

FRAUNHOFER INSTITUTE FOR ELECTRONIC NANO SYSTEMS ENAS

PRESS RELEASE

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For the 10th time, Fraunhofer ENAS exhibits at the world's largest exhibition focusing on micro/MEMS and nanotechnologies in Japan

The nanomicro biz opens its door on July 3, 2013. Fraunhofer ENAS takes part together with Japanese partners.

The world's largest exhibition focusing on micro/MEMS and nanotechnologies takes place in Tokyo since 1990. From July 3rd to July 5th exhibitors from all over the world are offering new vision in micro-fabrication technology, devices, and solutions on the nanomicro biz the former Micromachine/MEMS exhibition. It is just the 10th time that Fraunhofer ENAS shows actual research and development results and prototypes at this exhibition.

This year Fraunhofer ENAS focuses on innovative technologies for system integration like reactive wafer bonding and technologies for 3D integration. Moreover prototypes like high-precision silicon based inertial sensors and polymer based sensors for humidity and acceleration are shown. One highlight is the RF MEMS switch developed for frequencies up to 60 GHz with a switching time of 10 micro seconds. The switch works with a high driving force even at low voltages less than 5 V. This MEMS is developed for communication systems. Life times of one billion switching cycles have been reached.

In 2012, the Fraunhofer Project Center "NEMS / MEMS Devices and Manufacturing Technologies at Tohoku University" was founded in Sendai/ Japan. With the project center, R&D results are transferred into the industry. Professor Masayoshi Esashi from Tohoku University and Professor Thomas Gessner, director of Fraunhofer ENAS, coordinate the project center. Fraunhofer ENAS also cooperates with the WPI-AIMR at the Tohoku University in Sendai. So research results of the Gessner group of the WPI-AIMR are also shown on booth D-31.

On July 4, 2013, professor Thomas Gessner will talk about "3D integration for Smart Systems" at the 6th Japanese-German Micro/Nano Business Forum organized by IVAM Microtechnology Network.

IN COOPERATION WITH



The **Fraunhofer-Gesellschaft** is the leading organization for applied research in Europe. 66 institutes and independent research units work at present in Germany. More than 22,000 staff work with an annual research budget of €1.9 billion. Of this sum, more than €1.6 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