



Department of Electrical Engineering
Indian Institute of Technology Madras



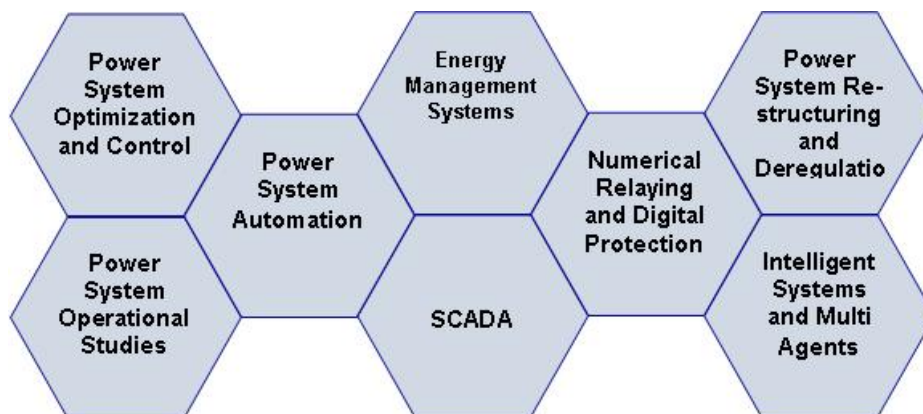
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Dr. K. Shanti Swarup, PhD Professor



Areas of Research

- ⌘ Computer Modeling, Simulation, Analysis of Electrical Power Systems
- ⌘ Numerical Optimization of Power Systems
- ⌘ Digital and Numerical Protection of Power Systems
- ⌘ Substation and Distribution System Automation
- ⌘ Energy management Systems and SCADA



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Research Guidance and Publications

[CV](#)

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SITARA : SMART GRIDS TO HARNESS SATELLITE BASED VIRTUAL POWER FOR ENERGY STORAGE AND SUSTAINABILITY

"Second UK-India bilateral Workshop on Sustainable Energy and Smart Grids" 14-15 July 2016 UK : "Intelligent Load Control and Management in Smart Power Grids", K. Shanti Swarup, Department of Electrical Engineering, IIT Madras PDF

Recent Publications:

2019

Journal[4]

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](#)).

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.
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.
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.
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](#)).

Conference[5]

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.

2018

Journal[5]

1. 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](#)).
2. 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.
3. 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.
4. 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.
5. 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.

Conference[16]

1. Aprajay Verma, Pranjal Pragya Verma, Anoop V Eluvathiagal, 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.

NPSC 2018

1. Paper No: #1570476382 "Optimal Protection Coordination for Microgrid considering DG and Line Outages using IWO-ILP Technique"
2. Paper No: #1570474139 "Automatic Generation Control with Competing GENCOs- A Reinforcement Learning Based Approach"
3. Paper No: #1570468655 "An Iterative Distributed Approach for Optimal Power Dispatch in a Smart Grid Environment"
4. Paper No: #1570468652 "Analysis of Active and Transactive Demand Response Strategies for Smart Residential Buildings"
5. Paper No: #1570468264 "Uncertainty handling for Electric Vehicle aggregator using IGDIT"
6. Paper No: #1570458174 "Modelling and Simulation of Digital Substation Automation for Inter-Substation Line Protection"
7. Paper No: #1570457820 "Intelligent Charging of PEV with Priority Premium Determination for Users in Parking Station"
8. Paper No: #1570456605 "Data analytics for statistical characterization of prices and empirical resource investment planning in Indian electricity market"
9. Paper No: #1570457709 "Reliability Evaluation Considering Incentive-Based Demand Response Reactive Power Management"
10. Paper No: #1570457544 "A New Choice based Home Energy Management System using Electric Springs"

PECI 2018

1. 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](#)).

ISGT Asia 2018

1. Pranjal 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"
2. Pranjal Verma, Krishnendu Sanyal, Dipti Srinivasan, K.S Swarup, R.Mehta, "Computational Intelligence Techniques in Smart grid planning and operation: A Survey"
3. 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"
4. Likin Simon, Naina PM, Shanti Swarup, "Transient Modeling and Control of DFIG with Fault Ride-Through Capability"

2017

Journal[3]

1. 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](#)).
2. Musliyarakath Aneesa Farhan and K. Shanti. Swarup, "A Microgrid Protection Scheme based on Mathematical Morphology", IET Generation, Transmission & Distribution, June 2017.
3. 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.

Conference[8]

1. 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.
2. PRANJAL PRAGYA VERMA and K. S. Swarup, "Issues in Electricity Markets Operation", Energy and power system modeling in GAMS, 2-5 October 2017.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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, 2017.

