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1 Education

- Ph.D., Electrical Engineering, Memorial University of Newfoundland, Canada, 2006.
- M.E., Electrical Engineering, Jadavpur University, India, 2000.
- B.E., Electrical Engineering, National Institute of Technology, Durgapur, India, 1997.

2 Research interests

- Power system state estimation
- Power system dynamics and stability
- Modelling of power system loads
- Smart grid
- Microgrid
- Application of synchronized measurement technology to power systems

3 Professional and research experience

- Professor, Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India. November 2018 to Present.
- Associate Professor, Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India. June 2014 to November 2018.
- Assistant Professor, Department of Electrical Engineering, Indian Institute of Technology, Kanpur, India. December 2009 to June 2014.
- Lecturer, Department of Electrical Engineering, Faculty of Built Environment and Engineering, Queensland University of Technology, Brisbane, Australia. February 2009 to November 2009.

- Research Associate, Department of Electrical Engineering, Faculty of Built Environment and Engineering, Queensland University of Technology, Brisbane, Australia. August 2008 to January 2009.
- Special Scientist, Department of Electrical and Computer Engineering, University of Cyprus, Cyprus. October 2006 to July, 2008.
- Phd Candidate and Teaching Assistant, Faculty of Engineering and Applied Science, Memorial University of Newfoundland, St. John's, Canada. September 2002 to September 2006.
- Scientific officer, Electronics Division, Bhabha Atomic Research Centre, Department of Atomic Energy, India. April 2000 to June 2002.
- Marketing and commissioning engineer, Relay and Control Panels Division, Asea Brown Boveri (ABB) Limited, India. September 1997 to March 1998.

4 Publications

Google Scholar link:
https://scholar.google.co.in/citations?user=XrUg8HwAAAAJhl=enoi=sra.

4.1 Book/ Book Chapter

1. S. K. Mallik, S. Chakrabarti, and S. N. Singh, chapter: "State estimation in the presence of synchronized measurement", in the book: *Synchronized Phasor Measurements for Smart Grids*, IET, ISBN: 978-1-78561-011-0.
2. S. Chakrabarti, *Application of Artificial Neural Networks for Online Voltage Stability Monitoring and Enhancement of an Electric Power System*, VDM Verlag, Saarbrucken, Germany, 2008.

4.2 Journal/magazine publications

1. M. N. Alam, S. Chakrabarti, and A. Ghosh,"Networked microgrids: state-of-the-art and future prospectives," accepted in Nov. 2018 for publication in *IEEE Transactions on Industrial Informatics*.
2. N. Negi, S. R. Sahoo, and S. Chakrabarti,"Distributed control based power sharing strategy for an islanded AC microgrid," accepted in Oct. 2018 for publication in *IET Generation, Transmission & Distribution*.
3. Z. Jin, P. Wall, Y. Chen, J. Yu, S. Chakrabarti, and V. Terzija, "Analysis of hybrid state estimators: accuracy and convergence of estimator formulations," accepted in Sept. 2018 for publication in *IEEE Transactions on Power Systems*.
4. A. Meghwani, S. C. Srivastava, and S. Chakrabarti, "Local measurement based technique for estimating fault location in multi-source DC microgrids," *IET Generation, Transmission & Distribution*, Vol. 12, No. 13, July 2018, pp. 3305-3313.

5. J. G. Sreenath, S. Chakrabarti, and K. Rajawat, "Hierarchical parallel dynamic estimator of states for interconnected power system," *IET Generation, Transmission & Distribution*, Vol. 12, No. 10, May 2018, pp. 2299-2306.

6. S. K. Mallik, S. Chakrabarti, and S. N. Singh, "An educational software for enhancing research in power system state estimation," *Electric Power Components and Systems*, available online, Jan. 2018.

7. V. Vignesh, S. C. Srivastava, and S. Chakrabarti, "A robust decentralized wide area damping controller for wind generators and FACTS controllers considering load model uncertainties," *IEEE Transactions on Smart Grid*, Vol. 9, No. 1, Jan. 2018, pp. 360-372.

8. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "An extension of common information model for power system multi area state estimation," *IEEE Systems Journal*, Vol. 11, No. 3, Sep. 2017, pp. 1692-1701.

9. M. Asprou, S. Chakrabarti, and E. Kyriakides, "A two-stage state estimator for dynamic monitoring of power systems," *IEEE Systems Journal*, Vol. 11, No. 3, Sep. 2017, pp. 1767-1776.

10. S. M. Ashraf, A. Gupta, D. Choudhary, and S. Chakrabarti, "Voltage stability monitoring of power systems using reduced network and artificial neural network," *International Journal of Electrical Power and Energy Systems*, Vol. 87, May 2017, pp. 43-51.

11. A. Meghwani, S. C. Srivastava, and S. Chakrabarti, "A non-unit protection scheme for DC microgrid based on local measurements," *IEEE Transactions on Power Delivery*, Vol. 32, No. 1, Feb 2017, pp. 172-181.

12. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "A multi-agent based dynamic state estimator for multi-area power system," *IET Generation, Transmission & Distribution*, Vol. 10, No. 3, 2016, pp. 131-141.

13. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "Testing and validation of power system dynamic state estimators using real time digital simulator (RTDS)," *IEEE Trans. on Power Systems*, Vol. 31, No. 3, May 2016, pp. 2338-2347.

14. V. Vignesh, S. Chakrabarti, and S. C. Srivastava, "Power system load modelling under large and small disturbances using PMU data," *IET Generation, Transmission & Distribution* Vol. 9, No. 12, 2015, pp. 1316-1323.

15. V. Vignesh, S. Chakrabarti, and S. C. Srivastava, "Load modelling under unbalanced disturbances," *IEEE Transactions on Power Systems*, Vol. 31, No. 2, Mar. 2015, pp. 1661-1662.

16. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "A multi-agent based power system hybrid dynamic state estimator," *IEEE Intelligent Systems*, Vol. 30, No. 3, May/June 2015, pp. 52-59.

17. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "A cubature Kalman filter based power system dynamic state estimator," *IEEE Transactions on Instrumentation and Measurement*, Vol. 66, No. 8, Aug. 2017, pp. 2036-2045.

18. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "An iterative multi area state estimation approach using area slack bus adjustment," *IEEE Systems Journal*, Vol. 10, No. 1, March 2016, pp. 69-77.

19. S. K. Mallik, S. Chakrabarti, and S. N. Singh, "A robust regularized hybrid state estimator for power systems," *Electric Power Components and Systems*, 42(7), April 2014, pp. 671-681.

20. Ch. V. V. S. B. Reddy, S. C. Srivastava, and S. Chakrabarti, "Fast assessment of available transfer capability using synchrophasor measurements," *Electric Power Components and Systems*, 42(7), April 2014, pp. 716-726.

