

FACULTY PROFILE



Name: Dr. Peeyush Kala

Designation: Assistant Professor

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Professional Qualification:

- Ph.D., Electrical Engineering, G.B. Pant University of Agriculture & Technology, Pantnagar
- M.Tech., Electrical Energy System, G.B. Pant University of Agriculture & Technology, Pantnagar
- B.Tech., Electrical and Electronics Engineering, Uttarakhand Technical University, Dehradun

Publications (Journals & Conferences):

- P. Kala and Sudha Arora, A Comprehensive Study of Classical and Hybrid Multilevel Inverter Topologies for Renewable Energy Applications, Renewable and Sustainable Energy Reviews, Elsevier, Vol.76, pp. 905-931, 2017
- P. Kala and S. Arora, "Implementation of Hybrid GSA SHE Technique in Hybrid Nine-level Inverter Topology," in IEEE Journal of Emerging and Selected Topics in Power Electronics, vol. 9, NO. 1, pp. 1064-74, Feb. 2021.
- Sakshi Sharma, Vibhu Jatly *, Piyush Kuchhal, Peeyush Kala *, Brian Azzopardi, A Comprehensive Review of Flexible Power Point Tracking Algorithms for Grid-Connected Photovoltaic Systems, accepted in energies (mdpi) (SCIE, I.F. 3.2)2023.
- P. Kala and Sudha Arora, "Selective Harmonic Elimination in Multilevel Inverters Using Gravitational Search Algorithm," in IEEE International conference on Computer Application in Electrical Engineering-Recent Advances (CERA'17) organized by IEEE UP section at IIT Roorkee, pp. 563-8.
- P. Kala and S. Arora, "Implementation of PSO based Selective Harmonic Elimination Technique in Multilevel Inverters," 2018 2nd IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES), Delhi, India, 2018, pp. 605-610.

- Peeyush Kala and A. Srivastava, Steady State Analysis of Fuzzy Logic based Electronic Load Controller for Self Excited Induction Generator, International Journal of Advancements in Research & Technology, vol. 2, issue 4, pp. 395-400, 2013.
- P. Kala and Sudha Arora, A Variable DC Link based Novel Multilevel Inverter Topology for Low Voltage Applications, 1st IEEE International Conference on Power Electronics; Intelligent Control and Energy Systems (ICPEICES-2016), organized by IEEE Delhi section at DTU Delhi, pp. 1308-13.
- Kala P., Joshi P., Agrawal S., Yadav L.K., Joshi M. (2020) Introduction to Condition Monitoring of PV System, in Soft Computing in Condition Monitoring and Diagnostics of Electrical and Mechanical Systems, vol. 1096, pp. 169-187, 2020, Springer, Singapore.
- Joshi P., Agrawal S., Yadav L.K., Joshi M., Patel V., Kala P., “Soft Computing Methods and Its Applications in Condition Monitoring of DGS—A Review,” in Soft Computing in Condition Monitoring and Diagnostics of Electrical and Mechanical Systems, vol. 1096, pp. 189-204, 2020, Springer, Singapore.
- Kala P., Joshi P., Agrawal S., Yadav L.K., Joshi M., “Tackling Power Quality Issues Using Metaheuristics,” in Metaheuristic and Evolutionary Computation: Algorithms and Applications, pp. 63-85, 2020, Springer, Singapore.
- Kala P., Joshi P., Agrawal S., Yadav L.K., Joshi M. Applications of Metaheuristics in Power Electronics, in Metaheuristic and Evolutionary Computation: Algorithms and Applications, pp. 165-176, 2020, Springer, Singapore.
- P. Kala, “Artificial Intelligence in PV Systems,” accepted for publication in Applied Soft Computing and Embedded System Applications in Solar Energy” (CRC Press) to be published in 2021.

Awards and Achievements:

- Principal Investigator in a Research project (₹17,75000/-) entitled “Implementation of Novel Multilevel Inverter Topology with SHE based Modulation Scheme for Microgrid” under CRS scheme (TEQIP-III), Women Institute of Technology, Dehradun.
- Best presentation award in the Centre of Excellence Conclave (TEQIP-II) on "Research Excellence through Collaboration" organized by College of Technology, G.B.P.U.A.&T. Pantnagar from October 06-08, 2016.
- Keynote speaker and Session chair in IEEE UP section co-sponsored and TEQIP-III sponsored International conference WITCON ECE-2019 at WIT Dehradun from 22nd -23rd November 2019.
- Recipient of honorarium equivalent to US \$100 for the evaluation of a research proposal entitled “Hybrid Multilevel Voltage Source Inverter based on Switched Capacitor Units for Renewable Energy Integration” by King Fahd University of Petroleum & Minerals, Saudi Arabia.

Workshops/Seminars/FDPs:

- One week Workshop on Advanced Pedagogies: Active Learning and Digital Tools at IIT Guwahati, 24th-28th June, 2019
- One week Professional Development Programme at IIM Indore, 28 Jan-01 Feb 2019.
- Two weeks short term training programme on “Advanced Power Electronics, Drives & Storage Systems for E-Transportation in India” at NIT, Warangal, 25th April-06 May 2022.

Work Experience: 5 Years

Professional Memberships:

- IEEE Member (since 2018)