

**Name: Dr. Preeti**

**Designation: Skill Assistant Professor (Electrical Engineering)**



❖ **ACADEMIC QUALIFICATIONS:** Postdoctoral Fellow, Ph.D., M.Tech., B.Tech.

❖ **PROFESSIONAL EXPERIENCE:** 08 Years

❖ **AREAS OF INTEREST**

Load Frequency Regulation, Renewable Energy Sources, Smart Grid, Power System, Control System, Optimization, Power Electronics, Electrical Drives, Power System Deregulation, Demand Side Management, HVDC, FACTS devices, Applications of Smart Technologies for Electrical Systems, Electric Vehicles

❖ **LIST OF PUBLICATIONS**

○ **REFEREED PUBLICATIONS**

- ❖ Nadakuditi, Gouthamkumar, Harish Pulluri, **Preeti Dahiya**, K. S. R. Murthy, P. Srinivasa Varma, Mohit Bajaj, Torki Altameem, Walid El-Shafai, and Mostafa M. Fouda. 2023. "Non-Dominated Sorting-Based Hybrid Optimization Technique for Multi-Objective Hydrothermal Scheduling" *Energies* 16, no. 5: 2316. <https://doi.org/10.3390/en16052316> (SCI-E, Impact Factor 3.2)
- ❖ **P. Dahiya** and A. K. Saha, "Frequency Regulation of Interconnected Power System Using Black Widow Optimization," in *IEEE Access*, vol. 10, pp. 25219-25236, 2022, doi: 10.1109/ACCESS.2022.3155201. (SCI-E, Impact Factor 3.9)
- ❖ Mahesh, Raktim Lal Baruah, Krishan, **Preeti**, Sansh Bir Dagar, "Fire fighter drone with robotic gripper", *Materials Today: Proceedings*, Volume 79, Part 2, 2023, Pages 334-337 (Scopus, Impact Factor 3.2)
- ❖ Amita Singh, Veena Sharma, **Preeti Dahiya**, Ram Naresh Sharma, "Model Predictive Based Load Frequency Control of Interconnected Power Systems," *Recent Advances in Electrical and Electronic Engineering*, vol. 11, no. 3, pp. 322-333, 2018. DOI: 10.2174/2352096511666180117152541 (Emerging Sources Citation Index and Scopus Indexed).
- ❖ **Preeti Dahiya**, Veena Sharma, Ram Naresh, "Hybridized Gravitational Search Algorithm Tuned Sliding Mode Controller Design for LFC System with DFIG Wind Turbine," *Optimal Control Applications and Methods*, vol. 38, no. 6, pp. 993-1003, 2017. John Wiley & Sons Publication, DOI: 10.1002/oca.2305 (SCI-E, Impact Factor: 1.452)
- ❖ **Preeti Dahiya**, Veena Sharma, Ram Naresh, "Optimal Sliding Mode Control for

Frequency Regulation in Deregulated Power Systems with DFIG based Wind Turbine and TCSC-SMES,” *Neural Computing and Applications*, Springer 2017. DOI: <https://doi.org/10.1007/s00521-017-3250-y> (SCI-E, Impact Factor: 2.505)

- ❖ **Preeti Dahiya**, Veena Sharma, Ram Naresh, “Automatic generation control using disrupted oppositional based gravitational search algorithm optimized sliding mode controller under deregulated environment,” *IET Generation, Transmission and Distribution*, vol. 10, no. 16, pp. 3995-4005, 2016. DOI: 10.1049/iet-gtd.2016.0175. (SCI, Impact Factor: 2.213)
- ❖ Rashmi Jain, Anwar S. Siddiqui, Majid Jamil, C.P Gupta, **Preeti**, “A strategy for FTR bidding in deregulated electricity markets,” *International Journal of Systems Assurance Engineering and Management*, Springer, vol. 8, no. Suppl 1, pp. 78-89, January 2017. DOI:10.1007/s13198-013-0163-8. (Emerging Source Citation and Scopus Indexed)
- ❖ **Preeti Dahiya**, Veena Sharma, Ram Naresh Sharma, “Optimal Generation Control of Interconnected Power System Including DFIG-Based Wind Turbine,” *IETE Journal of Research*, vol. 61, no. 3, pp. 285-299, May-June 2015. DOI: 10.1080/03772063.2015.1019579, Taylor & Francis Group (SCI-E, Impact Factor: 0.909)
- ❖ Rashmi Jain, Anwar S. Siddiqui, Majid Jamil, C.P Gupta, **Preeti**, “A novel approach for phase locked loop modeling using MATLAB,” *International Journal of Systems Assurance Engineering and Management*, Springer, vol. 4, no. 2, pp. 129-137, June 2013. DOI:10.1007/s13198-013-0163-8. (Emerging Source Citation and Scopus Indexed)

