

PRESS RELEASE

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Fraunhofer ENAS honored MEMS and system designer with the Research Award 2015

The engineer and scientist Dr.-Ing. Roman Forke is honored with the Fraunhofer ENAS Research Award 2015. He receives the award for his excellent scientific work in developing MEMS design and systems for high-precision inertial sensors. The director of Fraunhofer ENAS, Prof. Dr. Thomas Gessner, awarded the prize, which is endowed with 5000 euros. National and international guests as well as Fraunhofer ENAS staff took part in the ceremony in Chemnitz on December 17, 2015.

Roman Forke is a specialist in designing sensor components and systems. Since 2005, he investigates design, simulation, packaging and characterization of micromechanical systems and also designs sophisticated concepts for the systems composed of sensor elements and ASICs. The issue of the development of gyroscopes as well as inertial sensors for detection of acceleration, vibration and acoustic emission is one of the focal points of his work. In 2012, Roman Forke has done his doctorate on „Micromechanical power generating sensor-actuator-system for the resonated detection of low-frequency vibrations“. Now he works in the MEMS design group of Fraunhofer ENAS and develops industrial relevant sensor systems by combining his interdisciplinary knowledge of physics, electrical engineering and information technologies.

Dr. Forke especially receives the award for his development of high-precision micromechanical gyroscopes as well as high-performance sensor systems for measurement of smallest mechanical vibrations. Therefore, he has designed a tiny, highly sensitive sensor system, which is able to record smallest vibrations based on movements within the sensor element in the pico and nanometer range. In cooperation with Technische Universität Chemnitz and companies in Chemnitz, these sensor systems are developed for industrial customers from Europe and Asia. The systems compete with the best MEMS systems available at the international market.

Dr. Forke's scientific results were published in about 30 publications and several patents and presented at international conferences such as the ISSS 2015 in the USA.

The Fraunhofer ENAS Research Award was established in 2011 and is awarded to scientists reaching excellent research results in microelectronics and/or microsystem technologies.

Editorial notes

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