

The 2nd International Symposium on Information Electronics Systems

July 14-15, 2008 at Sendai Excel Hotel Tokyu, Sendai, Japan

Tuesday, July 15, 2008

Session 5 : Nano Technologies 2 : New Materials & Processing

Chair: Toshiro Kaneko

- 9:00 **5-1 (Invited) Functional Carbon Nanotube and ZnO Nano-Architectures by Pulsed Plasma Deposition for Hybrid Optoelectronics Devices**
Carlo Taliani (ISMN-CNR Institute)
- 9:45 **5-2 Nanodevice-Oriented Nanoscopic Plasma Process Control**
Rikizo Hatakeyama
- 10:00 **5-3 Fabrication of Anodic Titanium Nanotubes Used for Dye-sensitized Solar Cells**
Michio Niwano
- 10:15 **5-4 Atomically Controlled Processing for Future Si-Based Devices**
Jun-ichi Murota

10:30 – 11:00 Break

Session 6 : Magnetics & Spintronics

Chair: S. J. Greeves

- 11:00 **6-1 (Invited) Ferrofluids: Magnetic Liquids**
Kevin O'Grady (University of York)
- 11:45 **6-2 Perpendicular Magnetic Recording and Its Extension for High Density Data Storage Technologies**
Hiroaki Muraoka
- 12:00 **6-3 Tailor-Made Nano Structured Material for Highly Qualified Spin Related Devices**
Migaku Takahashi
- 12:15 **6-4 Control of Spins in Semiconductor Structures**
Hideo Ohno

12:30 – 13:30 Lunch

Session 7 : Intelligent Signal Processing & Multimedia Communication

Chair: Naofumi Homma

- 13:30 **7-1 Realization of Advanced Acoustic and Multi-Modal Information Systems**
Yô-iti Suzuki
- 13:45 **7-2 (Invited) Quo Vadis Nanoarchitectures?**
Valeriu Beiu (United Arab Emirates University)
- 14:30 **7-3 Fine-Grained Low-Power Reconfigurable VLSI for Real-World Applications**
Michitaka Kameyama
- 14:45 **7-4 Novel-Device-Based Circuit Architecture for New-Paradigm VLSI Computation**
Takahiro Hanyu
- 15:00 **7-5 High-Accuracy Machine Vision Technology Using Phase-Only Correlation**
Takafumi Aoki

15:15 – 15:45 Break

Session 8 : Computing & Algorithm

Chair: Jinhee Chun

- 15:45 **8-1 TyPiCal: A Type-Based Analyzer for the Pi-Calculus** Naoki Kobayashi
- 16:00 **8-2 Consistent Digital Rays** Takeshi Tokuyama
- 16:15 **8-3 Optimal Realizations of State-Space Digital Filters** Masayuki Kawamata
- 16:30 **8-4 Probabilistic Information Processing and Bayesian Networks**
Kazuyuki Tanaka

16:45 – 16:50 Closing Session

Ball A

Closing Remarks

Masataka Nakazawa (Organizing Committee Chair)