

CURRICULUM VITAE

Name : **DR. KAMAL K. MANDAL**
Present Position : Professor
Institution : Department of Power Engineering
Jadavpur University, Salt Lake Campus, Sector III
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Date of Birth : 25.12.1964

Academic Qualification:

Degree / Fellowship	University / Institute	Year	Class
Doctor of Philosophy	Jadavpur University	2008	
Master of Engineering	Allahabad University	1998	Ist Class
Bachelor of Electrical Engineering	Jadavpur University	1986	Ist Class (Hons.)

Industrial Experience:

Name of Organization	Post Held	Duration
Bharat Petroleum Corp Ltd, Bombay	Officer Trainee (Engg)	1987, February – 1988, December
Indian Telephone Industries LTD, Allahabad	Asst. Executive Engineer	1988, January – 1992, January
Indian Telephone Industries LTD, Allahabad	Executive Engineer	1992, January – 1997, January
Indian Telephone Industries LTD, Kolkata	Deputy Manager	1997, January – 1998, September

Teaching Experience:

Name of The Institute	Post Held	Duration
Lecturer	Regional Engineering College, (Presently known as NIT Durgapur)	1998, September – 2002, May.
Reader	Jadavpur University	2002, May – 2005,

		December
Jadavpur University	Associate Professor	2006, January- 2010, April
Jadavpur University	Head, Dept. of Power Engineering	(2006, April- 2008 October)
Jadavpur University	Professor	(2010, May-till date)
Jadavpur University	Head, Dept. of Power Engineering	2023, January- - till date

List of Publications:

Referred International Journal:

1. Meenakshi De, Kamal Krishna Mandal, Kamal Krishna Mandal Energy management strategy and renewable energy integration within multi-microgrid framework utilizing multi-objective modified personal best particle swarm optimization, Volume 53, Part A, October 2022, 102410, DOI: 10.1016/j.seta.2022.102410
2. Roy, K., Kamal Krishna, M., Atis Chandra, M., Adaptive neuro fuzzy inference system with elephant herding optimization based energy management scheme, (2022) Concurrency and Computation: Practice and Experience, <https://doi.org/10.1002/cpe.7061>
3. Mandal, M., Mandal, K.K., Datta, A., Solar PV driven hybrid gravity power module—Vanadium redox flow battery energy storage for an energy efficient multi-storied building, (2022) International Journal of Energy Research. Vol 46 (13), pp. 18477-18494, <https://doi.org/10.1002/er.8460>
4. Ranjit Roy, Tanmay Das and Kamal Krishna Mandal, “Optimal reactive power dispatch using a novel optimization algorithm” Journal of Electrical Systems and Information Technology 8(18), 2021, pp.1-24, <https://doi.org/10.1186/s43067-021-00041-y>
5. Kallol Roy, Kamal Krishna Mandal & Atis Chandra Mandal, “Smart energy management for optimal economic operation in grid-connected hybrid power system,” ENERGY SOURCES, PART A: RECOVERY, UTILIZATION, AND ENVIRONMENTAL EFFECTS, 2021, DOI: 0.1080/15567036.2021.1961945, Online ISSN: 1556-7230
6. Kumar, S., Mandal, K.K. & Chakraborty, N. Optimal placement of different types of DG units considering various load models using novel multiobjective quasi-oppositional grey wolf optimizer. Soft Comput 25, 4845–4864 (2021). <https://doi.org/10.1007/s00500-020-05494-3>
7. Gourab Das, M. De, Kamal Krishna Mandal, “Multi-objective optimization of hybrid renewable energy system by using novel autonomic soft computing

