

# Activities of the MEMS Industry Forum

## 1. Overview of Plans for MicroNano 2011

The micromachine exposition MicroNano 2011 (including the Exhibition Micromachine/MEMS and concurrent events) will be held at Tokyo Big Sight on July 13–15, 2011. Preparations for the event are being undertaken jointly by the Micromachine Center (MMC), which is sponsoring the event, and the organizer Mesago Messe Frankfurt Corporation.

We are pleased to note that attendance for MicroNano 2010 returned to its original trend of growth, due in part to improvements in the economic climate and the addition of ROBOTECH, an exhibition on manufacturing technologies for service robots utilizing MEMS sensors.

With the proliferation of fabless and fab-lite business models, the MEMS Industry Forum (MIF) is working on improving the convenience for visitors to MicroNano 2011 through effective zoning, e.g., providing a MEMS outsourcing zone for foundry services and analytical outsourcing, and a zone for sensor networks, which are anticipated to improve energy management and the safety and security of a company's infrastructure. In addition, we are discussing plans to accommodate diverse interests through a wider variety of symposiums, seminars, and other concurrent events.

The MIF is also working on plans to provide the most valuable technical information, business information, and business opportunities in one location for exhibitors and visitors. Please consider participating in MicroNano 2011 as an exhibitor or visitor. This event is not to be missed!

## 2. Program for Human Resources Development: "Micro/Nano Innovator"

The "Micro/Nano Innovator" program for human resources development is a nationwide, self-reliant program being developed under the Committee for the Promotion of Human Resources Development newly established this year, in cooperation with the National Institute of Industrial Science and Technology (AIST) and the Kitakyushu Foundation for the Advancement of Industry, Science and Technology (FAIS), among others. The MMC has conducted various training courses for this program, including "Advanced applications course: the 15<sup>th</sup> MEMS Seminar" held in October, "Introductory course on MemsONE" held in November, and "Techniques for promoting MEMS commercialization" held in December. All of the courses were extremely popular, indicating high interest in the field of MEMS and a persistent need for MEMS human resource development.



15<sup>th</sup> MEMS Forum



Course on techniques for promoting MEMS commercialization

## 3. Formation of the Tsukuba Innovation Arena NMEMS

Formation of the Tsukuba Innovation Arena NMEMS (TIA-NMEMS) at AIST Tsukuba is an endeavor aimed at the

promotion of advanced research requiring a high capital investment that individual companies generally cannot afford, and the enhancement of design and trial production capabilities needed for pioneering MEMS applications. The MEMS Industry Forum (MIF) established the Investigative Committee for a Micro/Nano Open Innovation Center (MNOIC) to consider an organization and implementation schedule for best utilizing TIA-NMEMS.

After a fourth council meeting, the 2<sup>nd</sup> MNOIC Investigative Committee meeting was held in December. The meeting was filled with lively discussion on such topics as how to arrange participation by each company and how best to implement the center, including lab tours of the advanced 8-inch and 12-inch MEMS-related equipment being installed in clean rooms by the G-devices program and the Funding Program for World-Leading Innovative R&D on Science and Technology. The MNOIC Investigative Committee also serves as the TIA-NMEMS Working Group, one of eight working groups established under the Executive Council for promoting TIA-NMEMS.



2<sup>nd</sup> MNOIC Investigative Committee meeting



Installing state-of-the-art equipment

## 4. International Exchange: a Survey on MEMS Industrial Trends in North America

In early November, the MIF dispatched a mission led by Isao Shimoyama, professor at the University of Tokyo, to North America in order to ascertain trends in the MEMS industry. The group visited seven MEMS-related companies and participated in the MEMS Executive Congress organized by America's MEMS Industry Group (MIG).

The group came away with an overall impression that the consumer market in North America has become saturated with accelerometers and other sensors, and that venture companies and other businesses are working vigorously at developing products for the next promising market amid declining prices and fierce competition. There were also many sensor network and high-frequency applications for smartphones, and medical applications emphasizing performance and function over cost. It was quite clear that the market in North America develops dynamically, with existing major companies and venture companies sometimes collaborating and sometimes competing.



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Dalsa Semiconductor, Bromont, Quebec (Canada)