

2007 INTERNATIONAL CONFERENCE ON

SOLID STATE DEVICES AND MATERIALS



Conference—September 19–21, 2007
 Short Course—September 18, 2007
 Place—Tsukuba International Congress Center (Tsukuba, Ibaraki, Japan)

CONFERENCE

PLENARY SESSIONS

Date : September 19, 2007 10:00-12:30
 Place : Main Convention Hall (2F)

Dr. Mario Paniccia

Intel Fellow, Director Photonics Technology Lab.,
 Corporate Technology Group, Intel Corporation, USA

“New Technology: Silicon Photonics: Opportunity, Challenges & Applications”



Prof. Takao Someya

Quantum-Phase Electronics Center, School of
 Engineering, University of Tokyo, Japan

“Organic Transistors: towards Ambient Electronics”



Dr. Hisatsune Watanabe

President, Semiconductor Leading Edge Technologies
 (Selete), Inc., Japan

“Try Disruptive Technology!”



CORE AREAS

- 1) Advanced Gate Stack/Si Processing Science (Chair, Y. Nara, Selete)
- 2) Characterization and Materials Engineering for Interconnect Integration (Chair, S. Ogawa, Selete)
- 3) CMOS Devices/Device Physics (Chair, K. Shibahara, Hiroshima Univ.)
- 4) Advanced Memory Technology (Chair, A. Nitayama, Toshiba)
- 5) Advanced Circuits and Systems (Chair, H. Kobayashi, Gunma Univ.)
- 6) Compound Semiconductor Circuits, Electron Devices and Device Physics (Chair, M. Kuzuhara, Univ. of Fukui)
- 7) Photonic Devices and Device Physics (Chair, M. Sugawara, Fujitsu Labs.)
- 8) Advanced Material Synthesis and Crystal Growth Technology (Chair, H. Yamaguchi, NTT)
- 9) Physics and Applications of Novel Functional Materials and Devices (Chair, Y. Takahashi, Hokkaido Univ.)

STRATEGIC AREAS

- 10) Organic Materials Science, Device Physics, and Applications (Chair, T. Kawata, AIST)
- 11) Micro/Nano Electromechanical and Bio-Systems (Devices) (Chair, H. Tabata, Univ. of Tokyo)
- 12) Spintronic Materials and Devices (Chair, M. Tanaka, Univ. of Tokyo)
- 13) Applications of Nanotubes and Nanowires (Chair, K. Matsumoto, Osaka Univ.)

RUMP SESSIONS

Date : September 20, 2007 18:30-20:30
 Session A: “Oxide Electronics—Status and Outlook—” (Room 101, 1F)
 Session B: “New Materials Meet Advanced Silicon Technology” (Room 102, 1F)

Registration

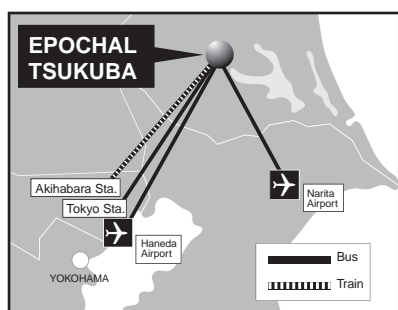
*Fees included tax.

	Registration Fee		Short Course (in Japanese)	Banquet
	Before 13:00, Aug. 17 (Japan time)	After 13:00, Aug. 17 (Japan time)		
Regular	¥45,000	¥50,000	¥15,000	¥7,000
Student	¥7,000		¥3,000	¥4,000
Accompanied person				¥4,000

On-line registration available at <http://www.ssdm.jp>

Access

- From Narita Airport
100 min by limousine bus
- From Haneda Airport
120 min by limousine bus
- From downtown Tokyo
(via Akihabara Station)
45 min by Tsukuba Express



SHORT COURSE (in Japanese) “Emerging Silicon Technology”

Date : September 18, 2007 10:30-16:50
 Place : Convention Hall (3F)

Scope

A one-day short course (in Japanese) will be held prior to the 2007 SSDM conference, offering tutorial lectures on important aspects of recently emerging silicon technology. The short course will focus on “More Moore”, “More Than Moore”, and “Beyond-CMOS” technologies that will be merged into CMOS, and will highlight new advances in silicon technology with these new concepts. We believe that the short course will provide the important view of future research and development directions of CMOS-based integrated electronics.

Program

- 10:30-11:20 *Nanotechnology with Silicon Technology*
What are “More Than Moore” and “Beyond CMOS”?
 Prof. T. Hiramoto (University of Tokyo)
- 11:20-12:10 *New Computing Paradigm with Silicon Technology*
A VLSI Brain Processor Mimicking the Processing in the Mind
 Prof. T. Shibata (University of Tokyo)
- (12:10-13:10) Lunch
- 13:10-14:00 *Non-Silicon Semiconductors with Silicon Technology*
High Performance CMOS Technologies Using Ge/III-V Channels
 Prof. S. Takagi (University of Tokyo)
- 14:00-14:50 *Photonics with Silicon Technology*
Silicon Photonics - Current Status and Future Prospect -
 Prof. T. Baba (Yokohama National University)
- (14:50-15:10) Coffee Break
- 15:10-16:00 *Ferroelectrics with Silicon Technology*
Applications to Nonvolatile Memories and New Functional Devices
 Prof. H. Ishiwara (Tokyo Institute of Technology)
- 16:00-16:50 *Spintronics with Silicon Technology*
Key Technologies for Emerging Ferromagnet-Semiconductor Heterostructures
 Prof. K. Inomata (National Institute for Materials Science)

Coordinators

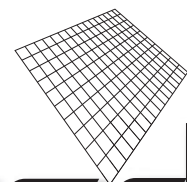
- S. Sugahara (Tokyo Institute of Technology)
- Y. Sakuma (National Institute for Materials Science)

Committees

- | | | |
|--|--|---|
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Contact

Secretariat-SSDM 2007
 c/o Inter Group Corp.
 Toranomon Takagi Bldg., 1-7-2 Nishishimbashi,
 Minato-ku, Tokyo 105-0003, Japan
 TEL: +81-3-3597-1108
 FAX: +81-3-3597-1097
 E-mail: ssdm@intergroup.co.jp



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