2016

Journal[3]

1. 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](#)).
2. 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](#)).
3. 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](#)).

Conference[20]

ICPS 2016

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.

ICTFCEN 2016

1. 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.
2. 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.
3. 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.

INDICON 2016

1. 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.
2. Puvvula Svrss 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.

NPSC 2016

1. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.

PEDES 2016

1. 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.
2. 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.

SGBC 2016

1. 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.
2. 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.

2015

Journal[4]

1. 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](#)).
2. 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.
3. 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](#)).
4. Venkatesh Chakrapani & K. Shanti Swarup, "Secured Distance Relay Operation Using Adaptive Blocking Logic - Implementation and Validation". Paper accepted in INAE letters, Jan 2015.

Conference[7]

1. Likin Simon and K. S. Swarup, "Transient Modeling and Control of DFIG for Grid Power Leveling during Variable Wind Speed" INDICON Dec 19, 2015.
2. 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](#)).
3. 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

4. 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
5. 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](#)).
6. Annesha Farhaan and K. S. Swarup "Developments in Microgrid protection: Issues and techniques". National conference on Power System Protection, 27-28 February 2015.
7. Lavanya, V. L and K. S. Swarup "Smart Grid Integration For Protection using Substation". National conference on Power System Protection, 27-28 February 2015.

2014

Journal[5]

1. Venkatesh. C and K. S. Swarup, "Performance Assessment of Distance Protection fed by Capacitor Voltage Transformer with Electronic Ferro-resonance Suppression Circuit", Electric Power System Research, vol. 112, pp.12-19, Jul. 2014
2. Venkatesh. C and K. S. Swarup, "Steady State Error Estimation in Distance Relay for Single Phase to Ground Fault in Series- Compensated Parallel Transmission Lines", IET Generation, Transmission & Distribution, vol. 8, no. 7, pp. 1318-1337, Jul. 2014
3. Balakrishna. P, Rajagopal. K and Swarup K.S, "Analysis on emerging trends and challenges in smart grid automation technology from generation to utilization", CIGRE (The International Council on Large Electric Systems) India Journal, pp. 7-15, Vol. 3, No. 1, May 2014.
4. Balakrishna. P, Rajagopal. K and Swarup K.S, "Distribution Automation and Advanced Metering Infrastructure Systems Convergence – A Conceptual Analysis & Case Study", International Journal of Engineering Research & Technology, ESRSA Publication, Vol. 3, Issue. 07, July 2014.
5. Balakrishna. P, Rajagopal. K and Swarup K.S, "Load Segmentation for Convergence of Distribution Automation and Advanced Metering Infrastructure Systems", International Journal of Emerging Electric Power Systems, DEGRUYTER (Berkeley Electronic Press), Vol. 15, Issue. 06, November 2014.

Conference[8]

1. Venkatesh. C and K. S. Swarup, "Faulty Line Identification by Distance Relay In Series-Compensated Parallel Transmission Lines", IEEE Power and Energy Society General Meeting 2014, Washington, USA, July 2014
2. Rajan kumar Mishra and K. S. Swarup, "Power System Restoration in Smart Grid Environment", 18th National Power Systems Conference (NPSC), December 2014, IIT Guwahati
3. S. Karthick and K. S. Swarup, "Power A Novel Islanding Detection Based On Coupling in Control Action Between Real and Reactive Current Components", 18th National Power Systems Conference (NPSC), IIT Guwahati, 18-20 December, 2014, Vol. 1, No 1, pp 1- 6, Vol. 1, No 1, pp 1- 6, 2014-12-18.
4. P. Balakrishna, K. S. Swarup and K. Rajagopal, "AMI/GIS based Distribution System Load Flow for Extended Situational awareness Paper No: 1569971955, 18th National Power Systems Conference, IIT Guwahati, 18-20 December, 2014, Vol.1, No 1, pp 1- 6, 2014-12-19.
5. Balakrishna. P, Rajagopal. K and Swarup K.S., "Sustainable grid for 21st century based on IEC Automation – A comprehensive analysis", Proceedings of International Conference on Power & Energy Systems, March 2014, IEEE PES Chapter, Bangalore.
6. Balakrishna. P, Rajagopal. K and Swarup K.S., "Convergence of Distribution Automation & AMI Systems: A step towards Smart Distribution Grid", Proceedings of International Conference on Smart Grid Ecosystem, March 2014, Utility Automation Research Center, IEEE Bangalore Section.
7. Balakrishna. P, Rajagopal. K and Swarup K.S., "Communication Method & Architecture for Convergence of Distribution Automation (DA) and Advanced Metering Infrastructure (AMI) Systems", Proceedings of PAC World Americas International Conference, September 2014, North Carolina, Raleigh, USA.
8. Balakrishna. P, Rajagopal. K and Swarup K.S., "Analysis on AMI system requirements for convergence of DA & AMI systems", Proceedings of 6th IEEE Power India International Conference (PIICON), December 2014, New Delhi, IEEE Delhi Section.

