

**International Symposium on Secure-Life Electronics**  
**- Advanced Electronics and Information Systems for Quality Life and Society -**  
*Takeda Hall, Hongo Campus of the University of Tokyo*  
*January 17-18, 2012*

**Program**

**January 17 (Tue.)**

<b>Opening Session</b>		<b>Chair: Takao Someya</b>	
9:30-9:35	Hitoshi Tabata, Program Chair	Department of Bioengineering and Department of Electrical Engineering and Information Systems, University of Tokyo	Opening Remarks
9:35-9:40	Takehiko Kitamori	Dean, Faculty of Engineering, University of Tokyo	Opening Remarks
9:40-10:30	Kazuo Hotate, Leader of the GCOE Program	Department of Electrical Engineering and Information Systems, University of Tokyo	Progress in Global COE "Secure-Life Electronics" (Keynote)
10:30-10:50	<b>Coffee Break</b>		
10:50-11:40	Jan M. Rabaey (invited)	Department of Electrical Engineering and Computer Sciences, University of California, Berkeley	The Swarm at the Edge of the Cloud (Keynote)
11:40-13:30	<b>Lunch Break</b>		
Advisory Committee Meeting (Chair: Yasuhiko Arakawa)			
<b>13:30-15:00 Poster Session</b>		<b>Chair: Akira Hirose</b>	
<b>15:00-16:30 Session A: Sensing Devices and Systems</b>			
	Takashi Kubota	Institute of Space and Astronautical Science	Field Robotics Technology for Secure System and Exploration from the Earth to Space
	Hiroyuki Fujita	Institute of Industrial Science, University of Tokyo	Combining MEMS Tools and Microscopy for Nano Manipulation and Characterization
	Hitoshi Tabata	Department of Bioengineering and Department of Electrical Engineering and Information Systems, University of Tokyo	Terahertz Plasmonics for Non-Invasion and High Sensitive Bio Sensing
16:30-16:50	<b>Coffee Break</b>		
<b>16:50-18:20 Session B: Information Processing and Network</b>		<b>Chair: Shuichi Sakai</b>	
	Masaru Kitsuregawa	Institute of Industrial Science, University of Tokyo	Transformative Info-Plosion Analytics Including Information Diffusion Case Study of 3.11 Disaster
	Tadashi Shibata	Department of Electrical Engineering and Information Systems, University of Tokyo	Building Human Perception Systems Based on VLSI Technology and Nano Device Physics
	Hiroshi Esaki	Department of Creative Informatics, University of Tokyo	Open Green Facility System Architecture with IEEE1888
	Kazuro Kikuchi	Department of Electrical Engineering and Information Systems, University of Tokyo	Coherent Optical Fiber Communications
19:00-21:00	<b>Banquet (at Sanjo Kaikan "Goten")</b>		

**January 18 (Wed.)**

<b>9:30-11:00 Session C: Advanced Transistors and Circuits</b>		<b>Chair: Masakazu Sugiyama</b>	
	Takayasu Sakurai	Institute of Industrial Science, University of Tokyo	Ambient Electronics and Ultra-Low Power LSI Design
	Shinichi Takagi	Department of Electrical Engineering and Information Systems, University of Tokyo	Advanced Nano CMOS Platform using High Mobility Channel Materials
	Toshiro Hiramoto	Institute of Industrial Science, University of Tokyo	Variability in Scaled MOSFETs: Measurements and Suppression
	Takao Someya	Department of Electrical Engineering and Information Systems, University of Tokyo	Ultraflexible and Stretchable Electronics Using Printed Organic Transistors
11:00-11:20	<b>Coffee Break</b>		
11:20-12:10	Chennupati Jagadish (invited)	Department of Electronic Materials Engineering, Research School of Physics and Engineering, Australian National University Fellow, School of Engineering, University of Tokyo	Semiconductor Nanowires for Optoelectronic Device Applications (Keynote)
12:10-13:30	<b>Lunch Break</b>		
<b>13:30-15:00 Session D: Photonics, Nano Science and Technology</b>		<b>Chair: Yoshio Mita</b>	
	Motoichi Ohtsu	Department of Electrical Engineering and Information Systems, University of Tokyo	Dressed Photon Technology for Novel Devices and Fabrications
	Yasuhiko Arakawa	Institute of Industrial Science, University of Tokyo	Cavity Quantum Electrodynamics in Quantum Dots and Photonic Crystal Nanocavity Coupled Systems
	Kazuhiko Hirakawa	Institute of Industrial Science, University of Tokyo	Elementary Process of Electromigration and Fabrication of Atomic-Scale Nanogap Electrodes for Single Molecule Transistors
	Masaaki Tanaka	Department of Electrical Engineering and Information Systems, University of Tokyo	Spintronics: Materials and Devices
15:00-15:20	<b>Coffee Break</b>		
<b>15:20-16:50 Session E: Energy and Environmental Technologies</b>		<b>Chair: Kunihiko Hidaka</b>	
	Yoichi Hori	Department of Advanced Energy, University of Tokyo	Novel EV Society Based on Motor/ Capacitor/ Wireless - Application of Electric Motor, Supercapacitors, and Wireless Power Transfer to Enhance Operation of Future Vehicles -
	Yoshiaki Nakano	Research Center for Advanced Science and Technology, University of Tokyo	High-Efficiency Photovoltaic Cells for Large Scale Solar Power Generation
	Akihiko Yokoyama	Department of Advanced Energy, University of Tokyo	Technical Challenges Associated with the Implementation of Smart Grids
	Ryo Ono	Department of Advanced Energy, University of Tokyo	Applications and Fundamental Studies of Atmospheric-Pressure Nonthermal Plasma
16:50-17:00	Kazuo Hotate, Leader of the GCOE Program	Department of Electrical Engineering and Information Systems, University of Tokyo	Closing Remarks