Wei Trinh

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EDUCATION

TEXAS A&M UNIVERSITY | PhD in Electrical Engineering
August 2016 - Present | College Station, TX

UNIVERSITY OF MARYLAND BALTIMORE COUNTY (UMBC) | BS in Physics, Cum Laude
August 2012 - June 2016 | Baltimore, MD

UNIVERSITY OF MARYLAND BALTIMORE COUNTY (UMBC) | BS in Mathematics, Cum Laude
August 2012 - June 2016 | Baltimore, MD

EXPERIENCE

IEEE TEXAS POWER & ENERGY CONFERENCE (TPEC) | College Station, TX
March 2020 - February 2021 | Promotion Logistics Chair
- Working on social media for the event, for promotional and outreach purposes.
- Developing magazine for the conference, to be distributed to the attendees.
- Worked on maintaining and modernizing website for publicity.

March 2019 - February 2020 | Co-Director
- Directed conference planning in all avenues including financial, logistical, and technical processes.
- Established and recruited the planning committee, along with building a planning framework that would give more details for future generations to base their planning off of.
- Helped to establish the planning committee for the next TPEC.

August 2018 - February 2019 | Committee Member and Reviewer
- Helped to contact and arrange financial sponsors for the event.
- Acted as a liaison between financial sponsors and the committee during the conference.
- Reviewer for conference papers.

TAMU DEPARTMENT OF ELECTRICAL ENGINEERING | College Station, TX
August 2020 - December 2020 | Teaching Assistant for ECEN 459
- Instructed students on the fundamentals of 3ϕ power systems and fault analysis.
- Developed lab manuals and activities for students to work on remotely during COVID-19 pandemic.

August 2018 - May 2019 | Teaching Assistant for ECEN 460
- Instructed students on the fundamentals of 3ϕ power systems, and provided guidance in learning how to use commercialized power systems analysis packages, like PowerWorld.

August 2016 - May 2018 | Teaching Assistant for ECEN 215
- Instructed students on basic circuit design and developed students abilities to analyze and understand circuits.
- Revamped the entire lab manual for the course, making it more intuitive for students unfamiliar with circuit theory, and included ample reference material for students to use to understand how to build and understand circuits.

UMBC DEPARTMENT OF PHYSICS | Baltimore, MD
January 2013 - May 2014 | Learning Assistant for PHYS 121
- Assisted students with learning basic Physics principles, and the visualization of said principles through the use of Python.

June 2014 - June 2016 | Lab Setup Assistant
- Helped to set up and check all laboratory equipment for the introductory labs.
- Optimized and assisted in the restructuring of student labs for better delivery of Physics concepts.

UMBC MEYERHOFF SCHOLARS PROGRAM | Baltimore, MD
August 2012 - June 2016 | Meyerhoff Council Member
- Acted as a liaison between students and faculty of the Meyerhoff Program.
- Organized and ran various student events in order to cultivate a family environment in the program.

RESEARCH

OVERBYE LAB | Graduate Research Assistant
PI: Dr. Thomas Overbye | February 2018 – Present | College Station, TX

Working under Dr. Thomas Overbye in the field of power systems. Currently researching modal analysis techniques for large-scale synthetic power systems, and how they can be leveraged to analyze and understand the nature of modes in an electric grid.

CHEN LAB | REU Research Assistant
PI: Dr. Long-Qing Chen | May 2015 - August 2015 | State College, PA
Comsol was used to optimize a computational model of a thin-film polymer capacitor, with the aim of minimizing the internal temperature based on physical constraints.

SPARLING LAB | Undergraduate Research Assistant
PI: Dr. Lynn Sparling | December 2015 - August 2016 | Baltimore, MD
Used a combination of Python and Mathematica to analyze large sets of wind data, in order to determine the most optimal design for a wind farm over a given piece of land.

PUBLICATIONS

Z. Wang, Q. Li, W. Trinh, Q. Lu, H. Cho, Q. Wang, and L. Chen, "Optimal design of high temperature metalized thin-film polymer capacitors: A combined numerical and experimental method," *Journal of Power Sources*, vol. 357, pp. 149 – 157, 2017.

W. Trinh, J. Tyler, S. Villareal, M. Rahimian, and N. Gober, "ECEN 215 Lab Manual," *ECEN 215 Course*, August 2018

W. Trinh, K.S. Shetye, I. Idehen, and T. Overbye, "Iterative Matrix Pencil Method for Power System Model Analysis," *2019 52nd Hawaii International Conference on System Sciences*, January 2019.

W. Trinh, and T. Overbye, "Comparison of Dynamic Mode Decomposition and Iterative Matrix Pencil Method for Power System Modal Analysis," *2019 International Conference on Smart Grid Synchronized Measurements and Analytics*, May 2019.

H. Li, W. Trinh, J. Wert, M. Dawkins, T. Overbye, and J. Weber, "Applications of DC Power Flow Based Power System Dynamic Simulations," *IEEE Texas Power and Energy Conference 2020*, February 2020.

T.J. Overbye, K.S. Shetye, J.L. Wert, W. Trinh, and A. Birchfield, "Techniques for Maintaining Situational Awareness During Large-Scale Electric Grid Simulations," *IEEE Power and Energy Conference at Illinois (PECI)*, April 2021.

J. Yeo, W. Trinh, W. Jang, and T. Overbye, "Assessment of Multirate Method for Power System Dynamics Analysis," *2020 North American Power Symposium (NAPS 2020)*, April 2021.

W. Trinh, Z. Mao, T. J. Overbye, J. D. Weber, and D. J. Morrow, "Considerations in the Initialization of Power Flow Solutions from Dynamic Simulation Snapshots", *2020 North American Power Symposium (NAPS 2020)*, April 2021.

W. Trinh and T.J. Overbye, "Sensitivity of Modes from Modal Analysis of Electric Grids," *Kansas Power and Energy Conference (KPEC)*, April 2021.

SKILLS

PROGRAMMING Python • Matlab • Mathematica • PowerWorld • JavaScript • LaTeX

HONORS

Meyerhoff Scholar, University of Maryland Baltimore County, August 2012
NIBIB Scholar, University of Maryland Baltimore County, August 2014
Thomas W. Powell '62 and Powell Industries Inc. Fellowship Recipient, Texas A&M University, May 2019
Thomas W. Powell '62 and Powell Industries Inc. Fellowship Recipient, Texas A&M University, May 2020