



IEEE Radio and Wireless Symposium

16 - 20 JANUARY 2011, PHOENIX, AZ, USA



<http://www.radiowirelessweek.org/>

General Chair

George E. Ponchak,
NASA Glenn Research Center

Technical Program Chair

John T. Barr, *MTTS*

Finance Co-Chair

Jan-Erik Mueller, *Infinion*

Finance Co-Chair, Webmaster

Takao Inoue, *The Univ. of Texas at Austin*

Session Tracks

RF Power Amplifiers

Marc Franco, *RFMD*

Allen Katz,

The College of NJ/ Linearizer Technology, Inc.

Biomedical Wireless Technologies, Networks and Sensing

Rizwan Bashirullah, *Univ. of Florida*

Mohamed Mahfouz, *Univ. of Tennessee*

Sensors and Sensor Networks

Dietmar Kissingner,

Univ. of Erlangen-Nuremberg

Masood Zandi Atashbar,

Western Michigan Univ.

Workshops Co-Chairs

Luciano Boglione,

Univ. of Massachusetts, Lowell

Liuqing Yang, *Univ. of Florida*

Plenary Session Chair

Silvio Barbin, *Center for Information*

Technology, Renato Archer

Panel Session Co-Chairs

John Papapolymou,

Georgia Inst. of Tech.

Faranak Nekoogar,

Lawrence Livermore Nat. Lab

Exhibits and Sponsorships Co-Chairs

Mike Majereus, *Freescale*

Charlie Jackson, *Northrop Grumman*

Special Consultant and Advisor

George Heiter,

Heiter Microwave Consulting

Student Paper Competition

Co-Chairs

Rashaunda Henderson,

Univ. of Texas at Dallas

Talal Al-Attar, *Santa Clara Univ.*

IMSTPC Chair Coordination

Jeff Pond, *Naval Research Laboratory*

Paper Submission Management

Chair, Jeremy Muldavin,

MIT Lincoln Laboratory

APS Liaison

Ahmed Kishk, *Univ. of Mississippi*

VTS Liaison

Abbas Jamalipour, *Univ. of Sydney*

Publicity Co-Chairs

Salam Akoum, *The Univ. of Texas at Austin*

Omar El Ayach, *The Univ. of Texas at Austin*

Microwave Magazine Special Issue

Editor, Debabani Choudhury, *Intel*

Conference Management

Jennifer More, *Fly Events LLC*

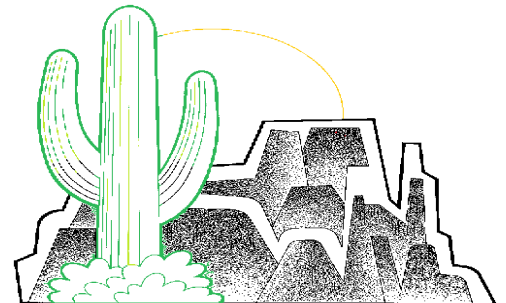
First Call For Papers

The 2011 IEEE Radio and Wireless Symposium (RWS2011) will be held during the week of January 16, 2011 in Phoenix, AZ. This year, RWS2011 and SiRF2011 will hold more joint sessions to highlight the indispensable use of silicon in modern wireless systems. In addition, RWS2011 will include a Two Day Session Tracks on "RF Power Amplifiers", "Biomedical Wireless Technologies, Networks, and Sensing Systems", and "Sensors and Sensor Networks". Each of these Session Tracks has a separate Call for Papers with more details on page 2. In addition to these topics, RWS invites papers on all areas of radio and wireless systems, including but not limited to:

- 1. Passive Antennas**
 - Dipoles, Integrated and Patch Antennas
- 2. Propagation Channel Modeling and Utilization**
 - Propagation & Channel Characterization & Modeling
 - Fading Countermeasures
 - Spectrum Sensing Technologies
- 3. Transceivers and Front-end Technologies, SOC and SiP**
 - Receiver and Transceiver Components
 - Active Sub-systems
 - Low-Power/Low Noise RF/Analog IC and System-On-Chip Solutions
- 4. MIMO, Signal Processing, and Smart Antennas**
 - Electrically Small and Smart Antennas
 - MIMO and Space-Time Processing
 - Relaying Technology
- 5. High-speed and Broadband Wireless Technologies**
 - 802.16/LMDS Broadband Fixed Wireless Techniques and Last-Mile Access Techniques
 - Powerline Communication Technologies
 - 3G/4G Wireless Communication Services
 - Ultra-Wideband (UWB) Systems
- 6. Software Defined Radios and Cognitive Radios**
- 7. Wireless System Architecture and Modeling**
 - Ad Hoc Network Techniques for Anytime, Anywhere Internetworking
 - Wireless LAN Systems
 - Wireless Mesh and Broadband Local/Personal Area Networks
 - Wireless Security and RFID Technologies
- 8. Emerging Wireless Technologies and Applications**
 - Heterogeneous Mobile Networks and Mobile Network Convergence
 - Multicasting and Broadcasting
 - Satellite Network Systems
 - Ultra-High Data Rate Communications Links
- 9. Digital Signal Processing as Applied to Wireless**
 - Digital/Analog Adaptive/Collaborative Signal Processing
 - Methods for Maintaining Signal Integrity
 - Digital and Adaptive Filtering
- 10. Passive Components & Packaging**
 - Discrete, Embedded and Distributed Passive components
 - Filters, Couplers and Signal Separation Devices
 - Discrete and Highly Integrated Packaging

