Ziang "John" Zhang Ph. D.

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Professional Summary

- **Research Leadership**: Expert in power systems stability, renewable energy integration, and machine learning applications, with interdisciplinary research bridging theory and application.
- **Funded Research**: Principal Investigator of over $6M in funded projects from NSF, DOE, and NYSERDA, advancing innovations in grid resilience and sustainable energy systems. Led projects across TRL 1 to TRL 6, bringing theoretical research into field demonstration.
- **Industry and National Lab Collaborations**: Led high-impact demonstration projects with national labs (BNL, NREL) and major utilities, translating research into real-world solutions.
- **Dedicated Mentor and Educator**: Mentor students across academic levels, integrating hands-on projects to build technical and problem-solving skills.
- **Community Engagement and Outreach**: Active in IEEE leadership and public outreach, including hosting a podcast to engage the power systems community and foster interdisciplinary connections.

Academic/Professional Appointments

09/2020 – Current: Associate Professor, Department of Electrical and Computer Engineering, Binghamton University, Binghamton, NY

09/2014 – 08/2020: Assistant Professor, Department of Electrical and Computer Engineering, Binghamton University, Binghamton, NY

08/2013 – 08/2014: Postdoc, ABB US Corporate Research Center, Raleigh, NC

01/2013 – 08/2013: Intern, ABB US Corporate Research Center, Raleigh, NC

09/2009 – 08/2013: Research Assistant, Department of Electrical and Computer Engineering, North Carolina State University, Raleigh, NC

Education

University & Location	Major	Degree & Year
North Carolina State University, Raleigh, NC	Electrical Engineering	Ph.D., 2013
Purdue University Northwest, Hammond, IN	Electrical Engineering	M. S., 2009
Beijing Institute of Technology, Beijing, China	Electrical Engineering	B. S., 2007

Research

Funded Projects (Total External Funding as PI: $6M)

1. Development of High IBR Penetration New York Power System Models for Operators, New York State Energy Research and Development Authority (NYSERDA), $400,000, 2024-2026.
2. GOALI: ASCENT: Online Stability Assessment, Flexibility, and Enhancement of IBR-dominated Power Systems, National Science Foundation (NSF), $1.2M, 2023-2026.
3. Web-based, interactive decision support tool to navigate NY's energy system tradeoffs, Binghamton University Seed Grant, $14,994, 2020-2021.
4. Asynchronous Distributed and Adaptive Parameter Tuning (ADAPT) for Hybrid PV Plants, Department of Energy (DOE), $2.6M, 2021-2024.
5. Stability Impact Analysis of the New York Power Grid with High Penetration of Inverter-Based Distributed Energy Resources, NYSERDA, $400,000, 2021-2023.
6. Smart Cities Innovation Partnership Project: Advanced Water Meters in New York State, Empire State Development Corporation, $200,000, 2020-2022.
7. Physical and Statistical Modeling for Resilience Design of Modern Power Grid Systems, Binghamton University Seed Grant, $15,000, 2020-2021.
8. PFI-TT: Next Generation High Energy Storage, Light Weight Capacitors, National Science Foundation (NSF), $300,888, 2020-2023.
9. Feasibility Study of an On-board XFC/Motor Drive System with Extended Lifetime Batteries for All-Electric and Plug-in Hybrid Transit Buses, New York State Energy Research and Development Authority (NYSERDA), $250,000, 2020-2021.
10. Balancing Phases in Medium Voltage Systems, Switched Source LLC, $77,172, 2019-2020.
11. A Flexible Storage plus DER Solution for Warehouse Energy Management, New York State Energy Research and Development Authority (NYSERDA), $1,000,000, 2019-2022.
12. Development of Low-Cost Active Distributed Energy Resource Systems, New York State Energy Research and Development Authority (NYSERDA), $379,665, 2017-2019.
13. Integrated Sustainable Power System Operation & Planning with Real-Time Population Estimates, Binghamton University Seed Grant, $10,000, 2017-2018.
14. An Active Grid-Friendly Distributed Energy System Testbed, Binghamton University Seed Grant, $15,000, 2016-2017.

