

# Third EXCET Workshop

March 27 & 28, 2025

Osaka University Nakanoshima Center,  
4 Chome-3-53 Nakanoshima, Kita Ward  
Osaka, 530-0005, Japan



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## MARCH 27, THURSDAY

There will be 10 minutes for Q&A following each session.

9:00–9:30am	Check-in, Light Breakfast, Networking
9:30–9:45	Welcome, Mingzhou Jin, Director of the Institute for a Secure & Sustainable Environment, University of Tennessee, Knoxville  Opening Remarks, Hideo Ishii, Workshop Chair, Waseda University
9:45–10:55	Keynote Speeches, Introduced by Mingzhou Jin  Yoshiyuki Shimoda, Osaka University, <i>Current progress of Global Warming Mitigation and Demand Side Measure</i>  Chen-ching Liu, Virginia Tech, <i>Microgrids &amp; Resilient Distribution Systems</i>
10:55–11:10	Coffee Break
11:10–12:10	Panel #1: Resilient, Smart, and Sustainable Power Systems Chair: Hideo Ishii, Waseda University  Ryoichi Hara, Hokkaido University, <i>Common Problems and Perspectives for Research in the Power and Energy Field among US and Japan</i>  Yoshihiro Hirata, Sumitomo Electric Industries, <i>Flow Battery Project collaborate with SDG&amp;E</i>  Kevin Tomsovic, Clemson <i>Large Language Models Applied to Power Systems</i>  Akihisa Kaneko, Waseda University, <i>Challenges and Studies on Management of Distribution and Transmission Networks with Renewable Energies in NEDO Project</i>
12:10–1:30pm	Group Photo, Lunch & Poster Session
1:30–2:30	Panel #2: Clean Energy Policy and Finance Chair: Shinya Yoshizawa, Osaka University  Michael Walton, Precursor, <i>Financing Clean Energy</i>  Eric Dobson, Community Equity Partners and Sheltowee Venture Fund II, <i>Challenges and Opportunities of Investing in Clean Energy Companies</i>  Erin Rose, Three Cubed, <i>Current Landscape of Residential Energy Efficiency Programs Across the U.S.</i>  Naoki Toda, Tokyo Electric Power Company Holdings, <i>The Last Resort Service in Japan's Electricity Retail Market</i>
2:30–3:30	Panel #3: Smart City for Clean Energy and Green Growth Chair: Andrew Zajch, Osaka University  Mingzhou Jin, <i>Optimization of HVAC Control for Energy Consumption, Comfort, and Health</i>  Makiko Naemura, Hitachi, <i>Achieving the circular economy in industrial equipment Sustainable growth from manufacturing perspectives</i>  Benoit Tani, Schneider Electric, <i>Digital Buildings: The Foundation of Comfortable, Efficient and Sustainable Smart Cities</i>  Tokomo Kawakami, Waseda University, <i>What Factors Affect Responsible Innovations? An Empirical Study of Japanese Companies</i>

3:30–3:45	Coffee Break
3:45–4:45	<b>Panel #4: Demand Response through Smart Connection</b> Chair: Yohei Yamaguchi, Osaka University  Nobuhiko Itaya, Mitsubishi, <i>Solutions to Overcome Challenges for Microgrid Developments</i> Takamitsu Yasukouchi, Panasonic, <i>California's Demonstration and Its Expansion to Japan -Implementing Electricity Tariff-Based DR</i> Alan Meier, University of California, Davis, <i>Designing Appliances that Respond to the Price of Electricity</i> Yohei Yamaguchi, Osaka University, <i>Challenges in decarbonizing Japan's building stock</i>
4:45–5:30	<b>Panel #5: Sustainable Regional Systems for Net-Zero</b> Chair: Kevin Tomsovic, Clemson University  Katsuya Sakai, Osaka University, <i>Electric Vehicle Dynamics and Insights into Transportation Network Analysis</i> Ichiro Hongo, Daikin Industries, LTD, <i>Energy saving effect estimation of inverter heat pump system</i> Kenji Tateiwa, Agile Energy X, <i>Bitcoin Mining as the Most Flexible Power Demand</i>
5:30–5:45	Wrap Up
6:00–8:00	Banquet

