



IEEE RFID 2012 Program Brief – Tuesday, April 3

7:30 - 8:30 **MORNING COFFEE** Asia 1 and Asia 4
 8:00 - 8:30 **SPEAKER BRIEFING** Asia 4
 8:30 - 10:00 **TUTORIAL SESSIONS (Part I)**

Tutorial 1 Advanced UHF RFID Tag Antenna Design (Part I) Presenter: Gaetano Marrocco , University of Roma Tor Vergata	Asia 1	Tutorial 2 RFID Technical Tutorial (Part I) Presenter: Dale R. Thompson , University of Arkansas	Asia 4
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10:00 - 10:15 **BREAK** Asia 1 and Asia 4
 10:15 - 12:00 **TUTORIAL SESSIONS (Part II)**

Tutorial 1 Advanced UHF RFID Tag Antenna Design (Part II)	Asia 1	Tutorial 2 RFID Technical Tutorial (Part II)	Asia 4
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12:00 - 13:00 **LUNCH** Southern Hemisphere III
 13:00 - 14:30 **WORKSHOP SESSIONS (Part I)**

Workshop 1 RFID and Sensing (Part I) Speakers: Rahul Bhattacharyya , MIT Radislav A. Potyrailo , GE Research Pavel Nikitin , Intermec Rich Fletcher , TagSense Gaetano Marrocco , University of Roma Tor Vergata Alanson Sample , University of Washington Rich Pollack , Phase IV Engineering Jim Springer , EM Microelectronic	Asia 1	Workshop 2 RFID Emulators and Simulators (Part I) Speakers: Jin Mitsugi , Keio University Alanson Sample , University of Washington Christian Floerkemeier , MIT Hsin-Chin Liu , Taiwan University of Science and Technology Daniel Arnitz , TU Graz and Duke University	Asia 2	Workshop 3 5.8 GHz for RFID and Sensors (Part I) Speakers: Gregory D. Durgin , Georgia Tech Ryan Westafer , Georgia Tech Research Institute Masaaki Yamanaka , Hiroshima International University Joshua Griffin , Disney Research Institute Roger Hasse , Georgia Tech Research Institute Azhar Hasan, Christopher R. Valenta, Muhammad B. Akbar, Marcin M. Morys , Georgia Tech	Asia 4
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14:30 - 14:45 **BREAK** Asia 1, 2 and 4
 14:45 - 16:30 **WORKSHOP SESSIONS (Part II)**

Workshop 1 RFID and Sensing (Part II)	Asia 1	Workshop 2 RFID Emulators and Simulators (Part II)	Asia 2	Workshop 3 5.8 GHz for RFID and Sensors (Part II)	Asia 4
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16:45 - 17:45 **RFID Journal Live! General Session** To Be Announced
 17:45 - 18:30 **RFID Journal Live! Keynote Session** To Be Announced
 18:30 - 20:30 **RFID Journal Live! Opening Reception** Exhibit Hall
 20:30 **IEEE RFID 2012 Reception** Southern Hemisphere III

IEEE RFID 2012 Program Brief – Wednesday, April 4

7:30 - 8:30
8:00 - 8:30

**MORNING COFFEE
SPEAKER BRIEFING**

Southern Hemisphere III
Asia 2

8:30 - 9:45

OPENING PLENARY

Southern Hemisphere III

<p>Welcome and Introduction Technical Program Overview Presentation of Best Paper Award Introduction of Keynote Speaker Keynote Speaker Poster Session Teaser Talks</p>	<p>Daniel Deavours, General Co-Chair, IEEE RFID 2012 Daniel Arnitz, Technical Program Chair, IEEE RFID 2012 Ramin Sadr, Mojix Inc. (Best Paper Award Patron) Christian Floerkemeier, General Co-Chair, IEEE RFID 2012 Ramin Sadr, Founder and CEO, Mojix Inc. Matthew Trotter, Poster Session Chair and Poster authors</p>
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9:45 - 10:15
10:15 - 11:30