Active Collaborators and Potential Partnerships (List of non-academic organizations)

Collaborator	Type	Area of Collaboration
Brookhaven National Laboratory (BNL)	National Lab	Grid stability, hybrid renewable plant demonstration
National Renewable Energy Laboratory (NREL)	National Lab	Renewable integration, hybrid renewable plant operation strategy
Pacific Northwest National Laboratory (PNNL)	National Lab	Grid resilience, energy storage systems
New York Power Authority (NYPA)	Utility	Transmission system stability analysis
New York State Electric and Gas (NYSEG)	Utility	Hosting capacity analysis, renewable and storage system integration
New York Independent System Operator (NYISO)	Grid Operator	Energy market simulation
California Independent System Operator (CAISO)	Grid Operator	Online transient stability assessment
Midcontinent Independent System Operator (MISO)	Grid Operator	Transient stability assessment, renewable interconnection study
Eaton	Industry	Battery energy storage system integration
General Electric	Industry	Battery energy storage system integration
Siemens	Industry	Grid-forming inverters, building energy management
Hitachi Energy	Industry	Power system stability
ABB	Industry	Power Electronics
Raymond Corporation	Industry	Warehouse energy management system demonstration
Bigwood System Inc.	Small Business	Transient stability analysis
SYNDEM LLC	Small Business	Grid-forming inverter, system demonstration
Charge CCCV	Small Business	Battery technology, battery system demonstration
QPO Energy	Small Business	Battery system demonstration

Publications (J:17, C:34)

Power Systems Dynamics (J:5, C:8)

Journal Articles

1. X. Huang, S. Wang, J. Li, and Z. Zhang, "Transient Stability Enhancement via a Scalable Meta-RL Method with VSG Parameter Tuning," 2024, submitted.
2. Y. Che, C. Chang, and Z. Zhang, "Physical-Statistical Learning in Resilience Assessment for Power Generation Systems," *Physica A: Statistical Mechanics and its Applications* 615: 128584, 2023.
3. Yiming Che, Changqing Cheng, Zhao Liu, and Ziang John Zhang. "Fast basin stability estimation for dynamic systems under large perturbations with sequential support vector machine," *Physica D: Nonlinear Phenomena* 405: 132381, 2020.
4. Y. Mao and Z. Zhang, "Asymptotic Frequency Synchronization of Kuramoto Model by Step Force," in *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 8, pp. 2768-2778, Aug. 2020.
5. Z. Liu, X. He, Z. Ding, and Z. Zhang, "A Basin Stability Based Metric for Ranking the Transient Stability of Generators," in *IEEE Transactions on Industrial Informatics*, vol. 15, no. 3, pp. 1450-1459, March 2019.

Conference Papers

1. M. Dashtaki, X. Lin, Z. Zhang, S. Basumallik, and R. Pourramezan, "Transient Stability Enhancement via Grid-Forming IBRs on a 5000-bus New York Transmission System," *2025 IEEE Power & Energy Society General Meeting (PESGM)*, 2025, submitted.
2. X. Lin, Z. Zhang, X. Huang, and R. Pourramezan, "A Trade-Off Study Between the Primary and Transient Responses of Grid-Forming Inverters," *50th Annual Conference of the IEEE Industrial Electronics Society (IECON 2024)*, Chicago, IL, 2024.
3. X. Huang and Z. Zhang, "Transient Stability Enhancement via a Scalable RL Method with VSG Parameter Tuning," *50th Annual Conference of the IEEE Industrial Electronics Society (IECON 2024)*, Chicago, IL, 2024.
4. X. Lin, Z. Zhang, and R. Pourramezan, " Transient Stability of Transmission and Distribution Grids with Grid-Forming Inverter-Based Resources: Phasor Domain Modeling," *2024 IEEE Power & Energy Society General Meeting (PESGM)*, Seattle, WA, 2024.

