Applications**, vol. 52, no. 4, pp 3472-3479, July-August 2016.
40. Somesh Bhattacharya and **S. Mishra**, "Efficient Power Sharing Approach for Photovoltaic Generation Based Microgrids", **IET Renewable Power Generation**, vol. 10, no. 7, pp. 973–987, July 2016.
41. **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, pp. 955–963, July 2016.
42. Anish Jindal, Amit Dua, Kuljeet Kaur, Mukesh Singh, Neeraj Kumar and **S. Mishra**, "Decision Tree and SVM-based Data Analytics for Theft Detection in Smart Grid", **IEEE Transactions on Industrial Informatics**, vol. 12, no. 3, pp 1005-1016, June-2016.
43. 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, pp. 626-637 June 2016.
44. Priya Nayar, Bhim Singh, **S. Mishra**,"A New Control Algorithm for Power Quality Improvement in a Stand-alone Synchronous Reluctance Generator with Energy Storage",

45. **International Journal of Electric Power Component and Systems**, 44 (19):2198-2211, 2016.

Year 2015

---

46. 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, pp. 164-173, April-2015.
47. 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, pp 193-207, Jan-2015.
48. 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, pp 97-109, 2015.
49. **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, Jan-2015.

Year 2014

---

50. 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):1–13, 2014.
51. 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, pp. 900–914, Nov-2014.
52. 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, pp 258-267, Sep-2014.
53. 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, pp 190–202, Sep-2014.

54. 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.
55. 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, pp. 353–362, Feb-2014.
56. 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

---

57. 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, pp 256-271, Dec-2013.
58. **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, pp.4393-4404, Nov-2013.
59. **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, pp. 628–637, March-2013.
60. 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, pp. 75-86, March-2013.
61. 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, pp. 597-603, Jan-2013.

Year 2012

---

62. **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.
63. B. Biswal, **S.Mishra**, P. K. Biswal, TelagarapuPrabhakar, "Detection and power quality disturbanceclassification based on wavelet packet decomposition and modified immuneoptimization algorithm", **International Journal of Knowledge-Based and Intelligent Engineering Systems**, vol. 16, no.3, pp 261-277, 2012.
64. 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 .
65. 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, pp 16-26, March-2012.

Year 2011

---

66. 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, pp 361-373, Oct-2011.
67. 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.
68. 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.
69. 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

70. 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, pp 972-982, Dec-2009.
71. 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, pp 2159-2165, Oct-2009.
72. **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, pp 255-260, 2009.
73. 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, pp 650-660, Sep-2009.
74. 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

75. 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 pp. 337 – 345, Sep 2008.
76. **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, pp 280-287, Jan-2008.
77. 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, pp 122-128, Jan-2008.

Year 2007

78. **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.

79. 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.
80. **S. Mishra**, C. N. Bhende, "Bacterial Foraging Technique Based Optimized Active Power Filter for Load Compensation", **IEEE Transactions on Power Delivery**, vol. 21, no. 1, pp 457-465, Jan-2007.

Year 2006
---

81. 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, pp 222-231, Nov-2006.
82. 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, pp 1459-1465, July-2006.
83. **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, pp 461-470, March-2006.

Year 2005
---

84. **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.
85. **S. Mishra**, "A Hybrid Least Square-Fuzzy Bacterial Foraging Strategy for Harmonic Estimation", **IEEE Transactions on Evolutionary Computation**, vol. 9, no.1, pp 61-73, Feb-2005.
86. **S. Mishra**, "Hybrid-Neuro-Fuzzy UPFC for improving transient stability performance of power system", **Electric Power Component and Systems**, vol. 33, no.1, pp 73-84, Jan-2005.

Year 2004

87. 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, pp 428-438, May-2004.

Year 2003

88. 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.
89. **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

90. **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, pp 1140-1147, Nov-2002.

Year 2000

91. **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, pp 15-22, Jan-2000.
92. 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, pp 472-477, April-2000.
93. 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, pp 1293-1299, Nov-2000.
94. 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.

95. **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
---

96. 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
---

97. 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
---

98. 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. 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.
2. 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.
3. 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.

4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.
13. 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.
14. Subham Sahoo, Chenghua Zhang, Deepak Reddy Pullaguram, **S. Mishra**, Jianzhong Wu and Nilanjan Senroy, "Investigation of Distributed Cooperative Control for DC

Microgrids in Different Communication Medium", 9th International Conference on Applied Energy, Cardiff, August 21-24, 2017.

15. 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.
16. 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.
17. 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.
18. 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.
19. 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.
20. 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.
21. 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.
22. 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.
23. 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.
24. Subham Sahoo, Deepak Reddy Pullaguram, **S. Mishra**, "A Consensus Priority Algorithm Based V2G Charging Framework for Frequency Response", 2016 IEEE 7th Power India

International Conference (PIICON-2016), Bikaner, Rajasthan, India, November 25-27, 2016.

25. 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.
26. 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.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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.
32. 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.
33. **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.

34. 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.
35. Anuradha Tomar, **S. Mishra**, Chandrashekhar N. Bhende, "Improving the performance of PV based water pumping system for fluctuations in irradiance", 2016 7th IEEE India International Conference on Power Electronics, (IICPE-2016), Patiala, Punjab, India, 17-19 Nov. 2016.
36. 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.
37. 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.
38. 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.
39. 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.
40. 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.
41. 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.
42. 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.

43. 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.
44. 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.
45. 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.
46. 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.
47. **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.
48. 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.
49. 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.
50. **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.
51. **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.
52. **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.
53. **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.

54. 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.
55. 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.
56. 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.
57. **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.
58. 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.
59. 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.
60. 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.
61. 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.
62. 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.

63. 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.
64. 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.
65. 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.
66. 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.
67. 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.
68. 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.
69. **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.
70. 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.
71. 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.
72. 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.

73. **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.
74. **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.
75. **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.
76. 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.
77. 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.
78. **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.
79. 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.
80. **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.
81. 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.
82. 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.
83. 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.

84. **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.
85. 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.
86. Aseem Sayal, P. C. Sekhar and **S. Mishra**, "A Review on Maximum Power Point Tracking Techniques for Photovoltaic Power Generating Systems", National Electrical Engineering Conference (NEEC-2011) on Power & Energy Systems for Tomorrow, New Delhi, India, Dec 16-17, 2011.
87. **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.
88. **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.
89. 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.
90. 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.
91. 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.
92. 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.

93. 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.
94. 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.
95. 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.
96. 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.
97. 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.
98. B. Santosh Kumar, **S. Mishra** and N. Senroy, "AGC for Distributed Generation", IEEE ICSET, Singapore, Nov 24-27, 2008.
99. 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.
100. 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.
101. **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.
102. 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.
103. 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.

104. 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.
105. 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.
106. **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.
107. **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.
108. **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.
109. 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.
110. **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.
111. 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.
112. 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.
113. 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.