21. G. Sivanagaraju, S. Chakrabarti, and S. C. Srivastava, "Uncertainty in transmission line parameters: estimation and impact on line current differential protection," *IEEE Transactions on Instrumentation and Measurement*, Vol. 63, No. 6, June 2014, pp. 1496-1504.

22. C. P. Reddy, S. Chakrabarti, and S. C. Srivastava, "A sensitivity based method for under-frequency load-shedding," *IEEE Transactions on Power Systems*, Vol. 29, No. 2, March 2014, pp. 984-985.

23. R. Majumder, S. Chakrabarti, G. Ledwich, and A. Ghosh, "Advanced battery storage control for an autonomous microgrid," *Electric Power Components and Systems*, vol. 41, no. 2, 2013, pp. 157-181.

24. B. Amanulla, S. Chakrabarti, and S. N. Singh, "Reconfiguration of power distribution systems considering reliability and power loss," *IEEE Transactions on Power Delivery*, Vol. 27, No. 2, Apr. 2012, pp. 918 - 926.

25. G. Valverde, S. Chakrabarti, E. Kyriakides, and V. Terzija, "A constrained formulation for hybrid state estimation," *IEEE Transactions on Power Systems*, Vol. 26, No. 3, Aug. 2011, pp. 1102-1109.

26. S. Chakrabarti, E. Kyriakides, G. Ledwich, and A. Ghosh, "On the inclusion of PMU current phasor measurements in a power system state estimator," *IET Generation, Transmission, Distribution*, Vol. 4, No. 10, pp. 1104-1115, Sep. 2010.

27. R. Majumder, G. Ledwich, A. Ghosh, S. Chakrabarti and F. Zare, "Droop control of converter interfaced microsources in rural distributed generation," *IEEE Transactions on Power Delivery*, Vol. 25, No. 4, Oct. 2010, pp. 2768-2778.

28. S. Chakrabarti and E. Kyriakides, and M. Albu, "Uncertainty in power system state variables obtained through synchronized measurements," *IEEE Transactions on Instrumentation and Measurement*, Vol. 58, No. 8, Aug. 2009, pp. 2452-2458.

29. S. Chakrabarti, "Static load modelling and voltage stability indices," *International Journal of Power and Energy Systems*, Vol. 29, No. 3, 2009.

30. S. Chakrabarti and E. Kyriakides, "PMU measurement uncertainty considerations in WLS state estimation," *IEEE Transactions on Power Systems*, Vol. 24, No. 2, May, 2009, pp. 1062-1071.

31. S. Chakrabarti and E. Kyriakides, T. Bi, D. Cai, and V. Terzija, "Measurements get together," *IEEE Power and Energy Magazine*, Jan.-Feb. 2009. Reprinted in Special Issue: Smart Grid-Putting it All Together, a 2010 reprint journal from PES.

32. S. Chakrabarti and E. Kyriakides, and D. G. Eliades, "Placement of synchronized measurements for power system observability," *IEEE Transactions on Power Delivery*, Vol. 24, No. 1, Jan. 2009, pp. 12-19.

33. S. Chakrabarti and B. Jeyasurya, "Generation rescheduling using ANN-based computation of parameter sensitivities of the voltage stability margin," *Engineering Applications of Artificial Intelligence*, 21, 2008, pp. 1164-1169.

34. S. Chakrabarti and E. Kyriakides, "Optimal placement of phasor measurement units for power system observability," *IEEE Transactions on Power Systems*, Vol. 23, No. 3. Aug. 2008, pp. 1433-1440.

35. S. Chakrabarti, "Voltage stability monitoring by artificial neural network using a regression-based feature selection method," *Expert Systems with Applications*, 35, 2008, pp. 1802-1808.

36. S. Chakrabarti and B. Jeyasurya, "Multicontingency voltage stability monitoring of a power system using an adaptive radial basis function network," *International Journal of Electric Power and Energy Systems*, Vol. 30, No. 1, Jan. 2008, pp. 1-7.

37. S. Chakrabarti and B. Jeyasurya, "An enhanced radial basis function network for voltage stability monitoring considering multiple contingencies," *Electric Power Systems Research*, Vol. 77, Issue 7, May 2007, pp. 780-787.

4.3 Conference publications

1. R. Dutta, A. Dubey, S. Chakrabarti, and A. Sharma, "Comparative Performance Analysis of Optimization Based Distribution System State Estimator With Varying Measurement Uncertainties," *2018 National Power System Conference*, Trichy, India, Dec. 2018.

2. S. Inamdar, S. K. Singh, A. Sharma, and S. Chakrabarti, "Performance Evaluation of 5kWp grid connected polycrystalline Si based Photovoltaic Plant," *2018 National Power System Conference*, Trichy, India, Dec. 2018.

3. S. Som, S. Chakrabarti, and S. R. Sahoo, "Wavelet Transform Based PQ Event Localization Scheme for Benchmark LVAC Microgrid," *2018 National Power System Conference*, Trichy, India, Dec. 2018.

4. S. K. Singh, H. V. Singh, S. Chakrabarti, and S. N. Singh, "Effect of solar generation on load consumption pattern and load forecasting using statistical R programming," *Intelligent Computing Techniques for Smart Energy Systems*, Jaipur, India, 22-23 Dec. 2018.

5. R. Khan, C. Dewangan, S. C. Srivastava, and S.Chakrabarti, "Short Term Load Forecasting using SVM Models: A Case Study," *8th IEEE Power India International Conference*, Kurukshetra, India, 10-12 Dec. 2018.

6. A. Dubey, S.Chakrabarti, and A. sharma, "Real-time implementation of synchrophasor based linear state estimator in OPAL-RT HYPERSIM," *ICUE 2018 on Green Energy for Sustainable Development*, Phuket, Thailand, 24-26 Oct. 2018.

7. S. Sahoo, S. K. Singh, S. S. Inamdar, A. Sharma, I. Husain, A. Yadav, S. Chakrabarti, V. K. Tiwari, S.C. Srivastava, R. Singh, S. Anand, K. Rajawat, A. Roy, and P. Sensarma, "Development of an R&D platform for smart city projects in the Indian context," *CIGRE 2018 Session*, Aug. 2018, Paris, France.

8. J. G. Sreenath, S. Mangalwedekar, A. Meghwani, S. Chakrabarti, K. Rajawat, and S. C. Srivastava, "Impact of GPS spoofing on synchrophasor assisted load shedding," accepted for publication in *IEEE PES General Meeting*, Aug. 2018, Portland, USA.

9. C. L. Dewangan, S. N. Singh, and S. Chakrabarti, "Solar irradiance forecasting using adaptive wavelet neural network," *IEEE PES APPEEC 2017*, Nov. 2017, Bangalore, India.

