## Interdisciplinary Research And Global Outlook

Organized by the University of Electro-Communications Tokyo, Tokai University and Toyohashi University of Technology

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

# 1 - 2 November 2017

technological challenges University of Electro-Communications, or a sustainable society" Chofu City, Tokyo

# Challenges in Materials Science

Special evening session and banquet on 1 November 2017: "AAAS *Science* Meeting 2017"(Keio Plaza Hotel, Shinjuku, 19:00 $^\sim$  )

#### Core areas covered by the invited speakers in this year's conference:

polymeric nanoparticles for optoelectronic devices; materials for food science; piezoelectric and thermoelectric materials; carbon composites; Maglev and superconductors; "cyborg insect"; superfluid confinement in one-dimensional nanotubes; modern production of silk; micro-pH sensors; smart temperature gradients; bibliometric analysis of trends in materials science.

Abstract submission and registration starts on 1st August 2017

Deadline of Abstract submission: 31 August 2017 12 September 2017

**Publication:** Refereed papers will be published in American Institute of Physics (AIP) Conference Proceedings **Invited speakers (tentative):** 

Silvia Destri (Istituto per lo Studio delle Macromolecole (ISMAC-CNR), Italy):

"Polymers and Water Processed Polymeric Nanoparticles as Materials for Solution Manufacturing of Optoelectronic and Electronic Devices"

**Hiroshi Konno** (Akita Konno Co., Ltd., Japan): "A Secret and Sophisticated Japanese Food Tradition, Koji" **Jing-Feng Li** (Tsinghua University, China): "New Piezoelectric and Thermoelectric Materials" **Hiroyuki Muto** (Toyohashi University of Technology, Japan):

"Novel Fabrication Process of Advanced Composite Materials via Electrostatic Adsorption Assembly Technique"

Ken Nagashima (Railway Technical Research Institute, Japan): "Maglev and Superconducting Technology"

Ian S. Osborne (Science Magazine, UK): "Publishing in Science – from the inside out"

**Hirotaka Sato** (Nanyang Technological University, Singapore): "CYBORG INSECT: Insect-Computer Hybrid Machine for Flight and Walking Control"

Junko Taniguchi (University of Electro-Communications, Japan):

"Novel Superfluid Response of 4He Confined in One-Dimensional Nanotube"

Shuichiro Tomita (National Agriculture and Food Research Organization, Japan):

"Production of the Cocoons Containing Recombinant Silks: Regulation and Realization"

Kazuyoshi Tsuchiya (Tokai University, Japan):

"Fabrication of PZT Thin Film Actuator and Microneedle pH Sensor by RF Magnetron Sputtering Method"

Simone Wiegand (Forschungszentrum Jülich GmbH, Germany): "Towards Smart Applications Using Temperature Gradients"

Shu Yamaguchi (University of Tokyo, Japan): "Oxide Surface Protonics: Proton Activity on Hydrated Oxide Surface"

Fumitaka Yanagisawa (Clarivate Analytics, Japan):

"Interdisciplinary Research Around Material Sciences: Trend From Bibliometric Analysis"

#### **Graduate Student Session:**

The Graduate Student Session provides a platform for graduate students to present their research to experts in their fields. Talks are assessed by the audience and an AWARD will be presented to the best presentation.

**Enquires:** secretariat@iragoconference.jp













#### The Irago Conference:

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.

The objective of this conference is to provide 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 view of the major issues facing scientists and engineers of the 21st century.



Conference photo of The Irago Conference 2016 in **Chofu**, Tokvo

#### Invited Speakers(tentative):



Silvia Destri (Istituto per lo Studio delle Macromolecole (ISMAC-CNR), Italy) "Polymers and Water Processed Polymeric Nanoparticles as Materials for Solution Manufacturing of Optoelectronic and Electronic Devices"



Hiroshi Konno (Akita Konno Co., Ltd., Japan)

"A Secret and Sophisticated



Jing-Feng Li (Tsinghua University, China)

"New Piezoelectric and Thermoelectric Materials"



Hiroyuki Muto (Toyohashi University of Technology, Japan) "Novel Fabrication Process of Advanced Composite Materials via Electrostatic



Ken Nagashima (Railway Technical Research Institute, Japan) "Maglev and Superconducting Technology"



Ian S. Osborne (Science Magazine, UK)

"Publishing in Science – from the inside out"



Hirotaka Sato (Nanyang Technological University, Singapore) "CYBORG INSECT: Insect-Computer Hybrid Machine for Flight and Walking Control"



Junko Taniguchi (University of Electro-Communications, Japan)

"Novel Superfluid Response of 4He Confined in One-Dimensional Nanotube"



**Shuichiro Tomita** (National Agriculture and Food Research Organization, Japan)

"Production of the Cocoons Containing Recombinant Silks: Regulation and Realization"



Kazuyoshi Tsuchiya (Tokai University, Japan)

"Fabrication of PZT Thin Film Actuator and Microneedle pH Sensor by RF Magnetron Sputtering Method"



Simone Wiegand

(Forschungszentrum Jülich GmbH, Germany)

"Towards Smart Applications Using Temperature Gradients"





Shu Yamaguchi (University of Tokyo, Japan) "Oxide Surface Protonics: Proton Activity on Hydrated



Fumitaka Yanagisawa (Clarivate Analytics, Japan) "Interdisciplinary Research Around Material Sciences: Trend

From Bibliometric Analysis"



Registration fee:

3,000 JPY (students) / 20,000 JPY (others) for early-bird registration by 11th October 2017 7,000 JPY (students) / 25,000 JPY (others) for regular registration

Oxide Surfacé"

#### Venue:

Regular Day Sessions:

Auditorium, The University of Electro-Communications, 1-5-1 Chofugaoka, Chofu, Tokyo 182-8585, Japan

Evening Session on 1st November 2017: Shinjuku Keio Plaza Hotel, 2-2-1 Nishi-Shinjuku, Shinjuku-Ku, Tokyo 160-8330 Japan

### Evening Session (including banquet) on 1st November 2017 participation fee:

1,000 JPY (students)/ 4,000 JPY (others)

### **Enquires:**