5. X. Huang, J. -Y. Gwak, L. Yu, Z. Zhang, and H. Cui, "Transient Stability Preventive Control via Tuning the Parameters of Virtual Synchronous Generators," *2023 IEEE Power & Energy Society General Meeting (PESGM)*, Orlando, FL, USA, 2023.
6. Z. Liu and Z. Zhang, "Probabilistic-Based Transient Stability Assessment of Power Systems with Virtual Synchronous Machines," *2019 IEEE 28th International Symposium on Industrial Electronics (ISIE)*, 2019.
7. Z. Liu, Z. Zhang, and Y. Lin, "Impact of Inverter-Interfaced Renewable Generation on Transient Stability at Varying Levels of Penetration," *IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society*, 2018.
8. Z. Liu and Z. Zhang, "Quantifying transient stability of generators by basin stability and Kuramoto-like models," *2017 North American Power Symposium (NAPS)*, 2017.

Power System Operation and Economics (J:10, C:20)

Journal Articles

1. T. Li, H.-D. Chiang, Li Zeng, Z. Zhang, J. Zhang, and J. Dai, "A Novel TRUST-TECH-enhanced Principal Component Optimizer for Accurate Photovoltaic Model Parameter Extraction," submitted, 2024.
2. Y. Chen, N. Zhou, and Z. Zhang, "Quantifying Uncertainty in State Estimation: The MoK-FoBS Method via Interval Analysis," submitted, 2024
3. T. Ahmad, N. Zhou, Z. Zhang, and W. Tang, "Enhancing Probabilistic Solar PV Forecasting: Integrating the NB-DST Method with Deterministic Models," *Energies 17*, no. 10: 2392, 2024.
4. Y. Chen, N. Zhou, and Z. Zhang, "Modified Eigen-Decomposition-based Interval Analysis (MEDIA) for Power System Dynamic State Estimation," *in IEEE Transactions on Power Systems*, 2023.
5. Z. Ding, X. Huang, Z. Liu, and Z. Zhang, "A Two-Level Scheduling Algorithm for Battery Systems and Load Tap Changers Coordination in Distribution Networks," in *IEEE Transactions on Power Delivery*, vol. 37, no. 4, pp. 3027-3037, Aug. 2022.
6. R. Sioshansi *et al*., "Energy-Storage Modeling: State-of-the-Art and Future Research Directions," in *IEEE Transactions on Power Systems*, vol. 37, no. 2, pp. 860-875, March 2022. (**2023 IEEE PES Prize Paper Award**)

7. Y. Mao and Z. Zhang, "Distributed frequency synchronization and phase-difference tracking for Kuramoto oscillators and its application to islanded microgrids," *2016 IEEE 55th Conference on Decision and Control (CDC)*, 2016.
8. N. Rahbari-Asr, U. Ojha, Z. Zhang and M. -Y. Chow, "Incremental Welfare Consensus Algorithm for Cooperative Distributed Generation/Demand Response in Smart Grid," *IEEE Transactions on Smart Grid*, vol. 5, no. 6, pp. 2836-2845, Nov. 2014.
9. Z. Zhang and M. -Y. Chow, "Convergence Analysis of the Incremental Cost Consensus Algorithm Under Different Communication Network Topologies in a Smart Grid," in *IEEE Transactions on Power Systems*, vol. 27, no. 4, pp. 1761-1768, Nov. 2012.
10. Ziang Zhang and Mo-Yuen Chow. "The influence of time delays on decentralized economic dispatch by using incremental cost consensus algorithm." In *Control and optimization methods for electric smart grids*, pp. 313-326. Springer, New York, NY, 2012.

Conference Papers

1. S. Zheng, L. Tu, X. Chen, and Z. Zhang, “Exploring Locational Marginal Price Volatility for Arbitrage Opportunities with Energy Storage Systems in ERCOT,” *IEEE PES Electrical Energy Storage Applications and Technologies (EESAT 2025)*, Charlotte, NC, 2025. Accepted.
2. Y. Chen, Y. Lin, M. Moore, X. Huang, X. Chen, and Z. Zhang, “Bidding Curve Design for Hybrid Power Plants with Uncertain Solar Forecast,” *50th Annual Conference of the IEEE Industrial Electronics Society (IECON 2024)*, Chicago, IL, 2024.
3. X. Huang, Z. Zhang, Y. Lin, and Y. Chen, "Arbitrage and Capacity Firming in Coordination with Day-Ahead Bidding of a Hybrid PV Plant," *2022 IEEE Power & Energy Society General Meeting (PESGM)*, Denver, CO, USA, 2022.
4. Z. Liu and Z. Zhang, "Reinforcement Learning-based Parameter Tuning for Virtual Synchronous Machine on Grid Transient Stability Enhancement," *IECON 2020 The 46th Annual Conference of the IEEE Industrial Electronics Society*, 2020.
5. Z. Ding and Z. Zhang, "A Behind-the-Meter Battery Control Algorithm with the Consideration of Li-ion Battery Degradation," *2019 IEEE 28th International Symposium on Industrial Electronics (ISIE)*, 2019.
6. Z. Ding, Z. Zhang, and T. Zhao, "Online Operation of Battery Energy Storage System for Demand Charge Reduction Considering Degradation," *2019 IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia)*, 2019.