10. S. Athiappan, S. Anand, and S. Chakrabarti, "Estimation and utilization of aggregate harmonic load model," *IEEE PES APPEEC 2017*, Nov. 2017, Bangalore, India.

11. A. Meghwani, S. Chakrabarti, S. C. Srivastava, and S. Anand, "Analysis of fault characteristics in DC microgrids for various converter topologies," *ISGT ASIA 2017*, Dec. 2017, Auckland, New Zealand.

12. A. Srivastava, A. Dubey, and S. Chakrabarti, "An exhaustive search based topology error detection method and its validation in real time digital simulator," *2017 IEEE TENCON*, Nov. 2017, Penang, Malaysia.

13. P. Gangwar, S. N. Singh, and S. Chakrabarti, "Network reconfiguration for unbalanced distribution systems," *2017 IEEE TENCON*, Nov. 2017, Penang, Malaysia.

14. V. Patel, S. Chakrabarti, and S. N. Singh, "A Hopfield neural network based reconfiguration algorithm for power distribution systems," *2017 IEEE Region 10 Symposium (TENSYMP)*, Cochin, Kerala, India, 14-17 July 2017.

15. A. Dubey, S. Chakrabarti, and V. Terzija, "Testing and validation of a dynamic estimator of states in OPAL-RT real time simulator," *2017 IEEE PES General Meeting*, July 2017, Chicago, USA.

16. Sreenath J. G., A. Meghwani, S. Chakrabarti, K. Rajawat, and SC Srivastava, "A Recursive State Estimation Approach to Mitigate False Data Injection Attacks in Power Systems," *2017 IEEE PES General Meeting*, July 2017, Chicago, USA.

17. A. Dubey and S. Chakrabarti, "Synchrophasor based three-phase state estimator," accepted for publication in *International Conference on Sustainable and Renewable Energy Development and Design*, Thimphu, Bhutan, April, 2017.

18. C. V. V. S. B. Reddy, S. Chakrabarti, and S. C. Srivastava, "Reduced network based voltage stability monitoring by using PMU measurements," *IEEE TENCON 2016*, Nov. 2016, Singapore.

19. B. Rathore, S. Chakrabarti, and S. Anand, "Frequency response improvement in microgrid using optimized VSG control," *2016 National Power System Conference*, Bhubaneswar, India, Dec. 2016.

20. P. K. Gupta, R. Martins, S. Chakarbarti, A. D. Remanidevi, K. Maki, B. Schatz, M. V. Ramesh, and S. N. Singh, "Improving reliability and quality of supply (QoS) in smart distribution network," *2016 National Power System Conference*, Bhubaneswar, India, Dec. 2016.

21. A. Meghwani, S. Chakrabarti, and S. C. Srivastava, "A fast scheme for fault detection in DC microgrid based on voltage prediction," *2016 National Power System Conference*, Bhubaneswar, India, Dec. 2016.

22. P. Porwal, S. Chakrabarti, and N. Verma, "A recursive formulation of the Prony method for monitoring power system oscillations," *6th IEEE International Conference on Power Systems (ICPS 2016)*, March 4-6, 2016.

23. N. Negi, S. R. Sahoo, and S. Chakrabarti, "Robust adaptive primary control for an islanded two-bus distributed generation system," *6th IEEE International Conference on Power Systems (ICPS 2016)*, March 4-6, 2016.

24. A. Dubey and S. Chakrabarti, "An unscented Kalman filter based hybrid state estimator considering conventional and PMU measurements," *6th IEEE International Conference on Power Systems (ICPS 2016)*, March 4-6, 2016.

25. J.G. Sreenath, S. Chakrabarti, and Ankush Sharma, "Implementation of Rauch-Tung-Striebel smoother for power system dynamic state estimation in the presence of PMU measurements," IEEE PES *Innovative Smart Grid Technologies in Asia 2015*, Bangkok, Thailand, 4-6 November, 2015.

26. N. K. Sharma, S. Chakrabarti, and B. Jeyasurya, "Observability analysis of power systems in the presence of hybrid measurements," *2015 Electrical Power and Energy Conference*, London, Ontario, Canada 26-28 October, 2015.

27. N. K. Sharma and S. Chakrabarti, "An optimization based method for topology error detection for state estimation," IEEE PES *Innovative Smart Grid Technologies in Asia 2015*, Bangkok, Thailand, 4-6 November, 2015.

28. S. M. Ashraf and S. Chakrabarti, "Voltage stability monitoring using reduced network and measurement transformation," *25th Australasian Universities Power Engineering Conference 2015* (AUPEC 2015), Wollongong, Australia,27-30 September, 2015.

29. M. Jha, S. Chakrabarti, and E. Kyriakides, "Estimation of the rotor angle of a synchronous generator by using PMU measurements," *2015 Powertech*, Eindhoven, Netherland.

30. A. Meghwani, S. C. Srivastava, and S. Chakrabarti, "A New Protection Scheme for DC Microgrid Using Line Current Derivative," *2015 IEEE PES General Meeting*, Denver, Colorado, USA.

31. Vignesh V, S. Chakrabarti, and S. C. Srivastava, "Classification and modelling of loads in power systems using SVM and optimization approach," *2015 IEEE PES General Meeting*, Denver, Colorado, USA.

32. S. Mallik, S. Chakrabarti, and S. N. Singh, "An Investigation on the numerical ill-conditioning of hybrid state estimators," *18th National Power Systems Conference (NPSC 2014)*, Guwahati, India, Dec., 2014.

33. S. Singh, B. Padhy, S. Chakrabarti, S. N. Singh, A. Kolwalkar, and S. Kelapure, "Development of dynamic test cases in OPAL-RT real-time power system simulator," *18th National Power Systems Conference (NPSC 2014)*, Guwahati, India, Dec., 2014.

34. S. Ashraf, B. Rathore, and S. Chakrabarti, "Performance analysis of static network reduction methods commonly used in power systems," *18th National Power Systems Conference (NPSC 2014)*, Guwahati, India, Dec., 2014.

35. S. Chakrabarti and B. Jeyasurya, "Power System Stability Monitoring using Synchronized Phasor Measurements," accepted for publication in the *14th Electrical Power and Energy Conference*, Calgary, Canada, 2014.

36. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "Multi area state estimation for smart grid application utilizing all SCADA and PMU measurements," *2014 IEEE Innovative Smart Grid Technologies Conference, Asia (ISGT ASIA)*, 20-23 March, 2014, Kuala Lumpur, Malaysia.

37. S. Chitturi, S. Chakrabarti, and S. N. Singh, "Comparing performance of prony analysis and matrix pencil method for monitoring power system oscillations," *2014 IEEE Innovative Smart Grid Technologies Conference, Asia (ISGT ASIA)*, 20-23 March, 2014, Kuala Lumpur, Malaysia.

