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Publications:

List of Journal Publications:

1. Pranjal Verma, Krishnendu Sanyal, Dipti Srinivasan and K. S. Swarup, "Information exchange based clustered differential evolution for constrained generation-transmission expansion planning", Swarm and Evolutionary Computation, 44(2019) pp 863-875. ([available on-line](#)). (2019)
2. Srinivas STP , Pranjal Pragya Verma , and K Shanti Swarup , "Novel Convexified Linear Program for Coordination of Directional Overcurrent Relays", IEEE Transactions on Power Delivery. Vol 34. No. 2, April 2019, pp. 769-772. (2019)
3. Srinivas STP , and K Shanti Swarup , "A New Mixed Integer Linear Programming Formulation for Protection Relay Coordination Using Disjunctive Inequalities", IEEE Power and Energy Technology Systems Journal (Early Access), 2019. (2019)
4. Srinivas STP , and K Shanti Swarup , "Application of improved invasive weed optimization technique for optimally setting directional overcurrent relays in power systems", Applied Soft Computing, 79 (2019) 1-13. (2019)
5. Devika Jay, K.S Swarup, "Isoperimetric Clustering based Network Partitioning Algorithm for Voltage-Apparent Power Coupled Areas", in IET Generation, Transmission and Distribution, Volume.13, Issue No.22, pp. 5109-5116.([available on-line](#)). (2019)
6. Priyanka Shinde and K.Shanti Swarup, "Stackelberg game-based demand response in multiple utility environments for electric vehicle charging", IET Electrical Systems in Transportation, Vol. 8, No. 3, pp. 167-174, 2018. ([available on-line](#)). (2018)
7. Rajan Kumar Mishra and K. S .Swarup, "Adaptive Weight based Self Reconfiguration of Smart Distribution Network with Intelligent Agents", IEEE Transactions on Emerging Topics in Computational Intelligence, Volume: 2 Issue: 3, pp. 464-472, 2018.
8. Vidyasagar Puvvula S R V R S S and K.Shanti Swarup, "Model predictive control approach for frequency and voltage control of standalone microgrid", IET Generation, Transmission & Distribution. Volume: 12, No: 14, pp. 3405-3413, 2018.

9. Likin Simon and K. S .Swarup, "Co-ordinated Reactive Power and Crowbar Control for DFIG based Wind Turbines for Power Oscillation Damping", Wind Engineering Journal, July, 2018.
10. Likin Simon, Jayashri Ravishankar and K. S .Swarup, "Wide Area Oscillation Damping Controller for DFIG using WAMS with Delay Compensation", IET Renewable Power Generation, Vol. 13, Issue 1; 2019, 128-137. (2018)
11. P. Balakrishna, K. Rajagopal and K.S. Swarup, "Distribution automation analysis based on extended load data from AMI systems integration", International Journal of Electrical Power & Energy Systems, IJEPES, MARCH 2017. ([available on-line](#)). (2017)
12. Musliyarakath Aneesa Farhan and K. Shanti. Swarup, "A Microgrid Protection Scheme based on Mathematical Morphology", IET Generation, Transmission & Distribution, June 2017.
13. Vijayalakshmi Anbazhagan, Shanti Swarup K, Haile- Selassie Rajamani and Prashant Pillai, "Customer segmentation based on electrical consumption in a VPP Environment:Technologies and Applications", THE JOURNAL OF CPRI - Vol. 13., No. 2, June 2017, Sl. 6, Pg.245 - 252. (2017)
14. Musliyarakath Aneesa Farhan and K. Shanti. Swarup, "Mathematical morphology-based islanding detection for distributed generation", IET Generation, Transmission & Distribution, Volume 10, Issue 2, pp-518-525, 2016.([available on-line](#)). (2016)
15. Balakrishna P., Rajagopal K., Swarup K.S., "Adaptive feeder load management and control during distribution power restoration based on DA and AMI systems integration approach", Sustainable Energy, Grids and Networks, Volume 6, Pages 136-142, June 2016.([available on-line](#)). (2016)
16. C. Venkatesh, K. Shanti Swarup, "Limitations of Angle-Based Faulty Line Identification Logic in Series-Compensated Parallel Transmission Lines", IEEE Transactions on Power Delivery, Volume 31, Issue 4, Pages 1552 - 1561, 2016. ([available on-line](#)). (2016)
17. K. Jamuna and K. Shanti Swarup, "Bayesian state estimation approach for electric power systems", accepted for publication in IFAC, Automatics, June 2015, ([available on-line](#))
18. Balakrishna. P, Rajagopal. K and Swarup K.S, "Look-ahead power restoration analysis based on integration of DA & AMI systems", IET Generation, Transmission & Distribution Journal, Volume 9, Issue 14, pp-2024-2031, June 2015.
19. Venkatesh Chakrapani & K. Shanti Swarup, "Estimation of Electronic Suppression Circuit Resistance for Protective Relaying Applications", Electric Power Components and Systems, Volume 43, Issue 3, Jan 2015, pages 282-297 ([available on-line](#))
20. Venkatesh Chakrapani & K. Shanti Swarup, "Secured Distance Relay Operation Using Adaptive Blocking Logic - Implementation and Validation". Paper accepted in INAE letters, Jan 2015.