- techniques,” September 2021 *Computers & Electrical Engineering* 94(2):107350, DOI: 10.1016/j.compeleceng.2021.107350
8. Meenakshi De, G. Das, K.K. Mandal, “An effective energy flow management in grid-connected solar–wind-microgrid system incorporating economic and environmental generation scheduling using a meta-dynamic approach-based multiobjective flower pollination algorithm,” *Energy Reports* 7 (2021) 2711–2726, <https://doi.org/10.1016/j.egyr.2021.04.006>
 9. Meenakshi De, G. Das, Kamal K. Mandal, “Proposing Intelligent Energy Management Model for Implementing Price Rate in Microgrids Using Demand Response Program,” *J. Inst. Eng. India Ser. B, Journal of The Institution of Engineers (India): Series B* volume 102, pages 427–435 (2021) <https://doi.org/10.1007/s40031-021-00564-y>
 10. Kallol Roy, Kamal Krishna Mandal, Atis Chandra Mandal, “A hybrid RFCRO approach for the energy management of the grid connected microgrid system,” *International Transactions on Electrical Energy Systems*, 2020, Vol 30, Issue 12, <https://doi.org/10.1002/2050-7038.12660>
 11. Tanmay Das, Ranjit Roy and Kamal Krishna Mandal, “Impact of the penetration of distributed generation on optimal reactive power dispatch,” *Protection and Control of Modern Power Systems* (2020) 5:31, pp.1-26, <https://doi.org/10.1186/s41601-020-00177-5>
 12. Soham Mandal, Kamal K. Mandal, “Optimal energy management of microgrids under environmental constraints using chaos enhanced differential evolution,” *Renewable Energy Focus*, Volume 34, September 2020, pp 129-141. <https://doi.org/10.1016/j.ref.2020.05.002>
 13. Kallol Roy, Kamal K Mandal, Atis C Mandal, “Application of ANFASO for optimal power flow management of MG-connected system with energy storage,” *International Journal of Energy Research* 2020, Vol 44, Issue 7, pp. 5272-5286, <https://doi.org/10.1002/er.5273>
 14. Anirban Chowdhury , Ranjit Roy , Kamal Krishna Mandal, “ Optimal Single Point Injection of PV based DG Maximizing Technical, Social and Environmental Benefits in Radial Distribution Systems using JAYA Algorithm,” *Journal of Power Research*, Central Power Research Institute, Bangalore, Vol 15, Issue 1, pp. 39-45 DOI: 10.33686/pwj.v15i1.144728
 15. Tanmay Das, Ranjit Roy, Kamal Krishna Mandal, “Comparative Performance Analysis of Variants of Particle Swarm Optimization of Optimal Reactive Power Dispatch,” *Power Research*, 2019, Vol 15, Issue 1, pp.16-24, <https://doi.org/10.33686/pwj.v15i1.144733>
 16. Roy, K., Mandal, K.K. & Mandal, A.C., “ Energy management of the energy storage-based micro-gridconnected system: an SOGSNN strategy,” *Soft Comput* (2019), Springer, pp.1-14, <https://doi.org/10.1007/s00500-019-04412-6>

17. Meenakshi De, G. Das, Kamal K. Mandal, B. Tudu, "A Critical Assessment of Demand Response Programs Applied for Optimal Energy Management in Microgrids," *International Journal of Recent Technology and Engineering (IJRTE)*, ISSN: 2277-3878, Volume-8 Issue-2S7, July 2019. pp.344-349, DOI: 10.35940/ijrte.B1123.0782S719.
18. G. Konar, K. K. Mandal, and N. Chakraborty, "Hybrid Renewable Energy Integrated Indian Power System under Availability Based Tariff," *International Transactions on Electrical Energy Systems*, *Int Trans Electr Energ Syst.* 2019; pp1-15. <https://doi.org/10.1002/2050-7038.12162>.
19. Bidishna Bhattacharya, Niladri Chakraborty, Kamal K. Mandal, "A cost-optimized power management strategy for combined wind thermal-pumped hydro generation considering wind power uncertainty," *Int Trans Electr Energ Syst.* 2019, pp. 1-18, <https://doi.org/10.1002/2050-7038.12104>.
20. Gourab Das, Meenakshi De, K. K. Mandal, "Design of Flyback Converter by using an Ideal Switch and a MOSFET Switch" published in *International Journal of Nanoparticles (IJNP)*, Scopus Index journal, *International Journal of Nanoparticles*, 2020 Vol.12 No.4, pp.289-315, DOI: 10.1504/IJNP.2020.10034531
21. Sajjan Kumar, Kamal K. Mandal & Niladri Chakraborty, "A novel opposition-based tuned-chaotic differential evolution technique for techno-economic analysis by optimal placement of distributed generation," *Engineering Optimization*, 2019, pp. 1-23, <https://doi.org/10.1080/0305215X.2019.1585832>.
22. Sajjan Kumar, Kamal K. Mandal, Niladri Chakraborty, "Optimal DG placement by multi-objective opposition based chaotic differential evolution for techno-economic analysis," *Applied Soft Computing Journal* 78 (2019) pp. 70-83, <https://doi.org/10.1016/j.asoc.2019.02.013>.
23. Kallol Roy, Kamal Krishna Mandal, Atis Chandra Mandal, "Ant-Lion Optimizer algorithm and recurrent neural network for energy management of micro grid connected system," *Energy* 167 (2019) pp. 402-416, DOI: 10.1016/j.energy.2018.10.153
24. B. Tudu, K. K. Mandal, N. Chakraborty, "Optimal design and development of PV-wind-battery based nano-grid system: A field-on-laboratory demonstration," *Front. Energy*, pp. 1-15, 2018, <https://doi.org/10.1007/s11708-018-0573-z>
25. Meenakshi De, G. Das, K. K. Mandal, "Time varying acceleration coefficient Particle swarm optimization for an optimal power controller in micro grid," *International Journal of Research in Engineering, IT and Social Sciences*, pp. 163-172, 2018.
26. Syamasree Biswas (Raha), Kamal Krishna Mandal, Niladri Chakraborty, "Hybrid SMES based Reactive Power Dispatch by Cuckoo Search Algorithm", *IEEE Transaction on Industry Applications*, Vol. 55, No. 1, January/February 2019, pp. 907-917, DOI 10.1109/TIA.2018.2866575