38. M. Asprou, E. Kyriakides, and S. Chakrabarti, "The use of a PMU-based state estimator for tracking power system dynamics," accepted for publication in the *2014 IEEE PES General Meeting* to be held in July, 2014, Washington, DC, USA.

39. Vignesh V, S. Chakrabarti, and S. C. Srivastava, "An experimental study on the load modelling using PMU measurements," *2014 IEEE PES Transmission & Distribution Conference & Exposition*, April 2014, Chicago, IL, USA.

40. S. K. Jain, S. Chakrabarti, and S. N. Singh, "Review of load frequency control methods: Part-I: introduction and pre-deregulation scenario," *International Conference on Control, Automation, Robotics and Embedded Systems (CARE)*, Dec., 2013, Jabalpur, India.

41. S. K. Jain, S. Chakrabarti, and S. N. Singh, "Review of load frequency control methods: Part-II: post-deregulation scenario and case studies," *International Conference on Control, Automation, Robotics and Embedded Systems (CARE)*, Dec., 2013, Jabalpur, India.

42. K. Dongare, S. Chakrabarti, and E. Kyriakides, "Power system state estimation considering real-time equivalents of the external networks," *IEEE Innovative Smart Grid Technologies Conference, 2013*, Bangalore, Nov., 2013.

43. S. K. Mallik, S. Handa, S. Chakrabarti, and S. N. Singh, "Performance Study of a Regularized Method for Solving Non-Converging Power System State Estimation Problems," *5th International Conference on Power & Energy Systems*, Kathmandu, Nepal, Oct. 28-30, 2013.

44. M. Vardikar, S. Chakrabarti, and E. Kyriakides, "Transformation of measurements for using external network equivalents in state estimation," *IEEE PES General Meeting*, Vancouver, Canada, Jul. 2013.

45. A. Sharma, S. C. Srivastava, and S. Chakrabarti, "Multi area state estimation using area slack bus angle adjustment with minimal data exchange," *IEEE PES General Meeting*, Vancouver, Canada, Jul. 2013.

46. N. K. Meena and S. Chakrabarti, "Multi-criteria PMU placement for observability analysis of power systems," *IASTED International Conference on Power and Energy Systems (AsiaPES 2013)*, Phuket, Thailand, April, 2013.

47. C. V. V. S. B. Reddy, S. C. Srivastava, and S. Chakrabarti, "An improved static voltage stability index using synchrophasor measurements for early detection of impending voltage instability," *17th National Power Systems Conference*, Varanasi, India, 12-14 Dec. 2012.

48. A. Sharma, C. V. V. S. B. Reddy, P. Banerjee, B. P. Padhy, S. C. Srivastava, and S. Chakrabarti, "Synchrophasor based power system monitoring and control using real time digital simulation facility," *17th National Power Systems Conference*, Varanasi, India, 12-14 Dec. 2012.

49. S. K. Mallik, S. Chakrabarti, and S. N. Singh, "A regularized method for solving ill-conditioned hybrid state estimation problem," *2nd International Conference on Power, Control, and Embedded Systems*, December 17-19, 2012, Allahabad, India.

50. N. Agarwal and S. Chakrabarti, "A hybrid energy system for a household in northern part of India," *3rd IEEE International Conference on Sustainable Energy Technologies*, Kathmandu, Nepal, September, 2012.

51. A. Kumar and S. Chakrabarti, "ANN-based hybrid state estimation and enhanced visualization of power systems," *Innovative Smart Grid Technologies (ISGT)-India 2011*, Kerala, India, 1-3 Dec., 2011.

52. B. Mallick and S. Chakrabarti, "Optimal Placement of Phasor Measurement Units for Multi-Area Observability," *Innovative Smart Grid Technologies (ISGT)-India 2011*, Kerala, India, 1-3 Dec., 2011.

53. S. K. Mallik, S. Chakrabarti, and S. N. Singh, "Improving the convergence characteristic of hybrid state estimation using pseudo measurement," *17th Power system computation conference*, Sweden, August 22-26, 2011.

54. B. Amanulla, S. Chakrabarti, and S. N. Singh, "Reconfiguration of distribution systems using probabilistic reliability models," *IEEE PES General Meeting*, Detroit, USA Jul. 2011.

55. R. Majumder, S. Chakrabarti, G. Ledwich, and A. Ghosh, "Control of battery storage to improve voltage profile in autonomous microgrid," *IEEE PES General Meeting*, Detroit, USA Jul. 2011.

56. R. Majumder, G. Bag, and S. Chakrabarti, "Performance of electronic interfaced DERs integrated with communication network," *IEEE PES General Meeting*, Detroit, USA Jul. 2011.

57. A. Kumar and S. Chakrabarti, "An ANN Based Hybrid State Estimator," *16th National Power Systems Conference*, Hyderabad, India, December 2010.

58. S. Chakrabarti, E. Kyriakides, G. Ledwich, and A. Ghosh, "A Comparative Study of the Methods of Inclusion of PMU Current Phasor Measurements in a Hybrid State Estimator," *IEEE PES General Meeting*, Minnesota, USA Jul. 2010.

59. R. Majumder, G. Ledwich, A. Ghosh, S. Chakrabarti, and F. Zare, "Improved Power Sharing among Distributed Generators using Web Based Communication," *IEEE PES General Meeting*, Minnesota, USA Jul. 2010.

60. S. Chakrabarti, G. Ledwich, and A. Ghosh, "Reliability driven reconfiguration of rural power distribution systems," *International Conference on Power Systems (ICPS)*, December, 2009, India.

61. S. Chakrabarti, E. Kyriakides, G. Valverde, and V. Terzija, "State estimation including synchronized measurements," *PowerTech Conference*, Bucharest, Romania, 2009.

62. S. Chakrabarti, G. K. Venayagamoorthy, and E. Kyriakides, "PMU placement for power system observability using binary particle swarm optimization," *Australasian Universities Power Engineering Conference (AUPEC 2008)*, Sydney, Australia, December 2008.

63. S. Chakrabarti, E. Kyriakides, "Cost-Energy analysis and optimization of a hybrid energy system for a residence in Cyprus," *International Conference on Deregulated Electricity Market Issues in South-Eastern Europe (DEMSEE2008)*, Nicosia, Cyprus, September, 2008.

64. S. Chakrabarti, E. Kyriakides, "Placement of phasor measurement units for state estimation with voltage stability considerations," *Australasian Universities Power Engineering Conference (AUPEC 2007)*, Perth, Australia, December 2007.

65. S. Chakrabarti, E. Kyriakides, "Formulation of the PMU placement problem in an integer quadratic programming framework," *International Conference on Power Systems (ICPS 2007)*, Bangalore, India, December 2007.

66. S. Chakrabarti, D. Eliades, E. Kyriakides, and M. Albu, "Measurement uncertainty considerations in optimal sensor deployment for state estimation," *IEEE Symposium on Intelligent Signal Processing (WISP 2007)*, Madrid, Spain, October, 2007.