Papers describing technologies that enable Radio and Wireless Systems are welcome including:

- System Level Design, Modeling, and Simulation
- Multilayer integration of RF, energy and sensing components
- Signal Generation and Modulation Circuits
- Microwave Energy Transmission



Paper submission instructions will be found at <http://www.radiowireless.org/>. Submissions should be properly formatted with all figures included within a maximum of four pages. Only electronic submissions in pdf format will be accepted for review. Authors should indicate their preference for oral or poster presentation. All submissions must be received by July 30, 2010.

All accepted papers will be published in a digest and be included in IEEE Xplore. Submissions will be evaluated based on novelty, significance of the work, technical content, interest to the audience, and presentation.



IEEE Radio and Wireless Symposium

16 - 20 JANUARY 2011, PHOENIX, AZ, USA



<http://www.radiowirelessweek.org/>

Two Day Session Tracks

First Call for Papers

RF Power Amplifiers

Session Track Chairs:

Marc Franco, *RFMD*
Allen Katz,
Linearizer Technology Inc./TCNJ

Power amplifiers are often the most critical component of RF/microwave communications systems and consequently the focus of intense research to achieve increased linearity and power efficiency. New forms of power amplification are being developed to meet the needs of the wireless communication equipment industry and the world's demand for greater information transmission. RWS 2011 will feature a special two-day archival session track on RF/microwave Power Amplifiers. Papers featuring innovative work are solicited in (but not limited to) the following areas of RF/microwave power amplifier technology:

- High Power/Wideband Active Devices
- Power Amplifiers for Mobile, Avionics and Space
- Modeling and Characterization
- Power Amplifier Technology
- Advanced Circuit Design and Topologies
- Green Power Amplifier Technology
- Integration Technology
- Packaging and Reliability
- Linearization and Efficiency Enhancement Techniques
- Applications, Novel Architectures and System Analysis

Biomedical Wireless Technologies, Networks, and Sensing Systems

Session Track Chairs:

Rizwan Bashirullah,
Univ. of Florida
Mohamed Mahfouz,
Univ. of Tennessee

The wireless revolution has begun to infiltrate the medical community with patient health monitoring, tele-surgery, mobile wireless biosensor systems, and wireless tracking of patients and assets becoming a reality. The rapid evolution of wireless technologies coupled with powerful advances in adjacent fields such as biosensor design, low power battery operated systems, and diagnosing and reporting for intelligent information management has opened up a plethora of new applications for wireless systems in medicine. RWS2011 will feature a special two-day, archival Session Track to specifically focus on the latest developments in this area. Papers featuring innovative work are solicited in (but not limited to) the following areas of Biomedical Wireless Technologies, Networks, & Sensing Systems:

- Miniaturization and integration of wireless technologies and micro sensors for medical applications
- Personal area networks and body area sensor networks in hospital environments
- High data rate wireless protocols & processing for biosignals
- Wireless positioning technologies in medicine
- Microwave systems for imaging, diagnostics & therapeutics
- Biomedical devices for remote monitoring
- New advances in understanding microwave interaction with biological tissues
- Microwave systems for biological applications
- Coexistence and modeling of wireless technologies in clinical environments
- Health monitoring, energy scavenging and biosensor E-textiles

Sensors and Sensor Networks

Session Track Chairs:

Dietmar Kissinger,
Univ. of Erlangen-Nuremberg
Massood Zandi Atashbar,
Western Michigan Univ.

RF and millimeter-wave sensors and wireless sensor networks are critical system components for manufacturing, monitoring, safety as well as positioning and tracking applications. RWS2011 will feature a special two-day, archival Session Track to specifically focus on the latest developments in this area. Papers featuring original and innovative work are solicited in (but not limited to) the following areas of wireless sensors and sensor systems:

- Sensors For Communication, Radar, Positioning and Imaging Applications
- Integrated RF and mm-Wave Sensor Frontends or Building-Blocks
- Indoor & Outdoor Local Positioning Technologies
- High-Precision Ultra-Wideband Techniques
- Wireless Sensors Networks and Smart Sensor Systems
- RFID Technologies and Applications
- Surface Acoustic Wave Technologies and Applications
- RF Tracking and Positioning Devices

Paper submission instructions will be found at <http://www.radiowireless.org/>. Submissions should be properly formatted with all figures included within a maximum of four pages. Only electronic submissions in pdf format will be accepted for review. Authors should indicate their preference for oral or poster presentation. All submissions must be received by July 30, 2010. All accepted papers will be published in a digest and be included in IEEE Xplore.