27. Kallol Roy, Kamal Krishna Mandal, Atish Chandra Mandal, Sankar Narayan patra, "Analysis of energy management in micro grid – A hybrid BFOA and ANN approach," *Renewable and Sustainable Energy Reviews* 82 (2018), pp. 4296–4308. <https://doi.org/10.1016/j.rser.2017.07.037>.
28. Meenakshi De, G. Das, K. K. Mandal, "A new approach for investigation of multi machine stability in a power system," *Indian Journal of Scientific Research* 14(2): pp. 245-249, 2017.
29. K.K. Mandal and N. Chakaborty, "Closure of "Differential evolution technique-based short-term economic generation scheduling of hydrothermal systems" by K.K. Mandal, N. Chakraborty," *Electric Power Systems Research* 147 (2017) 313–314, DOI: 10.1016/j.epsr.2016.02.019
30. M. Ghosh, S. Kumar, S. Mandal and K. K. Mandal, "Optimal Sizing and Placement of DG Units in Radial Distribution System Using Cuckoo Search Algorithm", *International Journal of Applied Engineering Research* Vol 12, No. 1., ISSN 0973-4562 2017, pp. 362-369.
31. S. Mandal, K. K. Mandal, "Performance Evaluation of Different Variants of Differential Evaluation for Optimal Capacitor Placement in radial Distribution Systems," *International Journal of Advanced Engineering Science and Technological Research*, Vol 4 (1), 2016, pp. 37-42.
32. Syamasree Biswas (Raha), Kamal Krishna Mandal, Niladri Chakraborty, "Pareto-efficient double auction power transactions for economic reactive power dispatch," *Applied Energy* 168, 2016, pp. 610-627, <https://doi.org/10.1016/j.apenergy.2016.01.039>
33. Kallol Roy, Kamal Krishna Mandal, Atis Chandra Mandal, "Modeling and managing of micro grid connected system using Improved Artificial Bee Colony algorithm," *International Journal Electrical Power and Energy Systems* 75 (2016) pp.50–58, <https://doi.org/10.1016/j.ijepes.2015.08.003>
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35. B. Tudu, K.K. Mandal, N. Chakraborty, "Modeling and Performance Evaluation of Hybrid Renewable Energy System Considering The Ageing of System Components," *Australian Journal of Basic and Applied Sciences*, ISSN:1991-8178, 9(16) Special 2015, pp. 126-133.
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37. K.K. Mandal and N. Chakaborty, "Reply to "Short-term combined economic emission scheduling of hydrothermal power systems with cascaded reservoirs using differential evolution" by K.K. Mandal and N. Chakaborty. *Energy*