2013

Journal[1]

1. S. Kalyani, K.S. Swarup "Pattern analysis and classification for security evaluation in power networks" in International Journal of Electrical Power & Energy Systems, Volume 44, Issue 1, January 2013, Pages 547-560

Conference[8]

1. V. Jayadev and K. S. Swarup, "Optimization of Micro grid with Demand Side Management using Genetic Algorithm", IET International Conference in Power in Unity: 16-17 October 2013, London UK.
2. S. Parvathi and K. S. Swarup, "Novel Scheme for Load Shedding and Identification of Critical tie-lines in WAMS Emergency Control", IET International Conference in Power in Unity: 16-17 October 2013, London UK.
3. Venkatesh, C. ; Swarup, K.S. "Smart Trip Logic for Smart Grids to Block Distance Relay Maloperation - Implementation and Validation", Paper under review for IEEE Innovative Smart Grid Technology (ISGT) Conference, Bangalore October 2013.

4. Yashwant, K, Venkatesh, C. ; Swarup, K.S. "An Open Source Framework for IEC 61850 based Protection and Automation Schemes", Paper under review for IEEE Innovative Smart Grid Technology (ISGT) Conference, Bangalore October 2013.
5. Karthick Sekkappan and K. S. Swarup, "A cross coupling method to detect islanding instant distributed generation", 40th Western Protective Relay Conference Spokane, Washington, USA, 15-17 October 2013.
6. Devika Jay and Swarup K.S, " A Game Theoretic Approach To Automatic Generation Control Under Deregulation", International Conference on Power systems (ICPS), Khatmandu, Nepal, Dec 2013.
7. Vikrant Majarikar and K. Shanti Swarup, "Fast and Simple Digital Fault Detection Algorithm for Micro-grid System", International Conference on Power systems (ICPS), Khatmandu, Nepal, Dec 2013.
8. Parvathi S and K Shanti Swarup, "Optimal Load or Generation Shedding Schemes For WAMS Emergency Control", International Conference on Power systems (ICPS), Khatmandu, Nepal, Dec 2013.

2012[5]

1. S. Sivasubramani, K.S. Swarup , Multiagent based differential evolution approach to optimal power flow Applied Soft Computing, Volume 12, Issue 2, February 2012, Pages 735-740
2. K. Jamuna, K.S. Swarup Multi-objective biogeography based optimization for optimal PMU placement , Applied Soft Computing, Volume 12, Issue 5, May 2012, Pages 1503-1510
3. G. Angeline Ezhilarasi, K.S. Swarup., Network partitioning using harmony search and equivalencing for distributed computing, Journal of Parallel and Distributed Computing, Volume 72, Issue 8, August 2012, Pages 936-943
4. Hybrid SOA-SQP algorithm for dynamic economic dispatch with valve-point effects Energy, Volume 35, Issue 12, December 2010, Pages 5031-5036 S. Sivasubramani, K.S. Swarup
5. G.A. Ezhilarasi, K.S. Swarup Network decomposition using Kernighan-Lin strategy aided harmony search algorithm, Swarm and Evolutionary Computation, Volume 7, December 2012, Pages 1-6

44th North American Power Symposium (NAPS) 2012, Chicago, USA

1. Venkatesh C, K. S. Swarup, "Investigating performance of numerical distance relay with higher sampling rate" in Proc. of 44th North American Power Symposium (IEEE), Illinois, USA, Sep. 2012

National Power Systems Conference (NPSC) 2012, IT-BHU Varanasi

1. G Angeline Ezhilarasi, K. S. Swarup, "Network Partitioning of Large Scale Power Systems using Kernighan-Lin Algorithm" in Proc. of National Power Systems Conference (NPSC) 12th-14th December 2012, IT-BHU Varanasi
2. Venkatesh C, K. S. Swarup, "Investigating the performance of a Symmetrical Component distance relay" in Proc. of National Power Systems Conference (NPSC) 12th-14th December 2012, IT-BHU Varanasi
3. Devika Jay, K. S. Swarup, "Price Based Demand Response of Aggregated Thermostatically Controlled Loads For Load Frequency Control" in Proc. of National Power Systems Conference (NPSC) 12th-14th December 2012, IT-BHU Varanasi
4. Abhishek Goyal, K. S. Swarup, "Automatic Demand Response for load Scheduling and Management based on Customer Participation" in Proc. of National Power Systems Conference (NPSC) 12th-14th December 2012, IT-BHU Varanasi

