

Asif Hamid Bhat

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Related experience

Experience



- Actively involved in writing and publish of research articles (Journals, Conferences) from last 4 years.
- Sufficient know how of writing books, book chapters, industrial relied writing styles.
- Actively involved as reviewer of many reputed conferences.
- **Python programming, MATLAB programming**, Basics of HTML programming, MS Office (Word, Excel, Power point), \LaTeX Software (For writing of research articles, presentation) , Internet Applications, **Deep learning** techniques.

Employment History

August 2020 - Present



Substitute Faculty at Islamic University of Science and Technology Kashmir, Jammu and Kashmir, India.

- Teaching Mathematics courses, MATLAB programming at Undergraduate level.
- Documentation and publishing the research work based on industry standards.
- Taught latex to PHD students at IUST, Awantipora.
- *Lab works*: Basic Electrical Engineering lab, control system lab.



Research Fellow at IUST, Awantipora, J & K, India.

Technical Skills

Technical Skills



- Exposure to deep learning techniques and trending state of the art methods such as autoencoders, Long short term memory, Residual networks.
- Advanced coding skills in Python programming with projects done in pytorch and tensorflow libraries.
- Knowledge of Model order reduction techniques.
- Advanced knowledge of MATLAB programming.
- Basic knowledge of HTML programming.
- Can adjust to any programming language within weeks.
- 6 years (MTech + PhD) of work experience as a technical writer.
- Sound knowledge of technical writing fundamentals, industry standard writing styles and content organisation.
- MS Office, L^AT_EX, Internet Applications.

Education

2020 – 2024

(Submitted)



Ph.D., Islamic University of Science and Technology (IUST), Awantipora, Jammu & Kashmir, India.

2017 – 2019



M. Tech, Control and Instrumentation system- Jamia Milia Islamia (JMI), India (CGPA: 9.3/10 Top 1%)

2012 – 2016



B. Tech, Electronics and Communication Engineering, Baba Ghulam Shah Badshah University Rajouri, Jammu & Kashmir, India (%age:75.6/100 Top 1%) .

Research Publications

Journal Papers

- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz, M. A. (2023). Deep learning assisted surrogate modeling of large-scale power grids. *Sustainable Energy, Grids and Networks*, 34, 101031. SCIE: IF: 5 [\[Link\]](#)
- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz, M. A. Hierarchical deep learning based adaptive time stepping for multiscale simulations, *Engineering Applications of Artificial Intelligence* SCIE: IF: 8, [Link](#)

- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz, Enhancing Computational Efficiency in Multiscale Systems using Deep Learning of Coordinates and Flow Maps. *Journal of computational science SCIE: IF: 3.3, Under Review*

Conference Papers

- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz, M. A. (2022, May). Discovering low-rank representations of large-scale power-grid models using Koopman theory. In 2022 Trends in Electrical, Electronics, Computer Engineering Conference (TEECCON). IEEE.. [\[Link\]](#)
- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz, M. A. (2022, July). Power Grid parameter estimation using Sparse Identification of Nonlinear Dynamics. In 2022 International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP) (pp. 1-6). IEEE. [\[Link\]](#)
- **Asif Hamid Bhat**, Rafiq, D., Nahvi, S. A., & Bazaz M.A. (2023, October), Neural network-based time stepping scheme for multiscale partial differential equations. In 2023 7th International Conference on Computer Applications in Electrical Engineering-Recent Advances (CERA), IIT Roorkee (pp. 1-6) IEEE, [\[Link\]](#)

Software developed

In Python Programming

- **Adaptive-HiTS**: Adaptive time-stepping based on hierarchical deep learning of multi-scale systems. [\[Link\]](#)
- **Deep-Grid**: Obtain data-driven deep learning-based reduced order model of large power systems,2023. [\[Link\]](#)
- **HiTS PDE**[\[Link\]](#)
- **L-HiTS**[\[Link\]](#)

In MATLAB Programming

- **Dynamic mode decomposition Algorithm**[\[Link\]](#)

In HTML Programming




- **Personal website** [\[Link\]](#)
- **Personal blog** [\[Link\]](#)

In Latex Programming

- **GanttChartLatex** [\[Link\]](#)
- **Latex notes**[\[Link\]](#)

Miscellaneous Experience

Awards and Achievements

- 2020-present  Recipient of MHRD (Govt. of India) fellowship for Ph.D in the Department of Electrical engineering, IUST, Awantipora, J & K, India under grant number IUST0119013135.
- 2019  **GATE ECE** Qualified the national level exam in Electronics and communication engineering in 2019 and secured 31.67/100.
- 2017  **JMI M.Tech. Entrance exam** Qualified the entry M.Tech. examination at JMI, Delhi .

WORKSHOP / SEMINAR / TRAINING / STC attended

1. Presented *Discovering low-rank representations of large scale power-grid models using Koopman theory* paper in Electrical, Electronics, Computer Engineering Conference IEEE held on 26-27 may 2022 at Reva University.
2. Presented *Power Grid parameter estimation using Sparse Identification of Nonlinear Dynamics* paper in the INTERNATIONAL CONFERENCE ON INTELLIGENT CONTROLLER AND COMPUTING FOR SMART POWER, IEEE 2022 organized by the Department of Electrical and Electronics Engineering, Sreenidhi Institute of Science And Technology, Hyderabad, India during 21–23 July 2022.
3. Reviewer for IEEE international conference on applied intelligence and sustainable computing 2023.
4. Attend in faculty development program entitled "Research Methodology + Publication Ethics" organised by Department of computer science and engineering IUST, Awantipora from 7-11 Feb 2022.

References

Available, if needed.