

# 2<sup>nd</sup> GMSI

## international symposium

### Symposium Agenda

#### Venue: Sanjo Conference Hall

#### Monday, April 26

9:20     **Registration**

9:40     **Opening Remarks**

Takehiko KITAMORI, Dean, School of Engineering, The University of Tokyo  
Mamoru MITSUIISHI, Symposium Chair, GMSI Program Leader,  
Department of Mechanical Engineering, The University of Tokyo

10:00    **Session A1: Fundamental Technologies of Materials Chemistry I**

Chair: Yuichi IKUHARA

10:00~10:45

“Composition-Tunable Alloyed Semiconductor Nanocrystals”

Ming Yong HAN,

Institute of Materials Research and Engineering (IMRE), Singapore

10:45~11:30

“Semiconductor Nanowires for Optoelectronics and Renewable Energy”

Deli WANG,

Department of Electrical and Computer Engineering , University of California,  
San Diego, USA

11:30~11:50

“Bridged Semiconductor Nanowires for Ultraviolet Light Detection”

Yanbo LI,

Department of Engineering Synthesis, The University of Tokyo

12:00    **Lunch**

- 13:00 **Session A 2: Fundamental Technologies of Materials Chemistry II**  
Chair: Shigeo MARUYAMA  
13:00~13:45  
“Self-assembled Molecular Architecture”  
Makoto FUJITA,  
Department of Applied Chemistry, The University of Tokyo  
13:45~14:05  
“Water-free, Rapid Growth of Millimeter-tall Single-walled Carbon Nanotubes”  
Kei HASEGAWA,  
Department of Chemical System Engineering, The University of Tokyo
- 14:05 **Poster Session I**
- 15:10 **Coffee Break**
- 15:40 **Session B1 : Fundamental Technologies of Fluid Dynamics I**  
Chair: Shu TAKAGI  
15:40~16:25  
“High Reynolds Number Microfluidics:”  
Claus-Dieter OHL,  
School of Physical and Mathematical Sciences, Nanyang Technological  
University, Singapore  
16:25~17:10  
“CFD Simulation of Two-Phase Fluid Flows Using a Phase-Field Model”  
Naoki TAKADA,  
National Institute of Advanced Industrial Science and Technology (AIST)  
17:10~17:30  
“Single Bubble Bouncing on a Free Surface and the Rise Velocity of the Bubble”  
Toshiyuki OHYAMA,  
Department of Mechanical Engineering, The University of Tokyo
- 18:00 **Banquet**

## **Tuesday, April 27**

### **9:15 Session B2 : Fundamental Technologies of Fluid Dynamics II**

Chair: Chisachi KATO

9:15~10:00

“Numerical Simulation of Fluid-fluid Interfaces by Volume-of-Fluid Methods”

Stéphane ZALESKI,

Institut of d'Alembert, France

10:00~10:20

“Interpretation of the Optimal Control Frequency of Spanwise Wall-oscillation”

Aiko YAKENO,

Department of Mechanical Engineering, The University of Tokyo

### **10:30 Session C1: Applications for Bio-medical Devices and Robots I**

Chair: Naohiko SUGITA

10:30~11:15

“Medical Robotics: State of the Art and Future Challenges”

Peter KAZANZIDES,

Department of Computer Science, Johns Hopkins University, USA

11:15~12:00

“High-dimensional Medical Image Processing and Atlas-based Musculoskeletal Modeling Technologies”

Yoshikazu NAKAJIMA,

Department of Bioengineering, The University of Tokyo

### **12:00 Lunch**

### **13:00 Session C2: Applications for Bio-medical Devices and Robots II**

Chair: Norihiro KOIZUMI

13:00~13:45

“Two Approaches for the Complete Guidance of a Robotized Ultrasound Probe Using Visual Servoing”

Alexandre KRUPA,

INRIA Rennes, France

13:45~14:05

“Ultrasound Based Real-time Volumetric Target Registration Method  
for Non-invasive Theragnostic System”

Joonho SEO,

Department of Engineering Synthesis, The University of Tokyo

14:05~14:25

“Fractured Bone Position and Shape Estimation Based on Recursive  
2-D/3-D Registration of Deformable Models”

Toki SAITO,

Department of Mechanical Engineering, The University of Tokyo

14:25 **Poster Session II**

15:30 **Coffee Break**

16:00 **Special Panel : Messages for Young Researchers**

(Moderators: Mamoru MITSUIISHI, Ryoko SHIMONO)

17:00 **Award Ceremony**

17:20 **Closing Remark**

Shinobu YOSHIMURA

Symposium Co-Chair,

Department of Systems Innovation, The University of Tokyo