List of International Conferences

1. Saranya A, Ajay Krishnan Nilakantan, Markus Riepl, K. S. Swarup, "Effect of renewable energy integration on the voltage profile of Indian power system", CBIP National Conference on EHV transformers, New Delhi, 27-28, Feb 2019.

2. Devika Jay, K.S Swarup, "Value- Based Real Time Reactive Power Pricing Model Considering Voltage Security and Reserve Requirement", in 6th International Conference On Modern Electric Power Systems, Wroclaw, Poland, 2019.
3. Devika Jay, K.S Swarup, "Locational Marginal Pricing of Reactive Power in Real Time Market Considering Voltage Support Requirement", in 9th International Conference on Power and Energy Systems, Perth Australia, 2019.
4. S.V.Hareesh, K.S.Swarup, "Dynamic State Estimation of Synchronous Generator based Distributed Energy Resources in Autonomus Microgrid", IEEE International Conference on Power Systems (ICPS), Jaipur, 20-22, Dec 2019.
5. Amulya, K.S.Swarup, "Analysis of False Data Injection Attacks on Multiarea Load Frequency Control", IEEE International Conference on Power Systems (ICPS), Jaipur, 20-22, Dec 2019.
6. Aprajay Verma, Pranjali Pragya Verma, Anoop V Eluvathianganal, K. Shanti Swarup, "An Intelligent Methodology to Improve Distribution System Operational Parameters Utilizing Smart Inverter Functionalities of PV Sources", 7th International Conference on Renewable Power Generation, DTU, Lyngby, Copenhagen, Denmark, September 26 - 27 2018.
7. Paper No: #1570476382 "Optimal Protection Coordination for Microgrid considering DG and Line Outages using IWO-ILP Technique"
8. Paper No: #1570474139 "Automatic Generation Control with Competing GENCOs- A Reinforcement Learning Based Approach"
9. Paper No: #1570468655 "An Iterative Distributed Approach for Optimal Power Dispatch in a Smart Grid Environment"
10. Paper No: #1570468652 "Analysis of Active and Transactive Demand Response Strategies for Smart Residential Buildings"
11. Paper No: #1570468264 "Uncertainty handling for Electric Vehicle aggregator using IGDT"
12. Paper No: #1570458174 "Modelling and Simulation of Digital Substation Automation for Inter-Substation Line Protection"
13. Paper No: #1570457820 "Intelligent Charging of PEV with Priority Premium Determination for Users in Parking Station"
14. Paper No: #1570456605 "Data analytics for statistical characterization of prices and empirical resource investment planning in Indian electricity market"
15. Paper No: #1570457709 "Reliability Evaluation Considering Incentive-Based Demand Response Reactive Power Management"
16. Paper No: #1570457544 "A New Choice based Home Energy Management System using Electric Springs"
17. Saranya A and K. S. Swarup, "Offering strategy for a photovoltaic power plant in electricity market", IEEE Power and Energy Conference at Illinois (PECI), Champaign, IL, 2018, pp. 1-6.([available on-line](#))
18. Pranjali Verma, Anoop V.E, Aneesa Farhan, Swarup K.S, Rahul Mehta, Dipti Srinivasan, "Single-Stage vs Multi-Stage Transmission Expansion Planning in Electricity Markets: An MILP approach"