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38. K.K. Mandal, S. Mandal, B. Bhattacharya and N. Chakraborty, “Non-convex emission constrained economic dispatch using a new self-adaptive particle swarm optimization technique,” *Applied Soft Computing* 28 (2015) 188–195, <https://doi.org/10.1016/j.asoc.2014.11.033>
 39. G. Konar, K. K. Mandal, and N. Chakraborty, “Two Area Load Frequency Control Using GA Tuned PID Controller in Deregulated Environment,” *Transactions on Engineering Technologies*, 2014, pp. 263-268. ISBN: 978-988-19253-3-6, ISSN: 2078-0958 (Print); ISSN: 2078-0966 (Online)
 40. Kallol Roy, Kamal Krishna Mandal, “Hybrid optimization algorithm for modeling and management of micro grid connected system,” *Frontiers in Energy*, September 2014, Volume 8, Issue 3, pp 305-314, <https://doi.org/10.1007/s11708-014-0308-8>
 41. Syamasree Biswas (Raha), K.K. Mandal, N. Chakraborty, “Constriction Factor based Particle Swarm Optimisation for Analyzing Tuned Reactive Power Dispatch,” *Frontiers in Energy*, Springer June 2013, Volume 7, Issue 2, pp 174-181, <https://doi.org/10.1007/s11708-013-0246-x>
 42. Syamasree Biswas (Raha), Prof. Niladri Chakraborty, Dr. Kamal Krishna Mandal, “Differential evolution technique with random localization for tuned reactive power dispatch problem,” *Electric Power Components and Systems*, 41: pp.500–518, 2013, <https://doi.org/10.1080/15325008.2012.755229>
 43. K.K. Mandal, N. Chakraborty, “Parameter Study of Differential Evolution based Optimal Scheduling of Hydrothermal Systems”, *Journal of Hydro-environment Research* 7, 2013, pp.72-80, <https://doi.org/10.1016/j.jher.2012.04.001>
 44. S. Biswas (Raha), K.K. Mandal, and N. Chakraborty, “Modified Differential Evolution based Multi-Objective Congestion Management in Deregulatory Power Environment,” *International Journal of Electrical, Electronics and Computer Engineering* 1(2): 2012, pp.93-97, ISSN No. (Online) : 2277-2626
 45. Kamal K. Mandal and Debashis Jana, “Reactive Power Planning for Distribution Feeders Using a Novel Improved Self Adaptive Particle Swarm Optimization Technique,” *CIIT International Journal of Artificial Intelligent Systems and Machine Learning*, Vol 4, No 6, pp. 409 – 415, June 2012. Print: ISSN 0974 – 9667 & Online: ISSN 0974 – 9543, Issue: June 2012 DOI: AIML062012011.
 46. Bidishna Bhattacharya, Kamal K.Mandal, Niladri Chakraborty, “A Multiobjective Optimization Based on Cultural Algorithm for Economic Dispatch with Environmental Constraints,” *International Journal of Scientific & Engineering Research*, Volume 3, Issue 6, June-2012 1 ISSN 2229-5518, pp. 1-9.
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Units Considering Different Effects,” *International Journal of Soft Computing and Engineering (IJSCE)*, ISSN: 2231-2307, Volume-2, Issue-2, May 2012, pp.45-50.

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49. K.K. Mandal, N. Chakraborty, “Optimal Scheduling of Cascaded Hydrothermal Systems Using a New Improved Particle swarm Optimization Technique,” *Smart Grid and Renewable Energy*, 2011, 2, pp. 282-292, doi: 10.4236/sgre.2011.23032.
50. K.K. Mandal, N. Chakraborty, “Optimal Capacitor Placement in Distribution Systems using a New Improved Particle Swarm Optimization Technique,” *International Journal of Applied Engineering Research*, Vol 6. No. 5, 2011, pp. 1182-1188.
51. K.K. Mandal, N. Chakraborty, “Optimal Hydrothermal Scheduling Using a Novel Population Based Optimazation Technique,” *International Journal of Applied Engineering Research*, Vol 6. No. 5, 2011, pp. 1112-1120.
52. K.K. Mandal, N. Chakraborty, “Short-term Combined Economic Emission Scheduling of Hydrothermal Systems with Cascaded Reservoirs using Particle Swarm Optimization Technique,” *Applied Soft Computing* 11 (2011) pp.1295–1302, <https://doi.org/10.1016/j.asoc.2010.03.006>
53. K.K. Mandal, M. Basu, N. Chakraborty, “Particle Swarm Optimization based Fuzzy Satisfying Method for Economic Environmental Dispatch of Hydrothermal Power Systems,” *International Journal of Automation and Control*, Vol 3, No.2/3, 2009, pp.216-229. Inderscience.
54. K.K. Mandal, N. Chakraborty, “Short-term Combined Economic Emission Scheduling of Hydrothermal Power Systems with Cascaded Reservoirs using Differential Evolution,” *Energy Conversion and Management* 50 (2009) pp. 97–104, <https://doi.org/10.1016/j.enconman.2008.08.022>
55. K.K. Mandal, N. Chakraborty, “Effect of Control Parameters on Differential Evolution based Combined Economic Emission Dispatch with Valve-Point Loading and Transmission Loss,” *International Journal of Emerging Power Systems*, Vol. 9, No. 4 . 2008, <https://doi.org/10.2202/1553-779X.1918>
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International Conference:

