

2013 IEEE Radio and Wireless Symposium

(RWS 2013)

**Austin, Texas, USA
20-23 January 2013**



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MO1A: RWW Distinguished Lecturers I

Chair: Norman Chiang, Space Systems Loral — Co-Chair: Jim Sowers, Space Systems Loral

Venue: Trinity A, 08:00 – 10:00, Monday 21 January 2013

Not Available
MO1A-1

Implantable Wireless Medical Devices and Systems
(J.C. Chiao)

Not Available
MO1A-2

Wideband and Low-Loss Metamaterial Antennas and Arrays with Tunable Radiation Patterns and Directions for Wireless and Radio Applications
(Joshua Le-Wei Li)

MO1D: Signal Classification and Spectrum Sensing in Software Defined Radios

Chair: Abbas Omar, University of Magdeburg

Venue: San Marcos, 08:00 – 10:00, Monday 21 January 2013

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Experimental Analysis of Energy Detection for PSK and QAM Signals: Indoor Measurements
(Ali Riza Ekti, Erchin Serpedin, Khalid A. Qaraqe)

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Systematic Coexistence Scheme for an Additional Radio System in the Operating Area of an Existing Radio Communication System
(Kanshiro Kashiki, Tomoki Sada, Akira Yamaguchi, Kosuke Yamazaki, Shingo Watanabe)

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A Novel Algorithm for MIMO Signal Classification Using Higher-Order Cumulants
(Michael S. Mühlhaus, Mengüç Öner, Octavia A. Dobre, Holger U. Jäkel, Friedrich K. Jondral)

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Sliding Window Technique to Detect the Presence of LTE (Invited Paper)
(Rakibul Hasan, Mohammad Saquib, Jeffrey Boksiner)

MO2A: RWW Distinguished Lecturers II

Chair: Jim Sowers, Space Systems Loral — Co-Chair: Norman Chiang, Space Systems Loral

Venue: Trinity A, 10:10 – 12:00, Monday 21 January 2013

Not Available
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What's New in Digital Pre-Distortion
(John Wood)

Not Available
MO2A-2

Towards Greener Smartphones with Microwave Measurements
(Dominique Schreurs)

MO2D: Hardware and Software Implementations in SDR and Cognitive Radios

Chair: Abbas Omar, University of Magdeburg

Venue: San Marcos, 10:10 – 12:00, Monday 21 January 2013

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(Daniel Malafaia, José Pedro Magalhães, José Vieira, Nuno Borges Carvalho)

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Dynamic Spectral Shaping in LTE-Advanced Cognitive Radio Systems
(Deepak R. Joshi, Dimitrie C. Popescu, Octavia A. Dobre)

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Characterizing Spurious Responses in Radio Receivers
(Chelsi Kovala, William B. Kuhn)

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MO2D-5

Efficient Spectrum Utilization: Cognitive Radio Approach (Invited Paper)
(Masaki Kitsunezuka, Kazuaki Kunihiro)

MO3A: Wireless Power (Focused Session)

Chair: Debabani Choudhury, Intel Labs — Co-Chair: Jenshan Lin, University of Florida

Venue: Trinity A, 13:30 - 15:10, Monday 21 January 2013

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(A. Georgiadis, Ana Collado)
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Chair: Jane Gu, University of California, Davis — Co-Chair: Adrian Tang, Jet Propulsion Laboratory

Venue: Trinity B, 13:30 - 15:10, Monday 21 January 2013

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MO3B-5 **THz Beamforming Using Graphene-Based Devices**
(Pai-Yen Chen, Andrea Alù)

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Chair: Silvio Ernesto Barbin, University Sao Paulo — Co-Chair: Goutam Chattopadhyay, California Institute of Technology

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(*M.H. Taghavi, P. Ahmadi, L. Belostotski, J.W. Haslett*)
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(*F. Arfaei Malekzadeh, R. Mahmoudi, A. van Roermund*)
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MO4A: Wireless Enabled Automotive and Vehicular Applications (Focused Session)

Chair: Martin Vossiek, University of Erlangen-Nuremberg — Co-Chair: Debabani Choudhury, Intel

Venue: Trinity A, 15:40 - 17:30, Monday 21 January 2013

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(Mike Köhler, Jan Schür, Lorenz-Peter Schmidt)
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Chair: Rashaunda Henderson, University of Texas at Dallas — Co-Chair: Glauco Fontgalland, Federal University of Caampina Grande

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(Sarah Adel, Hany Hammad)
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(Jaskaran Singh, Arezoo Modiri, Kamran Kiasaleh)
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(Prafulla Deo, Dariush Mirshekar-Syahkal, Lawrence Seddon, Sally E. Day, F. Aníbal Fernández)

