# IMAPS Nordic 2008 Programme rev.4

Hotel Marienlyst
Helsingør - September 14 – 16

## Sunday 14 September

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|---|---|---|
| 14:00 – 18:00 | Tutorial 1<br><br>**LTCC for Micro- and Millimetre-Wave Applications**<br>Peter Uhlig, IMST, Germany | |
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| 16:00 – 19:00 | **REGISTRATION** |

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| **19:30 – 21:30** | **Cocktail Party for all** |

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## Monday 15 September

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|---|---|---|
| **08:00 – 18:30** | **REGISTRATION** | |

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| **09:00 – 09:45** | **COFFEE** |

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| 09:45 – 12:00 | **Opening Session MA-1** | Søren Nørlyng |
| 10:00 - 10:30 | **Keynote1: Erik V. Thomsen, MIC – Department of Micro and Nanotechnology, DTU, Denmark**<br>Micro and nano engineering activities in Denmark | |
| 10:30 - 11:00 | **Keynote2: Andy Longford, PandA Europe, UK**<br>Micro-Nano Systems: Future R&D and new challenges for Europe | |
| 11:00 - 11:30 | Exhibitors' Presentations, one single minute each | |
| **11:30 – 12:15** | **IMAPS-NORDIC ANNUAL MEETING** | |
| **12:15 – 13:30** | **LUNCH** | |

| **MP-A1: 3D, SIP, TSV** | | | **MP-B1: Reliability** | |
|---|---|---|---|---|
| TIME | CHAIR | | TIME | CHAIR |
| 13:30 – 13:55 | **3D package technology integration**<br>KC Yee, ASE, Taiwan. (Invited speech) | | 13:30 – 13:55 | **Electronics in high pressure application. A reliability study**<br>Rolf Johannessen, SINTEF, Norway |
| 13:55 – 14:20 | **Market and technology trends for 3D ICs**<br>JC Eloy, Yole Devéloppement, France | | 13:55 – 14:20 | **A novel test method to evaluate mechanical shock reliability**<br>Jussi Hokka, Helsinki University of Technology, Finland |
| 14:20 – 14:45 | **TSV – a key technology for 3D system integration**<br>Jürgen Wolf, FhG-IZM, Germany | | 14:20 – 14:45 | **The reliability of solder interconnections under cyclic thermal and mechanical shock loading**<br>Toni Mattila, Helsinki University of Technology |
| 14:45 – 15:10 | **Options for low cost through-silicon interconnect**<br>Fred Roozeboom[1], Eric van Grunsven[2], [1]NXP, [2]Philips, The Netherlands | | 14:45 – 15:10 | **Acceleration Factors for Lead Free Solder Materials**<br>Olli Salmela, Nokia Siemens Networks, Finland |
| **15:10 – 16:10** | **COFFEE & TIME FOR EXHIBITION** | | | |

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| MP-A2: Flip chip & Bumping | | | MP-B2: MEMS, sensors & sensor packaging | |
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| TIME | CHAIR | | TIME | CHAIR |
| 16:10 – 16:35 | **An overview of flip chip joining technologies and related materials**<br>Søren Nørlyng, MICRONSULT, Denmark | | 16:10 – 16:35 | **Packaged multi sensor system for fisheries research: new test methods of package**<br>Karen Birkelund, DTU Nanotech, Denmark |
| 16:35 – 17:00 | **Low temperature Au-Au flip chip interconnections**<br>Barbara Pahl, FhG-IZM, Germany | | 16:35 – 17:00 | **The theory of a thin electret (MEMS) speaker**<br>Eino Jakku, Perlos, Finland |
| 17:00 – 17:25 | **New flip chip technology**<br>Reinhard Windemuth, Panasonic, Germany | | 17:00 – 17:25 | **Water penetration study for a wireless 3D electronic patch**<br>Jakob Janting, DELTA Danish Electronics, Light & Acoustics, Denmark |
| 17:25 – 17:50 | **Lead-free WLCSP solder bumps on ENIG & ENEP(G) UBM – a comparison of intermetallic properties using high speed pull test**<br>Thomas Oppert, Pac Tech, Germany | | 17:25 – 17:50 | **MEMS sensor packaging**<br>Per-Erik Fägerman, Mandalon, Sweden |
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| **19:30 –** | **BANQUET DINNER** | | | |

