



東北大学
TOHOKU UNIVERSITY



國立交通大學
National Chiao Tung University

*Tohoku University-National Chiao Tung University
The 6th Joint Technical Workshop (online) 2020*

14:00-18:10 (JST), October 29/2020

in conjunction with
The 17th International Conference on Flow Dynamics (ICFD2020)

*Moderator: Professor Seiji Samukawa, Tohoku University/AIST, Japan
Professor Yiming Li, NCTU, Taiwan*

Online Address <Open from 13:30 (JST) on Oct. 29>
<https://meet.google.com/xgv-ixvo-fgw>

By commemorating the establishment of the Joint Research Center between Tohoku University, Sendai, Japan and National Chiao Tung University (NCTU), Hsinchu, Taiwan, a joint technical workshop will be held in conjunction with the 17th International Conference on Flow Dynamics (ICFD2020) at Sendai, Japan, on October 29, 2020. **Dr. Kazuhiko Endo (AIST/Tohoku University)** and **Professor Pei-Wen Li (NCTU)** are invited as keynote speakers. 3 Group Leaders and Invited Topics Speakers from 3 joint projects such as Nano-Devices, Hydrogen Energy System, and Bio-Medical Sensor Network from both universities will also have talks in this joint technical workshop.

Agenda

Opening Addresses (14:00-14:30) Chair: Prof. Yiming Li (NCTU)
Professor Ta-Sung Lee (R&D Vice-president, NCTU, Taiwan)
Professor Kaoru Maruta (Director of IFS, Tohoku University, Japan)
Professor Jenn-Hwan Tarng (Dean of ECE, NCTU, Taiwan)

Technical Workshop

Keynote Session Chair: Prof. Seiji Samukawa (Tohoku Univ.)

- 1) 14:30 **(Keynote) Semiconductor Device Technology for Quantum Computers**
Dr. Kazuhiko Endo (AIST/Tohoku University, Japan)
- 2) 15:00 **(Keynote) Tunable Diameter and Interspace of Ge Quantum Dots for Qubits and Readout Devices Using Highly-Controllable Spacers and Selective Oxidation of SiGe**
Professor Pei-Wen Li (NCTU, Taiwan)

General Session Chair: Prof. Seiji Samukawa and Prof. Yiming Li

- 3) 15:30 **Nano-Devices Technologies Gr (1)**
Professor Seiji Samukawa (Tohoku University/AIST, Japan)
- 4) 15:40 **(Invited) High Resolution sub-10 μ m Micro-LED Technology**
Dr. Xuelun Wang (AIST, Japan)
- 5) 16:00 **Nano-Devices Technologies Gr (2)**
Professor Yiming Li (NCTU, Taiwan)
- 6) 16:10 **(Invited) Full Color Microled by Quantum Dots Technology**
Professor Hao-Chung Kuo (NCTU, Taiwan)
- 7) 16:30 **(Invited) Introduction of HYDROGENIUS Activities: Investigation of Material Compatibility to High-Pressure Hydrogen-Gas Environment**
Professor Osamu Takakuwa (Kyushu University, Japan)
- 8) 16:50 **(Invited) Oxidative Steam Reforming of Ethanol for Hydrogen Production over Metal Oxide/La₂ZR₂O₇ Catalysts**
Professor Chi-Shen Lee (NCTU, Taiwan)
- 9) 17:10 **Bio-Medical Sensor Network Gr (1)**
Professor Tetsu Tanaka (Tohoku University, Japan)
- 10) 17:20 **(Invited) Nanoengineered Energy Harvesting System for Health Care Devices**
Professor Takahito Ono (Tohoku University, Japan)
- 11) 17:40 **Bio-Medical Sensor Network Gr (2)**
Professor Ming-Dou Ker (NCTU, Taiwan)
- 12) 17:50 **(Invited) A Micromachined Multimodal Probe for Ischemia Muscle Monitoring**
Professor Yu-Ting Cheng (NCTU, Taiwan)

Closing Remarks