19. Pranjal Verma, Krishnendu Sanyal, Dipti Srinivasan, K.S Swarup, R.Mehta,"Computational Intelligence Techniques in Smart grid planning and operation: A Survey"
20. Anoop V Eluvathingal, Pranjal Verma, K.S. Swarup,"Impact of Active Network Management Scheme in Fault Protection Design and Network Operation for Islanded Power System"
21. Likin Simon, Naina PM, Shanti Swarup,"Transient Modeling and Control of DFIG with Fault Ride-Through Capability"
22. Aneesha Farhan and K. S. Swarup, "Islanding Detection using Mathematical Morphology for Distributed Generation", 7th IEEE International Conference on Innovative Smart Grid Technologies, ISGT Europe 2017, 26-29 September 2017.
23. PRANJAL PRAGYA VERMA and K. S. Swarup, "Issues in Electricity Markets Operation", Energy and power system modeling in GAMS, 2-5 October 2017.
24. Srinivas STP and K S Swarup, " Optimal Relay Coordination for Microgrids using Hybrid modified Particle Swarm Optimization - Interval Linear Programming Approach", North American Power Symposium (NAPS), IEEE PES Section, West Virginia University, Morgantown, WV, USA, 17-19 September, 2017.
25. Likin Simon and K. S. Swarup, "Wide Area Oscillation Damping Control with DFIG based Wind Turbines using WAMS", Power Engineering Society General Meeting (PESGM), July 16-20, 2017.
26. Priyanka Shinde and K. S. Swarup, "Stackelberg-Game Based Charging Scheduling Of Electric Vehicles",5th International Conference on Electrical Energy and Networks (ICEEN),NTU,Singapore, March 2017.
27. Srinivas STP and K S Swarup, "Optimal Coordination of Dual setting Directional Overcurrent Relays for Microgrid Protection", International Conference on Emerging Trends in Engineering Science and Technologies, March 18-20, 2017.
28. Srinivas STP and K S Swarup, "Optimal Relay Coordination for Microgrids using Interval Linear Programming Approach", International Conference on Big Data Analytics and Computational Intelligence, March 23-25, 2017.
29. Soumya P and K S Swarup, "Optimal Capacitor Placement In a Smart Grid Using Demand Side Management As a Resource", Power and Energy Conference at Illinois (PECI), February 23 - 24,201
30. T. Ajay Ramamurthy and K. Shanti Swarup, "High Impedance Fault Detection using DWT for Transmission and Distribution Networks", IEEE International Conference on Power Systems (ICPS) 4-6 March , 2016, IIT Delhi.
31. Jayadev V.,and K. Shanti Swarup, "Price Based Demand Response Strategy Considering Load Priorities", IEEE International Conference on Power Systems (ICPS) 4-6 March , 2016, IIT Delhi.
32. Pranjal Pragya Verma, Soumya P., and K. Shanti Swarup, "Optimal Day-Ahead scheduling in Smart Grid with Demand Side Management", IEEE International Conference on Power Systems (ICPS) 4-6 March , 2016, IIT Delhi.
33. Devika Jay and K. Shanti Swarup, "Demand Response based Automatic Generation Control in Smart-Grid Deregulated Market", IEEE International Conference on Power Systems (ICPS) 4-6 March , 2016, IIT Delhi.