1. Gargi Konar; Niladri Chakraborty; Kamal K Mandal, "Renewable Integrated Two Area Load Frequency Control under Availability Based Tariff (ABT) Using Particle Swarm Optimization (PSO) with Time-Varying Acceleration Coefficients," 8 th Biennial International Conference on Energy and Infrastructure Management, July 27-29, 2022,
2. Gargi Konar; Niladri Chakraborty; Kamal K Mandal, "Wind Power Penetration Effect on Unscheduled Interchange Rate in an Indian Power System under Availability Based Tariff," 2022 11th International Conference on Renewable Energy Research and Application (ICRERA), 18-21 September 2022, pp. 1-6, IEEE Explore, DOI: 10.1109/ICRERA55966.2022.9922687
3. Tanmay Das; Ranjit Roy; Kamal Krishna Mandal, "Integrated PV system with Optimal Reactive Power Dispatch for Voltage Security using JAYA Algorithm," 2021 7th International Conference on Electrical Energy Systems (ICEES), pp.1-6, IEEE, DOI: 10.1109/ICEES51510.2021.9383711, Electronic ISBN:978-1-7281-7612-3
4. Krishnendu Sardar; Arkatanu Maji; K. K. Mandal, Bhimsen Tudu, "Control Strategy for Active and Reactive Power Regulation of Grid Tied Photovoltaic System," 2021 Innovations in Energy Management and Renewable Resources(52042), IEEE, pp.1-6, IEEE, DOI: 10.1109/IEMRE52042.2021.9386738, Electronic ISBN:978-1-6654-1259-9
5. Anirban Chowdhury; Ranjit Roy; Kamal Krishna Mandal, "Techno-Socio-Economic Improvements by PV based DG & BESS Integration in Radial Distribution Networks using CSA," 2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), pp.1-5, IEEE, DOI: 10.1109/ICAECT49130.2021.9392520, Electronic ISBN:978-1-7281-5791-7
6. Tanmay Das; Ranjit Roy; Kamal Krishna Mandal, "Solving Optimal Reactive Power Dispatch Problem with the Consideration of Load Uncertainty using Modified JAYA Algorithm," 2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), pp.1-6, IEEE, DOI: 10.1109/ICAECT49130.2021.9392508, Electronic ISBN:978-1-7281-5791-7
7. Ghosh M., Tudu B., Mandal K.K. (2021) Optimal Capacity and Location of DGs in Radial Distribution Network Using Novel Harris Hawks Optimization Algorithm. In: Singh D., Awasthi A.K., Zelinka I., Deep K. (eds) Proceedings of International Conference on Scientific and Natural Computing. Algorithms for Intelligent Systems.Ppp-37-47, pringer, Singapore. https://doi.org/10.1007/978-981-16-1528-3_4
8. A. Chowdhury, R. Roy and K. K. Mandal, "Optimal Allocation of Wind Based DG for Enhancement of Technical, Economic and Social Benefits using Jaya Algorithm for Radial Distribution Networks," 2020 International Conference on Convergence to Digital World - Quo Vadis (ICCDW), Mumbai, India, 2020, pp.

