

Program at a Glance

November 9

- 13:00-13:20 Opening Session
- 13:20-14:45 Session A
- 14:45-16:15 Poster Session 1 and Coffee Break
- 16:25-18:05 Academic-Industrial Collaboration Session
- 18:15-20:00 Networking

November 10

- 10:00-11:25 Session B
- 11:25-13:15 Poster Session 2 and Lunch (Light meals will be served.)
- 13:25-14:50 Session C
- 14:50-15:10 Coffee Break
- 15:10-16:35 Session D
- 16:35-16:50 Closing Session

Program

November 9

Opening Session

Chair: Fumio Koyama, Tokyo Institute of Technology

- 13:00-13:05 **Opening Remarks:** Yoshinao Mishima, President, Tokyo Institute of Technology
- 13:05-13:10 **Greeting:** Tomonori Nishii, Director, Scientific Research Institutes Division, Research Promotion Bureau, MEXT
- 13:10-13:20 Introduction of Research Center for Biomedical Engineering:
Yuji Miyahara, Tokyo Medical and Dental University

Session A

Chair: Masato Sone, Tokyo Institute of Technology

- 13:20-14:00 Etienne Burdet, Imperial College London (Invited)
“Human-robot Interaction Control Framework for Neurorehabilitation”
- 14:00-14:15 Yasuharu Koike, Tokyo Institute of Technology
“Neurorehabilitation with Brain-machine Interface”
- 14:15-14:30 Joon-wan KIM, Tokyo Institute of Technology
“Micro/nano Patterning for Biomaterial Controlled by Electrostatic Force”
- 14:30-14:45 Hiroyasu Kanetaka, Tohoku University
“Biomedical Engineering Investigation for Medical Application of Nickel-free Shape Memory and Super Elastic Alloy”
- 14:45-16:15 **Poster Session 1 and Coffee Break**

Academic-Industrial Collaboration Session

Chair: Tadahiko Shinshi, Tokyo Institute of Technology

- 16:25-16:50 Takashi Yamane, Kobe University (Invited)
“Development and Evaluation of Mechanical Circulatory Support Devices”
- 16:50-17:15 Akihiro Miyauchi, Hitachi Ltd. (Invited)
“Formation of Surface Structure by Nanoimprint and Biomimetics”
- 17:15-17:40 Masayuki Tsuji, Cadence Design Systems (Invited)
“Real-time Processing of Computer-Aided Diagnosis System for Colorectal Tumor Classification in NBI Endoscopy Using CNN Features by Implementing to Tensilica Vision P6 DSP”
- 17:40-18:05 Akifumi Koike, ANSeeN Inc. (Invited)
“Material Identification CT Using X-ray Attenuation Length Detection Line Sensor”

Networking

Chair: Takeshi Hatsuzawa, Tokyo Institute of Technology

18:15-20:00

November 10

Session B Chair: Kenji Kawashima, Tokyo Medical and Dental University

- 10:00-10:40 Wim E. Hennink, Utrecht University (Invited)
“Nanogels for the Intracellular Delivery of Proteins for Cancer Treatment”
- 10:40-10:55 Yoshikazu Nakajima, Tokyo Medical and Dental University
“Integration of Sensing, Simulation and AI Analysis in Medicine”
- 10:55-11:10 Koji Toma, Tokyo Medical and Dental University
“Reusable Immunosensors Allowing Semi-continuous Measurement for Clinical and Environmental Medicine”
- 11:10-11:25 Horacio Cabral, The University of Tokyo
“Ligand Strategies for Tumor-targeted Nanomedicine”

11:25-13:15 Poster Session 2 & Lunch

Session C Chair: Takamaro Kikkawa, Hiroshima University

- 13:25-14:05 Emily Porter, National University of Ireland, Galway (Invited)
“Microwave Radar for Breast Cancer Detection: Progress and Looking Towards the Future”
- 14:05-14:20 Shin Yokoyama, Hiroshima University
“Biosensors Using Silicon Optical Resonators”
- 14:20-14:35 Shin-Ichiro Kuroki, Hiroshima University
“4H-SiC Self-aligned Gate MOSFETs and Logic Inverters for Harsh Environment Electronics”
- 14:35-14:50 Takeshi Ohshima, National Institutes for Quantum and Radiological Science and Technology
“Ultra-radiation-hardened Semiconductor Devices Using Silicon Carbide”

14:50-15:10 Coffee Break

Session D Chair: Keiichiro Kagawa, Shizuoka University

- 15:10-15:50 Zhongping Chen, University of California, Irvine (Invited)
“Advances in Integrated Multimodality Intravascular Imaging for Assessing and Characterizing Atherosclerotic Plaques”
- 15:50-16:05 Masahito Yamazaki, Shizuoka University
“Mode of Action of Antimicrobial Peptides and Cell-penetrating Peptides — Single GUV Studies —”
- 16:05-16:20 Wataru Inami, Shizuoka University
“Electron beam addressable potentiometric sensor for nanoscale imaging of ion distribution”
- 16:20-16:35 Keisuke Tominaga, Kobe University
“Terahertz Spectroscopy and Theoretical Calculation on Biologically Important Molecules and Pharmaceutical Molecules”

Closing Session Chair: Hideki Hosoda, Tokyo Institute of Technology

- 16:35-16:50 Award Ceremony
Closing Remarks: Shin Yokoyama, Hiroshima University