Anwarul Islam Sifat, Ph.D.

CONTACT INFORMATION

Lamar University
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RESEARCH INTERESTS

Advanced data analytics for power system protection, Power system protection, micro-grid, distributed energy sources, load forecasting, electromagnetic transient simulation, embedded system development, edge computing, game theory, parallel computation, energy systems, sustainability in the built environment, engineering education

CURRENT ACADEMIC APPOINTMENT

Assistant Professor, Lamar University — September 2021 to present
Phillip M. Drayer Department of Electrical and Computer Engineering (ECE)
Program Director, Power, and Energy Certi cate
Founder, GridLab-Lamar University Power System Research Lab

PREVIOUS ACADEMIC APPOINTMENTS

Postdoctoral Scholar, Arizona State University — July 2022 to August 2023
School of Electrical, Computer and Energy Engineering (ECEE),
Ira A. Fulton Schools of Engineering
Laboratories:
The Phasor Assisted Learning (PAL) Lab (PI: Anamitra Pal)

EDUCATION

Victoria University of Wellington , Wellington, New Zealand — July 2021

Ph.D., School of Engineering and Computer Science, July 2021

Thesis Topic: Applicationof GMR Sensors to Non-contact Current Monitoring, Fault Detection, and Classifcation in Electricity Distribution Networks
Adviser: Dr. Fiona Stevens McFadden and Dr. Ramesh Rayudu

[4] Sarkar, M. N. I., & Sifat, A. I. (2016). Global solar radiation estimation from commonly available meteorological data for Bangladesh. Renewables: Wind, Water, and Solar, 3(1), 1-14. Springer Singapore.

Refereed Conference Publications

[5] Moshtagh, S., Sifat, A. I., Azimian, B., & Pal, A. (2023). Time-synchronized state estimation using graph neural networks in presence of topology changes. In 2023 North American Power Symposium (NAPS) (pp. 1-6). IEEE.

[6] Sahoo, S., Sifat, A. I., & Pal, A. (2023). Data-driven ow and injection estimation in PMU-unobservable transmission systems. In 2023 IEEE Power & Energy Society General Meeting (PESGM) (pp. 1-5). IEEE.

Principal Investigator: Probabilistic Net Load Forecasting under Extreme Weather Events to Improve Grid Resiliency: Development and Validation using a Physical Test Setup , Center for Resiliency, Lamar University, 2024

ADVISING AND MENTORING

Graduate Students

Md Mahfuzur Rahman Chy , PhD Student, Electrical and Computer Engineering Engineering, 2024 Current

Md Imran , MS Student, Electrical and Computer Engineering, 2023 Current

Tasmina Imam, MS Student, Electrical and Computer Engineering, 2024 Current

TEACHING EXPERIENCE

Lamar University , Beaumont, TX

Instructor — Fall 2023 to present

ELEN 3441 Fundamentals of Power Engineering
ELEN 4309 Fundamentals of Power System Protection
ELEN 5355 Electric Machines and Power Electronic Drives
ELEN 5356 Power System Stability and Control
ELEN 5357 Power System Monitoring and Protection
ENGR 5306 Engineering Internship
ELEN 6301 Advanced Power System Protection

PROFESSIONAL SERVICE

Referee Service

Transactions on Power Systems, IEEE
Transactions on Power Delivery, IEEE
Power & Energy Society General Meeting. IEEE
Energies, MDPI
Electronics, MDPI
Electrical Engineering, Springer
International Journal of Electrical Power & Energy Systems, Elsevier
Sensors, MDPI
Sustainability, MDPI

PROFESSIONAL EXPERIENCE

Arizona State University, Tempe, AZ, USA

Postdoctoral Researcher — July 2022 to August 2023

Sensor-enabled wild re awareness & risk management for electric power infrastructure: Assessment of power systems transient stability during the wild re. The prospective outcome is to reduce power outages during wild res using advanced sensing systems and data-driven decision-support algorithms.

Robinson Research Institute, Grace eld, Lower Hutt, New Zealand

Research Engineer — October 2020 to May 2022

Developed a non-contact magnetic sensor-based power system monitoring and fault detection schemescheme

Victoria University of Wellington , Kelburn, Wellington, New Zealand

Research Assistant and Outreach Assistant November 2018 to December 2019

Investigated a method to optimize the power consumption of a battery powered embedded system. Achievement resulted in reducing the power consumption of the system by 70% to ensure extended battery life.

Programing language instructor. Mentored with effective verbal and written communication in an intermediate school through classroom instruction and responding to student questions.

Dhaka Power Distribution Company Ltd , Dhaka, Bangladesh

Industry intern December 2016 to March 2017

Evaluated technical data to analyse the power dispatch from multiple substations. Prepared a technical report about commercial activities within the company.

PROFESSIONAL MEMBERSHIPS

Institute for Electrical and Electronics Engineers (IEEE), Member,
IEEE Power Energy Society
IEEE Industrial Application Society

SERVICE

Governor's Summer Merit Program (GSMP), Lamar University, 2024
Instructor, Snap circuit training program

Cardinal View, Lamar University, 2023, 2024
ECE department representative. Open house event to inform the local community about academic majors, nancial aid, student organizations, and campus resources.

Arizona State University Open Door, 2023
ECEE department representative. An open-door event invites the local community, adults, and children of all ages to experience and discover ASU through hundreds of interactive, hands-on activities.

APPLICATION AREAS

Data Analysis & Visualization, Algorithm Development, Electrical System Modelling and Simulation, Electrical Design Hardware Prototyping, Power System Stability and Control, Power System Protection, Technical Writer

HARDWARE AND SOFTWARE S