**BREAK
TECHNICAL SESSIONS**

Southern Hemisphere III

<p>Session 1A Antennas and Propagation Multi-Antenna Techniques for Enabling Passive RFID Tags and Sensors at Microwave Frequencies Matthew Trotter, Christopher Valenta, Gregory Koo, Blake Marshall, Gregory Durgin Georgia Institute of Technology, US Evaluation of Parasitic Capacitance Introduced during Tag Assembly Process Jingtian Xi, Terry Ye Hong Kong R/D Center for Logistics and Supply Chain Management, HK Effects of Periodic Reinforced-Concrete Structures on Power Transmission Shan Jiang, Stavros Georgakopoulos, Hao Jin Florida International University, US Session Chair: Joshua Griffin, Disney Research Institute, US</p>	<p>Asia 1</p>	<p>Session 1B Security and Privacy Two-Level Path Authentication in EPCglobal Network Hongbing Wang¹, Yingjiu Li², Zongyang Zhang¹, Zhenfu Cao¹ ¹ Shanghai Jiao Tong University, CN ² Singapore Management University, SG Enabling Standardized Cryptography on Ultra-Constrained 4-bit Microcontrollers Tino Kaufmann¹, Axel Poschmann² ¹ Gemalto, SG ² Nanyang Technological University, SG Identifying Passive UHF RFID Tags Using Signal Features at Different Tari Durations Baha' Alsaify, Dale R Thompson, Jia Di University of Arkansas, US Session Chair: Gildas Avoine, Université Catholique de Louvain, BE</p>	<p>Asia 2</p>
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11:30 - 13:00
13:00 - 14:30

**LUNCH
TECHNICAL SESSIONS**

Exhibit Hall

<p>Session 2A Circuits, Devices and Interrogators I Optimized CMOS RF-DC Converters for Remote Wireless Powering of RFID Applications Stefano Scorcioni, Luca Larcher, Alessandro Bertacchini University of Modena and Reggio Emilia, IT An Active MOS Diode with Vth-Cancellation for RFID Rectifiers Hans Rabén, Johan Borg, Jonny Johansson Luleå University of Technology, SE An Error Free Passive UHF RFID System using a New Form of Wireless Signal Distribution Sithamparanathan Sabesan, Michael J. Crisp, Richard Penty, Ian White University of Cambridge, UK A Multistandard HF/ UHF-RFID-Tag With Integrated Sensor Interface and Localization Capability Thomas Ussmueller, Daniel Brenk, Jochen Essel, Juergen Heidrich, Georg Fischer, Robert Weigel Friedrich Alexander University of Erlangen-Nuremberg, DE Session Chair: Matthew Reynolds, Duke University, US</p>	<p>Asia 1</p>	<p>Session 2B Communication Protocols Channel Estimation in Tag Collision Scenarios Jelena Kaitovic, Michal Šimko, Robert Langwieser, Markus Rupp Vienna University of Technology, AT Modulation Silencing: Novel RFID Anti-Collision Resolution for Passive Tags Abdallah Alma'aitah, Hossam S. Hassanein, Mohamed Ibnkahla Queen's University, CA Linearized Combinatorial Model for Optimal Frame Selection in Gen2 RFID System Petar Šolić, Joško Radić, Nikola Rožić University of Split, HR Identification of Missing Objects with Group Coding of RF Tags Yuki Sato, Yuki Igarashi, Jin Mitsugi, Osamu Nakamura, Jun Murai Keio University, JP Session Chair: Jin Mitsugi, Keio University, JP</p>	<p>Asia 2</p>
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IEEE RFID 2012 Program Brief – Wednesday, April 4 (Continued)

14:30 - 15:00	BREAK	Southern Hemisphere III
15:00 - 17:00	POSTER AND DEMO SESSION	Asia 4
Session Chair: Matthew Trotter, Georgia Tech, US		
17:00 - 18:30	Student Competition Rectenna Shootout!	Southern Hemisphere III
18:30 - 20:30	IEEE RFID 2012 Networking Dinner	Big River Grille and Brewery Disney Boardwalk

IEEE RFID 2012 Program Brief – Thursday, April 5

7:30 - 8:30	MORNING COFFEE	Southern Hemisphere III
8:00 - 8:30	SPEAKER BRIEFING	Asia 2
8:30 - 10:30	PLENARY	Southern Hemisphere III

<p>Welcome</p> <p>CRFID Update</p> <p>Best Poster Award</p> <p>Featured Speaker</p> <p>Featured Speaker</p>	<p>Daniel Deavours, General Co-Chair, IEEE RFID 2012</p> <p>Daniel Engels, Chair, IEEE Technical Committee on RFID (CRFID)</p> <p>Matthew Trotter, Poster Session Chair</p> <p>Gregory Durgin, Georgia Institute of Technology</p> <p>Pavel Nikitin, Intermec Technologies</p>
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10:30 - 11:00	BREAK	Southern Hemisphere III
11:00 - 12:15	TECHNICAL SESSIONS	