- 1-6, doi: 10.1109/ICCDW45521.2020.9318659. Electronic ISBN:978-1-7281-4635-5
9. Anirban Chowdhury, Ranjit Roy, Kamal Krishna Mandal, Soumyajit Bhattacharya, Priyankar Biswas, Sayani Nandy, "Comparison of Improvement in Technical, Commercial and Environmental Benefits by Optimal Single-Point, Twin-Point and Triple-Point Deterministic PV-Based DG Injection by Jaya Algorithm," Computational Advancement in Communication Circuits and Systems 2020, pp. 25-36
 10. T. Das, R. Roy and K. K. Mandal, "Optimal Reactive Power Dispatch based on Modified JAYA Algorithm," 2020 International Conference on Computer, Electrical & Communication Engineering (ICCECE), Kolkata, India, 2020, pp. 1-7, doi: 10.1109/ICCECE48148.2020.9223111. Electronic ISBN:978-1-7281-4476-4
 11. A. Chowdhury, R. Roy and K. K. Mandal, "Optimal allocation of wind based DG for enhancement of technical, economic & social benefits using Cuckoo Search Algorithm for radial distribution networks," 2020 International Conference on Computer, Electrical & Communication Engineering (ICCECE), Kolkata, India, 2020, pp. 1-6, doi: 10.1109/ICCECE48148.2020.9223085. Electronic ISBN:978-1-7281-4476-4
 12. R. Roy, T. Das and K. K. Mandal, "Optimal Reactive Power Dispatch for Voltage Security using JAYA Algorithm," 2020 International Conference on Convergence to Digital World - Quo Vadis (ICCDW), Mumbai, India, 2020, pp. 1-6, doi: 10.1109/ICCDW45521.2020.9318700. Electronic ISBN:978-1-7281-4635-5
 13. K. K. Mandal, K. Sardar, A. Maji, A. Biswas, B. Tudu, "Performance Analysis of Grid Connected PV system under Varying Irradiance and Temperature," Intelligent Electrical Systems: A Step towards Smarter Earth 2020
 14. A. Chowdhury, R. Roy and K. K. Mandal, "Optimal allocation of Wind Turbine & SVC using Cuckoo Search Algorithm for enhancement of techno-socio-environmental benefits in distribution network," 2020 21st National Power Systems Conference (NPSC), Gandhinagar, India, 2020, pp. 1-5, doi: 10.1109/NPSC49263.2020.9331856. Electronic ISBN:978-1-7281-8552-1
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 16. Meenakshi De, G. Das, K K Mandal, "Energy management in microgrids for application in residential commercial and industrial systems using intelligent soft computing technique," International Conference on Frontiers in Engineering, Management and Applied Science (FEMAS 2019), Guru Nanak Institute of Technology, Sodepur, Kolkata, 26-27th September 2019. Proceeding to be published by Journal of The Institution of Engineers (India).
 17. Tanmay Das, Ranjit Roy, Kamal Krishna Mandal, Souren Mondal, Soumaymoy Mondal, Paresh Hait, Moloy Kumar Das, "Optimal Reactive Power Dispatch Incorporating Solar Power Using Jaya Algorithm." In: Maharatna K., Kanjilal M.,

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18. Anirban Chowdhury, Ranjit Roy, Kamal Krishna Mandal, Soumyajit Bhattacharya, Priyankar Biswas, Sayani Nandy, "Comparison of Improvement in Technical, Commercial and Environmental Benefits by Optimal Single-Point, Twin-Point and Triple-Point Deterministic PV-Based DG Injection by Jaya Algorithm" In: Maharatna K., Kanjilal M., Konar S., Nandi S., Das K. (eds) Computational Advancement in Communication Circuits and Systems. Lecture Notes in Electrical Engineering, 2020, vol 575, pp.25-36, Springer, Singapore, https://doi.org/10.1007/978-981-13-8687-9_3.
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 20. Meenakshi De, Gourab Das, K. K. Mandal, " Efficient energy management in microgrids using power flow pollination algorithm," International conference on Computational Intelligence in Pattern Recognition (CIPR) 2019, 19-20 January, IEST, Shibpur, Howrah, pp. 553-562,
 21. Gourab Das, M. De, K. K. Mandal, "Smart Grid Integration of Solar Energy System and It's Control Analysis" in Proceedings of (i-PACT 2019), 2019, VIT, Vellore, 22-23 March, Proceedings to be included in IEEE Explore, pp-1-4, DOI: 10.1109/i-PACT44901.2019.8960176, Electronic ISBN:978-1-5386-8190-9
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 23. Meenakshi De, G. Das, K K Mandal, " Time varying acceleration coefficients particle swarm optimization for an optimal power controller in microgrid, " in Proceedings of International Conference on Sustainability Development- A Value Chain Perspective, SDVP-2018.
 24. B. Tudu, K. K. Mandal, N. Chakraborty; "Behind the Meter Optimization of Grid Connected PV System" In Proc IEEE International Conference on Computing, Power, and Communication Technologies (GUCON 2018), Sept. 28-29, 2018; Galgotia University, India. Available in IEEE Explore, pp. 500-503. DOI: 10.1109/GUCON.2018.8675000, Electronic ISBN:978-1-5386-4491-1
 25. Shailja Sinha Kamal K. Mandal , "Optimal Sizing of Battery-Ultracapacitor Hybrid Energy Storage Device in a Standalone Photovoltaic System," 2018 International Conference On Advances in Communication and Computing Technology (ICACCT), Amrutvahini College of Engineering, Sangamner, Ahmednagar, India. Feb 8-9, 2018. Available in IEEE Explore, pp. 7-11.DOI: 10.1109/ICACCT.2018.8529542. Electronic ISBN:978-1-5386-0926-2
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4. K. K. Mandal, D. Chakraborty, N. Chakraborty, "Particle Swarm Optimization Algorithm as Discrete Search Technique with Parameter Study using Economic Load Dispatch," Proceeding of National Conference on Challenges of Power Sector in 21st century," Jabalpur Engineering College, Jabalpur, Nov 13-14, 2007, Vol I, pp.5-10.
5. B. Kar, F. Kundu, D. Dutta, K.K. Mandal, N. Chakraborty, "Evolutionary Algorithm based Multi-objective Power Dispatch," 14th National Power System Conference (NPSC 2006) December 27-29, 2006, IIT- Roorkee, Roorkee, Vol I.
6. D. Datta, B. Kar, K. K. Mandal, M. Basu, N. Chakraborty, "Particle Swarm Optimization Algorithm as Discrete Search Technique in Economic Load Dispatch," 14th National Power System Conference (NPSC 2006) December 27-29, 2006, IIT- Roorkee, Roorkee, Vol I.

