



## The 10<sup>th</sup> Takayanagi Kenjiro Memorial Symposium

Research Institute of Electronics, Shizuoka University

## The 5<sup>th</sup> International Symposium on Nanovision Science

The 21st century COE program, Shizuoka University



# Nanospace Manipulation of Photons and Electrons for Nanovision Systems

**D**ATE

November 17 and 18, 2008 **Registration Fee : Free**

**L**ocation

Sanaru Hall, Hamamatsu Campus, Shizuoka University  
3-5-1 Johoku, Naka-ku, Hamamatsu 432-8011, Japan

## Program



10:00

### Opening

Naotaka Oki (President of Shizuoka University)  
Hidenori Mimura (Director of Research Institute of Electronics, Shizuoka University)

10:10

### Session 1 : Plenary Talks

- Invited Talk ① **The Future of Machine Vision**  
Peter Seitz (University of Neuchatel and Swiss Center for Microelectronics, Switzerland)
- Invited Talk ② **Physics and Applications of Hybrid Silicon Nanoelectromechanical Devices**  
Hiroshi Mizuta (The University of Southampton, U.K.)

11:30

### Session 2 : Advanced Optoelectronic Devices and Human Interfaces I

- ① **Formation of Radiation Sensitive Nano-Layered Structures by Pulsed Laser Irradiation of Semiconductors**  
Gnatyuk Volodymyr and Toru Aoki (Shizuoka University)
- ② **Preliminary Experiment for the Growth of Homogeneous Ternary Bulk Crystal under Microgravity**  
Yasuhiro Hayakawa (Shizuoka University)

12:10

### Lunch

13:30

### Session 3 : Advanced Optoelectronic Devices and Human Interfaces II

- Invited Talk ① **Computer-Aided Diagnosis and Surgery Based on Medical Image Recognition and Visualization**  
Kensaku Mori (Nagoya University, Japan)
- ② **Methods and Technologies for Image Acquisition with Portable Handheld Electromagnetic Scanners**  
Kamen Kanev, Hiroshi Inokawa, Yoshihiro Nishimura, Akira Sasamoto and Takayuki Suzuki (Shizuoka University and AIST, Japan)
- ③ **New Functional and High Performance Devices by Si Nanostructures**  
Hiroya Ikeda (Shizuoka University)
- ④ **Reaction and Arrangement of Molecules on a Silicon Surface**  
Masaru Shimomura (Shizuoka University)

15:10

### Coffee Break

15:30

### Overview of the 21st Century COE Program

Hidenori Mimura (COE Leader, Shizuoka University)

15:40

### Session 4 : Photon Emission

- Invited Talk ① **Luminescence from Individual Semiconductor Nanomaterials : Nanocrystal Quantum Dots and Carbon Nanotubes**  
Yoshihiko Kanemitsu (Kyoto University, Japan)
- ② **Characteristics of Nano-sized Dot Array Carbon Nanotube Emitters and ZnO Nanophosphors**  
Masaaki Nagatsu, Takafumi Matsuda, Qiongrong Ou, Jun Sato, Kosuke Shinji and Akihisa Ogino (Shizuoka University)
- ③ **Semiconductor Quantum Wells for Intersubband Device Applications**  
Akihiro Ishida, Daoshe Cao, Martin Veis and Yoku Inoue (Shizuoka University)

17:10

Reception (~19:10) Sanaru Hall, Hamamatsu Campus, Shizuoka University



## The 10<sup>th</sup> Takayanagi Kenjiro Memorial Symposium

Research Institute of Electronics, Shizuoka University

## The 5<sup>th</sup> International Symposium on Nanovision Science

The 21st century COE program, Shizuoka University



# Nanospace Manipulation of Photons and Electrons for Nanovision Systems

## Program



9:00

### Session 5 : Nanophotonics

Invited Talk ① *Nanophotonics for Optical Data Storage*

Min Gu (Swinburne University of Technology, Australia)

Invited Talk ② *Nano-Sculptured Optical Thin Films for Polarization Modulation*

Yi-Jun Jen (National Taipei University of Technology, Taiwan)

10:20

*Coffee Break*

10:40

### Session 6 : Photon Detection

Invited Talk ① *Lead-Chalcogenide Sensors and Lasers for the Mid-Infrared Range*

Hans Zogg (Swiss Federal Institute of Technology Zurich, Switzerland)

② *A CMOS Time-Resolved Sensor for Fluorescence Lifetime Imaging*

Shoji Kawahito, Hyung-June Yoon and Shinya Itoh (Shizuoka University)

③ *X-Ray/Gamma-Ray Imaging for Nanovision Science*

Toru Aoki (Shizuoka University)

12:00

*Lunch*

13:20

### Session 7 : Young Researchers' Presentation

Part 1: Short Oral Presentations (13:20-14:30)

Part 2: Poster Presentations (14:30-15:50)

15:50

### Session 8 : Advanced Imaging for Human Technology

Invited Talk ① *Terahertz Imaging and Nanovision of Biomaterials*

Erik Bründermann (Ruhr-Universität Bochum, Germany)

② *Research on Convenient Terahertz Detectors with High Performance*

Norihisa Hiromoto (Shizuoka University)

③ *Making Use of Human Visual Capability to Improve Information Security*

Masakatsu Nishigaki (Shizuoka University)

17:10

*Closing*

Information: <http://www.rie.shizuoka.ac.jp/>

Contact: TEL : 053-478-1301 FAX : 053-478-1651

<http://www.gsest.shizuoka.ac.jp/coe/>

TEL : 053-478-1302 FAX : 053-478-1365

e-mail : [21coe@adb.shizuoka.ac.jp](mailto:21coe@adb.shizuoka.ac.jp)