<p>Session 3A Localization I Asia 1</p> <p>Range Estimation for Passive RFID Systems That Use Power-Optimized Waveforms Matthew Trotter, Gregory Durgin Georgia Institute of Technology, US</p> <p>A Novel Method for UHF RFID Tag Tracking Based on Acceleration Data Andreas Parr¹, Robert Miesen¹, Fabian Kirsch², Martin Vossiek¹ ¹ University of Erlangen-Nuremberg, DE ² Clausthal University of Technology, DE</p> <p>Optical Localization of Passive UHF RFID Tags with Integrated LEDs Alanson Sample, Craig Macomber, Liang-Ting Jiang, Joshua R. Smith University of Washington, US</p> <p>Session Chair: Pavel Nikitin, Intermec Technologies, US</p>	<p>Session 3B Sensors Asia 2</p> <p>Polymer-Doped UHF RFID Tag for Wireless-Sensing of Humidity Gaetano Marrocco University of Rome Tor Vergata, IT</p> <p>RFID-Grids for Deformation Sensing Stefano Caizzone, Gaetano Marrocco University of Rome Tor Vergata, IT</p> <p>Near Field Modulated Backscatter For In Vivo Biotelemetry Jordan Besnoff, Matthew Reynolds Duke University, US</p> <p>Session Chair: Rahul Bhattacharyya, MIT, US</p>
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IEEE RFID 2012 Program Brief – Thursday, April 5 (Continued)

12:15 - 13:45

LUNCH

Exhibit Hall

13:45 - 14:15

INVITED TALK

<p>Invited Talk</p> <p>Pricing of Information for Emerging Technology Applications Panjak Sood¹, Mark Roberti² ¹ University of Cambridge, UK ² RFID Journal, US</p>	<p>Asia 1</p>	
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14:15 - 15:45

TECHNICAL SESSIONS

<p>Session 4A</p> <p>Localization II / Applications and Software</p> <p>A Real-time RFID Localization Experiment Using Propagation Models Jason Brchan, Lianlin Zhao, Jiaqing Wu, Robert Williams, Lance C. Pérez University of Nebraska-Lincoln, US</p> <p>UHF RFID Shelf Solution with Cascaded Reader Antenna and Positioning Capability Yong Yuan, Dan Yu Siemens, CN</p> <p>An Adaptive Data Cleaning Scheme for Reducing False Negative reads in RFID Data Streams Libe Massawe¹, Hermanus Vermaak¹, Johnson Kinyua² ¹ Central University of Technology, Free State, ZA ² University of Northern Virginia, US</p> <p>Assessment of Visibility Restriction Mechanisms for RFID Data Discovery Services Miguel L Pardal¹, Mark Harrison², José Alves Marques¹ ¹ IST - Technical University of Lisbon, PT ² Cambridge University, UK</p> <p>Session Chair: Gaetano Marrocco, University of Rome Tor Vergata, IT</p>	<p>Asia 1</p>	<p>Session 4B</p> <p>Circuits, Devices and Interrogators II</p> <p>A Fully Integrated Chip-ID Tag Used in Chip Information Identification Yuhui He, Xijin Zhao, Chun Zhang, Zhihua Wang Institute of Microelectronics, Tsinghua University, CN</p> <p>Passive Tag-to-Tag Communication Pavel Nikitin, Shashi Ramamurthy, Rene Martinez, Kodukula Rao Intermec Technologies, US</p> <p>A 96 Mbit/sec, 15.5pJ/bit 16-QAM Modulator for UHF Backscatter Communication Stewart Thomas, Matthew Reynolds Duke University, US</p> <p>A Compact Chipless RFID Tag Using Polarization Diversity for Encoding and Sensing Arnaud Vena¹, Etienne Perret², Smail Tedjini² ¹ Grenoble-INP/LCIS, FR ² Grenoble-INP, FR</p> <p>Session Chair: Daniel Arnitz, Graz University of Technology / Duke University, AT / US</p>	<p>Asia 2</p>
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15:45

CONFERENCE ENDS