1st International Conference on Advanced Photonic Polymers

ICAPP 2011

Greeting

Japan was greatly damaged by the Great East Japan earthquake on March 11, 2011. This conference, through the experience from this disaster, was established under the unifying desire of how we can contribute to Japan's recovery with photonics polymers. Japan has led the world by laying out optical communication network. However, family and friends were not able to communicate with each other for a long period of time during the disaster, which fully made us realize the fear of natural disaster, the importance of the early recovery of information infrastructure, and the necessity of establishing an information-sharing network/system between each individual.

In this conference, we would like to propose photonic innovation in order to materialize "a society where individuals interact with each other", what we yearn for through our experience of this disaster. We will seek for specific measures at this conference that will lead to Japan's recovery, by introducing cutting-edge technologies working together with 30 researchers of photonic field representing the world who supports this purport. Also, at the special session held in the afternoon of the second day, we invite key players from all fields of industry-government-academia and discuss the cross-industry collaboration in order to establish an infrastructure focusing on photonics polymers. We will also systemize its challenges and each element technology, and discuss the approach on research development hereafter towards industry's creation.

Chair, Yasuhiro Koike

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1st International Conference on Advanced Photonic Polymers

~Reconstruction of Japan from 3.11 Tragedy by "Photonics Innovation"~

http://icapp2011.simon-dozac.net/

Cosponsored by FIRST Program of Cabinet Office of Japan/ Japan Society for the Promotion of Science (JSPS) and S-Innovation Program of Japan Science and Technology Agency (JST)

Organized by: ICAPP2011 Organizing Committee Supported by: The Society of Polymer Science

> The Chemistry Society of Japan The Japan Society of Applied Physics

The Institute of Electronics, Information and Communication Engineers (IEICE)

Optical Society of Japan

Optoelectronics Industry and Technology Development Association (OITDA)

Date: December 1 (Thu.) 9:00-19:00

December 2 (Fri.) 9:00-17:20

Venue: 3rd floor, Conference Center, Pacifico Yokohama

http://www.pacifico.co.jp/english/index.html

Admission: Free of charge

Registration: ICAPP2011 Website http://icapp2011.simon-dozac.net/

Contact: ICAPP2011 Organizing Committee/Secretariat

E-mail: icapp2011@kpri.keio.ac.jp

ICAPP 2011 Organizing Committee

Chair: Yasuhiro Koike, FIRST Core Researcher, Professor, Keio University

Co-Chair: Seizo Miyata, Program Officer of S-Innovation, Professor, Tokyo Institute of Technology Secretary General: Toshikuni Kaino, Professor Emeritus, Tohoku University, Professor, University of **Electro-Communications**

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Nobuyuki Kawai (Keio University)

Program:

Dec. 1(Thu.) 9:00~19:00, Dec. 2 (Fri.) 9:00~17:20

Greeting Message:



Michiharu Nakamura (President, Japan Science and Technology Agency)

Special Remarks:



(Vice Provost of Entrepreneurship, Kingslake Professor, Optical Engineering, Professor, Business Administration, University of Rochester)

Plenary Talks: "Benefits of Telecommunication Technology in Applied Optical Spectroscopy"



Sune Svanberg

Duncan T. Moore

(Professor, Lund Laser Center, Lund University, Sweden and Center for Optics and Electromagnetic Research, South China Normal University, Guangzhou, China, Former Chairman of Nobel Prize Committee in Physics)

"Status of Photonics Polymer toward Face-to-Face Communication"



Yasuhiro Koike (FIRST Program Core Researcher, Professor, Keio University)

Special Guest Lectures by FIRST Program Core Researchers:

"Development of Next Generation Organic Photovoltaics"



Hiroshi Segawa

(Professor, Research Center for Advanced Science and Technology, The University of Tokyo)

"Novel Concept Organic Light Emitting Devices"



Chihaya Adachi
(Professor, Department of Applied Chemistry, Faculty of Engineering, Kyushu University)

Technical Sessions:

- (1) Active Polymers
- (2) Polymers for Communication 1
- (3) Nano-fibers & Nano-related Polymers
- (4) Polymers for Communication 2
- (5) Advanced Photonic Materials
- (6) Photonic Functions & Devices

Poster Sessions:

ICAPP 2011

Invited Speakers

Chen, Ray T. The University of Texas, USA

Fukuda, Takashi National Institute of Advanced Industrial Science and Technology, Japan

Ghosh, Saikat S. N. Bose National Centre for Basic Sciences, India

Hakuta, Kohzo University of Electro-Communications, Japan

Hidayat, Rahmat Institut Teknologi Bandung, Indonesia

Kajzar, Francois University POLITEHNICA of Bucharest, Romania

Khoo, I. C. The Pennsylvania State University, USA

Kim, Eunkyong Yonsei University, South Korea
Kim, Tae-Dong Hannam University, South Korea

Kobayashi, Takayoshi University of Electro-Communications, Japan Koonen, A.M.J. (Ton) Eindhoven University of Technology, Netherlands

Lee, Charles YC Air Force Office of Scientific Research, USA

Lee, El-Hang Inha University, South Korea
Lee, Kwang-Sup Hannam University, South Korea

Nunzi, Jean-Michel Queen's University, Canada

Okamoto, Yoshiyuki Polytechnic Institute of New York University, USA

Park, Soo Young Seoul National University, South Korea Ralph, Stephen E. Georgia Institute of Technology, USA

RĀU, Ileana University POLITEHNICA of Bucharest, Romania

Sugihara, Okihiro Tohoku University, Japan Tagaya, Akihiro Keio University, Japan