67. S. Chakrabarti and E. Kyriakides, "Grid-connected hybrid energy system for a typical home in Cyprus," *Renewable Energy Sources and Energy Efficiency Conference*, September, 2007, Nicosia, Cyprus.

68. S. Chakrabarti and E. Kyriakides, "Optimal placement of phasor measurement units for state estimation," *7th IASTED International Conference on Power and Energy Systems*, EuroPES 2007, Spain, August, 2007.

69. S. Chakrabarti and B. Jeyasurya, "Sensitivity-based generation rescheduling for multicontingency voltage stability enhancement," *IEEE PES 2006 General Meeting*, Quebec, Canada, June 18-22.

70. S. Chakrabarti and B. Jeyasurya, "Multicontingency voltage stability monitoring of power systems using radial basis function network," *13th International Conference on Intelligent Systems Application to Power Systems*, Washington DC, USA, November 6-10, 2005.

71. S. Chakrabarti and B. Jeyasurya, "Sensitivity-based generation rescheduling for voltage stability enhancement," *IEEE PES General Meeting*, 12-16 June, San Francisco, California, USA, 2005.

72. B. Jeyasurya and S. Chakrabarti, "Blackout 2003: A case study on power system security," *IEEE NECEC Conference*, 2004, St. John's, Canada.

73. S. Chakrabarti and B. Jeyasurya, "Effect of load modeling on the performance of power system voltage stability indices," *IEEE NECEC Conference*, 2004, St. John's, Canada.

74. S. Chakrabarti and B. Jeyasurya, "On-line voltage stability monitoring using artificial neural network," *Large Engineering Systems Conference on Power Engineering*, Halifax, Canada, July 2004.

75. A. Manna and S. Chakrabarti, "A new computer controlled multi-channel high voltage supply system for GRACE instrumentation," *International Symposium on Gamma Ray Astrophysics Through Multiwavelength Experiments (GAME-2001)*, Mount Abu, India, March, 2001.

76. A. Manna, S. Chakrabarti, and P. K. Mukherjee, "Computer controlled multi-channel high voltage supply system for GRACE instrumentation," *Proceedings of Symposium on Intelligent Nuclear Instrumentation*, Mumbai, India, 2001.

77. S. Chakrabarti, S. K. Goswami, and S. Paul, "Comparative study of three types of voltage stability indices," *National Power System Conference*, December 2000, Bangalore, India.

5 Sponsored and consultancy projects

5.1 Ongoing/accepted projects/workshop funding

1. Accepted sponsored project: *Stability analysis, protection, and coordinated control of networked microgrids*. Funding agency: the Department of Science and Technology (DST), India, under *Mission Innovation* scheme. Role: PI from IIT Kanpur. Funding: INR 3,22,69,200.

2. Sponsored project: *UK India clean energy research institute*. Funding agency: the Department of Science and Technology (DST), India. Project duration: Apr. 2017 to Apr. 2021. Role: Task leader from Indian side for *Stability Issues*, Funding: INR 95,48,000.

3. Consultancy project: *Use of synchrophasor data for tuning power system stabilizer and on-line estimation of generator parameters*. Funding agency: National Thermal Power Corporation (NTPC) Ltd., India. Role: PI. Project duration: Nov. 2016 to Nov. 2018. Funding: INR 63,31,500.

4. Sponsored project: *Advanced communication and control for the prevention of blackouts*. Funding agency: the Department of Science and Technology (DST), India and the Engineering and Physical Sciences Research Council (EPSRC), UK. Project duration: Nov. 2014 to Sep. 2018. Role: PI from IIT Kanpur side in the Indian consortium. Funding: INR 1,36,25,000.

5.2 Completed projects

1. Sponsored project: *Development of R&D platform for smart city projects in the Indian context*. Funding agency: the Ministry of Power (MoP), India and IIT Kanpur. Project duration: Dec. 2014 to June. 2018. Role: PI. Funding: INR 12,50,00,000.

2. Consultancy project: *Technical Inspection of KESCO Underground Cable Network*. Funding agency: Kanpur Electricity Supply Company (KESCO) Ltd., Kanpur, India. Role: PI. Project duration: Oct. 2018 to Jan. 2019. Funding: INR 1,62,000.

3. Consultancy project: *Study to minimize over-voltage and inrush current of transformers during connecting of grid tied solar PV plant*. Funding agency: National Thermal Power Corporation (NTPC) Ltd., India. Role: Co-PI. Funding: INR 28,98,000.

4. Sponsored project: *Stabilize Energy*. Funding agency: the Department of Science and Technology (DST) and European Union, under FP7 INDIGO call. Project duration: 2014 to 2017 (three years). Role: PI from IIT Kanpur side in the Indian consortium. Funding: INR 29,93,600.

5. Sponsored project: *Use of synchrophasors in power system load modelling and state estimation*. Funding agency: Central Power Research Institute, under Research Scheme on Power (RSOP). Project duration: 2014 to 2016 (two years). Role: PI. Funding: INR 43,20,000.

6. Workshop funding: *Training Program on Smart Grid for Utility Professionals.* Funding agency: National Smart Grid Mission, the Ministry of Power. Duration: Jan. 17-19, 2018. Funding: INR 5,47,550.

7. Consultancy project: *Investigating the failure of towers on 400 kV Parichha-Orai-Mainpuri line of UPPTCL.* Funding agency: Uttar Pradesh Power Transmission Corporation Limited. Role: PI. Funding: INR 5,61,800.

8. Workshop funding: *Smart Transmission Grid using Synchrophasor Technology.* Duration: Dec. 10-14, 2013. Role: PI. Funding: INR 3,96,000.

9. Sponsored project: *Synchronized measurement technology for voltage stability monitoring and state estimation of power systems.* Funding agency: the Department of Science and Technology (DST), India. Project duration: Oct. 2010 to Oct. 2013. Role: PI. Project funding: INR 16,52,000.

10. Consultancy project: *Studies on voltage stability and small signal oscillation monitoring of power systems.* Funding agency: GE India Technology Center Pvt. Ltd, Bangalore. Project duration: Nov. 2012 to Aug. 2013. Role: PI. Project funding: INR 10,39,330.

11. Workshop funding: *Exploring beyond the frontiers to build a smarter grid.* Funding agency: the Department of Science and Technology, Government of India and the Royal Society, London. Workshop duration: March 20-22, 2013. Role: PI. Workshop funding: INR 3,66,000.

12. Consultancy project: *Clarification on national building code of India.* Funding agency: Mukesh & Associates, Tamilnadu, India. Project duration: Feb. to March, 2013. Role: PI. Project funding: INR 28,090.