2012 Annual IEEE India Conference (INDICON)

1. Venkatesh, C, K Shanti Swarup, "Insights into testing and validation of DC offset removal filters in numerical distance protection", 2012 Annual IEEE India Conference (INDICON), pp.075-080, 7-9 Dec. 2012
2. Jayadev Vasudevan, Karthick Sekkappan, Kodali Yashwant, Devika Jay, K. S. Swarup, "Research issues in Smart Grid - application to automation, renewable energy sources and demand response", 2012 Annual IEEE India Conference (INDICON), pp.1132-1137, 7-9 Dec. 2012

2011[8]

IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews

1. Kalyani.S, Shanti Swarup K , "Classification and Assessment of Power System Security Using Multiclass SVM ", IEEE Transactions on Systems, Man, and Cybernetics, Part C: Applications and Reviews, Volume: 41 , Issue: 5 , Publication Year: 2011 , Page(s): 753 - 758 (September 2011)

IEEE Transactions on Power Systems

1. Nagarjuna D. Swarup, K. S. "A Hybrid Interior Point Assisted Differential Evolution Algorithm for Economic Dispatch", IEEE Transactions on Power Systems, Vol. 26, No 2, May 2011, pp 541-549.

Electric Power Systems Research

1. S. Sivasubramani, K.S. Swarup, "Environmental/economic dispatch using multi-objective harmony search algorithm ", Electric Power Systems Research, Volume 81, Issue 9, Pages 1778-1785, September 2011

International Journal of Electrical Power & Energy Systems

1. R. Chendur Kumaran, T.G. Venkatesh, K.S. Swarup, "Voltage stability – Case study of saddle node bifurcation with stochastic 3 load dynamics ", International Journal on Electric Power and Energy Systems (IPEPES), Volume 33, Issue 8, Pages 1384-1388, October 2011.
2. K.Jamuna and K.S.Swarup, "Optimal placement of PMUand SCADA measurements for security constrained state estimation ", Electrical Power & Energy Systems , Volume 33, Issue 10, Pages 1658-1665, 2011

3. K. Jamuna, K.S. Swarup, "Biogeography based optimization for optimal meter placement for security constrained state estimation ", Swarm and Evolutionary Computation, Volume 1, Issue 2, Pages 89-96, 2011
4. Deepak Singhal, K.S. Swarup, "Electricity price forecasting using artificial neural networks ", Electrical Power & Energy Systems , Volume 33, Issue 3, Pages 550-555, March 2011
5. S. Sivasubramani, K.S. Swarup, "Multi-objective harmony search algorithm for optimal power flow problem ", Electrical Power & Energy Systems , Volume 33, Issue 3, Pages 569-576, March 2011
6. Kalyan Dasgupta, K.S. Swarup, "Tie-line constrained distributed state estimation ", Electrical Power & Energy Systems , Volume 33, Issue 3, Pages 745-752, March 2011

2010[6]

IEEE Transaction on Power Systems

1. Malpani R, Abbas Z, Swarup K. S., "High Precision Frequency Estimation Using Internet-Based Phasor Measurement Unit", IEEE Transactions on Power Systems, Vol 25, No. 2, May 2010, pp. 607-614

IEEE Transaction on Systems Man and Cybernetics

1. Kanakasabapathy P, Swarup K.S, "Evolutionary Tristate PSO for Strategic Bidding of Pumped-Storage Hydroelectric Plant", IEEE Transactions on Systems Man and Cybernetics, July 2010, pp 460-471.

Journal of Applied Soft Computing

1. S. Kalyani and K. S. Swarup, "Classifier design for static security assessment using particle swarm optimization", In Press, Corrected Proof, Available online 29 December 2009

International Journal of Electrical Power and Energy Systems

1. Kumar Maharana, K. S. Swarup, "Graph Theoretic Approach for Preventive Control of Power Systems", International Journal of Electrical Power & Energy Systems, Volume 32, Issue 4, May 2010, Pages 254-261

Energy Conversion and Management

1. P. Kanakasabapathy and K. Shanti Swarup, "Bidding Strategies for Pumped Storage Plant in Pool-Based Electricity Market", International Journal on Energy Conversion and Management, Volume 51, Issue 3, March 2010, Pages Pages 572-579

International Journal of Artificial Intelligence

1. S. Kalyani, K. S. Swarup, "Support Vector Machine Based Pattern Recognition Approach for Static Security Assessment", International Journal of Artificial Intelligence, ISSN 0974-0635, Volume 5, Number A10, Autumn 2010 (Nov 2010), pp. 17-36.