34. Sharon Ravichandran, Vijayalakshmi A, K. Shanti Swarup, Haile-Selassie Rajamani and Prashant Pillai, "Short term energy forecasting techniques for virtual power plants", IEEE International Conference on Power Systems (ICPS), IIT Delhi 2016.
35. Priyanka Shinde and K. S. Swarup, "Optimal Generation and Reactive Power Scheduling from Electric Vehicles", International Conference on 21st Century Energy Needs – Materials, Systems and Applications(ICTFCEN), November 2016, IIT Kharagpur.
36. B Saravanan and K. S. Swarup, "A new control algorithm for energy conservation from main grid during generation intermittence in the micro grids using A.C Electric springs", International Conference on 21st Century Energy Needs – Materials, Systems and Applications(ICTFCEN), November 2016, IIT Kharagpur.
37. B Saravanan and K. S. Swarup, "Day ahead scheduling of energy generation and storage sources in a microgrid using Artificial Fish Swarm algorithm", International Conference on 21st Century Energy Needs – Materials, Systems and Applications(ICTFCEN), November 2016, IIT Kharagpur.
38. Priyanka Shinde and K. S. Swarup, "A Multiobjective approach for Optimal allocation of charging station to Electric Vehicles", 13th International IEEE India Conference (INDICON), December 2016, IISC BANGALURU.
39. Puvvula Srvss and K. S. Swarup, "Laguerre functions based model predictive frequency and voltage control of isolated micro-grid", 13th International IEEE India Conference (INDICON), December 2016, IISC BANGALURU.
40. Soumya P and K. S. Swarup, "Reliability Improvement Considering Reactive Power Aspects in a Smart Grid with Demand Side Management", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
41. Saranya A and K. S. Swarup, "Evaluation of Locational Marginal Pricing of Electricity under peak and off-peak load conditions", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
42. Rajan kumar Mishra and K. S. Swarup, "Smart Distribution Network Restoration using Multi Agent System", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
43. Puvvula Vidyasagar and K. S. Swarup, "Discrete model predictive frequency and voltage control of isolated micro-grid in smart grid scenario", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
44. Likin Simon and K. S. Swarup, "Impact of DFIG based Wind Energy Conversion System on Fault Studies and Power Swings", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
45. Pranjal Pragya Verma and K. S. Swarup, "A Scenario-based Transmission Network Expansion Planning in Electricity Markets", 19th National Power Systems Conference (NPSC), December 2016, IIT Bhubaneswar.
46. Puvvula Vidyasagar and K. S. Swarup, "Load frequency control in isolated micro grids using centralized model predictive control", IEEE International Conference On Power Electronics, Drives And Energy Systems, December 2016, Trivandrum, India.

47. Likin Simon and K. S. Swarup, "Modeling and Control of DFIG with Battery Management System for Grid Power Leveling", IEEE International Conference On Power Electronics, Drives And Energy Systems, December 2016, Trivandrum, India.
48. Saranya A and K. S. Swarup, "Sizing of Solar DC Microgrid for sustainable off-grid communities", International Conference on Sustainable Green Buildings and Communities, December 2016, IIT Madras.
49. Priyanka Shinde and K. S. Swarup, "Optimal Electric Vehicle Charging Schedule for Demand Management", International Conference on Sustainable Green Buildings and Communities, December 2016, IIT Madras.
50. Likin Simon and K. S. Swarup, "Transient Modeling and Control of DFIG for Grid Power Leveling during Variable Wind Speed" INDICON Dec 19, 2015.
51. Likin Simon and K. S. Swarup, "A novel optimal controller design for doubly fed induction generator speed control," Power and Energy Engineering Conference (APPEEC), 2015 IEEE PES Asia-Pacific, Brisbane, QLD, October 2015, pp. 1-5. ([available on-line](#))
52. Venkatesh. C and K. S. Swarup, "Impact of Modeling Series Capacitor Protection Unit on the Protection of Series Compensated Parallel Transmission Lines," IEEE INDICON, New Delhi, India
53. Venkatesh. C, K. S. Swarup and Vishnu Prasath S, "A Low Cost Real-Time Numerical Distance Relay Design on FPGA - Implementation and Validation," IEEE INDICON, New Delhi, India
54. J. Santosh Kumar, and K. Shanti Swarup, "Residential Energy Consumption Scheduling Techniques under Smart Grid Environment", 7th EAI International Conference on Wireless and Satellite Systems (WiSATS 2015), 6th and 7th July 2015, Norcroft Centre, University of Bradford. ([available on-line](#))
55. Annesha Farhaan and K. S. Swarup "Developments in Microgrid protection: Issues and techniques". National conference on Power System Protection, 27-28 February 2015.
56. Lavanya, V. L and K. S. Swarup "Smart Grid Integration For Protection using Substation". National conference on Power System Protection, 27-28 February 2015.