

The 19th International Micromachine Nanotech Symposium

July 3, 2013 East Hall 2, Nano Micro Biz 2013, Seminar Room

Chair: Prof. Isao Shimoyama, University of Tokyo,
International Exchange Committee Chair-MEMS Industry Forum

250 participants

Now and the Future of Structure Challenging Sensor Network System(Social Infrastructure, Medical Use, Agriculture)

Keynote 1 & 2 Sensor Network System leads the Social Change

(1) Smart Autonomous Systems Enabled by Zero Power Technologies - the Guardian Angels for a Smarter Life vision



Prof. Adrian M. Ionescu

Prof. Adrian M. Ionescu
Nano Devices Laboratory, Ecole Polytechnique Federale de Lausanne, Switzerland

One of topics was "Zero power solution of the sensor system: Energy harvesting and the ultra-low power solutions will be important"

(2) Sensor Network System for Quality of Future Society

Prof. Isao Shimoyama University of Tokyo Japan

One of topics was "Drastic change in economic activities will be happen in the super-aging society."



Prof. Isao Shimoyama



Picture of venue

Session 1 Now and the Future of Sensor Network System in Social Infrastructure

(1) The Importance of Maintenance in the Social Infrastructure (Bridges, Roads and so on) and Expectation to Sensors

Prof. Yozo Fujino
Department of Civil Engineering,
University of Tokyo, Japan

One of topics was “The necessity of the infrastructure monitoring using embedded sensor will be important”



Prof. Yozo Fujino

(2) Sensor Cluster for Public

Prof. Albert P. Pisano
Berkeley Sensor & Actuator Center
University of California, Berkeley, USA

One of topics was “The necessity of the Environmental-durable-sensor devices will be important; and one of the applications is a Geothermal power generation ”



Prof. Albert P. Pisano

Session 2 Now and the Future of Sensor Network System in Medical Use and Healthcare

(1) 24-hr monitoring system of human hemodynamics: Clinical Implication and Perspectives

Prof. Kazuomi Kario
Jichi Medical University, Japan

One of topics was “The full-time monitoring of the blood pressure is necessity for the diagnosis of the human circulatory organ”



Prof. Kazuomi Kario

(2) MEMS and Sensors: Some Expected Trends in Medical and Quality-of-life Applications

Dr. André ROUZAUD
Deputy VP for Microsystems and 3D Integration,
Silicon Components Division, CEA-Leti, France

One of topics was “LETI have been developing so many devices for the medical applications such as drug delivery system and real time in-vitro monitoring devices.



Dr. André ROUZAUD

Session 3 Now and the Future of Sensor Network System in Agriculture

(1) Sensors and sensor networks in high-tech horticulture(plant factory) in the Netherlands



Dr. Paul op den Brouw

**Dr. Paul op den Brouw,
Counsellor Science and Technology,
Embassy of the Kingdom of the Netherlands**

One of topics was “Outstanding activity of the engineering And IT agriculture employing so many sensor devices, the Management system and software are also Important”

(2) The Utility of a Massive Scale Sensor Network in the Stock-Breeding Industry

**Dr. Eng. Toshihiro Itoh,
Deputy Director National Institute of Advanced
Industrial Science and Technology, Japan**

One of topics was “The necessity of the real-time monitoring Of the animals is so important for the the Stock-Breeding Industry to monitor the animals”



Dr. Eng. Toshihiro Itoh