

# sth International Workshop

Novel Developments and Applications in Sensor and Actuator Technology

18. - 20.09.2013, Institute of Sensor and Actuator Technology, Coburg

## Preliminary time schedule \*

Wednesday 18.09.2013



- 08:30 - 09:30 Registration  
09:30 - 10:00 Welcome  
**Prof. Dr. Gerhard Lindner**, Director ISAT  
**Prof. Dr. Michael Pötzl**, President of Coburg University of Applied Sciences and Arts  
**Stephan Horn**, Wirtschaftsförderungsgesellschaft Coburg
- 10:00 - 11:20 Opening Lecture  
**Reinhold Rösemann**, AMA Association for Sensor Technology  
*Innovative Sensors - International markets: a challenge*  
**Dr. C. Thomas Simmons**, AMA Association for Sensor Technology  
*Requirements for sensors in the renewable energies and for energy efficiency*  
**Dr. Joel Kent**, Elo Touch Solutions, Inc., USA  
*Recent developments in SAW touchscreen technology*
- 11:20 - 12:00 Short Contributions I  
**Sabine Schmidt**, Institute of Sensor and Actuator Technology  
*Touch sensitive objects*  
**Sascha Scheler**, Fraunhofer Application Center Wireless Sensor Systems  
*Visual programming of wireless sensor network applications using Blockly*
- 12:00 - 13:00 Lunch Break
- 13:00 - 13:30 Invited Review Lectures I  
**Prof. Dr. Ralf Lucklum**, Otto von Guericke University Magdeburg  
*Phononic crystals - Sensor platform and other exciting perspectives*
- 13:30 - 14:30 Short Contributions II  
**Prof. Jiabi Chen**, University of Shanghai for Science and Technology, PR China  
*An sensing method for demonstrating the inverse Doppler effect in a photonic crystal*  
**Dr. Jens Rautenberg**, University of Paderborn  
*Measurement of material properties for the simulation of piezoelectric sensor systems*  
**Jing Lu**, MULTI IR OPTOELECTRONICS CO., LTD., PR China  
*Infrared filters - Important components for innovative sensors*
- 14:30 - 15:00 Coffee Break
- 15:00 - 15:30 Invited Review Lectures II  
**Dr. Holger Böse**, Fraunhofer-Institut für Silicatforschung ISC  
*Actuators and sensors based on smart elastomers*
- 15:30 - 15:50 Short Contributions III  
**Matthias Streller**, Institute of Sensor and Actuator Technology  
*Acoustic deformation of confined liquid droplets*
- 15:50 - 17:00 Poster Session and Exhibition in the ISAT  
17:00 Reception and Dinner

Thursday 19.09.2013



- 08:30 - 09:30 Invited Review Lectures III  
**Dr. Rüdiger Picker**, TRIUMF, Canada  
*Ultra-cold neutrons and the universe*  
**Dr. Hagen Schmidt**, Leibniz Institute for Solid State and Materials Research (IFW Dresden)  
*Microacoustic fluid actuators*
- 09:30 - 10:10 Short Contributions IV  
**Marina Reißweber**, Institute of Sensor and Actuator Technology  
*Nebulization and coagulation of droplets in ultrasonic standing wave fields*  
**Wei Liang**, Institute of Sensor and Actuator Technology  
*Parameters influencing the acoustic propulsion of droplets by Lamb waves*
- 10:10 - 10:30 Coffee Break
- 10:30 - 11:00 Invited Review Lectures IV  
**Thomas Windisch**, Fraunhofer Institute for Non-Destructive Testing  
*Advanced laser acoustic methods in medicine, material science and NDE*
- 11:00 - 11:40 Short Contributions V  
**Ferdinand Singer**, Institute of Sensor and Actuator Technology  
*Laser-acoustic investigations of near-surface material properties*  
**Markus Voeltz**, Mektec Europe GmbH  
*Benefits and cost effectiveness of flexible printed circuits in sensor applications*
- 12:00 - 13:00 Lunch Break
- 13:00 - 14:00 Invited Review Lectures V  
**Dr. Dirk Samiec**, Polytec GmbH  
*Distributed fibre-optic temperature and strain measurement with ultra-high spatial resolution*  
**Dr. Glen Guhr**, BelektronikG - Brüning & Guhr Elektronik GbR  
*Surface acoustic wave resonators for characterisation of blood coagulation and cell adhesion processes*
- 14:00 - 14:40 Short Contributions VI  
**Sabrina Tietze**, Institute of Sensor and Actuator Technology  
*Acceleration of electrochemical reactions by acoustic interaction*  
**Christoph Brückner**, BestSens AG  
*Bearing monitoring system*
- 14:40 - 15:00 Coffee Break
- 15:00 - 16:00 Poster Session and Exhibition in the ISAT  
16:00 - 16:30 Summary Lecture

Friday 20.09.2013



- Invited Review Lectures from industry and science  
Meet & Greet Event with the AIMS Students
- 08:30 - 09:00 Welcome  
09:00 - 10:30 Review Lectures on Sensor Technology  
**Prof. Dr. Thomas Wieland**, Coburg University of Applied Sciences and Arts  
*Wireless sensor networks*  
**Prof. Dr. Susanne Aileen Funke**, Coburg University of Applied Sciences and Arts  
*Research on Alzheimer's disease with molecular biological methods*
- 10:30 - 10:45 Coffee Break  
10:45 - 12:00 Review Lectures on Sensor Technology  
**Prof. Dr.-Ing. Gerhard Fischerauer**, University of Bayreuth  
*NDE of Electrochemical Systems by Microwaves*  
**Presentation of the AIMS Program**
- 12:00 - 12:30 Poster Session  
12:30 - 13:30 Lunch Break  
13:30 - 15:00 Presentations of Partner Companies & Institutes  
(Internships, master thesis, joint research projects)  
**Emilia Andreeva-Moschen**, Bombardier Transportation Austria GmbH  
**Jörg Krämer**, Brose Fahrzeugteile GmbH & Co. KG  
**Till Grübler**, Robert Bosch GmbH
- 15:30 Franconian „Vesper“