ROUNAK MEYUR

Seeking full/part time position in power system research

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EDUCATION

Ph.D. in Electrical Engineering
University of Virginia, Charlottesville, VA, USA
Aug 2020 – Present | GPA: 3.93/4.00

M.Sc. in Electrical Engineering (Power Systems)
Virginia Tech, Blacksburg, VA, USA
Aug 2016 – Feb 2019 | GPA: 3.95/4.00

B.Tech. in Electrical and Electronics Engineering
NIT Trichy, Tamilnadu, India
Jul 2012 – May 2016 | GPA: 9.77/10.00

INTERNSHIP EXPERIENCE

PhD Intern
Pacific Northwest National Lab
May 2019 – Aug 2019 | Richland, WA, USA

- Propose data driven algorithms to find coherent generators during transient event in power grid.

Research Intern
PJM Interconnection
May 2018 – Aug 2018 | Audobon, PA, USA

- Assess generating resources of PJM suitable for black start operation.
- Develop adaptive restoration path for a blacked out PJM power grid.

SKILLS

Research Interests: power system reliability and resilience, convex optimization, network science, stochastic modeling
Languages: Python, C++, R, Powershell scripting
Softwares: MATLAB, GridLab-D, PSS/E, LabVIEW
Toolboxes: Pandas, Numpy, Scikit-Learn, Tensorflow, Keras
Solvers: Gurobi, YALMIP, CPLEX

REFEREES

Dr. Madhav Marathe
Biocomplexity Institute and Initiative
marathe@virginia.edu

Dr. Mahantesh Halappanavar
Pacific Northwest National Lab
Mahantesh.Halappanavar@pnnl.gov

PROJECTS

Promoting Net-zero Carbon Technologies
NSSAC, UVA Biocomplexity Institute
June 2021 – Present

- Develop a distributed framework to promote higher levels of residential EV charging without compromising grid reliability.

Synthetic Power Distribution Networks
NSSAC, UVA Biocomplexity Institute
Aug 2019 – May 2021

- Develop a framework which creates digital duplicates of power distribution networks using Open Street Maps.
- Propose comparison metrics to validate synthetic networks with actual networks.

Cascading Events in Power Grid
Power and Energy Center, Virginia Tech
May 2017 – Dec 2018

- Develop stochastic models for hidden failures in protection systems.
- Identify critical assets in power grid to avoid system-wide failure.
- Identify critical SCADA cyber-security architecture used in power grid.

PUBLICATIONS

Conference Proceedings

- Meyur et.al. (2022). A Reliability-aware Distributed Framework to Schedule Residential Charging of Electric Vehicles. In *International Joint Conference on Artificial Intelligence* (***submitted and under review***).
- Meyur, R. (2020). A Bayesian Attack Tree Based Approach to Assess Cyber-Physical Security of Power System. In *2020 IEEE Texas Power and Energy Conference (TPEC)* (pp. 1–6).
- Meyur et.al. (2020). Creating realistic power distribution networks using interdependent road infrastructure. In *IEEE International Conference on Big Data* (pp. 1226–1235).
- Meyur et.al. (2019). Cascading Effects of Targeted Attacks on the Power Grid. In *Complex Networks and Their Applications VII* (pp. 155–167).