

Over the last years, the European Conference on Smart Objects, Systems and Technologies (former European Workshop on Smart Objects) has become a central platform in Europe for personal networking and information exchange in the field of RFID technologies and applications.

Conference SCOPE

While the networking of objects for the purpose of data collection and distributed control is no longer a recent phenomenon, the sheer number of things that are networked to information systems has dramatically risen. Today, the Internet is increasingly extended to all kinds of physical assets: product components, finished products, logistic units, equipment, documents, vehicles, buildings and electronic meters as well as embedded systems of all kind. Mature industries, like the energy or automotive are in euphoric mood and accordingly, we see enormous research and technological development activity: For instance, Auto-ID technologies such as RFID are being increasingly combined with data storage capacity and sensors or other communication devices that provide real-time data such as position, temperature, pressure, vibrations etc. These special-purpose computer systems are able to sense information from the real world or perform actions upon it and are also able to communicate with other networked computer systems.

Accepted papers will be published in the IEEE Xplore® Digital Library.

Conference Venue

Campus-Boulevard 55, 52074 Aachen

Local organizer: Institute for Industrial Management at RWTH Aachen University

Conference Fee / Registration

The conference fee:	for participants	250.00 €
	for speakers	225.00 €
	for students	150.00 €

Conference fee includes: Conference attendance for both days, proceedings (CD-ROM), coffee breaks, lunch, social event.

Opening of registration: **08.04.2015**. For online registration please visit our website. You will be able to find continuously updated information on www.smart-systech.eu.

For further information feel free to contact info@smart-systech.eu

Programme Committee

- Frank Deicke (Fraunhofer-IPMS, Dresden, Germany)
- Andrés García Higuera (UCLM, Ciudad Real, Spain)
- Christian Gorldt (BIBA Bremen, Germany)
- Manfred Glesner (University Darmstadt, Germany)
- Klaus Finkenzeller (Giesecke & Devrient Munich, Germany)
- Thomas Hollstein (Tallinn University of Technology, Estonia)
- Andreas Löffler (Continental AG, Germany)
- Joerg Robert (FAU Erlangen-Nuremberg, Germany)
- Jens Strüker (Fresenius University of Applied Sciences, Germany)
- Klaus-Dieter Thoben (BIBA Bremen, Germany)
- Dieter Uckelmann (Hochschule für Technik Stuttgart, Germany)
- Gerd vom Bögel (Fraunhofer IMS, Germany)
- Michael E. Wernle (Meshed Systems Munich, Germany)
- Markus Weinländer (Siemens AG, Germany)
- Uwe Wissendheit (IR-Systeme GmbH Hassfurt, Germany)
- Jürgen Wöllenstein (IMTEK and Fraunhofer IPM, Germany)
- Holger Ziekow (AGT Group (R&D) GmbH, Germany)

Responsibilities

- Conference General Chair:** Thomas Hollstein, Jens Strüker,
Uwe Wissendheit, Andreas Löffler
Email: organisation@smart-systech.eu
- Program Chair:** Andreas Löffler
Email: program@smart-systech.eu
- Industrial Chair:** Klaus Finkenzeller, Holger Ziekow
Email: industrial@smart-systech.eu
- Local Chair:** Volker Stich
Email: local@smart-systech.eu

Cooperations



Sponsors



Media Partners



Partners



ITG INFORMATIONSTECHNISCHE
GESELLSCHAFT IM VDE



PROGRAM

Smart SysTech 2015

European Conference on
Smart Objects, Systems and
Technologies

16.06. – 17.06.2015

Aachen, Germany

Institute for Industrial Management at RWTH
Aachen University



Tuesday, 16.06.2015

08:00	Registration
09:30	Conference Opening Smart SysTech Organisation Team
09:45	Conference Welcome
	Session 1: Smart Objects - Networks
10:00	6doku: Towards Secure Over-the-Air Preloading of 6LoWPAN Nodes using PHY Key Generation K.F. Krentz, HPI, Germany
10:25	Large Area Experimental Telemetry Network for Infrastructure Monitoring Applications J. Robert, FAU Erlangen-Nürnberg, Germany
10:50	Wireless Sensor System for Electrical Cabinet Monitoring K. Rezer, Fraunhofer IMS, Germany
11:15	PhyNode: An intelligent, cyber-physical system with energy neutral operation for PhyNetLab A. Venkatapathy, TU Dortmund, Germany
11:40	Lunch
	Session 2: Smart Objects - System Design
12:45	A Switchable Dual Band Antenna for Smart Devices in the UHF RFID- and the GPS L1 Band using MEMS A. Ascher, TU Munich, Germany
13:10	An Autonomous RFID Transponder Concept for Fawn Saving using Solar Energy Harvesting M. Lehner, TU Munich, Germany
13:35	Multilevel Decoding Scheme for RFID and Sensor Signals in Inductively Coupled Systems R. Jacobi, Fraunhofer IMS, Germany
14:00	Energy Consumption of Low Data Rate M2M Communications in LTE J. Popp, FAU Erlangen-Nürnberg, Germany
14:25	Coffee Break
15:00	Keynote Prof. Dr. Volker Stich, Managing Director Institute for Industrial Management at RWTH Aachen University
16:00	End of first day
17:30	Social Event

Wednesday, 17.06.2015

Registration	08:00
Session 3: Smart Objects - System Architecture	
A New Optimization Criteria For Frame Slotted ALOHA Utilizing Time And The Collision Recovery Coefficients H.A. Ahmed, FAU Erlangen-Nürnberg, Germany	09:00
FFT Based Rate Estimation for UHF RFID Systems H. Salah, FAU Erlangen-Nürnberg, Germany	09:25
Effect of Channel Estimation on RFID Tag Reading Error and Throughput Performance T. Elshabrawy, German University in Cairo, Egypt	09:50
Coffee Break	10:15
Session 4: Measurements	
Impact of GSM Interference on passive UHF RFIDs B. Brunner, perisens GmbH, Germany	10:20
Determination of the Optimal Carrier Frequency in Harsh Environments by Parameter Estimation R. Jacobi, Fraunhofer IMS, Germany	10:45
Indoor-to-Outdoor Radio Channel Measurements in sub-GHz Unlicensed Frequency Bands H. Lieske, FAU Erlangen-Nürnberg, Germany	11:10
Array Manifold Manipulation for Short Distance DOA Estimation With a Handheld Device M. Eberhardt, TU Munich, Germany	11:35
Lunch	12:00
Session 5: Smart Production	
Resource: A connection between Internet of Things and Resource-Oriented Architecture V. Vujović, University of East Sarajevo, Bosnia and Herzegovina	13:00
An Active Learning Based Framework for Optimal Product Design Under Multiple Objectives S. Qu, Stanford University, USA	13:25
Preliminary Study on Smart Humidity Sensor Development V. Mecnika, RWTH Aachen University, Germany	13:50
Systematization models for taylor-made sensor system applications and sensor data fit in production G. Schuh, RWTH Aachen University, Germany	14:15
Coffee Break	14:40
Closing Session Smart SysTech Organisation Team	15:10
Conference End	15:30