2013 INTERNATIONAL CONFERENCE ON SOLID STATE DEVICES AND MATERIALS

ssdm 2013

Conference September 24-27, 2013
Short Course September 24, 2013
Place Hilton Fukuoka Sea Hawk

SCOPE OF CONFERENCE

Core Areas

1. **Advanced LSI Processing**
   (Chair: K. Kita, Univ. of Tokyo)
2. **Advanced Interconnect**
   (Chair: T. Fukushima, Tohoku Univ.)
3. **CMOS Devices**
   (Chair: D. Hisamoto, Hitachi)
4. **Advanced Memory**
   (Chair: T. Endoh, Tohoku Univ.)
5. **Advanced Circuits & Systems**
   (Chair: M. Ikebe, Hokkaido Univ.)
6. **Compound Semiconductor Devices**
   (Chair: Y. Miyamoto, Tokyo Tech)
7. **Photonic Devices**
   (Chair: Y. Tanaka, Fujitsu Labs. Ltd.)
8. **Advanced Materials & Growth**
   (Chair: K. Hara, Shizuoka Univ.)
9. **Novel Functional Devices**
   (Chair: H. Gotoh, NTT Corp.)
10. **Organic Materials & Devices**
    (Chair: T. Someya, Univ. of Tokyo)

Strategic Areas

11. **Biomedical Devices**
    (Chair: K. Ajito, NTT Corp.)
12. **Spintronics Materials & Devices**
    (Chair: H. Munekata, Tokyo Tech)
13. **Nanotubes, Nanowires & Graphene**
    (Chair: S. Sato, AIST)
14. **Power Devices**
    (Chair: H. Tsuchida, CRIEPI)
15. **Photovoltaic Devices**
    (Chair: A. Masuda, AIST)

Plenary Talks

Dr. Mamoru Mohri
Astronaut / Chief Executive Director, National Museum of Emerging Science and Innovation (Miraikan), Japan

"Sustainability beyond Science & Technology"

Prof. Peter (Chung-Yu) Wu
National Chiao Tung University, Taiwan

"Medical Electronics - A Challenge and Opportunity for Semiconductor Technologies and Biomedical Sciences -"

Prof. Hideo Hosono
Tokyo Institute of Technology, Japan

"Materials Innovation for Future Solid State Electronics "

Short Courses

A. Fundamentals on Advanced CMOS/Memory Technologies
(Organizer: Prof. Shinichi Takagi, The University of Tokyo)

B. Fundamentals and Applications of Spintronics Frontier
(Organizer: Dr. Akira Fujiwara, NTT Corporation)

C. Trends for Future Power Devices
(Organizer: Prof. Shizuo Fujita, Kyoto University)

Organizing Committee

- Chair: T. Asano (Kyushu Univ.)
- Vice-Chair: K. Masu (Tokyo Tech)

Steering Committee

- Chair: K. Tsutsui (Tokyo Tech)
- Vice-Chair: Y. Miyamoto (Tokyo Tech)

Program Committee

- Chair: D. Ueda (Panasonic Corp.)
- Vice-Chairs: S. Takagi (Univ. of Tokyo), S. Fujita (Kyoto Univ.), A. Fujiwara (NTT Corp.), E. Y. Chang (National Chiao Tung Univ.)

Paper Deadline May 13, 2013

Late News Paper Deadline July 22, 2013

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http://www.ssdm.jp

Short Courses

Short Courses for young researchers and students, will be held on 24 September 2013, the first day of SSDM2013

A. Fundamentals on Advanced CMOS/Memory Technologies (Organizer: S. Takagi, Univ. of Tokyo)

1) "Present Status and Future Trend of CMOS Scaling" T. Hiramoto (Univ. of Tokyo, Japan)
2) "High Mobility Channel CMOS Technology" S. Takagi (Univ. of Tokyo, Japan)
3) "Impact of 3D structured Memory and Spintronics based NV-Memory for High Performance & Low Power Systems" T. Endoh (Tohoku Univ., Japan)

B. Fundamentals and Applications of Spintronics Frontier (Organizer: A. Fujiwara, NTT Corp.)

1) "Advanced Spintronic Materials for Generation and Control of Spin Current" K. Takanashi (Tohoku Univ., Japan)
2) "Spin Caloritronics" G. E.W. Bauer (Tohoku Univ., Japan)
3) "MTJ-based Spintronics (tentative)" Y. Ando (Tohoku Univ., Japan)
4) "Group-IV Spintronics" M. Shiraishi (Osaka Univ., Japan)
5) "Light and Spintronics" H. Munekata (Tokyo Tech, Japan)

C. Trends for Future Power Devices (Organizer: S. Fujita, Kyoto Univ.)

1) "Overview of Recent Power Devices of Si, GaN, and SiC" T. P. Chow (Rensselaer Polytechnic Institute, USA)
2) "Wide Bandgap Semiconductor Power Devices"
3) "Silicon-Based Power Devices"
4) "Diamond-Based Power Devices" M. Hatano (Tokyo Tech, Japan)
5) "Gallium Oxide-Based Power Devices" M. Higashiwaki (NICT, Japan)

