

# Weijie Pan, Ph.D.

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## EDUCATION

<b>The George Washington University</b> Ph.D. in Systems Engineering. (GPA: 3.95/4.00)	Washington, DC, USA Aug. 2021 – May. 2025
• Dissertation title: Multidimensional Assessment of Resilience in Integrated Energy Systems. • Advisor: Dr. Ekundayo Shittu • Committee: Dr. John Helveston, Dr. Caitlin Grady, Dr. Hernan Abeledo, Dr. Payman Dehghanian	
<b>University of Florida</b> M.Sc. in Electrical and Computer Engineering. (GPA: 3.88/4.00)	Gainesville, FL, USA Aug. 2015 – May. 2017
• Thesis title: A Distributed Control Approach for DG Integration and Power Quality Management in Railway Power System. • Advisor: Dr. Arturo Suman Bretas • Committee: Dr. Robert Moore, Dr. Shuo Wang	
<b>Nanjing Tech University</b> B.E. in Electrical Engineering (Grade: 89.3/100)	Nanjing, Jiangsu, China Sep. 2011 – June. 2015
• Concentration: Building Electricity and Intelligence.	

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## PROFESSIONAL EXPERIENCE

<b>Postdoctoral Research Fellow</b> Dartmouth College Supervisor: Dr. Geoffrey Parker	Aug. 2025 – Present Hanover, NH, USA
<b>Graduate Research Assistant</b> The George Washington University Supervisor: Dr. Ekundayo Shittu	Aug. 2021 – June. 2025 Washington, DC, USA
<b>Adjunct Instructor</b> The George Washington University Supervisor: Dr. Ekundayo Shittu	Jan. 2024 – June. 2025 Washington, DC, USA
<b>Academic Affairs Coordinator</b> NUIST-University of Reading Academy Supervisor: Dr. Jin Zhou	Jun. 2018 – Jul. 2021 Nanjing, Jiangsu, China
<b>Undergraduate Tutor</b> Santa Fe College Supervisor: Dr. Vertigo Moody	Aug. 2017 – Dec. 2017 Gainesville, FL, USA
<b>Graduate Research Assistant</b> University of Florida Supervisor: Dr. Arturo Suman Bretas	Aug. 2016 – May. 2017 Gainesville, FL, USA

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## TEACHING AND TUTORING

<b>Graduate Courses</b>	
• EMSE 6420 Uncertainty Analysis in Cost Engineering	Spring 2025 • Instructor
• EMSE 6410 Survey of Finance and Engineering Economics	Spring 2025 • Teaching Assistant
• EMSE 6420 Uncertainty Analysis in Cost Engineering	Spring 2024 • Instructor
<b>Undergraduate Courses</b>	

- **EMSE 4410** Engineering Economic Analysis
- **EMSE 4710** Applied Optimization Modeling
- **PHY 2053, 2054** General Physics w/o Calculus
- **PHY 2048, 2049** General Physics w/ Calculus

- Spring 2025** • Teaching Assistant  
**Fall 2023** • Teaching Assistant  
**Fall 2017** • Teaching Assistant  
**Fall 2017** • Teaching Assistant

## REFEREED JOURNAL PUBLICATIONS

\* indicates the person as the corresponding author.

### In Preparation / Submitted

- [J.6] **W. Pan\***, G. Parker, and E. Shittu, Cooperation or Competition: Equity Implications in Mixed Prosumer–Consumer Energy Communities. (submitted).
- [J.5] E. Vivesh, **W. Pan**, and E. Shittu\*, Optimizing Solar-Powered EV Charging Hubs: A Case Study of Washington, DC. (under review).
- [J.4] **W. Pan\*** and E. Shittu, Assessing the Impact of Electricity Markets on Resilience in the Context of Capacity Expansion: An Integrated Simulation-Optimization Approach. (under 2<sup>nd</sup> round review).

### Published

- [J.3] **W. Pan\*** and E. Shittu, Assessment of Mobility Decarbonization with Carbon Tax Policies and Electric Vehicle Incentives in the U.S, in *Applied Energy*, doi: 10.1016/j.apenergy.2024.124838
- [J.2] **W. Pan\*** and E. Shittu, Optimizing the Energy Storage Systems for Resilience Enhancement in Offshore Wind Farms, in *Applied Energy*, doi: 10.1016/j.apenergy.2024.124718
- [J.1] **W. Pan** and E. Shittu\*, Policies and Power Systems Resilience Under Time-Based Stochastic Process of Contingencies in Networked Microgrids, in *IEEE Transactions on Engineering Management*, doi: 10.1109/TEM.2023.3325188.

## REFEREED CONFERENCE PUBLICATIONS

- [C.4] **W. Pan** and E. Shittu\*, Physical Modeling of Integrated Power Systems for Capacity and Technology Choices. *Proceedings of the IISE Annual Conference & Expo 2023*, (New Orleans, USA, May 2023), paper #3275.
- [C.3] **W. Pan** and E. Shittu\*, Optimal Speed-based Cost of Resilience in Electrified High-speed Railway Systems, *Proceedings of the IISE Annual Conference & Expo 2022*, (Seattle, USA, May 2022).
- [C.2] **W. Pan**, S. C. Dhulipala, and A. S. Bretas\*, DG Integration and Power Quality Management in Railway Power Systems: A Distributed Approach, *10th Bulk Power Systems Dynamics and Control Symposium (IREP)*, (Espinho, Portugal, Sept 2017).
- [C.1] **W. Pan**, S. C. Dhulipala and A. S. Bretas\*, A Distributed Approach for DG Integration and Power Quality Management in Railway Power Systems, *2017 IEEE International Conference on Environment and Electrical Engineering and 2017 IEEE Industrial and Commercial Power Systems Europe (EEEIC / I&CPS Europe)*, (Milan, Italy, June 2017).

