



[Draft]
4th 3C-PEEC Workshop
“What Can Power Electronics Do as Energy Needs Keep Growing?”

Friday, June 5, 2026

9:00 Registration / Welcome Coffee at
Dejima Messe Nagasaki
Room: Conference Room 103, 1st floor
4-1, Onouemachi, Nagasaki City, Japan

10:00 Welcome and Workshop opening

Hiromichi Ohashi, NPERC-J (JP); , ECPE (EU); , CPES (US)

1. Overview of Power and Energy Trends in the World

Focus on renewable energy, energy storage, and smart grids.

10:20 Connecting Mobility and Energy with EVs: Energy Service Prospects and Case Studies Toward Renewable Energy Society
Satoshi Hashino, Honda Motor Co., Ltd. (JP)

10:45 Opportunities for High-Voltage Power Electronics Enabling the Grid of the Future
Johan Enslin, IEEE Power Electronics Society (PELS) (US)

11:10 Powering the Energy Transition: Trends in Renewables, Energy storage and Grid Developments in Europe
Daniel Chartouni, ABB Switzerland (CH)

11:35 [Topic 3] Thermal performance characterization of power module by transient thermal impedance measurement
Tsuyoshi Funaki, The University of Osaka (JP)

12:00 Lunch Break

2. Cost Reduction of Equipment / Devices or Life Cycle Assessment

Exploring device innovation, efficient manufacturing, and environmental impact.

13:10 Large-Diameter Intelligent Silicon Power Semiconductors for Green Society
Shin-ichi Nishizawa, Kyushu University (JP)



13:35 High-Density Integration and the Circular Economy – Trade-offs and Considerations

Christina DiMarino, CPES, Virginia Tech (US)

14:00 Lifecycle assessment of electronics manufacturing - current experiences and trends

Lutz Stobbe, Fraunhofer Institute for Reliability and Microintegration IZM (DE)

3. High-Reliability Technologies or Reliability Design

Addressing fault tolerance, predictive maintenance, and robust design principles.

14:25 The Future AI Data Center: Evolving Ecosystem Requirements for Power, Cooling, and High Reliability Infrastructure

Gregory Ratcliff, Vertiv (US)

14:50 Research on All-Liquid Interconnections for Power Electronics Components: Status and Prospects

Francesco Iannuzzo, Politecnico di Torino (IT)

15:15 Coffee Break

4. Low-Loss and Low-EMI Technologies

Discussing power conversion efficiency and electromagnetic interference mitigation.

15:45 Feedback Control of Surge Voltage and Conducted EMI in a Three-Phase Inverter Using Digital Active Gate Drives

Katsuhiro Hata, Shibaura Institute of Technology (JP)

16:10 Electromagnetic Interference in Wide Bandgap Power Electronics: Key Characteristics, Challenges, and Mitigation Strategies

Shuo Wang, University of Florida (US)

16:35 From Understanding Power Electronics EMI to Their Propagation Across the Network

Jean-Luc Schanen, Univ. Grenoble Alpes, G2ELab (FR)

17:00 Discussion

18:00 Networking Dinner

Room: Conference Room 108, 1st floor