Weijie Pan, Ph.D.

Systems Engineering
Department of Engineering Management and Systems Engineering • The George Washington University
Research Lab B1830, Science and Engineering Hall, 800 22nd Street NW, Washington, DC 20052
Phone: 202-710-5338 • **Email:** weijiepan93@outlook.com • **Linkedin Profile:** www.linkedin.com/in/weijiepan93

EDUCATION

The George Washington University — Washington, DC, USA
Ph.D. in Systems Engineering. (GPA: 3.95/4.00) — Aug. 2021 – May. 2025 (*Anticipated*)
• 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

University of Florida — Gainesville, FL, USA
M.Sc. in Electrical and Computer Engineering. (GPA: 3.88/4.00) — 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

Nanjing Tech University — Nanjing, Jiangsu, China
B.E. in Electrical Engineering (Grade: 89.3/100) — Sep. 2011 – June. 2015
• Concentration: Building Electricity and Intelligence.

PROFESSIONAL EXPERIENCE

Graduate Research Assistant — Aug. 2021 – Present
The George Washington University — Washington, DC, USA
Supervisor: Dr. Ekundayo Shittu

Adjunct Instructor — Jan. 2024 – Present
The George Washington University — Washington, DC, USA
Supervisor: Dr. Ekundayo Shittu

Academic Affairs Coordinator — Jun. 2018 – Jul. 2021
NUIST-University of Reading Academy — Nanjing, Jiangsu, China
Supervisor: Dr. Jin Zhou

Undergraduate Tutor — Aug. 2017 – Dec. 2017
Santa Fe College — Gainesville, FL, USA
Supervisor: Dr. Vertigo Moody

Graduate Research Assistant — Aug. 2016 – May. 2017
University of Florida — Gainesville, FL, USA
Supervisor: Dr. Arturo Suman Bretas

TEACHING AND TUTORING

Graduate Courses

- **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

Undergraduate Courses

- **EMSE 4410** Engineering Economic Analysis — **Spring 2025** • Teaching Assistant
- **EMSE 4710** Applied Optimization Modeling — **Fall 2023** • Teaching Assistant
- **PHY 2053, 2054** General Physics w/o Calculus — **Fall 2017** • Teaching Assistant
- **PHY 2048, 2049** General Physics w/ Calculus — **Fall 2017** • Teaching Assistant

REFEREED JOURNAL PUBLICATIONS

***** indicates the person as the corresponding author.

In Preparation / Submitted

[J.6] E. Vivesh, **W. Pan**, and E. Shittu, Designing Urban Public EV Charging Hubs with Consideration for Transmission Capacity Expansion: A Case Study of Washington, D.C. 2025, (In Preparation).

[J.5] **W. Pan** and E. Shittu, A Bi-Level Dynamic Optimization Approach for Resilient Energy Communities with Prosumers. 2025, (In Preparation).

[J.4] **W. Pan*** and E. Shittu, Assessing the Impact of Electricity Markets on Resilience in the Context of Capacity Expansion. 2024, (submitted to *Renewable Energy*, under 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.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.

HONORS AND AWARDS RECEIVED

2024 Recipient of the RCSG 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).

PROFESSIONAL AFFILIATIONS

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

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)

SERVICE

Journal reviewer

- Renewable Energy and Power Quality Journal
- Scientific Reports
- Environment, Development and Sustainability
- The Journal of Engineering
- Applied Energy

Volunteer

- Quantum World Congress, Virginia, USA