7. Z. Ding, Z. Liu, and Z. Zhang, "Dynamic Hosting Capacity Management and Demand Charge Reduction via a Hybrid Storage System," *IECON 2018 - 44th Annual Conference of the IEEE Industrial Electronics Society*, 2018.
8. Z. Ding and Z. Zhang, "Modeling and optimal operation of a combined heat and power system in microgrids," *2017 IEEE Power & Energy Society General Meeting*, 2017. (**IEEE PSG GM Best Paper Award**)
9. Jian Zheng, Cencen Xu, Ziang Zhang, and Xiaohua Li, "Electric load forecasting in smart grids using Long-Short-Term-Memory based Recurrent Neural Network," *2017 51st Annual Conference on Information Sciences and Systems (CISS)*, 2017.
10. Z. Liu and Z. Zhang, "Solar forecasting by K-Nearest Neighbors method with weather classification and physical model," *2016 North American Power Symposium (NAPS)*, 2016.
11. L. Feng, B. McMillin, A. P. Santiago, and Z. Zhang, "Incremental Cost Consensus (ICC) and leaderless ICC implementations in FREEDM," *2015 IEEE Power & Energy Society Innovative Smart Grid Technologies Conference (ISGT)*, 2015.
12. G. Zhabelova, V. Vyatkin, Z. Zhang and M. -Y. Chow, "Agent-based distributed consensus algorithm for decentralized economic dispatch in Smart Grid," *IECON 2013 - 39th Annual Conference of the IEEE Industrial Electronics Society*, 2013.
13. Z. Zhang, N. Rahbari-Asr and M. -Y. Chow, "Asynchronous distributed cooperative energy management through gossip-based incremental cost consensus algorithm," *2013 North American Power Symposium (NAPS)*, 2013.
14. Z. Zhang, Yuan Zhang, and M. -Y. Chow, "Distributed energy management under smart grid plug-and-play operations," *2013 IEEE Power & Energy Society General Meeting*, 2013.
15. N. Rahbari Asr, Z. Zhang and M. -Y. Chow, "Consensus-based distributed energy management with real-time pricing," *2013 IEEE Power & Energy Society General Meeting*, 2013.
16. Ziang Zhang and M. -Y. Chow, "The leader election criterion for decentralized economic dispatch using incremental cost consensus algorithm," *IECON 2011 - 37th Annual Conference of the IEEE Industrial Electronics Society*, 2011.
17. Ziang Zhang, Xichun Ying, and Mo-Yuen Chow, "Decentralizing the economic dispatch problem using a two-level incremental cost consensus algorithm in a smart grid environment," *2011 North American Power Symposium*, 2011.
18. J. Mitra *et al*., "Intelligent methods for smart microgrids," *2011 IEEE Power and Energy Society General Meeting*, 2011.

19. Z. Zhang and M. -Y. Chow, "Incremental cost consensus algorithm in a smart grid environment," *2011 IEEE Power and Energy Society General Meeting*, 2011.
20. B. McMillin, R. Akella, D. Ditch, G. Heydt, Z. Zhang, and M. -Y. Chow, "Architecture of a smart microgrid distributed operating system," *2011 IEEE/PES Power Systems Conference and Exposition*, 2011.

