

In recent years the European Workshop on RFID Systems and Technologies (RFID SysTech) has become a central platform of excellence in Europe for personal networking and information exchange in the field of RFID technologies and applications.

### Workshop SCOPE

Objective of this workshop is to bring together people doing excellent work related to the progress of RFID technologies in science and commercial and industrial applications.

The workshop will offer an enhanced program, featuring invited and reviewed presentations from science and industry. The RFID SysTech 2009 topics cover a wide spectrum from latest investigations and RFID applications to new business models or RFID-related performance measurements.

The workshop provides an excellent opportunity to meet experts and set up new networks and information exchange on a professional level. In addition to the workshop, an industrial exhibition for the presentation of latest products will be provided. Don't miss the chance to attend this workshop!

### Workshop Venue

BIBA – Bremer Institut für Produktion und Logistik GmbH at the University of Bremen

Hochschulring 20  
28359 Bremen

### Industrial exhibition

An industrial exhibition is presented during the workshop breaks.

### Conference Fee

The conference fee: for participants 210,00 EUR  
for speakers 189,00 EUR

Conference fee includes: Conference attention for both days, 1 copy proceedings (CD-ROM), Coffee-breaks, Lunch-snack, Social event.

### Registration

By Fax: VDE-Conference Service  
+49-(0)69 96 31 52 13

By E-Mail: [vde-conferences@vde.com](mailto:vde-conferences@vde.com)

Opening of registration: 15.05.2009

### Further Information

You will be able to find permanently updated information on paper formats, the workshop program, registration fee and location under: [www.rfid-systech.eu](http://www.rfid-systech.eu)

For further general information please feel free to contact: [info@rfid-systech.eu](mailto:info@rfid-systech.eu)

### Program Committee

- Andres Garcia Higuera (UCLM, Ciudad Real)
- Christian Gorltd (BIBA, Bremen)
- Manfred Glesner (TU Darmstadt)
- Rüdiger Hansen (AIM-D)
- Thomas Hollstein (TU Darmstadt)
- Stephan Kolnsberg (Fraunhofer IMS, Duisburg)
- Dina Kuznetsova (University of Erlangen)
- Hartmut Pohl (FH Bonn)
- Erwin Schmidt (Pepperl & Fuchs, Mannheim)
- Jens Strüker (University of Freiburg)
- Michael E. Wernle (Meshed Systems, Munich)
- Uwe Wissendheit (Fraunhofer IIS, Erlangen)

### Responsibilities

**Organisational Chair:** Thomas Hollstein, Uwe Wissendheit  
E-Mail: [organisation@rfid-systech.eu](mailto:organisation@rfid-systech.eu)

**Program Chair:** Uwe Wissendheit, Jens Strüker  
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**Industrial Chair:** Michael E. Wernle  
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### Cooperation

The workshop is organized in cooperation with the Organic Electronics Association (oe-a/VDMA)

<http://www.oe-a.org>

and the Association for Automatic Identification and Mobile Data Capture (AIM)

<http://www.aim-d.de>



## PROGRAM

# RFID SysTech 2009

5<sup>th</sup> European Workshop on  
RFID Systems and Technologies

16.06. – 17.06.2009  
Bremen / Germany  
BIBA at University of Bremen

## Tuesday, 16.06.2009

09:00 *Registration*

09:30 Workshop Opening

U. Wissendheit, Fraunhofer IIS, Erlangen, Germany  
T. Hollstein, University of Darmstadt, Germany

09:40 Greetings / Introduction to BIBA

B. Scholz-Reiter, University of Bremen, Germany

10:00 [Known Attacks on RFID-Systems, possible counter-measurements and upcoming standardisation activities.](#)

Keynote: K. Finkenzeller,  
Giesecke & Devrient, Munich, Germany

11:00 *Coffee Break / Industrial exhibition*

11:30 Industrial Presentations

Chair: M. Wernle, Meshed Systems, Munich, Germany

### Session 1: Security

Chair: E. Schmidt, Pepperl & Fuchs, Mannheim, Germany

12:10 [Security Aspects in Vulnerable RFID-Aided Supply Chains](#)

