LUSHA WANG

3018 SERC, Tuscaloosa, AL 35401, USA
Assistant Professor, Electrical and Computer Engineering Department, The University of Alabama
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EDUCATION

Washington State University, Pullman, WA, USA Aug.2017-Jan.2022
Ph.D. in Electrical Engineering, minor in Computer Science GPA: 4/4
Advisor: Dr. Noel Schulz and Dr. Anamika Dubey
Thesis: Optimal Planning and Operation of Distribution Systems with Massive Electric Vehicles

Wuhan University, Wuhan, China Sept.2012-Jun.2016
B.E in Electrical Engineering GPA: 3.4/4

WORK EXPERIENCE

The University of Alabama, Alabama, United States Aug.2023-Present
Assistant Professor

Argonne National Lab, Illinois, United States Feb.2022-Aug.2023
Post-doctoral Appointee

Argonne National Lab, Illinois, United States May-Dec.2019, May-Aug.2020
Research Aide

Washington State University, Pullman, United States Aug.2017-Jan.2022
Graduate Research Assistant

Virtue Intelligent Network Co., Ltd., Wuhan, China Jul.2016-Jul.2017
Software Developer

RESEARCH FUNDING

Argonne National Lab: Economic and reliability analysis for utility feeders with smart charging strategies 2023-2024
$75k UA PI

PUBLICATIONS

Journals

- **Lusha Wang**, Anamika Dubey, Assefaw Gebremedhin, Anurag Srivastava, Noel Schulz,"MPC-Based Decentralized Voltage Control in Power Distribution Systems with EV and PV Coordination." ***IEEE Transactions on Smart Grid,*** 13.4 (2022): 2908-2919.
- **Lusha Wang**, Jonghwan Kwon, Noel Schulz, Zhi Zhou, "Evaluation of Aggregated EV Flexibility With TSO-DSO Coordination." ***IEEE Transactions on Sustainable Energy***, 13.4 (2022): 2304-2315.
- **Lusha Wang**, James Halvorsen, Sanjeev Pannala, Anurag Srivastava, Assefaw Gebremedhin, Noel Schulz, "CPSyNet: A tool for generating customised cyberpower synthetic network for distribution systems with distributed energy resources." ***IET Smart Grid*** (2022).
- Shixin Liu, **Lusha Wang**, Jian Hu, Zhi Zhou, "A Two-Stage Charging Station Allocation Model for EV Taxi Fleet Considering Interdependence Between the Networks of Transportation and Power Distribution" (Accepted on ***IEEE Transactions on Sustainable Energy***).

- **Lusha Wang**, Bo Chen, Yanzhu Ye, Chongfuangprinya Panitarn, Bo Yang, Dongbo Zhao, Tianqi Hong, "Enhancing Distribution System Restoration with Coordination of Repair Crew, Electric Vehicle and Renewable Energy" (Accepted on ***IEEE Transactions on Smart Grid***).
- Rabia Khan, **Lusha Wang**, Sanjeev Pannala, Anurag K Srivastava, Noel N Schulz, "DER-rich Electric Distribution Feeder Models: Limitations, Challenges, and Path-Forward" (submitted to ***IEEE Access***).
- **Lusha Wang**, Anamika Dubey, "Three-phase Branch Flow Model and Optimization for Mesh Distribution System" (under preparation).

Conferences

- **Lusha Wang**, Jonghwan Kwon, Omer Verbas, Aymeric Rousseau and Zhi Zhou, "Charging Station Planning to Maximize Extra Load Hosting Capacity in Unbalanced Distribution System," ***2020 IEEE Power & Energy Society General Meeting (PESGM)***, 2020, pp. 1-5.

AWARDS

IEEE PES Grid Edge Technologies 3-Minute Ph.D. Dissertation Challenge Finalist

iREDEFINE Professional Development Award
Awarded to 12 PhD students and Post-doc in the US and Canada selected by ECE department chairs

SERVICE

Journal Reviewer

- IEEE Transactions on Power Systems, IEEE Transactions on Smart Grid, Renewable Power Generation

Mentoring

- Mentored an African American female graduate student intern in ANL
- Mentoring one PhD student and two undergraduate students in the University of Alabama

COMPUTER SKILLS

- Power distribution system simulation using OpenDSS, GridLAB-D
- Model-based optimization and ML-based algorithms using Python, C++