Tang, Ben Zhong The Hong Kong University of Science & Technology, P.R.China

Toma, Tetsuya Keio University, Japan

Tong, Limin Zhejiang University, P. R. China

Tsutsumi, Naoto Kyoto Institute of Technology, Japan

Umegaki, Shinsuke Utsunomiya University, Japan

Watanabe, Junji Tokyo Institute of Technology, Japan

Xiao, Yun-Feng Peking University, P. R. China

Yong, Ken-Tye Nanyang Technological University, Singapore

Ziemann, Olaf POF AC, University of Applied Sciences Nuremberg, Germany

Zubia, Joseba University of the Basque Country, Spain

Special Session (with Japanese-English simultaneous interpretation)

Dec. 2(Fri.), 14:00-17:20

1. Introduction:



"Towards Reconstruction of Japan based on Information Industry Supported by Photonics Innovation" Seizo Miyata (Professor, Tokyo Institute of Technology, Program Officer, JST S-Innovation Program)

2. Greeting:



Masuo Aizawa (Executive Member, Council for Science and Technology Policy Cabinet Office, JAPAN)

3. Special Talk: Expectation from Industry



"Creation of Novel Industry by Innovation" Kakutaro Kitashiro (Senior Advisor, Japan IBM)

4. Special Talk: Photonics Innovation from International Society



"Laser Spectroscopy in the Detection and Treatment of Human Malignancies"

Katarina Svanberg (President of SPIE, Professor, Department of Oncology, Lund University Hospital,
Lund University and Lund University Medical Laser Centre)

5. Panel Discussion I: Discussion and Proposals by Photonics Polymer Academia



Moderator: Toshikuni Kaino (Secretary General, Professor Emeritus, Tohoku University, Professor, University of Electro-Communications)

Panelists: Session Chairs

Panel Discussion II: System Integration and Realization towards High-Speed Information Society and Creation of New Industry

Moderator: Seizo Miyata (Professor, Tokyo Institute of Technology)
Panelists:



Motoyuki li (SVP Plant Planning Department, Network Business Headquarters, Nippon Telegraph and Telephone East Corporation)



Hiroto Izumi (Secretary General Regional Revitalization Bureau Cabinet Secretariat, Visiting Professor Keio University, Visiting Professor National Graduate Institute for Policy Studies)





Osamu Sawada (Chairman, Net One Systems)

Yasuhiro Koike (Professor, Keio University)





ICAPP2011 Program at 3rd floor, Conference Center, Pacifico Yokohama

Dec.1 (Thu.)

Dec.2 (Fri.)

| 9:00 - | , , , , , , , , , , , , , , , , , , , | | 9:00- | | | |
|---------|---|-------------------------------------|--------|--|-------------------------------------|--|
| 9.00 | Opening | Room:301-302 | 9.00 | Room:303 | Room:304 | |
| | Greeting: Michiharu Nakamura (JST) | | | | | |
| 9:30 – | Special Remarks: Duncan T. Moore (Univ. Rochester) | | | | | |
| 5.50 | Plenary Talks | Room:301-302 | | (5) Advanced Photonic | (6) Photonic Functions | |
| 10:20 | Sune Svanberg (Lund Univ., Former Chairman of Nobel Prize Committee in Physics) Yasuhiro Koike (FIRST Core Researcher, Professor, Keio Univ.) | | | Materials | & Devices | |
| | Coffee Break | | 40.55 | Coffee Break | | |
| 10.45 - | Room:303 | Room:304 | 10:55- | Room:303 | Room:304 | |
| | (1) Active Polymers | (2) Polymers for Communication 1 | | (5) Advanced Photonic Materials | (6) Photonic Functions & Devices | |
| 12:45 | What is the solution? | | - | What is the solution ? | What is the solution ? | |
| 12:45 - | lunch | | 12:30- | lunch | | |
| 14:00 – | Room:303 Room:304 | | 14:00- | 14:00 | | |
| | (3)Nano-fibers & Nano-related Polymers | (4)Polymers for Communication 2 | | 1.Introduction Seizo Miyata (Co-chair) 2.Greeting Masuo Aizawa (Executive Member, Council for Science and Technology Policy) 3.Special Talks Kakutaro Kitashiro (Senior Advisor, IBM Japan) Katarina Svanberg (President of SPIE, Professor, Lund Univ. and Lund Univ. Hospital) 4.Panel Discussion 1: | | |
| Ī | What is the solution ? | What is the solution ? | | "Discussion and Propo | | |
| 16:20 - | Coffee Break | | | | | |
| . 0.20 | Special Guest Lectures by FIRST Program Core Researchers Hiroshi Segawa (Tokyo Univ.) Chihaya Adachi (Kyushu Univ.) | | | | | |
| 17:30 - | Break | | | | | |
| | Poster Session P1: Active Polymers P2: Polymers for Commu P3: Nano-fibers & Nano-r P4: Advanced Photonic N P5: Photonic Functions & | 17:20- | | | | |
| 19:00 - | | | _ | Closing Remarks | Room:301-302 | |

Contact: ICAPP2011 Organizing Committee http://icapp2011.simon-dozac.net/

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Access from the nearest stations:

- 3-minute walk from Minato Mirai Station (Minato Mirai Line) From Sakuragicho Station (JR or Subway): 12-minute walk, 7 minutes by bus or 5 minutes by taxi
- From Yokohama Station: 7minutes by taxi or 10 minutes by Sea Bass (boat) http://www.pacifico.co.jp/visitor/accessmap.html