Invited Speakers

Advanced LSI Processing (Area 1)
A. K. Kambham (IMEC, Belgium)
Y. -J. Lee (National Nano Device Laboratories, Taiwan)
A. Nainani (Applied Materials, USA)
Y. Yue (National Univ. of Singapore, Singapore)

Advanced Interconnect (Area 2)
M. Fernández-Bolaños (EPFL, Switzerland)
Y. Ishikawa (Univ. of Tokyo, Japan)
K. Kaneko (Renesas, Japan)
C. Y. Yang (Santa Clara Univ., USA)

CMOS Devices (Area 3)
F. Arnaud (STMicroelectronics, France)
Y. Kamakura (Osaka Univ., Japan)
N. Sugii (LEAP, Japan)

Advanced Memory (Area 4)
K. Jinfeng (Peking Univ., China)
T. Ohsawa (Tohoku Univ., Japan)
K. Shiraishi (Univ. of Tsukuba, Japan)

Advanced Circuits & Systems (Area 5)
M. Denoual (ENSI Caen, France)
R. Kuroda (Tohoku Univ., Japan)
S. Yamazaki (SEL, Japan)
X. Zeng (Fudan Univ., China)

Compound Semiconductor Devices (Area 6)
D. -H. Kim (GLOBALFOUNDRIES, USA)
T. Palacios (MIT, USA)
P. Waltereit (IAF, Germany)

Photonic Devices (Area 7)
D. Gill (IBM, USA)
G. Reed (Univ. of Southampton, UK)
J. P. Reithmaier (Univ. of Kassel, Germany)
E. Waks (Univ. of Maryland, USA)

Advanced Materials & Growth (Area 8)
N. H. Alvi (Technical Univ. of Madrid, Spain)
R. -S. Liu (National Taiwan Univ., Taiwan)
M. Miyao (Kyushu Univ., Japan)
N. Tokuda (Kanazawa Univ., Japan)

Novel Functional Devices (Area 9)
H. H. -Y. Chen (Stanford Univ., USA)
K. M. Itoh (Keio Univ., Japan)
K. Muraki (NTT, Japan)
J. Tominaga (AIST, Japan)

Organic Materials & Devices (Area 10)
C. Adachi (Kyushu Univ., Japan)
J. Takeya (Osaka Univ., Japan)
W. E. Voit (Univ. of Texas at Dallas, USA)

Biomedical Devices (Area 11)
C. Lenz César (Univ. Estadual de Campinas, Brazil)
L. A. Nagahara (NIH, USA)
R. Saykally (Univ. of California, Berkeley, USA)
H. Suzuki (Univ. of Tsukuba, Japan)

Spintronics Materials & Devices (Area 12)
D. Chiba (Kyoto Univ., Japan)
O. M. J. van 't Erve (Naval Research Laboratory, USA)
M. Kohda (Tohoku Univ., Japan)
T. Satoh (Univ. of Tokyo, Japan)

Nanotubes, Nanowires & Graphene (Area 13)
E. Bakkers (Delft Univ. of Technology, The Netherlands)
A. D. Franklin (IBM, USA)
S. Ishizawa (Sophia Univ., Japan)
J. Ye (Univ. of Tokyo, Japan)

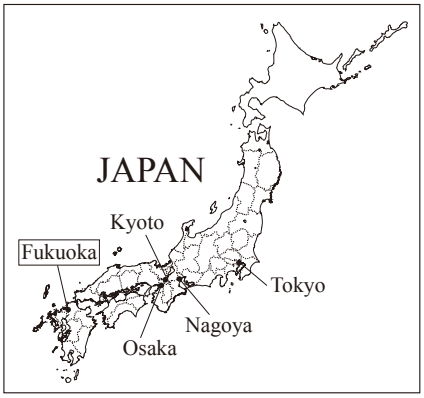
Power Devices (Area 14)
T. P. Chow (Rensselaer Polytechnic Institute, USA)
M. Higashiwaki (NICT, Japan)
T. Kachi (Toyota Central R&D Labs., Japan)
Y. Mori (Osaka Univ., Japan)
J. W. Palmour (Cree, USA)

Photovoltaic Devices (Area 15)
H. Katagiri (Nagaoka National Col. of Technology, Japan)
H. J. Snaith (Univ. of Oxford, UK)
A. Terakawa (Panasonic, Japan)

Invited speakers may be changed.

Conference Venue

The conference venue, Hilton Fukuoka Sea Hawk enjoys a fine location nearly down on the waterfront in the splendid surroundings of the city centre. Fukuoka is the closest major city in Japan to Korea, Taiwan and China. Because of its location, it has long played an important role as gateway to continental Asia. Fukuoka has excellent access. Fukuoka International Airport offers links to numerous cities in Japan, and major cities in Asia. Fukuoka is rich in nature; not only surrounded by the sea, but is also located close to beautiful mountains. The city offers variety of historical sites, cultural attractions and museums.



Further Information

For any questions or further information, please contact:

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