Registration:
Please send an e-mail for registration to
sabrina.loetsch@enas.fraunhofer.de
until June 7, 2016.

Hotel:
Rooms in the Günnewig Hotel Chemnitzer Hof can be ordered.
If you need an accommodation, please contact
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smac - Staatliches Museum für Archäologie Chemnitz
Stefan-Heym-Platz 1, 09111 Chemnitz
parking lot „An der Johanneskirche“
Smart systems are becoming more and more important in our daily life, e.g. in cars, efficient energy management, security applications, medical engineering, logistics and other applications.

A major bottleneck, however, to enable these devices to hit the market, is the packaging of the sensitive microstructures to a rugged outer casing that makes handling possible and allows them to withstand even harsh environments. On this path, many unexpected challenges are encountered when interfacing the system structure to the outer world.

The focus of the 25th Chemnitzer Seminar is to discuss and show paths of solving these issues.

### PROGRAM

#### CHEMNITZER SEMINAR

**„SYSTEM INTEGRATION TECHNOLOGIES”**

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**TUESDAY**

**JUNE 14, 2016**

1:00 – 1:20 pm  
**Introduction to Fraunhofer ENAS and Department System Packaging |** Dr. Maik Wiemer, Fraunhofer ENAS

1:20 – 1:50 pm  
**Nanotechnology for its Convergence and Applications |** Prof. Jong Min Kim, University of Cambridge

1:50 – 2:20 pm  
**Developments, Applications and Challenges for the Industrial Implementation of Nanoimprinting Lithography |** Dr. Martin Eibelhuber, EV Group E. Thallner GmbH

2:20 – 2:50 pm  
**Vertically-Integrated Array-Type Miniature Interferometer as a Core Optical Component of a Coherence Tomography System for Tissue Inspection |** Dr. Wei-Shan Wang, Fraunhofer ENAS

2:50 – 3:20 pm  
**Mobile Medical Devices for the Internet of Things – Design Challenges |** Tilo Borchardt, GETEMED Medizin- und Informationstechnik AG

3:20 – 3:50 pm  
**Coffee break and networking**

3:50 – 4:20 pm  
**Actual Hearing Aid Technologies – Technical Innovations on Smallest Space |** Jens Heese, Hansaton Akustik GmbH

4:20 – 4:50 pm  
**NFC: A New Functional Layer with High Sensitivity for Pressure and Force Sensors |** Dr. Tobias Liese, Siegert Thinfilm Technology

4:50 – 5:20 pm  
**Separation of SiC Wafer using Thermal Laser Separation |** Ronny Neubert, 3D-Micromac AG

5:20 – 5:50 pm  
**Implantable Pressure Sensors |** Dr. Reza Bahmanyar, Imperial College London

7:00 pm  
**Evening event**

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**WEDNESDAY**

**JUNE 15, 2016**

9:00 – 9:10 am  
**Welcome |** Dr. Maik Wiemer, Fraunhofer ENAS

9:10 – 9:40 am  
**Temporary Wafer Bonding – Key Technology for 3D MEMS Integration |** Dirk Wünsch, Fraunhofer ENAS

9:40 – 10:10 am  
**Beyond State-of-the-Art: Integration of MEMS in Fan-Out Wafer-Level Packaging Technology based System-in-Package (WLSiP) |** Steffen Kröhnert, NANIUM S.A.

10:10 – 10:40 am  
**TagItSmart – Creating IoT for Mass Market Products |** Dr. Srdjan Krco, DUNAV NET

10:40 – 11:10 am  
**Printing of Electrical Functional Structures by using Aerosol-Jet |** Frank Roscher, Fraunhofer ENAS

11:10 – 11:40 am  
**Coffee break and networking**

11:40 – 12:10 pm  
**Solder Jetting, Rework & electroless UBM Deposition Made in Germany |** Sebastian Hahn, PacTech – Packaging Technologies GmbH

12:10 – 12:40 pm  
**Soldering of MEMS and Silicon Interposers: The Role of Intermetallic Compounds |** Maaike M. Visser Taklo, SINTEF ICT Instrumentation Dept.

12:40 – 1:10 pm  
**Design and Applications of Linear Microphone Arrays |** Dr. Matthias Domke, Microtech Gefell GmbH

1:10 – 1:40 pm  
**How Can Process Control Help to Increase Yield for Advanced Packages like WLCSP, SIP, FO-WLP? |** Pieter Vandewalle, KLA-Tencor GmbH

1:40 pm  
**Closing remarks**

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**Lunch**