Fouad Hasan

Current position:
Research Assistant (Ph.D.)
Division of Electrical & Computer Engineering
Louisiana State University
Room 133, EE building, Baton Rouge, LA 70803

Contact:
Cell: +1 **(225) 405-5216**
E-Mails: fhasan1@lsu.edu
https://www.linkedin.com/in/fouad-hasan-meraj-990516a6/
https://github.com/FouadHasan

Education

Ph.D. in Electrical Engineering (Ongoing-)   (August, 2018-)

- Louisiana State University (LSU), Baton Rouge, LA, USA
- Current CGPA: 3.70 out of 4.00
- **Research Topic:** Application of machine learning in Decision-Making and optimization.

Publications

Journal Papers

- **F. Hasan**, A. Kargarian, J. Mohammadi, "Hybrid Learning Aided Inactive Constraints Filtering Algorithm to Enhance AC OPF Solution Time" *IEEE Transactions on Industry Applications*
- **F. Hasan**, A. Kargarian, "Topology-Aware Learning Assisted Branch and Ramp Constraints Screening for Dynamic Economic Dispatch", *IEEE Transaction on power system (submitted)*
- F. Safdarian, A. Kargarian, **F. Hasan**, "Multiclass Learning-Based Temporal Decomposition and Distributed Optimization for Power Systems" *IEEE Transaction on smart Grid (under final review)*

Conference Papers (Published)

- **F. Hasan**, A. Kargarian, "A Survey on Applications of Machine Learning for Optimal Power Flow", *Texas power and Energy Conference, 2020*.
- **F. Hasan**, A. Kargarian, "Combined Learning and Analytical Model Based Early Warning Algorithm for Real-Time Congestion Management" *Texas power and Energy Conference, 2020*.

Software Skills

Coding	C/C++, Python, MATLAB, MATPOWER, Power System Toolbox, Keras.
Power system software	PowerWorld, PSS®E (Transmission planning and analysis software)

Mathematics Skills

- Linear and Non-Linear Control System
- Optimization and Decomposition

Teaching Experience

- **PowerWorld Software Instructor (**EE 4003**)**, Louisiana State University, LA, USA. (Jan. 2019 to-)

Honors

- RA Graduate Assistantship, Louisiana State University. (Aug. 2018 to-till)
- EECS Meritorious Award, Louisiana State University. (Aug. 2018)
- Power and Energy Society General Meeting, 2019 USA travel grants
- Texas Power and Energy Conference, 2020 USA Travel and Housing grants
- National Science and Technology (NST) Fellowship, Bangladesh, (2016-17).

- Undergraduate Technical Scholarship from BUET.

Projects

- Machine learning projects
  - https://github.com/FouadHasan/Fraud-Identification-in-Credit-Card-Transaction
  - https://github.com/FouadHasan/Performance-comparison-of-Neural-Network-SVM-and-XGBoost-classifier

- PowerWorld Project (https://github.com/FouadHasan/Entergy-Sponsored-Powerworld-Project-LSU-Spring-2020)
- Transmission and Generation Expansion Planning (https://github.com/FouadHasan/Transmission-and-Generation-Expansion-Plannnig---Optimization-of-Mixed-Integer-Non-Convex-Problems)

Affiliation

- **Vice President**, 2020, IEEE PES Student Branch, Louisiana State University.
- **Journal Reviewer,** IEEE Transaction on Power Systems, IEEE Transaction on Smart Grid, NeuroCom, International Journal of Sustainable Energy, Electric Power Systems Research https://publons.com/researcher/3024550/fouad-hasan/peer-review/
- **Conference Reviewer,** NAPS 2019, TPEC 2020
- Vice president (Finance), 2019-20; International Students Assoc. and Cultural Center, LSU, Louisiana.

References

- PhD Supervisor **Dr. Amin Kargarian**, ECE Department, Louisiana State University, LA, USA. Email: kargarian@lsu.edu
- **Dr. Mehdi Farasat,** ECE Department, Louisiana State University, LA, USA. Email: mfarasat@lsu.edu
- **Dr. Shahab Mehraeen,** ECE Department, Louisiana State University, LA, USA. Email: smehraeen@lsu.edu