## MARCH 28, FRIDAY

9:00–9:15am	Check-in & Networking
9:15–9:45	<b>Discussion on a Possible Proposal, Hideo Ishii and Mingzhou Jin</b>  <i>Demand Response Across Sectors: Buildings, EVs, Data Centers, Crypto Currency, and AI Model Training</i> Overall Objectives and Thrust Areas
9:45–10:30	<b>Breakout Discussions, each of the three thrusts to discuss objectives, approaches, tasks, key players and partners, deliverables</b>
10:30–10:50	Coffee Break
10:50–12:00pm	Reports from Each Thrust
12:00–1:00	<b>Lunch, Group Photo, Poster Award, Networking</b>  Closing remarks, Brad Day, Associate Vice Chancellor for Research, University of Tennessee
1:00	Adjourn



Use this QR code to download the Workshop Participant biographies.

## Keynote Speakers



### **Chen-ching Liu, Virginia Polytechnic Institute and State University**

Professor Liu is American Electric Power Research Professor and Director Emeritus at Virginia Tech's Power and Energy Center. Prior, he was faculty at University of Washington, Iowa State University, University College Dublin (Ireland), and Washington State University. Professor Liu received an IEEE Third Millennium Medal in 2000 and the Power and Energy Society Outstanding Power Engineering Educator Award in 2004. He chaired IEEE Power and Energy Society Fellow Committee, Technical Committee on Power System Analysis, Computing and Economics, and Outstanding Power Engineering Educator Award Committee. Professor Liu is the U.S. representative on the CIGRE Study Committee D2, Information

Systems, Telecommunications and Cybersecurity. He received the Dale Douglass Award for Technical Achievement, U.S. National Committee, CIGRE, in 2024 and recognized with a Doctor Honoris Causa by Polytechnic University of Bucharest, Romania, 2013, and K. T. Li Chair Professorship Award from National Cheng-Kung University, Taiwan, in 2023. Dr. Liu was a visiting professor at The University of Tokyo and Waseda University as a TEPCO Chair. He is an IEEE Life Fellow member of the U.S. National Academy of Engineering.



### **Yoshiyuki Shimoda, Osaka University**

Dr. Shimoda is Professor, Urban Energy System Laboratory, Division of Sustainable Energy and Environmental Engineering, Graduate School of Engineering, Osaka University. Since June 2022, he is Director-General of Research Institute of Innovative Technology for the Earth. He received his B.E., M.E., and D.E. Degrees in Environmental Engineering from Osaka University, Osaka, Japan, in 1985, 1987, 1990, respectively. In 2001, he was a visiting scholar at Energy and Environmental Technology Division of Lawrence Berkeley National Laboratory. He has been engaged in research on urban energy system modeling, energy demand forecasting, and global warming mitigation measures in the building sector. In 2014-2017, he joined IEA-EBC Annex 63 *Implementation of Energy Strategies in Communities*. He is Chair, Global Environment Committee of the Central Environment Council, Japan and sub-program director of *Smart Energy Management System*, Cross-ministerial Strategic Innovation Promotion Program, Cabinet Office, Japan. He currently is a member of Science Council of Japan and president of Japan Society of Energy and Resources. In 2010, he was awarded Best Paper from Japan Society of Energy and Resources. In 2020, he was awarded Research Paper Division of Architectural Institute of Japan prize for *A Series of Studies on Urban Energy Systems*. In 2023, he was named a fellow of the International Building Performance Simulation Association.

## Workshop Committee

- Hideo Ishii, Waseda University, Chair
- Mingzhou Jin, Univ. of Tennessee, Knoxville, Co-Chair
- Chien-fei Chen, Clemson University
- Yohei Yamaguchi, Osaka University
- Shinya Yoshizawa, Osaka University
- Akihisa Kaneko, Waseda University
- Shoichi Honjo, Waseda University
- Kevin Tomsovic, Clemson University

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