

## 2. Overview of concurrent conferences

### ◆ The 14<sup>th</sup> International Micromachine / Nanotech Symposium

#### (1) Purpose

The International Micromachine / Nanotech Symposium is held to promote the growth of MEMS related industries and improve the international competitiveness of the key components manufactured in Japan. The symposium includes the exchange of information with micromachine and nanotech researchers who are promoting research and development on the front lines of leading-edge technical fields both at home and abroad, and it also provides MEMS researchers from Japan and overseas countries with the latest information and a venue for discussion. The theme of the 14<sup>th</sup> International Micromachine / Nanotech Symposium is "Technology Convergence MEMS: LSI, Nano and Bio," and features issues such as LSI/MEMS integration efforts and their application and next-generation BEANS process technologies and the prospects for these technologies.

#### (2) Program

### The 14<sup>th</sup> International Micromachine / Nanotech Symposium – International Exhibition focusing on MEMS, Nanotechnology, Ultraprecision / Microfabrication and Biotechnology –

Date & Time: July 29, 2008 (Tuesday) 10:00 a.m. - 6:10 p.m.

Venue: Tokyo Bay Ariake Washington Hotel (Iris Banquet Hall)

Sponsor: Micromachine Center

Support (planned): Ministry of Economy, Trade and Industry (METI), New Energy and Industrial Technology Development Organization (NEDO)

Cooperation (planned): The Japan Machinery Federation / Japan Robot Association / Japan Analytical Instruments Manufacturers Association

	Opening	Chair: Keiichi Aoyagi, Micromachine Center
10 : 00 - 10 : 05	Opening Remarks	Tamotsu Nomakuchi, Micromachine Center
10 : 05 - 10 : 10	Guest Speech	Takeshi Yoneyama, Industrial Machinery Division, Manufacturing Industries Bureau, METI
<b>Keynote Session</b>	<b>Technology Convergence on MEMS</b>	<b>Chair: Hiroyuki Fujita, The University of Tokyo</b>
10 : 10 - 10 : 55	MEMS Industrialization Perspective in Japan	Hidetoshi Kotera, Kyoto University
10 : 55 - 11 : 40	Integrated Micro/nanosystems - Technology and Applications	Roger T. Howe, Stanford University
11 : 40 - 12 : 40	Lunch	
<b>Session 1</b>	<b>MEMS LSI Integration</b>	<b>Chair: Seiji Samukawa, Tohoku University</b>
12 : 40 - 13 : 10	CMOS/MEMS Integration from Foundry Standpoint	Albert Chang, Asia Pacific Microsystems (APM)
13 : 10 - 13 : 40	MEMS and CMOS - Cooperation and Integration	Yoshiaki Toyoshima, Toshiba Corp.
13 : 40 - 14 : 10	Opportunities and Challenges for MEMS at 200 mm	Wilbur Catabay, Silicon Valley Technology Center
14 : 10 - 14 : 40	"FineMEMS" Project: Highly Integrated and Complex MEMS	Susumu Sugiyama, Ritsumeikan University
14 : 40 - 14 : 50	Break	
<b>Session 2</b>	<b>MEMS Emerging Applications</b>	<b>Chair: Kazuyoshi Furuta, Seiko Instruments</b>
14 : 50 - 15 : 20	Emerging Micro / Nano Applications from Euro	Uwe Kleinkes, IVAM
15 : 20 - 15 : 50	MEMS MEMS Microphone and 8 inch manufacturing	Yoshio Sekiguchi, Omron Corp.
15 : 50 - 16 : 20	MEMS Applications on Biotechnology and Sensing	Ryo Ota, Olympus Corp.
16 : 20 - 16 : 30	Break	
<b>Session 3</b>	<b>Emerging Technology -- BEANS</b>	<b>Chair: Takashi Usuda, AIST</b>
16 : 30 - 17 : 00	MEMS and innovative nano-patterning	Jouni Ahopelto, VTT
17 : 00 - 17 : 30	Nano-structure Design Using Protein	Ichiro Yamashita, Matsushita Electric Industrial
17 : 30 - 18 : 00	Realizing High Efficiency Overcoming the Material Limitation in Thermoelectric Power Generation Using Nano-structure	Koji Miyazaki, Kyushu Institute of Technology
<b>Closing</b>		
18 : 00 - 18 : 10	Closing Remarks	Keiichi Aoyagi, Micromachine Center

### ◆ Japanese-German Micro / Nano Business Forum

#### (1) Purpose

The Japanese-German Micro/Nano Business Forum has been held annually in Japan since 2003. This year's forum, the sixth, will be held for the first time concurrently with and within the same venue as the Micromachine/MEMS Exhibition. The forum is sponsored by the IVAM Microtechnology Network, an organization set up in 1993 in the North Rhine-Westphalia (NRW) province of Germany with the objective of promoting networking among small and medium-sized microtechnology companies. The forum introduces state-of-the-art technical developments in Japan and Germany, two countries that lead the world in the microtechnology field.

#### (2) Program

### Japanese-German Micro / Nano Business Forum

Date & Time: July 30, 2008 (Wednesday) 10:30 a.m. - 5:00 p.m.

Venue: Tokyo Big Sight (Tokyo International Exhibition Center, West Hall 1)

19<sup>th</sup> Exhibition Micromachine/MEMS special venue

Sponsor: IVAM Microtechnology Network

Cosponsor: Micromachine Center / MEMS Industry Forum

(Attendance free / Simultaneous interpretation provided)

Opening (Registration Starts 10:30 -)	
10 : 45 - 11 : 00	Opening Remarks
<b>Session 1</b>	<b>Solutions for Production of Microsystems</b>
11 : 00 - 11 : 20	Electrical vias for multi-stack MEMS and packaging issues Michael Schilling, Plan Optik AG (Germany)
11 : 20 - 11 : 40	Equipment Solutions for Automatic Assembly of Microsystems Manfred Glantschnik, Datacon Technologies (Austria)
11 : 40 - 12 : 00	Micro machining system for cutting and laser processing Naoki Iwamura, Leybold Co., Ltd. (Japan) / Kugler GmbH (Germany)
12 : 00 - 13 : 00	Lunch
<b>Session 2</b>	<b>Business development for Micro and Nano</b>
13 : 00 - 13 : 40	Innovations for industry- market chances for micro and nano in Europe Dr. Uwe Kleinkes, IVAM Microtechnology Network (Germany)
13 : 40 - 14 : 00	Technology Transfer Europe-Japan Dr. Robert Harrison, 24IP LAW GROUP Sonnenberg Fortmann (Germany)
14 : 00 - 14 : 20	MEMS Industry Forum plays a key role of technology and business development on microtechnology in cooperation with the academia and the government Junji Adachi, Micromachine Center
14 : 20 - 14 : 40	- to be announced - Dr. Heiko Kopf, MST. factory Dortmund (Germany)
14 : 40 - 15 : 00	Break
15 : 00 - 15 : 20	- to be announced -
<b>Session 3</b>	<b>Innovation in Measuring and Analysis</b>
15 : 20 - 15 : 40	- to be announced -
15 : 40 - 16 : 00	Optical 3D Surface Measurement Tools for Micro Production Heinz-Peter Hippler, NanoFocus AG (Germany)
16 : 00 - 16 : 20	Complex Miniaturized Analysis System for Nuclear Magnetic Resonance Spectroscopy Stefan Leidich, Fraunhofer IZM (Germany)
<b>Closing</b>	
16 : 20 - 16 : 40	Towards successful MEMS business by open collaboration Prof. Masayoshi Esashi, Tohoku University
16 : 40 - 17 : 00	Q & A