

**April 30 (Tuesday)**

17:00 - 19:00

REGISTRATION and reception in the Golden Tulip Hotel

**May 1 (Wednesday)**

8:30 - 9:00

REGISTRATION AT VENUE

Maastricht Conference and Exhibition Centre (MECC)

(located next to Golden Tulip Hotel)

**8:48 - 9:00****OPENING**

Opening Remarks:

Prof. Albert van den Berg, University of Twente

9:00 - 12:30

**Session 1: Country/Region Review (including government policy, education and efforts of standardization)**

|               |               |   |
|---------------|---------------|---|
| 9:00 - 9:12   | USA           | Dr. Michael Gaitan, NIST  |
| 9:12 - 9:24   | UK            | Geoff Beardmore, Myriad-Technology, Cheltenham  |
| 9:24 - 9:36   | Taiwan        | MEMS in Taiwan: Year 2002 Status<br>Prof. Chih-Kung Lee, National Taiwan University, Taipei   |
| 9:36 - 9:48   | Switzerland   | Nico de Rooij, IMT, University of Neuchatel   |
| 9:48 - 10:00  | Singapore     | MEMS in Singapore: Year 2001-2002 Status,<br>Siak Piang Lim, National University of Singapore |
| 10:00 - 10:12 | Nordic        | Sami Franssila, Helsinki University of Technology, Finland                                    |
| 10:12 - 10:24 | Mediterranean | Paolo Dario, MiTech Lab, Scuola Superiore Sant'Anna, Pisa, Italy                              |
| 10:24 - 10:36 | Korea         | "National Nanotechnology Programs in Korea"<br>Young-Ho Cho, KAIST, Taejon                    |

**10:36 - 11:00****Coffee**

|               |           |   |
|---------------|-----------|---|
| 11:00 - 11:12 | Japan     | Mr. Takayuki Hirano<br>Executive Director, Micromachine Center, Tokyo   |
| 11:12 - 11:24 | Germany   | Jan Korvink, IMTEK, Albert-Ludwig University, Freiburg ( <i>cancelled, speaker not present</i> )  |
| 11:24 - 11:36 | France    | Emmanuel Bigler, Institut des Microtechniques de Franche-Comte, Besancon  |
| 11:36 - 11:48 | China     | MEMS development in China<br>Zhaoying Zhou, Tsinghua University, Beijing  |
| 11:48 - 12:00 | Canada    | Canadian Research, Technology, and Product Interests in Micromachining: An Update,<br>Dan Gale, Canadian Microelectronics Corporation, Queen's University, Kingston |
| 12:00 - 12:12 | Benelux   | Albert van den Berg, MESA <sup>+</sup> , University of Twente, Enschede, The Netherlands  |
| 12:12 - 12:24 | Australia | Ian Bates, RMIT University, Melbourne   |

**12:30 - 14:00****Lunch**

14:00 - 15:30

**Session 2: Fundamental Science and Technology of Nanotechnology**

|        |   |
|--------|---|
| 20 min | <b>“The National R &amp; D Strategy of Nanotechnology in Japan”</b> by Prof. Naomasa Nakajima, The University of the Air, Japan.  |
| 2min   | Discussion/Questions  |
| 20 min | <b>“Advanced Functional Materials Bridge the Nanotechnology-MST Divide”</b> by <b>D.M.Allen</b> , S.Dunn, P.Kirby and R.W.Whatmore, School of Industrial and Manufacturing Science, Cranfield University, Bedford MK43 0AL, UK. |
| 2min   | Discussion/Questions  |
| 20 min | <b>“From ULSI to Microsystems and Nanotechnology”</b> by G. Borghs, IMEC, Leuven, Belgium   |
| 2min   | Discussion/Questions  |
| 20 min | <b>“An Overview of Canada's National Institute for Nanotechnology”</b> by Dr. T. Jackman  |
| 2min   | Discussion/Questions  |

**15:30 – 16:00**

**Coffee**

16:00 - 17:06

**Session 3: Nanotechnology (continue)**

|        |   |
|--------|---|
| 20 min | <b>“Impact of nanotechnology on micromachines: a NTU Experience and Perspective”</b> (Author: <b>Prof. Shuo-Hung Chang</b> , Dr. Ming Shyong Lin, Prof. Chih-Kung Lee),   |
| 2min   | Discussion/Questions  |
| 20 min | <b>“Nanotechnology in Australia”</b> , Dr Chaffey   |
| 2min   | Discussion/Questions  |
| 20 min | <b>“Analysis of European activities in the semiconductor and MEMS fields”</b> by JC Eloy, Yole Développement, France<br><br><b>(“MINATEC, a major French initiative in research and technology transfer for micro and nanotechnologies”</b> , by C. Axelrad, CEA, France, <i>presented in Session 7</i> ) |
| 2min   | Discussion/Questions  |