Other Topics (J:2, C:6)

Journal Articles

1. Mischen, Pamela A., George C. Homsy, Carl P. Lipo, Robert Holahan, Valerie Imbruce, Andreas Pape, Weixing Zhu, and Z. Zhang, "A foundation for measuring community sustainability," *Sustainability* 11, no. 7, 2019.
2. Y. Mao, H. Zhang, and Z. Zhang, "Finite-Time Stabilization of Discrete-Time Switched Nonlinear Systems Without Stable Subsystems via Optimal Switching Signal Design," in *IEEE Transactions on Fuzzy Systems*, vol. 25, no. 1, pp. 172-180, Feb. 2017.

Conference Papers

1. K. Xu, Z. Zhang, “Battery Turning Point Identification Through an Arduino-based Battery Cycling System,” *IEEE PES Electrical Energy Storage Applications and Technologies (EESAT 2025)*, Charlotte, NC, 2025. Accepted.
2. Y. Mao, E. Akyol and Z. Zhang, "A Novel Defense Strategy Against Zero-Dynamics Attacks in Multi-Agent Systems," *2019 IEEE 58th Conference on Decision and Control (CDC)*, 2019.
3. Y. Mao, E. Akyol and Z. Zhang, "Second-Order Consensus for Multi-Agent Systems by Time-Dependent Topology Switching," *2018 IEEE Conference on Decision and Control (CDC)*, 2018.
4. S. Ahmed, D. Tremelling, H. Kim, Z. Zhang, N. Frank and R. McElveen, "Modeling, simulation and performance evaluation of cage rotor permanent magnet motor fed by variable speed drive," *2016 IEEE Energy Conversion Congress and Exposition (ECCE)*, 2016.
5. Z. Zhang, N. Kang, and M. J. Mousavi, "Real-time transformer parameter estimation using terminal measurements," *2015 IEEE Power & Energy Society General Meeting*, 2015.
6. D. Gray, Z. Zhang, C. Apostoaia and C. Xu, "A neural network-based approach for the detection of faults in the brushless excitation of a synchronous motor," *2009 IEEE International Conference on Electro/Information Technology*, 2009.

Research Awards:

- 2024 IEEE IECON 2024, Best Presentation in Power Systems and Smart Grid Session.
- 2024 Dean’s Research Award, Thomas J. Watson College of Engineering and Applied Science, Binghamton University.
- 2023 Large Grant Award, The Research Foundation for The State University of New York.
- 2023 IEEE PES Prize Paper Award.
- 2017 IEEE PES GM Best Paper Award.

Patent

Ziang Zhang, Ning Kang, Mirrasoul Mousavi, Transformer Parameter Estimation Using Terminal Measurements, ABB Schweiz AG, US20170030958A1, CN106605150A, EP3132514A1, WO2015160616A1.

Conference/Workshop Activities

- **Organizing Committee Member,** IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition (IEEE PES flagship event), San Diego, CA, Jan. 2025.
- **Sub-committee Chair:** 3-Minute PhD Dissertation Challenge, IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition, San Diego, CA, Jan. 2025.
- **Moderator:** Young Professional Panel - The Role of Data in the Energy Transition, IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition, San Diego, CA, Jan. 2025.
- **Panelist** on “Advancing Grid Stability and Renewable Integration with Grid-Forming Inverter-Based Technologies: Challenging, Opportunities, and the Role of Modeling,” at the IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition, San Diego, CA, Jan. 2025.
- **Panel Organizer and Moderator,** “Revisit Power Systems Stability with Inverter-Based Resources,” at the 50th Annual Conference of the IEEE Industrial Electronics Society (IECON 2024), Nov. 2024.
- **Panelist** on “Grid Enhancing Technologies - Use of Control Software and Distributed Energy Resources,” Annual Fall Energy Storage Technology and Innovation Conference, Binghamton, NY, Oct. 2024.