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## Tuesday 16 September

| TA-A1: Ceramics technologies | | TA-B1: Design & Simulation | |
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| TIME | CHAIR | TIME | CHAIR |
| 08:30 – 08:55 | **PZT thick film for integrated and miniaturised devices on silicon, LTCC and other substrates**<br>Rasmus Lou-Møller, InSensor, Denmark | 08:30 – 08:55 | **An experimental investigation of diffusion within electroplated lead-free solder alloy stacks combining elements such as Sn, Cu, Au and/or Zn onto a Ni UBM**<br>René Bergmann, DTU Mechanical Engineering – Micro/Nano and Precision Manufacturing, Denmark |
| 08:55 – 09:20 | **Integration technologies for sensors using LTCC**<br>Franz Bechtold, Via electronic, Germany | 08:55 – 09:20 | **Feasibility study of SLID interconnects for RF applications**<br>Deokki Min, Vestfold University College, Norway |
| 09:20 – 09:45 | **Thick film pastes for the manufacture of low cost, insulated aluminium substrates suitable for use as heat sinks for high power LED applications**<br>Michel Bilinski, ESL, UK | 09:20 – 09:45 | **Reliability evaluation for solder joints in embedded package considering the effect of adhesive condition of the surface**<br>Hiroki Miyaushi, Yokohama National University, Japan |
| **09:45 – 10:45** | **COFFEE & TIME FOR EXHIBITION** | | |

| TA-A2: Ceramics technologies & HB LED | | TA-B2: Materials | |
|---|---|---|---|
| TIME | CHAIR | TIME | CHAIR |
| 10:45 – 11:10 | **Technology and design of precise embedded capacitors in LTCC**<br>Jens Müller, TU Ilmenau, Germany | 10:45 – 11:10 | **A novel curative designed for wafer applied coatings**<br>Paul Hough, Lord Corporation, Germany |
| 11:10 – 11:35 | **A 20 GHz Fractional-N Synthesizer Module for Satellite Operation**<br>Peter Uhlig, IMST, Germany | 11:10 – 11:35 | **Development of metal coated polymer particles with extremely narrow size distribution**<br>Helge Kristiansen, Conpart, Norway |
| 11:35 – 12:00 | **Novel HB-LED Silicone-Phosphors Dispensing for Small Packaging Geometries**<br>Horatio Quinones, Asymtek, USA | 11:35 – 12:00 | **Uniformity of electroplated interconnects for 3D MEMS/ASIC stacking**<br>He Liu, Vestfold University College, Norway |

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| **12:00 – 13:00** | **LUNCH** |

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| TP-A1: Packaging & Interconnection technologies | | | TP-B1: Applications & Manufacturing | |
|---|---|---|---|---|
| TIME | CHAIR | | TIME | CHAIR |
| 13:00 – 13:25 | **Methods for assembly of standard electronic components without solder**<br>Joseph Fjelstad, Verdant Electronics, USA | | 13:00 – 13:25 | **Thick film modules mounted on flexible printed circuits**<br>Markus Detert, Dresden University of Technology, Germany |
| 13:25 – 13:50 | **Development of a novel solder interconnection technique by using self assembly phenomena of solder particles accelerated by micro bubbles**<br>Takashi Kitae, Matsushita Electric Industrial Co., Ltd., Japan | | 13:25 – 13:50 | **Adhesion of flexible printed circuit substrate to overmoulded polymer and characterization of overmolded electronic components**<br>Matti Koponen, VTT, Finland |
| 13:50 – 14:15 | **Advanced packaging requirements**<br>Voya Markovich, Endicott Interconnect Technologies, USA | | 13:50 – 14:15 | **Latest plasma cleaning technology**<br>Reinhard Windemuth, Panasonic, Germany |
| 14:15 - 14: 40 | **Chip/Antenna interconnections for contact-less smart card applications**<br>Markku Lahti, VTT, Finland | | 14:15 - 14: 40 | **X-ray nanoCT: Visualisation of internal 3D structures with submicrometer resolution**<br>André Egbert, Phoenix\|x-ray Systems Services, Germany |
| **14:15 – 15:15** | **COFFEE & TIME FOR EXHIBITION** | | | |

| TP-A2: Packaging & Interconnection technologies | | | TP-B2: Thermal management | |
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| TIME | CHAIR | | TIME | CHAIR |
| 15:15 - 15:40 | **Hearing aid demonstrators based on cavity PCB and folded flex**<br>Anders E. Petersen, Oticon, Denmark | | 15:15 - 15:40 | **Novel filler packing for improved thermal interface materials**<br>Paul Hough, Lord Corporation, Germany |
| 15:40 – 16:05 | **High reliability gold stud bumping for harsh environments**<br>Hoang-Vu Nguyen, Vestfold University College, Norway | | 15:40 – 16:05 | **Die crack prevention in discrete devices with dice soldered onto copper leadframe**<br>Roelf A J Groenhuis, NXP, The Netherlands |
| **16:05 – 16:10** | **CLOSING – and seeing you in Tønsberg, Norway, September 13-15, 2009** | | | |