Book:

Dr. Kamal K. Mandal, "Soft Computing Techniques for Constrained Economic Generation," LAP Lambert Academic Publishing, Germany, 2011, ISBN: 978-3-8454-2334-0.

Book chapter:

Chapter 4: Economic Load Scheduling of Thermal Power Generating Units (Kamal K. Mandal, Niladri Chakraborty, Department of Power Engineering, Jadavpur University, India) in “Scheduling Problems and Solutions,” pp. 125-178, Nova Publishers, USA, 2011, ISBN: 978-1-61470-769-1

Editor/Membership:

1. Member of Editorial Board for IJSCE, International Journal of Soft Computing and Engineering
2. Member of Advisory Board, International Journal of Engineering and Innovative Technology (IJEIT)
3. Member of Editorial Board, International Journal of Engineering and Advanced Technology (IJEAT)
4. Member of Editorial Board, American Journal of Electrical Power and Energy Systems
5. Member of Editorial Board, International Journal of Innovative Science and Modern Engineering (IJISME)
6. Member of Editorial Board, International Journal of Emerging Science and Engineering (IJESE)
7. Member of Editorial Board, International Journal of Inventive Engineering and Sciences (IJIES)
8. Member of Advisory Board, International Journal of Engineering ,Science and Innovative Technology (IJESIT)

Conference Attended/Presented papers:

Authors	Conference Detail	Place	Publication Detail

ME Thesis Guidance:

Sl No.	Name of the students	Title of the Thesis	Co-Supervisor
1	Rajarshi Barman Roy	Environmentally constrained	

		economic load dispatch using chaotic differential evolution	
2	Rajib Bannerjee	A New Hybrid Differential Evolution Technique For Economic Emission Dispatch	
3	V.S.K.V. Harish	DESIGN AND DEVELOPMENT OF A PROTECTION PANEL FOR A PICO FRANCIS TURBINE DRIVEN HYDRO GENERATOR	Prof. Bireswar Majumdar
4	KIRTI NATH JHA EXAMINATION ROLL	DEVELOPMENT OF A SMALL WIND POWER GENERATION FACILITY	Prof. Bireswar Majumdar
5	MD ZOHEB MERAJ	Comparison of Different Variants of Particle Swarm Optimization Technique for Economic Load Dispatch	
6	Srija Mustafi	Application of Simulated Annealing Technique in Emission Constrained Economic Dispatch	
7	Suman Sutradhar	Multi-objective Reactive Power Planning using a New Improved Modified Differential Evolution Algorithm	
8	KRISHNASHIS MAL	Optimal Load Scheduling of Thermal Generating Units by different variants of Particle Swarm Optimization	
9	AMRITA BHOWMIK	Design and scheduling of a Hybrid Power System consisting of Wind Turbine, PV Generator, Battery Bank and Diesel Generator using 'area based observe and focus' algorithm	DR. BHIMSEN TUDU DR. NILADRI CHAKRABORTY
10	SAIKAT KUNDU	CONGESTION MANAGEMENT BY RESCHEDULING OF ACTIVE POWER OF GENERATORS USING GENERATOR SENSITIVITY BASED ON DIFFERENTIAL EVOLUTION	DR. NILADRI CHAKRABORTY

