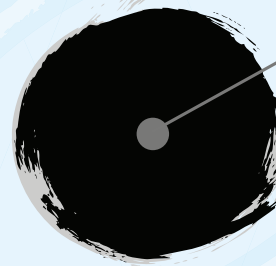


First Call for Papers

The Asia-Pacific Interdisciplinary Research Conference 2012



<http://www.apirc.jp>

AP-IRC 2012

アジア太平洋異分野融合研究国際会議

**360 degree outlook on
critical scientific and
technological challenges
for a sustainable society**

NOV 15-16th 2012

**Irago Sea-Park & Spa Hotel
Tahara, Aichi, Japan**

Core sessions:

- Energy, Natural Resources, and Environment
- Medicine, Medical Diagnostics, and Public Health/Welfare
- Disaster Prevention and Management
- Advances in Science, Technology and Life Science

Special session:

- Energy Minimization of Future Mobile Systems

Publication:

- Refereed papers published in IOP Journal of Physics: Conference Series (JPCS)

Keynote lecture (tentative):

- Sakae Tanaka (AQUABIT Corporation, Japan)
"Future prospect 2012-2025 –How will the World and our business change in future–"

Invited speakers (tentative):

- Robert Geller (University of Tokyo, Japan)
"Limitations of predicting earthquakes and the myth of safety at Fukushima"
- Yoshimitsu Okada (National Research Institute for Earth Science and Disaster Prevention, Japan)
"Recent progress of seismic observation networks in Japan"
- Uracha Ruktanonchai (NanoDelivery System Lab, NANOTEC, Thailand)
"Nanotechnology for natural disaster mitigation"
- Susumu Sakata (National Institute of Advanced Industrial Science and Technology, Japan)
"Microbial methanogenesis as the process of methane hydrate formation"
- Seiichi Takenoshita (Fukushima Medical University School of Medicine, Japan)
"Turning a tragedy into a miracle –Fukushima Medical University version for revitalization–"

Deadlines:

- Abstract: August 31, 2012
- Acceptance Notice: September 20, 2012
- Manuscript: November 10, 2012



Organizer: Electronics-Inspired Interdisciplinary
Research Institute (EIIRIS), Toyohashi University
of Technology
Chairman: Yoshiyuki Sakaki (President, Toyohashi Tech)



EIIRIS
Electronics-Inspired Interdisciplinary
Research Institute



国立大学法人
豊橋技術科学大学
TOYOHASHI
UNIVERSITY OF TECHNOLOGY



The first **Asia-Pacific Interdisciplinary Research Conference 2011 (AP-IRC 2011)** was held at Toyohashi University of Technology (Toyohashi Tech) on 17–18 November 2011. The conference is a forum for enhancing mutual understanding between scientists, engineers, policymakers, and experts from a wide spectrum of pure and applied sciences to resolve the daunting global issues facing mankind.

This inaugural gathering attracted 180 participants including delegates from Germany, India, Indonesia, Korea, Malaysia, Russia, Sweden, the UK and the US. The AP-IRC 2011 was chaired by Dr Yoshiyuki Sakaki, the president of Toyohashi Tech, who opened the proceedings by stressing the importance of an interdisciplinary approach to research to resolve global scientific and technical issues. And, recalling his own experience as the leader of Japan's efforts in the Human Genome Project, Sakaki encouraged participants to make an effort to try to understand the sometimes difficult concepts and terminology of other areas of research.

Highlights of AP-IRC 2011 included a first-hand account of the damage caused by the massive earthquake in March 2011 to experimental facilities at Tohoku University by Masayoshi Esashi; the fascinating world of bees and the inborn numerical competence of humans and animals, by Hans J Gross; research on robots and cognition-enabled technical systems at Technische Universität München by Sandra Hirche; the history of events leading to the invention of the world's strongest NdFeB magnet by Masato Sagawa; novel method for the synthesis of graphene using bacteria extracted from a riverside near Toyohashi Tech campus; and Hideomi Koinuma described ambitious plans on harvesting energy by laying massive numbers of solar cells in North Africa as part of the "Sahara Solar Breeder (SSB) Plan" for global clean energy superhighway.

In addition to the technical sessions, the conference banquet included a short session during which the invited speakers described notable trends in research and policy in their part of the world. The short speeches led to animated discussion between the delegates, especially young scientists and graduate students, who were able to talk directly with veteran researchers for a first-hand view of the issues raised during the day's presentations. Refereed papers will be published in the Journal of Physics Conference Series.