13. Consultancy project: *Feasibility study to run the state tubewells in UP by using SCADA.* Funding agency: the Irrigation Department, Uttar Pradesh, India. Project duration: June to August, 2012. Role: PI. Project funding: INR 1,37,875.

14. Sponsored project: *Synchronized measurement technology for power systems: selected applications in voltage stability monitoring, state estimation, and detection of faults on transmission lines.* Funding agency: the Indian Institute of Technology, Kanpur, India. Project duration: Feb. 2010 to Oct. 2011. Role: PI. Project funding: INR 10,00,000.

15. Sponsored project: *Application of synchrophasor technolgy in power systems.* Funding agency: Queensland University of Technology, Brisbane, Australia. Project duration: Feb. 2009 to Feb. 2010. Role: PI. Project funding: AU$ 15,000.

16. Sponsored project: *Detection and location of fault on a transmission line using synchronized measurements.* Funding agency: Queensland University of Technology, Brisbane, Australia. Project duration: Feb. 2009 to Feb. 2010. Role: PI. Project funding: AU$ 5,000.

6 Professional activities

- Member of International Council on Large Electric Systems (CIGRE).
- Member of the Indian Smart Grid Forum, an initiative by the Government of India to enhance activities related to smart grid in Indian power sector.
- Member of the IEEE working group on "Guide for Control and Automation Installations Applied to the Electric Power Infrastructure".
- Co-organized the "National Workshop on Wide Area Monitoring and Control of Power Systems using Synchrophasor Technology", held in IIT Kanpur during 13-14 April, 2012.
- Reviewer of various IEEE, IET, Elsevier, and Taylor & Francis journals.
- Senior member of IEEE Power & Energy Society (PES).

7 Administrative activities

- Professor-in-charge, Electrical Works, Indian Institute of Technology Kanpur, India, for the period 2016-18.
- Member, Green Cell, Indian Institute of Technology Kanpur, India, for 2016.
- Hostel Warden, Hall 7, Indian Institute of Technology Kanpur, India, for the period April 2013-March 2016.

8 Invited talks/tutorials/short courses

1. Delivered invited talk on "Smart City Pilot Projects and Smart Grid Research in India", in Norwegian Embassy, Delhi, India, as part of workshop on "Research collaboration between India and Norway in Clean energy and Smart Grid", in Jan. 2019.
2. Delivered keynote talk on "Advanced monitoring of modern transmission and distribution systems", in Manipal University, Jaipur, India in Dec. 2018.
3. Delivered keynote talk on "Advanced Control Centre Applications using PMU Measurements", in National Power Systems Conference (NPSC) 2018, in Trichy, in Dec. 2018.
4. Delivered invited talk on "Development of a smart microgrid RD platform in the Indian context", in Symposium on Microgrids, Sept. 2018 in University Politehnica of Bucharest, Romania.
5. Delivered invited talk on "Development of Smart City Prototype in the Indian Context", in 5the International Conference & Exhibition on Energy Storage & Microgrids in India, on 12 Jan., 2018, in New Delhi, India.

6. Delivered keynote lecture on "Power System Load Modelling", in 4th International Conference on Power, Control and Embedded Systems (ICPCES - 2017), on 10 March, 2017, in Motilal Nehru National Institute of Technology Allahabad, India.

7. Delivered part of the tutorial on "Smart Grids: Renewable Integration and Microgrids", in Veermata Jijabai Technological Institute, Mumbai, India, during 28 Feb.-01 Mar., 2016.

8. Delivered invited talk on "Wide area measurement based smart monitoring of power transmission systems", on the 'Foundation Day' of National Institute of Technology (NIT) Patna, India, on 27th Jan. 2017.

9. Delivered tutorial on "State estimation in Power Systems", in National Power Systems Conference (NPSC) 2016, in Bhubaneswar, on 19th Dec. 2016.

10. Delivered invited talk on "Measurement and Sensing for Modern Power Systems", in United College of Engineering and Research, Allahabad, on 22nd Oct. 2016.

11. Delivered invited talk on "Smart Grid: Technological Challenges And Potential Solutions", and "Smart Grid Monitoring", in Veermata Jijabai Technological Institute, Mumbai, India, on 18th May, 2016.

12. Co-organized workshop on "Smart Microgrids", during 8-10 April, 2016, in IIT Kanpur, India.

13. Delivered invited talk on "Introduction to Smart Grid", in the National Institute of Technology Durgapur, India, on 21st December, 2015.

14. Delivered short course on "Synchrophasor applications in power system state estimation and stability monitoring", in the Indian Institute of Information Technology, Design and Manufacturing, Jabalpur, India, during October-November, 2015.

15. Delivered tutorials on "Power system stability" and "Synchronized measurement technology", on 14th July 2015, in United College of Engineering and Research, Allahabad, India.

16. Delivered IEEE seminar on "Smart Power Grid: Implementation and Challenges", on 10th April 2015, in Indian Institute of Technology Mandi, Himachal Pradesh, India.

17. Invited talk on "Next generation of state estimators utilizing synchrophasor measurements", on 2nd March 2015, in National Institute of Technology, Surathkal, Karnataka, India.

18. Invited talk on "Smart Grid: concepts and challenges", on 13 Feb. 2015, in Rajasthan Technical University, Kota, India.

19. Invited talk on "Smart Grid: Concepts and Deployment", in the 7th Capacity Building Programme for Officers of Electricity Regulatory Commissions, 28-30 Jan., 2015, IIT Kanpur, India.

20. Invited talk on "concepts of smart grids", in DIGITAL INDIA: eMpowering e-Governance (DigiGov-2014), organized by the Computer Society of India, Lucknow Chapter, during 6-7 Dec., 2014 in Lucknow, India.

21. Invited talk on "Next generation hybrid state estimators for smart grids", in the Indo-UK workshop on "Exploring beyond the frontiers to build a smarter grid", during 19-20 March, 2013 in Coventry University, UK.

22. Tutorial on "Enhanced monitoring of power systems using phasor technology", in the short term training program on "Operation and Control of Modern Power Systems", in the Department of Electrical Engineering, Malaviya National Institute of Technology, Jaipur, India, during 7-11 Mar, 2013.

23. "Wide area measurements systems: PMU placement and analytical applications", invited lecture in the workshop on "Smart Grid" organized by CIGRE India and Central Board of Irrigation & Power (CBIP), India, in Bangalore on 11-12 Oct., 2012.

24. Tutorial on "Phasor measurement technology and its applications to power systems", AICTE sponsored staff development program on 'Modern control techniques for Power Systems', 18-30 June, 2012, VNR Vignana Jyoti Inst. of Engineering & Technology, Hyderabad, India.

25. Tutorial on "Synchronized Measurement Technology for Electric Power Systems", Symposium on "Developments in Instrumentation & Control Engineering", 17-18 March, 2012, Aligarh Muslim University, Aligarh, India.

