

## U.S. -Japan Exchange Program for Green Growth Collaboration through Clean Energy Technologies (EXCET) Workshop

**Date:** Jan. 16<sup>th</sup>-17<sup>th</sup>, 2024 (Agenda subject to change)

Venue: Komatsu Hall, Waseda University, Building 121-B1F

Time	January 16 <sup>th</sup>
8:30-9:00	Check-in and Networking
9:00 - 9:15	Welcome by Prof. Yasuhiro Hayashi, Waseda University
	<i>Opening Remarks</i> by Prof. Mingzhou Jin, the Director of Institute for a Secure and Sustainable Environment, University of Tennessee
	Keynote Speakers
9:15-10:05	<ol> <li>Toward net Zero Energy and Emission Buildings, by Prof. Shin-ichi Tanabe, Waseda University (9:15-9:40)</li> <li>A Renewed Commitment to Energy Justice in the US Government by Prof. Tony Reames, Former Deputy Director for Energy Justice, US Department of Energy, the Tishman Professor of Environmental Justice, Univ. of Michigan (9:45-10:05)</li> </ol>
10:05-10:15	Q & A Discussion
10:15-10:30	Coffee Break
	Panel #1: Green Technology and Power Systems
	Chair: Prof. Shinya Yoshizawa, Osaka Univ.
10:30-11:30	<ol> <li>Power Systems and Resilience by Prof.Kevin Tomsovic (Zoom), University of Tennessee (10:30-10:45)</li> <li>Challenges in Japanese Power Systems towards Net Zero Carbon by Prof. Hideo Ishii, Waseda University (10:45-11:00)</li> <li>Laboratory Testing on Grid-following and Grid-forming Inverters with Virtual Inertia Functions by Dr. Hiroshi Kikusato, National Institute of Advanced Industrial Science and Technology (AIST) (11:00-11:15)</li> <li>Hydrogen Tech/Policy for Green Transformation by Dr. Akira Yoshida, Tokyo Electric Power Company Holdings, Inc. (TEPCO) (11:15-11:30)</li> </ol>
11:30-11:45	Q & A Discussion
11:45-1:30	Group photo, Lunch & Poster Session
	Panel #2: Decarbonization, NetZero Strategies and Policy
1:30-2:30	<ol> <li>Chair: Prof. Hideo Ishii, Waseda Univ.</li> <li>A Framework for Considering National Decarbonization Risks for Hydrogen Energy Supply Chains in First-mover Markets by Dr. Jordan Carlson, Kyoto University (1:30-1:45)</li> <li>Integrated Assessment Model for Evaluating Climate Strategies and Net-zero Energy Systems by Dr. Kenichi Wada, Research Institute of Innovative Technology for the Earth (RITE) (1:45-2:00)</li> </ol>



2:30-2:45	<ol> <li>Toward Net-Zero Emissions Energy Systems: SIP on Smart Energy Management Systems by Prof. Hiroshi Asano, Gifu University (2:00-2:15)</li> <li>Benefits of Demand-Side Policy Interventions for Energy Security and Sustainable Development by Dr. David McCollum, Oak Ridge National Laboratory (ORNL) (2:15-2:30)</li> <li>Q &amp; A Discussion</li> </ol>
2:45-3:00	Coffee Break
	Panel #3: Energy Demand & Building Energy Efficiency
3:00-4:00	<ul> <li>Chair: Prof. Yohei Yamaguchi, Osaka University</li> <li>1. Assist Municipalities in Developing Climate Change Mitigation Plans by Prof. Yohei Yamaguchi, Osaka University (3:00-3:15)</li> <li>2. Decarbonization of Existing Offices through Owner / Tenant Collaboration: Energy Saving while Increasing Productivity through Environmental Variability by Mr. Ryohei Itsuaki, Nikken Sekkei (3:15-3:30)</li> <li>3. Clean Energy to Communities: Opportunities and Challenges by Dr. Tianzhen Hong, Lawrence Berkeley National Laboratory (3:30-3:45)</li> <li>4. The Deployment of Artificial Intelligence Algorithms in Renewable Energy System by Dr. Yuan Gao, Kyushu University (3:45-4:00)</li> </ul>
4:00-4:15	Q & A Discussion
4:15-4:30	Coffee Break
	Panel #4: Interactive Discussion Led by Professor Hideo Ishii (Slido)
4:30-5:15	More details will be sent out during workshop
6:00	Workshop Banquet: MORI NO KAZE, Waseda Univ. Building 26-15F