17:10 - 17:50

**Session 4: Technology Transfer**

|        |  |
|--------|--|
| 18 min | <b>“MEMs Facility at the Canadian Light Source (CLS) Synchrotron”</b> , by Dr. David M. Klymyshyn, University of Saskatchewan and TRILabs Canada |
| 2min   | Questions  |
| 18 min | <b>“MEMS in a Si IC Environment”</b> by Raffaella Borzi  |
| 2min   | Questions  |

**18:15**

Departure to “Château Neercanne”

**19:00**

Banquet

**May 2 (Thursday)**

9:00 - 10:40

**Session 5: Strategies, new applications and technical aspects of micromachines**

|        |  |
|--------|--|
| 18 min | <b>“Industrial Strategy on Micromachine Development”</b> by Mr. Toshiro Shimoyama, Director, Supreme Advisor, OLYMPUS OPTICAL CO., LTD.  |
| 2 min  | Questions  |
| 18min  | <b>“Micromachine Strategy in Automotive Industry”</b> by Dr. Kunihiko Hara<br>Director of R & D, Board Members, DENSO CORPORATION.   |
| 2 min  | Questions  |
| 18 min | <b>“Agro-alimentary applications of Microsystems in Spain”</b> , Carles Cane,<br>Centro Nacional Microelectronica (CNM)  |
| 2 min  | Questions  |
| 18 min | <b>“Physical Characterization of foundry fabricated scratch drive actuators”</b> by Prof Deepak Uttamchandani, Microsystems Group,<br>Department of Electronic and Electrical Engineering, University of<br>Strathclyde, 204 George Street, Glasgow, Scotland, United Kingdom, G1<br>1XW |
| 2 min  | Questions  |
| 18 min | <b>“Research &amp; development of Microactuators”</b> by Prof. Beingchu Cai,<br>Shanghai Jiao Tang University, China   |
| 2 min  | Questions  |

**10:40 - 11:10**

**Coffee**

11:10 - 12:10

**Session 6 Micromachine applications in Chemistry and Biochemistry Lab-on-chip, Medical Devices and Diagnostics**

|        |   |
|--------|---|
| 18 min | <b>“Micro-Technologies and Health Care”</b> by Claude Clément   |
| 2 min  | Questions   |
| 18 min | <b>“The Biochip and Microfluidic Applications and Market”</b> , by JC Eloy,<br>Yole Développement, France ( <i>cancelled, speaker not present</i> ) |
| 2 min  | Questions   |
| 18 min | <b>“Micro Biomedical Diagnostic System for Endoscopic Microcapsule”</b> by<br>Jong-Oh PARK, Intelligent Microsystem Center, Seoul, Korea            |
| 2 min  | Questions   |

**12:10 – 14:00**

**Lunch**

14:00 - 15:40

**Session 7 Industrial Infrastructure**

|        |   |
|--------|---|
| 18 min | <b>“MEMSCAP : leader in MEMS-based innovative solutions”</b><br>by G. Menozzi, Memscap, France  |
| 2 min  | Questions   |
| 18 min | <b>“Applications of MEMS in Biotechnology, Automation, Semiconductor, Information Technology, and Communication - Taiwan Perspective”</b> by Prof. Fon-Shan Huang Yeh, National Tsing-Hua University, Hsinchu, Taiwan<br>( <i>presented by Prof. Chih-Kung Lee</i> )  |
| 2 min  | Questions   |
| 18 min | <b>“MINATEC, a major French initiative in research and technology transfer for micro and nanotechnologies”</b> , by C. Axelrad, CEA, France.<br><br><b> (“Analysis of European activities in the semiconductor and MEMS fields”</b> by JC Eloy, Yole Développement, France, <i>presented in session 2</i> ) |
| 2 min  | Questions   |
| 18 min | <b>“MEMS Industrialization : Current Issues and Future Perspective”</b> by Suk-Han LEE, Korea   |
| 2 min  | Questions   |
| 18 min | <b>“Effort for MEMS Industrialization in KOTEL, Inc”</b> , by Prof. Wendong Zhang, China  |
| 2 min  | Questions   |

15:40 – 16:20

**Session 8: Future Outlook**

|        |   |
|--------|---|
| 18 min | <b>Microsystems and <a href="#">Micro@Nano-Technologies</a> in Framework Programme 6-IST: “Go small, think big”</b> by D. Beernaert |
| 2 min  | Questions   |
| 18 min | <b>“NEXUS &amp; EURIMUS : their role in the future 6FWP-Part 1/Part 2”</b> , by G. Menozzi, Memscap                                 |
| 2 min  | Questions   |

16:20 -16:45

**Overall Discussion**

Chairman’s Summary and Closing of the Sessions

16:45

Departure to “Rederij Stiphout”

17:00 - 21:30

Dinner cruise on the River Maas

**May 3 (Friday)**

**Technical Tour to IMEC/MESA<sup>+</sup>**

9:30

Departure to Leuven (IMEC)/ Enschede (MESA<sup>+</sup>)

approx. 16:30

End of official Program