26. Tutorial on "Mathematics for Circuit Analysis", Workshop on Mathematics for Electrical Sciences, March 2-3, 2012 in PSG College of Technology, Coimbatore, India.

27. Tutorial on "Optimal power flow" and "State Estimation in Emerging Power Systems", in the short-term course on "Operation and management of emerging power system", organized in IIT Kanpur in November, 2011.

28. "Synchronized measurement based wide area monitoring of electric power systems", invited lecture in the "ICT Empowered Grid" conference in Trondheim, Norway, on 5th October, 2011.

29. "Synchrophasor assisted enhanced monitoring of electric power systems", guest lecture in the Norwegian University of Science and Technology (NTNU), Trondheim, Norway, on 4th October, 2011.

30. Delivered part of the tutorial on "Wide area Monitoring and Control", in 16th National Power Systems Conference, Hyderabad, India, in December 2010.

31. "Power System State Estimation by Synchronized Measurement Technology", Invited talk in the Indian Institute of Science, Bangalore, India, December, 2007.

32. "Phasor Measurement Units for Power System State Estimation", University of Cyprus, Nicosia, Cyprus, October, 2007.

33. "Application of Artificial Neural Networks for Online Voltage Stability Monitoring of an Electric Power System", University of Cyprus, Nicosia, Cyprus, January, 2007.

9 Awards and honors

- MS student, Mrs. S. Sahoo won the Eaton Pratibha Excellence Award 2017-18, in 2018 for her MS related work on, "Demand response management".
- PhD student, Mrs. A. Meghwani won the POSCO Power System Award (PPSA 2017), for her Ph.D. thesis, "DC Microgrid Protection: Challenges and Solutions".
- MTech student, Ms. N. Negi won the POSCO Power System Award (PPSA 2017), for her thesis, "Decentralized Adaptive Primary and Distributed Secondary Control for Radial AC Microgrid".
- PhD student, Mrs. A. Meghwani won 'Dr. Ramamoorthy best paper Award in Power Electronics and Drives', for her paper entitled "A Fast Scheme for Fault Detection in DC Microgrid Based on Voltage Prediction", in the 19th National power Systems Conference (NPSC 2016) held at IIT Bhubaneswar during 19-21 December, 2016.
- PhD student, Mr. V. Vignesh won the POSCO Power System Award (PPSA 2016), for his Ph.D. thesis, "Improved Load Modelling and Its Impact On Stability of Power Systems Having Large Penetration of Wind Generation".
- PhD student, Mr. S. K. Mallik won the POSCO Power System Award (PPSA 2016), for his Ph.D. thesis, "Hybrid State Estimation and Enhanced Monitoring of Power Systems Using Synchrophasors".
- MTech student, Mr. N. Sharma won the POSCO Power System Award (PPSA 2016), for his MTech thesis, "Observability Analysis and Topology Error Processing of Power Systems in the Presence of Hybrid Measurements".
- Received IEEE Uttar Pradesh PES/IAS Chapter Outstanding Engineer Award in February, 2016.
- PhD student, Mr. Ankush Sharma won the POSCO Power System Award (PPSA 2015), for his Ph.D. thesis, "Multi-Area Power System State Estimation Utilizing Synchrophasor Measurements, Multi Agents and Common Information Model".
- PhD student, Ch. V. V. S. Bhaskara Reddy won the POSCO Power System Award (PPSA 2015), for his Ph.D. thesis, "Early Detection and Control of Voltage Stability and Fast Assessment of ATC Using Synchrophasor Measurements".
- M. Tech student, Mr. Mahesh Vardikar won the POSCO Power System Award (PPSA 2014). Thesis title: Power system state estimation with external network equivalents considering measurement transformation.
- M. Tech student, Mr. Dongare Kapil Subhash won the POSCO Power System Award (PPSA 2013). Thesis title: Power system state estimation considering real-time equivalents of the external networks.

- M. Tech student, Mr. Sivanagaraju Gangavarapu won the POSCO Power System Award (PPSA 2013). Thesis title: Current differential protection of transmission line considering parameter uncertainties. Co-supervisor: Prof. SC Srivastava.
- Selected as the P. K. Kelkar Young Faculty Research Fellow for the Years 2012-2015 in the Indian Institute of Technology Kanpur, India.
- Rated by the students as the 'Best Instructor' in the 2nd year undergraduate course on 'Introduction to Electrical Engineering' during 2011-12 in IIT Kanpur, India.
- Senior member of the Institute of Electrical and Electronic Engineers (IEEE) (S'05, M'06, SM'11).
- Served as the Chairperson of the IEEE Power & Energy Society (IEEE PES) and Industry Applications Society (IEEE IAS), Uttar Pradesh section, India, for 2010 and 2011.
- Received the "David Dunsiger Award for Excellence" in graduate studies and research in 2007 from the Faculty of Engineering and Applied Science, Memorial University of Newfound, St. John's, Canada.
- Held the post of the president of the Engineering Graduate Students Society (EGSS) from 2004 to 2005, in the Faculty of Engineering and Applied Science, Memorial University of Newfoundland.

10 Courses taught

1. Smart Grid Monitoring and Visualization. Graduate course in Electrical Engineering, Indian Institute of Technology Kanpur, India.
2. Synchrophasor Applications in Power Systems. Short course in Electrical Engineering, Indian Institute of Technology Mandi, Himachal Pradesh, India, April, 2015.
3. EE-330: Power Systems. Undergraduate course in Electrical Engineering, Indian Institute of Technology, Kanpur, India.
4. ESO-210: Introduction to Electrical Engineering. Undergraduate course in Electrical Engineering, Indian Institute of Technology, Kanpur, India.
5. EE-631: Advanced Power System Stability. Graduate course in Electrical Engineering, Indian Institute of Technology, Kanpur, India.
6. EE-698Z: Synchrophasor Technology and its Applications. Graduate course in Electrical Engineering, Indian Institute of Technology, Kanpur, India.
7. EE-632: Economic Operation & Control of Power Systems. Graduate course in Electrical Engineering, Indian Institute of Technology, Kanpur, India.

8. ENB 452: Advanced power system analysis. Final year undergraduate, Electrical Engineering, Queensland University of Technology, Brisbane, Australia.

9. ENB 340: Power systems and machines, Second year undergraduate, Electrical Engineering, Queensland University of Technology, Brisbane, Australia.

10. Industrial Electronics. Final year undergraduate, Electrical Engineering, Queensland University of Technology, Brisbane, Australia.

11. Advanced Design and Professional Practice, Final year undergraduate, Electrical Engineering, Queensland University of Technology, Brisbane, Australia.