11	SAUBHAGYA RANJAN BISWAL	Optimal Sizing and Placement of Capacitors in Radial Distribution Systems using Cuckoo Search Algorithm	Dr. Bhimsen Tudu
12	ABHISEK SAHA	MAXIMUM POWER POINT TRACKING OF SOLAR PV ARRAY UNDER PARTIAL SHADING CONDITION USING SOFT COMPUTING TECHNIQUES	Dr. Bhimsen Tudu
13	Moumita Ghosh	Cuckoo Search Algorithm for Optimal Sizing and Placement of DG Units in Radial Distribution Systems	Dr. Bhimsen Tudu
14	SOUMYADIP ROY	ENVIRONMENTAL/ECONOMIC SCHEDULING OF A MICROGRID WITH RENEWABLE ENERGY RESOURCES USING PARTICLE SWARM OPTIMIZATION TECHNIQUE	DR. BHIMSEN TUDU
16	Shailja Sinha	Optimal Sizing of a Hybrid Energy Storage Device in Standalone Renewable Energy Systems	
17	Anu Biswas	Performance analysis of microgrid system operating in stochastic environments	Dr. Bhimsen Tudu
18	Prithwish Saha	Performance Evaluation of Grid Connected PV System under Different PLL Synchronisation Techniques	Dr. Bhimsen Tudu
19	Saurabh Kumar	Comparative study of different Islanding techniques for Grid connected PV system	Dr. Bhimsen Tudu
20.	Arkatanu Maji	Active and Reactive Power Control and Low Voltage Ride Through	Dr. Bhimsen Tudu

		(LVRT)Capability Analysis of a Three Phase grid Connected Photo-voltaic System	
21	Arpan Chakraborty	Dynamic Performance Analysis of a Grid Connected GFIG based Wind Energy System	Dr. Bhimsen Tudu
22	Somnath Das	Study on Design on Design and performance Characterization of Stand-alone Photo Voltaic System	Dr. Bhimsen Tudu
23	Biswaranjan Kaunr	Multi-objective Optimization of Hybrid Energy Systems by Different Meta-heuristic Techniques	
24	Suhila Parvin	Remote Area Electrification with Stand-alone hybrid Energy Systems using HOMER Software: Optimization and Techno-economic Analysis	

Course Taught:

Circuit Theory, Power Transfer System, Control System, Advanced Electrical Drives, Electrical Machines, Power Electronics

Research Area:

Power System Optimization, Soft Computing Techniques, Power Electronics, Hybrid Energy Systems, Power Economics, Hybrid Storage Systems, Micro-grid Scheduling

PhD Thesis Guidance:

Sl No	Name	Title	Co-Supervisor
1	Syamasree Biswas (Raha)	Reactive Power Compensation by Soft-Computing Techniques in Deregulated Environment	Prof. Niladri Chakraborty
2	Bhimsen Tudu	Soft Computation Based optimized sizing of hybrid energy systems	Prof. Niladri Chakraborty
3	Sajjan Kumar	Design Optimization of Distributed Generation Systems by Soft	Prof. Niladri Chakraborty

		Computing Techniques	
4	Kallol Roy	Optimal Energy management and Control of Micro-grids with Renewable energy sources	

Present PhD Students:

Sl No.	Name of the students	Title	Remarks
1	ANIRBAN CHOWDHURY	Economic & sustainable operation of renewable energy integrated electric distribution system	Ongoing
2	TANMAY DAS	Economic & sustainable operation of renewable energy based restructured power system integrated with electric vehicle incorporating demand response	Ongoing
3	MEENAKSHI DE	EXPERT ENERGY MANAGEMENT AND CONTROL OF MICROGRIDS USING VARIOUS META-HEURISTIC TECHNIQUES UNDER ENVIRONMENTAL UNCERTAINTIES	Ongoing
4	MAYURAKSHI MONDAL	Design of a Micro-grid with Biomass, Solar, Micro-hydro Hybrid Power Generation System for the Himalayan Region of India	Ongoing
5	Gargi Konar	Effects of Availability Based Tariff on	Ongoing

		Secondary Frequency Control and Tie Line Power Flow of Interconnected Hybrid Power System	
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