M. Scharpranow, University of Potsdam, Germany

12:35 [Trusted EPC Administration](#)

P. Sakal, University of Applied Sciences Bonn-Rhein-Sieg,  
Bonn, Germany

13:00 *Lunch / Industrial exhibition*

14:00 [Secure use of NFC in medical environments](#)

A.J. Jara, University of Murcia, Spain

### Session 2: Applications and protocols

Chair: S. Kolnsberg, Fraunhofer IMS, Duisburg, Germany

14:25 [RFID-Technology in Material Flow Control and Order Picking](#)

E. Poeter, Fraunhofer IML, Dortmund, Germany

14:50 [RFID three-level based integral tracking system for non-homogeneous loads](#)

J. G<sup>a</sup>-Escribano, University of Castilla-La Mancha,  
Ciudad Real, Spain

15:15 *Coffee Break / Industrial exhibition*

15:45 [E-Kanban-Systems](#)

K. Richter, Technical University of Dresden, Germany

16:10 [Markovian Model for Computation of Tag Loss Ratio in Dynamic RFID Systems](#)

M.V. Bueno-Delgado, University of Cartagena, Spain

16:35 [Design of an RFID System for its application in a real distribution center](#)

J. G<sup>a</sup>-Escribano, University of Castilla-La Mancha,  
Ciudad Real, Spain

17:00 *Excursion – BIBA*

19:30 *Social Event*

## Wednesday, 17.06.2009

08:30 [Stepping from RFID to Autonomous Cooperating Logistic Processes](#)

Keynote: B. Scholz-Reiter,  
University of Bremen, Germany

### Session 3: Transponders and Sensors

Chair: A. Garcia Higuera, University of La Mancha, Spain

09:30 [RFID- und Sensortranspondersysteme in Wartung und Instandhaltung](#)

F. Meyer, Fraunhofer IMS, Duisburg, Germany

09:55 [Inductively-Charged and Temporarily Self-Sufficient Operating Sensor Using Standard RFID-HF-Technology](#)

A. Loeffler, University of Erlangen, Germany

10:20 *Coffee Break / Industrial exhibition*

10:50 [Analysis of Antennas for Sensor Tags Embedded in Tyres](#)

F. Deicke, Fraunhofer IPMS, Bremen, Germany

11:15 [Antenna Design for Deeply Implantable Passive Wireless Sensor Systems in Medicine](#)

A. Hennig, Fraunhofer IMS, Duisburg, Germany

11:40 [Voltage Rectification: The Energy-Bottleneck for Passive RFID Systems](#)

T. Feldengut, Fraunhofer IMS, Duisburg, Germany

12:05 *Lunch / Industrial exhibition*

### Session 4: Information Systems

Chair: C. Gorltdt, BIBA, Bremen, Germany

13:05 [An Event processing Architecture for an RFID based Logistics Monitoring System](#)

K. Werner, SAP, Dresden, Germany

13:30 [The footprint of food – A suggested traceability solution based on EPCIS](#)

B. Myhre, SINTEF ICT, Trondheim, Norway

13:55 [A Software as a Service RFID Middleware for Small and Medium-sized Enterprises](#)

J. Mueller, HPI, Potsdam, Germany

14:20 *Coffee Break / Industrial exhibition*

### Session 5: Business Value

Chair: W.R. Hansen, AIM-D, Germany

14:50 [RFID Business Case Calculation](#)

T. Rhensius, RWTH University of Aachen, Germany

15:15 [Business risks from naive use of RFID in tracking, tracing and logistics](#)

L. Fritsch, Norwegian Computing Center, Oslo, Norway

15:40 [Strategic Benefit Potentials of RFID Application in Supply Chains](#)

D. Uckelmann, BIBA, Bremen, Germany

16:05 [Open Discussion](#)

Moderation:  
T. Hollstein, University of Darmstadt, Germany

16:30 *End of the Workshop*