#### ❖ PAPERS IN CONFERENCES

- ❖ **Preeti**, Veena Sharma, R. Naresh and Harish Pulluri, “Automatic generation control of multi-source interconnected power system including DFIG wind turbine,” *First IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)*, Delhi, India, 4<sup>th</sup>-6<sup>th</sup> July 2016, pp. 1-6, DOI: 10.1109/ICPEICES.2016.7853204.
- ❖ Harish Pulluri, R. Naresh, Veena Sharma and **Preeti**, “A new colliding bodies optimization for solving optimal power flow problem in power system,” *6th IEEE International Conference on Power Systems (ICPS)*, Indian Institute of Technology Delhi and India Habitat Centre, New Delhi, India, 4-6th March 2016, pp. 1-6. DOI: 10.1109/ICPES.2016.7584138
- ❖ **Preeti**, Veena Sharma, R. Naresh and Harish Pulluri, “Automatic generation control using disrupted gravitational search algorithm based proportional integral derivative control,” *Second IEEE International Conference on Recent Advances in Engineering and Computational Sciences (RAECS)*, Chandigarh, India, 21-22 December 2015, pp. 1-6. DOI: 10.1109/RAECS.2015.7453317

- ❖ Harish Pulluri, R. Naresh, Veena Sharma and **Preeti**, “Solving non-convex and non-linear optimal power flow problems using colliding body optimization,” *Second IEEE International Conference on Recent Advances in Engineering and Computational Sciences (RAECS)*, Chandigarh, India, 21-22 December 2015, pp. 1-6. DOI: 10.1109/RAECS.2015.7453351
  
- ❖ **Preeti**, Veena Sharma, R. Naresh, Prateek Kumar Singhal, “Opposition based gravitational search algorithm optimized proportional integral derivative controller for automatic generation control,” in *National Conference on Advancements in Electrical Engineering and Energy Sciences (AEEES)*, National Institute of Technology, Hamirpur, Himachal Pradesh, India, 24-25<sup>th</sup> May 2016, pp. 259-263.
  
- ❖ Goutham Kumar N, Veena Sharma, R. Naresh, **Preeti**, “Bio-geography based optimization approach for fixed head short term hydrothermal scheduling problem,” in *National Conference on Advancements in Electrical Engineering and Energy Sciences (AEEES)*, National Institute of Technology, Hamirpur, Himachal Pradesh, India, 24-25<sup>th</sup> May 2016, pp. 224-229.
  
- ❖ Amita Singh, Veena Sharma, **Preeti**, “Optimization algorithms for automatic generation control of power system: A brief review,” in *National Conference on Advancements in Electrical Engineering and Energy Sciences (AEEES)*, National Institute of Technology, Hamirpur, Himachal Pradesh, India, 24-25<sup>th</sup> May 2016, pp. 230-234.
  
- ❖ **Preeti**, Veena Sharma, Ram Naresh Sharma, “Automatic Generation control: A state of art,” *National Conference on Recent Advances in Power Systems (RAPS)*, Punjab Engineering College, Chandigarh, 28<sup>th</sup> June 2014, pp. 182-188.
  
- ❖ Rashmi Jain, Narinder Kaur, **Preeti**, “Nanotechnology in Solar Industry,” *National Conference on Science in Media*, YMCA University of Science and Technology, Faridabad, 3-4 December 2012, pp. 23.

## ❖ CHAPTERS IN BOOKS

- ❖ Bharat, A., Chand, D., **Dahiya, P.**, Rathore, S.S. (2023). Implementation of Kaizen in Automotive Industry: A Case Study. In: Kumar, H., Jain, P.K., Goel, S. (eds) *Recent Advances in Intelligent Manufacturing. ICAME 2022. Lecture Notes in Mechanical Engineering*. Springer, Singapore. [https://doi.org/10.1007/978-981-99-1308-4\\_27](https://doi.org/10.1007/978-981-99-1308-4_27)
  
- ❖ **Preeti**, Shrivastava, V., Bhadoria, V.S., Pulluri, H. (2020). Comparison of Performance Analysis of Optimal Controllers for Frequency Regulation of Three-Area Power System. In: Kalam, A., Niazi, K., Soni, A., Siddiqui, S., Mundra, A. (eds) *Intelligent Computing Techniques for Smart Energy Systems. Lecture Notes in Electrical Engineering*, vol 607. Springer, Singapore. [https://doi.org/10.1007/978-981-15-0214-9\\_76](https://doi.org/10.1007/978-981-15-0214-9_76)
  
- ❖ Rashmi Jain, Rahul Sharma, **Preeti**, “Load comparison of solar plant generation and

solar hydrogen energy system”, pp 255-264, *Applications of Computing, Automation and Wireless Systems in Electrical Engineering, Proceedings of MARC 2018, Lecture Notes in Electrical Engineering, vol 553. Springer, Singapore. Editors:* Sukumar Mishra, Yog Raj Sood, Anuradha Tomar . DOI: [https://doi.org/10.1007/978-981-13-6772-4\\_40](https://doi.org/10.1007/978-981-13-6772-4_40). (Print ISBN978-981-13-6771-7; Online ISBN978-981-13-6772-4)

- ❖ Harish Pulluri, Gouthamkumar N, Mohan Ungarala, **Preeti**, Girish Kumar Mekala, “Krill Herd Algorithm for Solution of Economic Dispatch with Valve Point Loading Effect”, pp 383-392, *Applications of Computing, Automation and Wireless Systems in Electrical Engineering, Proceedings of MARC 2018, Lecture Notes in Electrical Engineering, vol 553. Springer, Singapore. Editors:* Sukumar Mishra, Yog Raj Sood, Anuradha Tomar. DOI: [https://doi.org/10.1007/978-981-13-6772-4\\_40](https://doi.org/10.1007/978-981-13-6772-4_40). (Print ISBN978-981-13-6771-7; Online ISBN978-981-13-6772-4)