

# PRESS RELEASE

PRESS RELEASE

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## 10th Symposium in Sendai successfully completed

**Within the “Sendai Micro Nano International Forum 2014”, the 10th Fraunhofer Symposium in Sendai held on November 26th, 2014. 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. They are the hardware basis for the Internet of Things. The 10th Fraunhofer Symposium addresses especially smart systems for a secure world.**

After a short welcome by Professor Thomas Gessner (Director of Fraunhofer ENAS), greetings were given by Mr. Yukimoto Ito (Vice Mayor City of Sendai), Mr. Hideo Shindo (Vice President Tohoku University) and Professor Motoko Kotani (Executive Member of Council for Science, Technology and Innovation Japan; Director WPI-Advanced Institute for Materials Research, Tohoku University). The Fraunhofer Symposium was held in cooperation with the City of Sendai and the Tohoku University and was supported by the MEMS Industry Group.

The Fraunhofer institutes ENAS and IZM and the Tohoku University Sendai presented new developments in smart systems and advanced system integration technologies. So the director of Fraunhofer ENAS Professor Gessner focused on smart monitoring systems. He addressed human health monitoring, environmental monitoring as well as disaster recognition. The director of Fraunhofer IZM Professor Klaus-Dieter Lang showed integration technologies for cyber physical systems and describes the challenges and solutions. Professor Masayoshi Esashi (Micro Integration Center at Tohoku University Sendai and Fraunhofer Project Center at Tohoku University) spoke about MEMS Open Collaboration in Tohoku University. System integration technologies were presented by Dr. Maik Wiemer from Fraunhofer ENAS, Mr. Andreas Ostmann from Fraunhofer IZM as well as Professor Muroyama from Micro Integration Center at Tohoku University. New materials and new technologies were shown by Professor Shuji Tanaka (Micro/Nano Education Center, Tohoku University; Fraunhofer Project Center at Tohoku University, Sendai), Professor Stefan Schulz and Dr. Kathleen Heinrich, both Fraunhofer ENAS. Professor Tanaka presented advanced piezoelectric thin films and devices. The presentation of Professor Schulz showed latest results obtained within the Cluster of Excellence Center for Advancing Electronics Dresden. He introduced the integration of carbon nanotubes in CNT-FETs by using wafer level approaches for high frequency analog integrated circuit applications. Sensor integration for structural health monitoring in lightweight structures – a topic of the Cluster of Excellence Merge Technologies for Multifunctional Lightweight Structures of the Technische Universität Chemnitz was presented by Dr. Heinrich.

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The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. 67 institutes and independent research units work at present in Germany. More than 23,000 staff work with an annual research budget of €2 billion. Of this sum, more than €1.67 billion is generated through contract research. More than 70 percent of the Fraunhofer-Gesellschaft's contract research revenue is derived from contracts with industry and from publicly financed research projects. Affiliated international research centers and representative offices provide contact with the regions of greatest importance to present and future scientific progress and economic development.

### Editorial notes

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