

## Program

### DAY 1: Thursday, March 5, 2009

8:50 ~ 9:00

**Opening Remarks**

#### Oral Session 1 9:00 - 10:50 < Nanobiosensing >

**Chair : Michio Niwano ( Tohoku University, Japan )**

9:00 ~ 9:30

[O1-1] "Cell culture based biosensor utilising the light-addressable potentiometric sensor (LAPS) "

**Torsten Wagner**, Wolfgang Vornholt, Carl Frederik Werner, Ko-ichiro Miyamoto, Michael Keusgen, Tatsuo Yoshinobu, Michael J. Schöning  
*Tohoku University, Japan*

9:30 ~ 10:00

[O1-2] " "Nano-inspired" silicon field-effect devices for bio-/chemical sensing"

**Michael J. Schöning**  
*Aachen University of Applied Sciences, Germany*

10:00 ~ 10:30

[O1-3] "Biomedical and Biochemical Applications of Functional Porous Silicon Nanostructures"

**Michael J. Sailor**  
*University of California, USA*

10:30 ~ 10:50

[O1-4] "In-situ real-time monitoring of leukemia cell death by surface infrared spectroscopy"

**Ryo-taro Yamaguchi**, Ayumi Hirano-Iwata, Yasuo Kimura, Ko-ichiro Miyamoto, Hiroko Isoda, Hitoshi Miyazaki, Michio Niwano  
*Tohoku University, Japan*

**Break**

#### Oral Session 2 11:00 - 12:30 < Nanobioelectronics >

**Chair : Kaoru Tamada ( Tohoku University, Japan )**

11:00 ~ 11:30

[O2-1] "Conformational and Coordinative Studies of Carboxylates on Metal Nanoparticles"

**Priastuti Wulandari**, Takeshi Nagahiro, Kanae Michioka, Nobuko Fukuda, Kaoru Tamada, Ken-ichi Ishibashi, Yasuo Kimura, Michio Niwano  
*Tohoku University, Japan*

11:30 ~ 12:00

[O2-2] "Confined redox cycling for localized electrochemical detection"

**Bernhard Wolfrum**, Enno Kätelhön, Edgar Goluch, Marcel Zevenbergen, Andreas Offenhäusser, Serge Lemay  
*Institute of Bio- & Nanosystems 2, Jülich Research Center, Germany*

12:00 ~ 12:30

[O2-3] "Surface Plasmon Mediated Fluorescence for Biosensing"

**Jakub Dostalek**, Yi Wang, Chun Jen Huang, Alena Aulasevich, Annette Brunsen, Robert F. Roskamp, Wolfgang Knoll  
*Austrian Research Center, Austria*

12:30 ~ 13:30

**Lunch**

13:30 ~ 15:00

**Poster Session 1**

#### Oral Session 3 15:00 - 16:30 < Synaptic Plasticity >

**Chair : Ayumi Hirano-Iwata ( Tohoku University, Japan )**

15:00 ~ 15:30

[O3-1] "Identifying downstream targets of Egr-1 (Zif268) following seizure activity in the mouse hippocampus"

**Abdul Karim Sesay**, Tim Bliss  
*National Institute for Medical Research, UK*

15:30 ~ 16:00

[O3-2] "Parallel impairment in memory and long-term potentiation (LTP) in the Tc1 mouse model of Down syndrome"

**Elise Morice**  
*University of Paris-Sud, France*

16:00 ~ 16:30

[O3-3] "Comprehensive gene expression analysis in the central catecholaminergic neurons by the FACS-array technology"

**Keiichi Itoi**  
*Tohoku University, Japan*

**Break**

#### Oral Session 4 16:40 - 18:30 < Human-oriented Technologies via Biomedical Sciences >

**Chair : Shin'ichiro Kanoh ( Tohoku University, Japan )**

16:40 ~ 17:10

[O4-1] "Gender differences in COP characteristics during quiet standing in elderly populations"

**Gwang Moon Eom**, Ji Won Kim  
*Konkuk University, Korea*

17:10 ~ 17:40

[O4-2] "Is capture of attention by sound automatic?"