TU1B: High-speed and Broadband Wireless Technologies

Chair: *Shilong Pan, Nanjing University of Aeronautics and Astronautics*

Venue: *Trinity B, 08:00 - 10:00, Tuesday 22 January 2013*

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(Aidong Yang, Hong Nie, Zhimeng Xu, Zhizhang Chen)
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(Zhimeng Xu, Hong Nie, Zhizhang Chen, Hassan Khani, Aidong Yang)
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(S. Priebe, S. Rey, T. Kürner)
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Chair: *Rahul Khanna, Intel Corporation*

Venue: *Trinity A, 13:30 - 14:50, Tuesday 22 January 2013*

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(Christopher Ian Phelps, R. Michael Buehrer)
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Chair: *Hiroshi Shirai, Chuo University*

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(Teja Kuruganti, James Nutaro, Seddik Djouadi)
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Chair: Roberto Gomez-Garcia, University of Alcala — Co-Chair: Xun Gong, University of Central Florida

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(*Qingfeng Zhang, Christophe Caloz*)
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(*Roberto Gómez-García, Manuel Sánchez-Renedo, Raúl Loeches-Sánchez*)
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Chair: Takao Inoue, National Instruments

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(*Aki Hakkarainen, Janis Werner, Mikko Valkama*)
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TU5B-4 **CRAVE: Cognitive Radio Enabled Vehicular Communications in Heterogeneous Networks (*Late News Paper*)**
(*Danda B. Rawat, Yanxiao Zhao, Gongjun Yan, Min Song*)
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TU5C: Wireless Energy Transport and Harvesting

Chair: Zhizhang David Chen, Dalhousie University — Co-Chair: Shigeo Kawasaki, Japan Aerospace Exploration Agency

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(*Ken Hatano, Naoki Shinohara, Tomohiro Seki, Munenari Kawashima*)
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(*Luca Aluigi, Trang T. Thai, Manos M. Tentzeris, Luca Roselli, Federico Alimenti*)

WE1B: MIMO Signal Processing and Smart Antennas

Chair: Robert Heath, University of Texas at Austin

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(Omar El Ayach, Robert W. Heath Jr.)

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Simulation of Time Jitter Effects on the Detection Performance of M-Sequence-Based MIMO Radar Systems
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A Fast Direction of Arrival Estimation Procedure for Adaptive Array Antennas Covered by a Shaped Dielectric Lens
(S. Ravishankar, B.S. Dharshak)

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A Compact Phased Array Antenna System Based on Dual-Band Butler Matrices
(Han Ren, Jin Shao, Rongguo Zhou, Bayaner Arigong, Hyoung Soo Kim, Changzhi Li, Hualiang Zhang)

WE2B: Advances in Low-Noise Low-Power Receivers

Chair: Hiroshi Okazaki, NTT DoCoMo Inc. — Co-Chair: Telesphor Kamgaing, Intel Corporation

Venue: Trinity B, 10:10 - 12:00, Wednesday 23 January 2013

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A 0.8V 1.1pJ/Bit Inductive-Coupling Receiver with Pulse Extracting Clock Recovery Circuit and Intermittently Operating LNA
(Teruo Jyo, Tadahiro Kuroda, Hiroki Ishikuro)

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Dynamic Range Extension for HF Receiver Frontend
(Gerald Ulbricht)

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A Low Profile Efficient Leaky-Wave Antenna Composed of High Aspect Ratio EBG Unit Cells (*Late News Paper*)
(Mehdi Hosseini, David M. Klymyshyn)

WE3B: Power Amplifiers and Transmitter Modules (Joint RWS/SiRF Session)

Chair: Yaoming Sun, IHP GmbH, Germany — Co-Chair: Luciano Boglione, Solid State Scientific Corp.

Venue: Trinity B, 13:30 – 15:10, Wednesday 23 January 2013

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(*Kyoya Takano, Ryuichi Fujimoto, Mizuki Motoyoshi, Kosuke Katayama, Minoru Fujishima*)
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(*Jonghun Jung, Geunyong Lee, Jong-In Song*)
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(*Volker Blaschke, Aharon Unikovski, Paul Hurwitz, Samir Chaudhry*)
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Chair: Karl Varian, Raytheon Company

Venue: Sabine, 13:30 – 15:10, Wednesday 23 January 2013

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Chair: Gabriel Montoro, Technical University of Catalonia

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(*Y. Sumitomo, T. Kawai, A. Enokihara, I. Ohta, K. Satoh, Y. Suzuki, H. Okazaki, S. Narahashi*)
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(*Aaron N. Parks, Alanson P. Sample, Yi Zhao, Joshua R. Smith*)
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(*Mohamed M. Elsewe, Deb Chatterjee*)
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WE4B: Millimeter-Wave System-in-Packages, Emerging Microwave Circuits and Techniques

Chair: Bhaskar Banerjee, University of Texas Dallas

Venue: Trinity B, 16:00 - 17:40, Wednesday 23 January 2013

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