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

Forsthausweg 1 47057 Duisburg, Germany
Local organizer: Fraunhofer Institute for Microelectronic Circuits and Systems

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**

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PROGRAM

Smart SysTech 2016

European Conference on Smart Objects, Systems and Technologies

07.06. – 08.06.2016
Duisburg, Germany
Fraunhofer Institute for Microelectronic Circuits and Systems

Tuesday, 07.06.2016	
08:00	Registration
08:30	**Conference Opening** Smart SysTech Organisation Team
	Session 1: Localization I
09:30	Localization of UHF RFID Transponders regarding Industry 4.0 Scenarios using DoA Estimation Techniques A. Ascher, Technical University of Munich, Munich, Germany
09:55	Positioning with Angle-of-Arrival Estimation on Partially Coherent Arrays T. Lindner, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany
10:20	Localization methods by using phase of arrival O. Friedewald, University of Applied Sciences, Magdeburg, Germany
10:45	Coffee Break
	Session 2: IoT
11:15	Archaeological intelligent RFID artefacts A.M. López, University of Zaragoza, Teruel, Spain
11:40	Ultra-lightweight Algorithm for Generating Pseudo-random Number Sequences in Passive UHF-RFID Tags J. Blanco, University of Castilla – La Mancha, Cuenca, Spain
12:05	Concept for an Adaptive Low Power Wide Area (LPWA) Bat Communication Network M. Schadhauser, Friedrich-Alexander Universität Erlangen-Nürnberg, Erlangen, Germany
12:30	Lunch
	Session 3: Smart Objects
13:20	RFID Based Pallet Management O. Poenicke, Fraunhofer IFF, Magdeburg, Germany
13:45	The Potential of Household Specific Feature Selection for Analysing Smart Home Time-Series Data H. Ziekow, University of Applied Sciences Furtwangen, Furtwangen, Germany
14:10	Multipath Characteristics of Indoor-to-Outdoor Radio Channels in the 868-MHz Band S. Rauh, Friedrich-Alexander-Universität Erlangen-Nürnberg, Erlangen, Germany
14:35	A Method to Integrate Virtual-Physical Construction Environment in Framework of CPS Approach Y. Srewil, Technische Universität Dresden, Dresden, Germany
15:00	Coffee Break
15:30	**Wireless Communication in Sensor-, Actor- and Control-Networks for Industry 4.0** **Prof. Ingo Wolff, President of IMST GmbH, Germany**
16:30	End of first day
18:00	Social Event / Dinner

Wednesday, 08.06.2016	
Registration	08:00
Session 4: Localization II	
Concept for an intelligent UHF RFID reader according to the Ideas of Industry 4.0 J. Lechner, Technische Universität München, Garching, Germany	08:30
Energy Aware, Two-staged Localization Concept for Dynamic Indoor Environments F. Hartmann, Karlsruhe Institute of Technology, Karlsruhe, Germany	08:55
Graph-Oriented Generalization of Range Positioning: Identification of Critical Cases and Performance of Gauss-Newton Methods A. Seidl, Hochschule Magdeburg-Stendal, Magdeburg, Germany	09:20
RSSI-based Localisation Method using 3-Microwatt Wake-up Receivers with good Co-Channel Interferer Tolerance H. Milosiu, Fraunhofer IIS, Erlangen, Germany	09:45
Coffee Break	10:10
From an Industrie 4.0 assembly line to a connected value stream **Dr.-Ing. Matthias Möller, Bosch Rexroth AG, Germany**	10:40
Lunch	11:40
Session 5: RFID Technologies	
A Comparison of Several Carrier Suppression Techniques F. Meyer, Fraunhofer IMS, Duisburg, Germany	12:40
A Survey of UWB Technology Within RFID Systems and Wireless Sensor Networks G. Ranganathan, Fraunhofer IMS, Duisburg, Germany	13:05
Comparison of Energy Harvesting via Modulation Schemes for Passive Sensor RFID P. Kuhn, Fraunhofer IMS, Duisburg, Germany	13:30
Coffee Break	13:55
Session 6: Antenna	
Time and Frequency Synchronization Characteristics in Rapid Prototyping Environments P. Schmidt, Fraunhofer IMS, Duisburg, Germany	14:25
Approach for long-range frequency domain chipless RFID tags towards THz C. Mandel, Technische Universität Darmstadt, Darmstadt, Germany	14:50
Extended Discussion on Non-Identical Planar Resonant Coils for Frequency Splitting Elimination in Wireless Power Transfer Systems C. Schmidt, University of Applied Sciences, Saarbrücken, Germany	15:15
Conference Closing	15:40