## CONFERENCE PRESENTATIONS

\* indicates the person as the presenter.

- [P.10] **W. Pan\*** and E. Shittu, Cooperation or Competition: Equity Implications in Mixed Prosumer–Consumer Energy Communities. 2025 SRA Annual Meeting, Washington, D.C, USA, 12/2025, POSTER.
- [P.9] **W. Pan\*** and E. Shittu, Enhanced Resilient Electricity Market Planning under Capacity Expansion Risks. 2024 SRA Annual Meeting, Austin, USA, 12/2024, ORAL.
- [P.8] **W. Pan\*** and E. Shittu, Assessing the Resilience of Integrated Energy Systems under Capacity Expansion Risks. 2024 INFORMS Annual Meeting, Seattle, USA, 10/2024, ORAL.

- [P.7] **W. Pan\*** and E. Shittu, Optimizing the Energy Storage Systems for Resilience Enhancement in Offshore Wind Farms. 2024 Technology, Management, and Policy Consortium (TMP), Boston, USA, 06/2024, ORAL.
- [P.6] **W. Pan\*** and E. Shittu, Optimizing the Energy Storage Systems for Resilience Enhancement in Offshore Wind Farms. The GW 2024 Research Showcase, Washington, USA, 05/2024, POSTER.
- [P.5] **W. Pan\*** and E. Shittu, Optimizing the Energy Storage Systems for Resilience Enhancement in Offshore Wind Farms. The GW SEAS R&D and Senior Design Showcase, Washington, USA, 04/2024, POSTER.
- [P.4] **W. Pan\*** and E. Shittu, Assessment of Mobility Decarbonization with Low-carbon Policies and E.V. Incentives in the U.S. The 9th International Engineering Systems Symposium (CESUN 2023), Chicago, USA, 11/2023, POSTER.
- [P.3] **W. Pan\*** and E. Shittu, Physical Modeling of Integrated Power Systems for Capacity and Technology Choices. Annual Institute of Industrial and Systems Engineers Conference & Expo 2023, New Orleans, USA, 05/2023, ORAL.
- [P.2] **W. Pan\*** and E. Shittu, Power Systems Resilience Enhancement Considering Time-based Stochastic Process of Contingencies in Networked Microgrids, 2022 INFORMS Conference on Security, Arlington, USA, 08/2022. ORAL.
- [P.1] **W. Pan\*** and E. Shittu, Optimal Speed-based Cost of Resilience in Electrified High-speed Railway Systems, Annual Institute of Industrial and Systems Engineers Conference & Expo 2022, Seattle, USA, 05/2022. ORAL.

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## HONORS AND AWARDS RECEIVED

- 2025 Recipient of First Place for Best Poster at the 2025 SRA Annual Conference.
- 2024 Recipient of the RCGS Student Travel Award from the Society for Risk Analysis (SRA)
- 2024 Recipient of the SEAS Research Showcase Special Prize from GW's Office of Innovation & Entrepreneurship.
- 2023 Recipient of 2nd Place for Best Poster at 2023 CESUN Conference.
- 2023 Recipient of the Energy Systems Best Student Paper at 2023 IISE Conference & Expo.
- 2015 Awarded Outstanding Undergraduate Student by Nanjing Tech University.
- 2015 Recipient of 3rd Place in the 2nd National Building Electricity Joint Design Competition.
- 2013 Awarded Ashland Elite Student Scholarship issued by Ashland Group.
- 2012-2013 First-class Scholarship issued by Nanjing Tech University (three times).

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## PROFESSIONAL AFFILIATIONS

Society of Risk Analysis (SRA) Member	Aug. 2024 - Present
INFORMS Member	May. 2022 - Present
IISE Member	May. 2022 - Present
IEEE Member, IEEE Power & Energy Society Membership	Mar. 2022 - Present

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## SKILLS AND CERTIFICATIONS

- Certifications:** Graduate Teaching Assistant Certification (2024), FE Exam (Industrial and Systems Discipline) (2024 Pass), Shanghai Intermediate-level English-Chinese Interpretation Certification (2022).
- Technical Skills:** Energy system modeling & optimization, Integrated assessment model, System operations simulation, Power systems design, Building electricity design.
- Software:** MATLAB, R, AMPL, GAMS, GCAM, AutoCAD, Dymola (Modelica), Python, Office.
- Languages:** Mandarin (Native), English (Fluent)

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## SERVICE

### Journal reviewer

- Renewable Energy and Power Quality Journal
- Scientific Reports

- Discover Energy
- Environment, Development and Sustainability
- The Journal of Engineering
- Applied Energy

#### Volunteer

- Quantum World Congress, Virginia, USA