**Thomas Koolewijn**, Adelbert Bronkhorst, Jan Theeuwes  
*Free University Amsterdam, The Netherlands*

17:40 ~ 18:10

[O4-3] "Towards a P-300 based navigation interface"

**Adelbert Bronkhorst**, Jan van Erp, Anne-Marie Brouwer  
*TNO Human Factors, The Netherlands*

18:10 ~ 18:30

[O4-4] "Extraction methods of motor imagery-related features for EEG-based BCI system"

**I Putu Susila**, Shin'ichiro Kanoh, Ko-ichiro Miyamoto, Tatsuo Yoshinobu  
*Tohoku University, Japan*

19:00 ~ 21:00

**Banquet**

**DAY 2: Friday, March 6, 2009**

**Oral Session 5 9:00 - 10:30 < Biomedical Engineering >**

**Chair : Tatsuo Yoshinobu ( Tohoku University, Japan )**

- 9:00 ~ 9:30 [O5-1] “Flexible probes based on hollow optical fibers for Raman and FT-IR spectroscopy”  
**Yuji Matsuura**  
*Tohoku University, Japan*
- 9:30 ~ 10:00 [O5-2] “Medical application based on non-contact energy transmission system”  
**Hidetoshi Matsuki**  
*Tohoku University, Japan*
- 10:00 ~ 10:30 [O5-3] “Ion Channel Sensors Based on Artificial Planar Lipid Bilayers”  
**Ayumi Hirano-Iwata, Kouji Aoto, Tasuku Taira, Azusa Oshima, Ryo-taro Yamaguchi, Yasuo Kimura, Michio Niwano**  
*Tohoku University, Japan*

**Break**

**Oral Session 6 10:40 - 16:30 < Nano-Electronics >**

**Chair : Masashi Sahashi ( Tohoku University, Japan )**

- 10:40 ~ 11:10 [O6-1] “Perpendicular Spin Torques in Asymmetric MgO-based Magnetic Tunnel Junctions”  
**S.-C. Oh, S.-Y. Park, A. Manchon, J.-E. Lee, K.-T. Nam, Y. Jo, H. Suh, Y.-C. Kong, B. Dieny, Kyung-Jin Lee**  
*Korea University, Korea*
- 11:10 ~ 11:40 [O6-2] “Fabrication of Nanostructures Using Electron Beam Lithography”  
**Jong-Ching Wu**  
*National Changhua University of Education, Taiwan*
- 11:40 ~ 12:10 [O6-3] “Spin-transfer induced spin excitation in an antiferromagnetically-coupled nanomagnet”  
**Takeshi Seki, Hiroyuki Tomita, Takekazu Yamane, Ashwin Tulapurkar, Masashi Shiraishi, Teruya Shinjo, Yoshishige Suzuki**  
*Osaka University, Japan*
- 12:10 ~ 12:30 [O6-4] “The feature of spin-transfer-torque microwave oscillation relates on confinement of domain wall ”  
**Hiroaki Suzuki, Hiroaki Endo, Tetsuya Nakamura, Toshiyuki Tanaka, Masaaki Doi, Susumu Hashimoto, Hiromi N.Fuke, Masayuki Takagishi, Hitoshi Iwasaki, Masashi Sahashi**  
*Tohoku University, Japan*
- 12:30 ~ 13:30 **Lunch**
- 13:30 ~ 15:00 **Poster Session 2**
- 15:00 ~ 15:30 [O6-5] “Electric-field-induced magnetization switching in multiferroic-like PZT/spin-valve structures ”  
**Do Thi Huong Giang, Duc Nguyen**  
*Vietnam National University, Vietnam*
- 15:30 ~ 16:00 [O6-6] “Innovative writing schemes in MRAM”  
**Jérémy Hérault, R.C. Sousa, C. Papusoi, M.-T. Delaye, Y. Conraux, I.L. Prejbeanu, K. Mackay, C. Dueruet, C. Portemont, B. Delaet, M.C. Cyrille, O. Redon, J.P. Nozières, B. Dieny**  
*SPINTEC (CEA / CNRS), France*
- 16:00 ~ 16:30 [O6-7] “MFM Observation of Free Layer in Spin-Valve Film with Magnetic Nano-Constriction Structure”  
**Kousaku Miyake, Syohei Kawasaki, Yu Yahagi, Yutaka Majima, Hiromi N.Fuke, Hitoshi Iwasaki, Masashi Sahashi**  
*Tohoku University, Japan*
- 16:30 ~ 16:40 **Closing Remarks**