11 Research students advising

11.1 PhD students supervising

11.1.1 Ongoing

1. S. Som, "Control and operation of networked microgrids". Started in 2017, Co-supervisor: Prof. S. R. Sahoo.

2. R. Dutta, "Distribution system state estimation". Started in 2017, Co-supervisor: Prof. A. Sharma.

3. A. Mitra, "Load modeling and generator parameter estimation". Started in 2017, Co-supervisor: Prof. A. Mahapatra.

4. P. B. Bhimrao, "Power system stability problems with large penetration of renewable energy". Started in 2017.

5. C. L. Dewanganp, "Control strategies for grid-connected PV systems". Started in 2015, Co-supervisor: Prof. S. N. Singh.

6. P. W. Pande, "Monitoring and control of power systems with large penetration of renewable energy". Started in 2016, Co-supervisor: Prof. S. C. Srivastava.

7. J. G. Sreenath, "Multi-area state estimation". Started in 2015, Co-supervisor: Prof. K. Rajawat.

8. P. Gangwar, "State estimation of distribution systems". Started in 2015, Co-supervisor: Prof. S. N. Singh.

9. A. Dubey, "Hybrid state estimation". Started in 2013, Co-supervisor: Prof. A. Sharma.

10. B. Rathore, "Stability of microgrids". Started in 2013, Co-supervisor: Prof. S. Anand.

11. S. M. Ashraf, "Synchrophasor applications for power system stability assessment". Started in 2013.

11.1.2 Completed

1. A. Meghwani, "Development of Efficient Fault Detection and Location Techniques for DC Microgrid Protection". Completed in 2018, Co-supervisor: Prof. S. C. Srivastava.
2. V. Vignesh, "Improved load modelling and its impact on stability of power systems having large penetration of wind generation", completed in 2016, Co-supervisor: Prof. S. C. Srivastava.
3. S. K. Mallik, "Synchronized measurement technology for state estimation and enhanced power system visualization", completed in 2015, Co-supervisor: Prof. S. N. Singh.
4. C. V. V. S. B. Reddy, "Voltage stability monitoring and control using synchronized measurement technology", completed in 2014, Co-supervisor: Prof. S. C. Srivastava.
5. A. Sharma, "Multilevel distributed power system state estimator for smart grid applications", completed in 2014, Co-supervisor: Prof. S. C. Srivastava.

11.2 MTech/MS students supervising

11.2.1 Ongoing

1. A. Kishore, "Parameter and Topology Estimation for Electrical Power Distribution System". Started in 2017, Co-supervisor: Prof. A. Sharma.
2. A. Khan, "Parameter and Topology Estimation for Electrical Power Distribution System". Started in 2017, Co-supervisor: Prof. A. Sharma.
3. A. Kumar, "Robust Design and Coordinated Tuning of Power System Stabilizers". Started in 2017.
4. Santhoshkumar, "Robust Three-Phase Distribution System State Estimation using Hybrid Measurements". Started in 2017, Co-supervisor: Prof. K. Rajawat.

11.2.2 Completed

1. G. Garg, "Optimal Day-Ahead Load Scheduling in an Islanded Microgrid using Demand-Side Management". Started in 2017, Co-supervisor: Prof. A. Mahapatra.
2. S. Sahoo, "Optimal Dispatch Scheduling for Residential Battery Storage with Solar Photovoltaics". Completed in 2018, Co-supervisor: Prof. A. Sharma.
3. S. Patre, "Parameter estimation of synchronous generator using online measurements from PMU". Completed in 2018.
4. B. Uppin, "Transfer Function Based Approach For Dynamic Load Modelling". Completed in 2018. Co-supervisor: Prof. A. Mahapatra.
5. Sathish Kumar, "Estimation and Utilization of Aggregate Harmonic Load Model". Completed in 2018. Co-supervisor: Prof. S. Anand.

6. N. Negi, "Decentralized adaptive primary and distributed secondary control for radial AC microgrid". Completed in 2016. Co-supervisor: Prof. S. R. Sahoo.

7. G. A. Kumar, "Rotor angle estimation and coherency detection of synchronous generators". Completed in 2015.

8. M. Mukherjee, "Voltage Stability monitoring using Lyapunov Exponent". Completed in 2015. Co-supervisor: Prof. M. Banerjee.

9. K. M. Naik, "Optimal Demand Response For PV-Integrated Households". Completed in 2015.

10. N. Singh, "Observability analysis and topology error processing of power systems in the presence of hybrid measurements". Completed in 2015.

11. J. G. Sreenath, "An Optimal Smoother Based Dynamic State Estimator for Power Systems Considering PMU Measurements". Completed in 2015.

12. P. Porwal, "Measurement Based Recursive Methods for Monitoring of Power System Oscillations", completed in 2014, Co-supervisor: Prof. N. Verma.

13. M Jha, "Estimation of the Rotor Angle of Synchronous Generator using PMU Measurements", completed in 2014.

14. R. P. Kundu, "A study on the assessment of voltage stability of electric power systems", completed in 2013. Job after completion: PowerGrid, India.

15. V. M. Pandurang, "Power system state estimation with external network equivalents considering measurement transformations", completed in 2013. Job after completion: PowerGrid, India.

16. S. Chitturi, "Performance study on the techniques for monitoring power system oscillations", completed in 2013. Co-supervisor: Prof. S. N. Singh. Job after completion: PowerGrid, India.

17. S. Gangavarapu, "Current differential protection of transmission line considering parameter uncertainties", completed in 2012, Co-supervisor: Prof. S. C. Srivastava. Job after completion: Ashok Leylands, Chennai, India.

18. C. P. K. Reddy, "Adaptive load shedding strategy for improving power system frequency and voltage stability", completed in 2012, Co-supervisor: Prof. S. C. Srivastava. Job after completion: Dar Group, Pune, India.

19. K. Dongare, "Power system state estimation considering real-time equivalents of the external networks", completed in 2012. Job after completion: Tata Motors, Pune, India.

20. B. Amanulla, "Reconfiguration of Distribution Systems Considering Reliability and Power Loss", completed in 2011, Co-supervisor: Prof. S. N. Singh. Job after completion: Ashok Leylands, Chennai, India.

21. V. S. K. Reddy, "Estimation of Fault Location on Transmission Lines using Synchronous and Asynchronous Measurements", completed in 2011, Co-supervisor: Prof. S. C. Srivastava. Job after completion: Tata Motors, Pune, India.

22. A. Kumar, "ANN based state estimation for power systems, including bad data processing by particle swarm optimization", completed in 2011. Job after completion: Dar Group, Pune, India.

23. N. K. Meena, "Multi-criteria PMU Placement for power system observability", completed in 2011. Job after completion: Faculty position in Jagannath University, Jaipur, India.

24. G. Gourav, "Bang-bang modulated FACTS stabilizing controllers based on online identification of critical modes", completed in 2011, Co-supervisor: Prof. S. C. Srivastava.