

Parvaiz Ahmad Ahangar

Ph.D. in Electrical Engineering
Department of Electrical Engineering,
National Institute of Technology (NIT) Srinagar, J&K India



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Summary and Objective

- 📌 Researcher in the field of power and energy systems. I have contributed to the field through published work in both journals and conferences. My expertise in Python and Matlab has been demonstrated through the successful implementation of a prototype Microgrid through renewable integration. Additionally, I have mentored numerous students, guiding them through their projects and fostering their academic growth.


Education

- Dec 2019 - April 2025 📌 **National Institute of Technology Srinagar, India**
Research Scholar, Power and Energy Systems
Department of Electrical Engineering
Research Topic: Data-Driven Optimal Operation of Distributed Energy Resources
- Jul 2010 - Nov 2014 📌 **National Institute of Technology Srinagar, India**
B.Tech in Electrical Engineering
- 2015-2016 📌 **Junior Engineer, Kashmir Electricals Limited**
- 2017-2019 📌 **Master of Technology (M.Tech Power Systems)**

Academic/Research Experience

- Dec 2019 - Dec 2024 📌 **Teaching Assistant**
Department of Electrical Engineering, National Institute of Technology Srinagar
Gave tutorial lectures on Power System Protection
Labs Delivered: Basic Electrical Engineering Lab, Power System Lab, High Voltage Engineering Lab, Electrical Measurements and Instrumentation Lab


Academic/Research Experience (continued)


Dec 2021 - April 2025  **Senior Research Fellow (SRF)**

Dec 2019- Dec 2021  **Junior Research Fellow (JRF)**

Academic Projects

2020  **Data-Driven Optimal Operation of Distributed Energy Resources using Python/MATLAB/Simulink**
(Ph.D course work project)


2019  **Maximum Power Point Tracking Under Partial Shading Conditions (M.Tech project)**

2014  **Islanding of Power Projects in Kashmir Valley**
(B.Tech final year project)


Areas of Interest


 Data-Driven Optimal planning of Distributed Energy Resources (DERs)
(Optimal Sizing and Ratings)

 Voltage and frequency control of Microgrid under large renewable integration

 *(Inertia Emulation in weak power grids for frequency regulation and stability enhancement)*


Academic Achievements/ Fellowships

 Five year Doctoral Fellowship grant from the Ministry of Human Resource Development, Government of India for pursuing PhD

 Qualified GATE 2020

Software/ Hardware Skills

 **Python/MATLAB/Simulink**

 **PSS/E for Power Systems and Python Automation**

 **LATEX**

Publications

2023

Journal papers:

1. **Parvaiz Ahmad Ahangar**, Shameem Ahmad Lone, Neeraj Gupta, " A Data-Driven Based Optimal Planning of Distributed Energy Resources", *Arabian Journal for Science and Engineering*, (Springer)

(SCI Indexed, Impact Factor: 2.60)

Journal papers:

1. **Parvaiz Ahmad Ahangar**, Shameem Ahmad Lone, Neeraj Gupta, "Combining Data-Driven and Model-Driven Approaches for Optimal Distributed Control of Standalone Microgrid", *Sustainability*,

(SCI Indexed, Impact Factor: 2.60)

2022

Conference papers:

1. **Parvaiz Ahmad Ahangar**, Shameem Ahmad Lone, Neeraj Gupta, "Power System Operation and Control: A Data-Driven Approach", *2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP)*, (IEEE)

1. **Parvaiz Ahmad Ahangar**, Shameem Ahmad Lone, Neeraj Gupta, "The Future Data-Driven Based Voltage and Frequency Control in Renewable Rich Power Systems", *IEEE International Conference on Power Electronics, Smart Grid, and Renewable Energy (PESGRE)*, ,

Industrial Training/ Internship

Dec 2013-Feb 2014

Transmission Line Maintenance Division-II (TLMD-II), Anantnag J&K

Workshops/Short-Term Courses

August 2020

Participated in short term course on "Distinguished Lectures on Converters in EV and Micro grid" organized by Department of Energy Technology at Aalborg, Denmark

Sep 2024

Participated in Workshop at IIT Delhi on "Enabling Renewable Energy Integration in Modern Power Systems with Advanced Technologies"

Personal Profile

Name: Parvaiz Ahmad Ahangar

DOB: 04-09-1991

Marital Status: Unmarried

Personal Profile (continued)

- 📖 **Languages Known:** English, Urdu , Kashmiri, Arabic
- 📖 **Hobbies:** Teaching, Cricket, Vollyball

References

- 📖 Shameem Ahmad Lone (Ph.D Supervisor)
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National Institute of Technology Srinagar, India
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- 📖 Neeraj Gupta (Ph.D Co-Supervisor)
Assistant Professor, Department of Electrical Engineering
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