Time	January 17 <sup>th</sup>
8:30-9:00am	Check-in and Networking
	Panel #5: Energy Justice & Social-Technological Integration
9:00-10:00	<ul> <li>Chair: Prof. Sanya Carley, Univ. of Pennsylvania</li> <li>1. A New Perspective on Japan's Energy Policy Framework through Energy Justice by Dr. Mauela Hartwig, National Institute for Environmental Studies, Japan (9:00-9:15)</li> <li>2. Residential Solar's Effect on Household Energy Insecurity by Prof. Sanya Carley, University of Pennsylvania (9:15-9:30)</li> <li>3. Predicting and Encouraging Supportive Occupant Behaviors in Energy Efficient and Sustainable Buildings: The Role of Social-Psychology and Communication Science by Prof. Laura Arpan, University at Buffalo (9:30-9:45)</li> <li>4. Transforming Energy Finance: The Intersection of IRA, BIL, and Private Investment</li> </ul>



10:00-10:15	Q & A Discussion
10:15-10:30	Coffee Break
	Panel #6: Decarbonization Technology, Manufacture and Agriculture and all
	Chair: Dr. Akihisa Kaneko, Waseda University
	1. Japan Model Intercomparison Project (JMIP) and Japan's Emissions Reduction
	Pathways by Prof. Masahiro Sugiyama, The University of Tokyo (10:30-10:45)
	2. Assessment of CO2 Conversion to Jet Fuels: The United States Case Study by Prof.
10:30-11:30	Mingzhou Jin, University of Tennessee (10:45-11:00)
	3. The Integration of Renewable Energy and Agriculture for Green Growth in Japan
	by Prof. Satoru Shimokawa, Waseda University (11:00-11:15)
	4. Decarbonizing Manufacturing: Challenges and Opportunities by Prof. Yoshiharu
	Amano, Waseda University (11:15-11:30)
11:30-11:45	Q & A Discussion
11:45-1:00	Group Photo, Lunch & Networking (Poster Award)
	Panel #7: Electric Vehicles & Charging Infrastructure
	Chair: Prof. Chien-fei Chen, University of Tennessee
	1. Vehicle Grid Integration toward Sustainable City by Prof. Yutaka Ota, Osaka
	University (1:00-1:15)
	2. CRIEPI's R&D activities in End-Use Electrification and Sector Coupling by Dr.
	Masahito Takahashi, Central Research Institute of Electric Power Industry (CRIEPI)
	(1:15-1:30)
1:00-2:15	<ol> <li>Energy Justice and Demand Flexibilityby Dr. Wei-An Chen, University of Tennessee (1:30-1:45)</li> </ol>
	4. Energy Storage with Carbon-free Technique Using Aluminum by Prof. Hokuto
	Sekine, the University of Tokyo (1:45-2:00)
	5. Multidimensional Factors of EV adoption, Justice in EV Infrastructure and EV
	Community Engagement by Prof. Chien-fei Chen, University of Tennessee (2:00-
	2:15)
2:15-2:30	Q & A Discussion
2:30-2:45	Coffee Break
2:45-4:30	Panel #8: Interactive Discussion on the next step led by Dr. Mingzhou Jin (Slido)
4:30-4:45	Conclusion by Dr. Brad Day, University of Tennessee



## Workshop Chairs and Co-Chairs:

- Dr. Mingzhou Jin (Chair), The Director of the Institute for a Secure and Sustainable Environment (ISSE) and Department Head of Industrial and Systems engineering, University of Tennessee, Knoxville (UTK)
- Dr. Chien-fei Chen, Director of Energy & Environmental Justice, ISSE, UTK
- Dr. Hideo Ishii, Professor, Advanced Collaborative Research Organization for Smart Society, Waseda University
- Dr. Yohei Yamaguchi, Associate Professor, Graduate School of Engineering Division of Sustainable Energy and Environmental Engineering, Osaka University
- Dr Shinya Yoshizawa, Specially Appointed Lecturer, Mobility System Joint Research Chair, Graduate School of Engineering, Osaka University
- Dr. Akihisa Kaneko, Assistant Professor, Department of Electrical Engineering and Bioscience, Waseda University
- Dr. Shoichi Honjo, Associate Professor, Advanced Collaborative Research Organization for Smart Society, Waseda University
- Dr. Kevin Tomsovic, Director of Center for Ultra-wide-area Resilient Electrical Energy Transmission Networks (CURENT), University of Tennessee

Committee: Dr. Brad Day and Dr. Wei-An Chen, University of Tennessee

## Supported by







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