- **Organizing Committee Member**, IEEE 2024 Conference on Innovative Smart Grid Technologies (ISGT) 2024, Washington DC, Feb. 2024.
- **Co-Chair,** Workshop on Lithium-Ion Battery Safety in Transportation Applications, Binghamton, NY, Oct. 2023.
- **Organizing Committee Member**, IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition (IEEE PES flagship event), San Diego, CA, Jan 2023.
- **Sub-committee Chair:** 3-Minute PhD Dissertation Challenge, IEEE Power & Energy Society (PES) Grid Edge Technologies Conference & Exposition, San Diego, CA, Jan. 2023.
- **Chair**, Southern Tier Technology Symposium 2019, Binghamton, NY, Oct. 2019.
- **Organizing Committee Member**, NSF Workshop on Power Electronics-Enabled Operation of Power Systems, Chicago, IL, Oct. 2019.
- **Special Session Chair** on Battery Modeling and Control with Industrial Applications, in the 28th International Symposium on Industrial Electronics (ISIE), Vancouver, Canada, June 2019.
- **Special Session Chair** on Stability of Low-inertia Power Systems and Microgrids at the 44th Annual Conference of the IEEE Industrial Electronics Society (IECON). Washington DC, USA, Oct. 2018.
- **Panelist** on New York Battery and Energy Storage Technology (NY-BEST) Consortium Annual Technology Conference, Binghamton, NY, Sept. 2018.
- **Program Committee Member**, the First Northeast Regional Conference on Complex Systems, Binghamton, NY, Apr. 2018.
- **TPC Member** on IEEE SmartGridComm Symposium on Data Management, Grid Analytics, and Dynamic Pricing, 2016, 2015
- **Track Co-Chair** on Applications of Parallel and Distributed Computing, The 15th International Conference on Algorithms and Architectures for Parallel Processing, Zhangjiajie, China, 2015
- **Program Committee Member**, International Conference on Smart Grid Technologies, Coimbatore, India, 2015
- **Track Chair** on Power Systems, The 39th Annual Conference of the IEEE Industrial Electronics Society (IECON-2013), Vienna, Austria, 2013

Organizing/Technical Committees

- R&D Advisory Group Member: National Offshore Wind R&D Consortium, 2020 – present.
- Member: IEEE P2800-2 Test and Verification of BPS-connected Inverter-Based Resources working group, 2021 – present.
- Member: IEEE Power & Energy Society Task Force on Decision Support Tools for Energy Storage Investment and Operations, 2016 – 2019.
- Member: IEEE Industrial Electronics Society Task Force on Smart Grid, 2015 – present.
- Member: Collective Dynamics of Complex Systems Research Group at Binghamton University, 2015 – present.

Teaching and Mentoring

Teaching

- EECE 361, Control Systems I, 2020 - 2022
- EECE 212, Linear Algebra and Engineering Programming, 2017 - present
    - Flipped classroom since 2018.
- EECE 480B, Linear Algebra and Engineering Programming, 2016, then become EECE 212
- EECE 506, Mathematical Methods in Electrical Engineering, 2014, 2015
- EECE 512, Renewable Energy & Distribution Systems, 2015 - present
    - Flipped classroom and online since 2019.

Continuing Education

- Mini-Course: Introduction to Battery Systems
- Mini-Course: Battery Management System Design
- Faculty Member: New Energy New York (NENY) Battery Academy

Student Supervision

- Ph.D. Students:

Student Name	Graduation Status	First Job/Position
Mohammad Ali Dashtaki	Expected to graduate in 2027	-
Xi Chen	Expected to graduate in 2027	-
Xuheng Lin	Expected to graduate in 2025	-
Virgil Beaston	Withdrew in 2023 to launch his company	CTO, QPO Energy
Xiaoge Huang	Graduated in 2021	Power Systems Software Engineer, Siemens USA
Zhenhuan Ding	Graduated in 2021	Assistant Professor, Anhui University, Hefei, China
Zhao Liu	Graduated in 2020	Assistant Professor, Beijing Jiaotong University, China
Yanbing Mao	Transferred to Emrah Akyol’s lab in 2017, graduated in 2020	Assistant Professor, Wayne State University

- Thesis / Dissertation Committees Served on (not as principal advisor)
    - Tawsif Ahmad, Ph.D. Dissertation, Principal advisor: Ning Zhou
    - Yuting Chen, Ph.D. Dissertation, Principal advisor: Ning Zhou
    - Bahman Khaki, Ph.D. Dissertation, Principal advisor: Pritam Das
    - Yanbing, Mao, Ph.D. Dissertation, Principal advisor: Emrah Akyol
    - Robert J Thompson, Ph.D. Dissertation, Principal advisor: Edward Li
    - Mahboobeh Hejazibakhsh, Ph.D. Dissertation, Principal advisor: Hiroki Sayama (Systems Science and Industrial Engineering)

