

# The Asia-Pacific Interdisciplinary Research Conference 2011

Organized by Toyohashi University of Technology

Green Science and Technology

Innovative Mechano-Magneto-Electronic Systems

Life Sciences

RC アジア太平洋異分野融合研究国際会議

#### **Invited Speakers**

- M. Buss (Technishce Universität München, Germany) "Towards cognition-enabled technical systems"
- M. Esashi (WPI-AIMR, Tohoku University, Japan) "Firsthand experience of the Tohoku earthquake on 11 March 2011"
- H. J. Gross (Würzburg University, Germany) "The magical number four: A neurological, historical and mythical eniama"
- J.-S. Jang (LED-IT Fusion Technology Research Center, Yeungnam University, Korea) "High-performance GaN-based light-emitting diodes and lighting applications using convergence technologies"
- Q. Pankhurst (The Royal Institution of Great Britain, UK) "Mobilizing academic R&D in a rapidly changing marketplace: Experiences gained and lessons learned in the medical technology sector"
- M. Sagawa (Intermetallics Co., Ltd., Japan) "NdFeB magnet, from invention to the necessity of the sustainable society"
- V. M. Shalaev (Purdue University, USA) "Transforming light with metamaterials"
- Y. Tozawa (Ehime University, Japan) "Cell-free translation system: a tool for functional proteomics of solute transporters and ion channels"



http://www.apirc.jp



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NOV 17-18th 2011 Toyohashi University of Technology, Toyohashi, Aichi, Japan

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Deadline for abstract submission: Aug 31st 2011 Organized by the following groups at Toyohashi University of Technology Electronics-Inspired Interdisciplinary Research Institute (EIRIS) Tenure Track Program to Foster Young Researchers in Cutting-Edge Interdisciplinary Research Global COE Program "Frontiers of Intelligent Sensing"

Head Office for "Tailor-Made and Baton-Zone" Graduate Course



## **AP-IRC 2011**

The Asia-Pacific Interdisciplinary Research Conference 2011

Organized by Electronics-Inspired Interdisciplinary Research Institute(EIIRIS), Toyohashi University of Technology, Japan

### 2nd Call for Papers

#### Objective

The world is at a major turning point. Recent changes in global economics and industrial priorities, environmental and energy policies, food production and population movements have produced formidable challenges that must be addressed for sustaining life on earth

This conference provides an 'interdisciplinary-platform' to enhance mutual understanding between scientists, engineers, policy makers, and experts from a wide spectrum of pure and applied sciences in order to resolve the daunting global issues facing mankind. In particular, the organizers would like to encourage graduate school students to participate and talk directly with internationally renowned academics, industrialists, and opinion leaders for a firsthand insight into the major issues facing scientists and engineers of the 21st century.

Climate change

MEMS and NEMS

Man-machine interface

Natural disaster management

#### Areas covered by the conference

The conference will cover the following three areas of research.

#### Green Science and Technology

- Plant science	- Agriculture
Macto monogomont	Dollution

- Waste management Pollution
  - Innovative Mechano-Magneto-Electronic Systems
- Electronic materials Devices
- **Optoelectronics** 
  - Magnetic materials and related devices
    - Piezoelectric actuators **Spintronics**
- Life Sciences

Robotics

- Drug delivery - RNA Technology
- Biomimetic materials and protocols
- Microorganisms
- The conference will mainly consist of poster presentations, with oral presentations by invited speakers and a selection of

Oceanography

- Integrated circuits

- Molecular biology

#### Publication

Manuscripts submitted for publication in the proceedings of the AP-IRC 2011 will be referred and those accepted will be published in the Institute of Physics Journal of Physics Conference Series (JPCS).

#### Organization (tentative)

Executive Committee Yoshiyuki Sakaki (Chairman), President, Toyohashi University of Technology (Ťoyohashi Tech) Special Advisory Committee Shiro Hiruta Senior Advisor, Asahi Kasei

Corporation, Japan Takashi Mimura Fellow, Fujitsu Laboratories, Ltd., Japan

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President, Toyota Technological Institute, Japan Takao Suzuki

Director of Center for Materials for Information Technology, University of Alabama, USA

Mathias Uhlén Professor, Royal Institute of Technology, Sweden

Shiro Usui Professor, Brain Science Institute, RIKEN, Japan

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The University of Arizona, USA Ahmet Oral Sabanci University, Turkey Caroline Ross Massachusetts Institute of Technology, USA

Schedule and important deadlines		
Conference	Thursday 17th and Friday 18th November 2011	
Place	Toyohashi University of Technology (Toyohashi Tech), Aichi, Japan	
Deadline for abstract submission		
Wednesday 31st August 2011		
Manuscript of paper for publication in JPCS		
10th October 2011		
Registration fee		
1000 JPY (students) / 5000 JPY (others)		
Further information and AP-IRC 2011 website		
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