2011 IEEE Workshop on Merging Fields of Computational Intelligence and Sensor Technology

(CompSens 2011)

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Tuesday, April 12

09:30 - 10:30

**S92: CompSens 1**  
Chair: Torsten Wagner (Tohoku University, Japan)

**TasteIT Analyzing chemical sensor data using fuzzy logic** ................................................................. 1  
W. Heiden (Bonn-Rhein-Sieg University of Applied Sciences, Germany)  
M. Turek (Fachhochschule Aachen, Germany)  
Michael Schoening (Fachhochschule Aachen, Germany)

**Experimental Research of High-speed Electrical Motor Supercharger Dynamic Properties** ................. 7  
Martin Novak (Czech Technical University in Prague, Czech Republic)  
Jaroslav Novak (Czech Technical University, Czech Republic)  
Zdenek Cerovsky (Technical University in Prague, Czech Republic)

**Reconstructing the geometry of an object using 3D TOF Camera** ...................................................... 13  
Sobers Francis (University of New South Wales @ ADFA, Australia)  
Sreenatha Anavatti (University of New South Wales @ ADFA, Australia)  
Matthew Garratt (University of New South Wales @ ADFA, Australia)

14:00 - 15:00

**S94: CompSens - Keynote**  
Chair: Torsten Wagner (Tohoku University, Japan)

**Biomolecular Information Processing Systems: Design, Optimization and Applications**  
Evgeny Katz (Clarkson University, USA)  
Vladimir Privman (Clarkson University, USA)  
Joseph Wang (University of California – San Diego, USA)

15:00 - 16:00

**S177: CompSens 3**  
Chair: Torsten Wagner (Tohoku University, Japan)

**Controlling aseptic sterilization processes by means of a multi-sensor system** ....................................... 18  
Steffen Reisert (Fachhochschule Aachen, Germany)  
H. Geissler (SIG Combibloc Systems GmbH, Germany)  
R. Flörke (SIG Combibloc Systems GmbH, Germany)  
P. Wagner (Hasselt University, Institute for Materials Research, Belgium)  
Torsten Wagner (Tohoku University, Japan)  
Michael Schoening (Fachhochschule Aachen, Germany)
Precise Indoor Localization with Low-Cost Field-Programmable Gate Arrays
Enrico Heinrich (University of Rostock, Germany)
Ralf Joost (University of Rostock, Germany)
Marian Lüder (University of Rostock, Germany)
Ralf Salomon (University of Rostock, Germany)

SRD - Towards a System for the In-Situ Detection of the Stapedius Reflex
Marian Lüder (University of Rostock, Germany)
Ralf Warmuth (University of Rostock, Germany)
Enrico Heinrich (University of Rostock, Germany)
Ralf Joost (University of Rostock, Germany)
Ralf Salomon (University of Rostock, Germany)

16:30 – 18:30

S95: CompSens 2
Chair: Ivo Bukovsky (Czech Technical University in Prague, Czech Republic)

Intelligent Sensing of Biomedical Signals - Lung Tumor Motion Prediction for Accurate Radiotherapy
Kei Ichiji (Tohoku University, Japan)
Noriyasu Homma (Tohoku University, Japan)
Ivo Bukovsky (Czech Technical University in Prague, Czech Republic)
Makoto Yoshizawa (Tohoku University, Japan)

Robot Routing Using Clustering-Based Parallel Genetic Algorithm with Migration
K. M. Chiu (Academia Sinica, Taiwan)
Jing-Sin Liu (Academia Sinica, Taiwan)

Fuzzy Logic Based Navigation and Target Seeking System in Autonomous Mobile Robot
Gustavo Ricarte (National Taiwan University of Science and Technology, Taiwan)
Jaime Mora (National Taiwan University of Science and Technology, Taiwan)
Phuoc Hong Nguyen (National Taiwan University of Science and Technology, Taiwan)
Min-Fan Ricky Lee (National Taiwan University of Science and Technology, Taiwan)

Locating sensors with fuzzy logic algorithms
D. F. Larios (University of Seville, Spain)
Julio Barbancho (University Of Seville, Spain)
Francisco Javier Molina (University of Seville, Spain)
Carlos Leon (University of Seville, Spain)

Multiscale Analysis of False Neighbors for State Space Reconstruction of Complicated Systems
Ivo Bukovsky (Czech Technical University in Prague, Czech Republic)
Witold Kinsner (University of Manitoba, Canada)
Vladimir Maly (Czech Technical University in Prague, Czech Republic)
Karel Krehlik (I & C Energo a. s., Czech Republic)

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