- M.S. Students with M.S. Thesis or Project:

Student Name	Graduation	Most Recent Job/Position
Lake Hakes	2025 (expected)	-
Natalie Kachmarik	2025 (expected)	-
Kevin Ahrens	2025 (expected)	-
Rachael Kohler	2025 (expected)	DOE Clean Energy Innovator Fellow
Muhib Khan	2024	Graduate Electrical Engineer, Arup
David Goldhirsch	2024	Electrical Designer, HDR
Erik Chorba	2023	System Operator, National Grid
John Tiburzi	2023	Distribution Planning Engineer, New York State Electric and Gas
Gabriel Diaz	2022	Electrical Design/Project Engineer, Constellation
Robert Clark	2022	Electrical Engineer, Architect of the Capitol
James Greco	2022	Automation Controls Engineer, PeakLogix
Tharun Kandukuri	2020	PhD student, University of Cambridge
Isaiah Thron	2020	Senior EMS Engineer, New York State Electric and Gas
Wesley Deixler	2020	Manager, Operations Engineering at RWE Clean Energy
Bhavana Endreddy	2019	Hardware Development Engineer II, Amazon
Kenneth Nandigam	2019	Lab Infrastructure Engineer II, Amazon Robotics
Thomas Cirillo	2018	Lead Engineer, Energy Control Systems at AVANGRID

Ryan Empson	2018	Electronics Engineer Sr, Lockheed Martin
Orion Whitney	2018	Senior Engineer, BAE Systems
Xi He	2018	Lecture, North China University of Science and Technology
Alexander Valle	2017	Federal Energy Regulatory Commission
Edward J. Cheswick	2017	General Dynamics
Liu Han	2017	Test Engineer, TÜV Rheinland North America
Jonathan Donovan	2016	Systems Engineer Sr. Specialist, L3Harris Technologies
Yishen Liu	2016	Project Manager, Maverick Management Group
Hongming Shen	2016	State Grid Corporation of China
Becky Deng	2015	Engineering Supervisor, Con Edison
Keith Lauria	2015	Central Hudson Gas & Electric
Mahmoud Amin	2015	Software Engineer, Google
Thomas Heller	2015	Staff Hardware Engineer, Lockheed Martin

- Undergrad students' research mentor: 2022 and 2024.

High School Student Mentorship

- Faculty Mentor: Kevin Xu, Edgemont High School – Research project on an Arduino-based battery cycling system.

Services

Grant Reviewer

- Review panelist: National Science Foundation, 2020, 2021, 2023, 2024
- Review panelist: Department of Energy, 2019, 2021, 2023
- Review panelist: National Offshore Wind R&D Consortium
- Grant reviewer: Netherlands Organisation for Scientific Research (NWO)

Campus Committee Service Activities

- **Steering committee member**, Smart Energy Transdisciplinary Areas of Excellence (TAE), Binghamton University, 2017- present
- **Research advisory committee member**, Thomas J. Watson College of Engineering and Applied Science, 2021 – present, 2023 (chair), 2024 (chair)
- **Commencement committee member**, Thomas J. Watson College of Engineering and Applied Science, 2015, 2016, 2019, 2020, 2021
- **Faculty search committee member**, Department of Electrical and Computer Engineering, 2015, 2016, 2017, 2023 (chair), 2024 (chair)
- **Personnel search committee member**, Binghamton NSF Energy Storage Engines, 2024.

Outreach and Public Engagement

- IEEE Section Chair: IEEE Binghamton Section, 2022 – 2024
- IEEE Chapter Chair: Power and Energy Society Chapter at IEEE Binghamton Section, 2019 – present
- Podcast Producer and Host: E 网打尽 (in Chinese), Sharing insights and stories from North American Chinese power systems engineers and researchers. Affiliated with the North America Chinese Power Professional Association (NACPPA), 2023 – present.