2nd EUJAPAN DIGITAL WEEK 2026

23 March – 30 March 2026
Tokyo, Japan

The EU-Japan Digital Week is organised as part of the EU-Japan Digital Partnership

Semiconductor Workshop: "Japan-EU Cooperation on Advanced Computing, Advanced Functionalities and Semiconductor Value Chain" (DAY 1)

- **Date:** Tuesday, 24 March
- **Time:** 09:00-17:30 Japan Standard Time (JST)
- **Location:** Hongo Campus, The University of Tokyo
- **Organiser:** Dr. Francis Balestra, SiNANO Institute/CNRS, INPACE, France
- **Co-organiser:** Prof. Ken Uchida, The University of Tokyo, Japan
- **Summary:** The workshop will focus on key areas of the INPACE Cluster dedicated to "Enabling technologies - Chips for the future" and is aligned with the topics defined in the Digital Partnerships between EU and Japan. The presentations and discussions will cover the many semiconductor challenges (complex value chain, computing and storage needs, novel functionalities for electronic systems, circuit and system integration, energy & material needs, reliability) and possible technological solutions, especially: reductions of energy and material consumption for sustainable electronic systems, advanced logic devices and materials, integration of novel functionalities for future electronic systems (smart sensing, energy harvesting for autonomous system, cryoelectronics for quantum engineering), heterogeneous 3D integration and packaging for high performance, low power, low latency, miniaturisation, integration of new functionalities and lower cost of electronic systems, and possible cooperation on gaps in the semiconductor value chain.

Agenda

9:00 - 9:10 - Opening Remarks
- Francis Balestra, CNRS, SiNANO Institute, France

9:10 - 10: 25 Session 1 – Smart Sensors
- **Smart Sensors**
  Alan O'Riordan, Tyndall National Institute, Ireland
- Genki Yoshikawa, NIMS, Japan
- **Molecular Sensors for Smart Society**
  Ken Uchida, The University of Tokyo, Japan

10:25 - 10:45 Coffee Break

10:45 - 12:00 Session 2 - Process Technology & Manufacturing & Sustainability
- **The Future of Compute: From Atomic-Scale Scaling to System-Level Integration**
  Nadine Collaert, imec, Belgium
- **The necessary transformation to secure a sustainable semiconductor industry**
  Laurent Pain, CEA-LETI, France
- Atsushi Ogura, Meiji University, Japan

12:00 - 13:35 Lunch Break

13:35 - 14:25 Session 3 - Policy Session
- **Europe's semiconductor strategy**
  Olivier Bringer, European Commission, DG CONNECT, Belgium
- **Japan's semiconductor strategy**
  Tomoshige Nambu, Ministry of Economy, Trade and Industry, Japan

14:25 - 15:40 Session 4 – Energy Harvesting
- **ZnO thin films and nanowires for piezoelectric energy transducer applications**
  Gustavo Ardila, University Grenoble-Alpes, France
- **Thermoelectric energy harvesting and cooling technology; New developments**
  Takao Mori, NIMS, Japan
- **Tailoring the Physical Properties of Narrow-Gap Semiconductor Mg2S Thermoelectric Thin Films through Defect Engineering**
  Takeaki Sakurai, University of Tsukuba, Japan

15:40 - 16:00 Coffee Break

16:00 - 16:50 Session 5 – Quantum Computing
- **Quantum Computing using Si-based Qubits**
  Jean-Charles Barbe, Quobly, France
- **High-fidelity of spin Qubits in silicon**
  Seigo Tarucha, RIKEN, Japan

16:50 - 17:40 Session 6 – Neuromorphic Computing
- **Neuromorphic Electronics for Intelligence Everywhere**

Sayani Majumdar, Tampere University, Finland

- **Physical Reservoir Computing Utilizing HfO2-based Ferroelectric Devices for Edge-AI Applications**
Shinichi Takagi, Teikyo University, Japan

17:40 Networking Cocktail