Smart SysTech 2017

European Conference on Smart Objects, Systems and Technologies

June 20 to June 21, 2017
RFID-Application Center Munich at the Technical University of Munich
Munich, Germany

Program

Session 1: Positioning & Localization

Hardware Design of Receivers for Combined Localization and Wireless Synchronization
Hans-Martin Troeger, FAU, Germany

Designing a Basic IR-UWB-RTLS - Raw-data position estimation utilizing TWR
Simon Tewes, HS Bochum, Germany

Ultra-Low-Power Quantized-RSSI-based Localization Using Wake-Up Receivers
Toni Babik, Fraunhofer IIS, Germany

Session 2: Smart Object Manufacturing Technologies

Communication with Passive RFID Sensor Tags during Injection Molding of Medical Plastic Parts
Matthias Zeppenfeld, TUM, Germany

SHF RFID System for Automatic Process Optimization with Intelligent Tools
Peter Kuhn, Fraunhofer IMS, Germany

Session 3: RFID & NFC Technologies

A Carrier Inband Backscatter Technology for Radio Frequency Identification Systems
Philip Schmidt, Fraunhofer IMS, Germany

Experimental Analysis of an RFID Tunnel Gate
Daniel Grefkes, Otto von Guericke University Magdeburg, Germany

Session 4: Propagation & Channel Modeling

Design of Autonomous Base Stations for Low Power Wide Area (LPWA) Communication
Michael Schadhauser, FAU, Germany

Empirical Study on Implicit Polarization Diversity and Space Diversity for Short Range Indoor-to-Outdoor Radio Links below 1 GHz
Sebastian Rauh, FAU, Germany

Session 5: Manufacturing Control, Industrial Process Automation

Real-Time Support During a Logistic Process Using Smart Gloves
Constantin Scheuermann, TUM, Germany

Real Time Decision Support with Reinforcement Learning for Dynamic Flowshop Scheduling
Jinzhi Wang, Stanford University, USA

Investigation of Transmission Techniques for an Application in a Contactless High Speed Data Link
Gopinathan Ranganathan, Fraunhofer IMS, Germany

Session 6: Antenna Design & Air Interface

Optimization of opposing phased looked loop parameters in UHF RFID Systems
Frederic Meyer, Fraunhofer IMS, Germany

A multi-purpose UHF RFID Tag Emulator for Communication Protocols Testing
Andres Garcia, University of Castilla - La Mancha, Spain