



# Radio Wireless Week

16 - 20 JANUARY 2011, PHOENIX, AZ, USA



IEEE



IEEE COMMUNICATIONS SOCIETY

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

## General Chair

George E. Ponchak,  
NASA Glenn Research Center

## Technical Program Co-Chairs

John T. Barr, *MTTS*  
Hsiao-Hwa Chen, *Natl. Cheng Kung Univ.*

## Finance Co-Chair

Jan-Erik Mueller, *Infinoeon*

## Finance Co-Chair, Webmaster

Takao Inoue, *National Instruments*

## Topical Conferences

### RF Power Amplifiers

Marc Franco, *RFMD*

Allen Katz, *The College of NJ*

### Biomedical Wireless

### Techn. Networks & Sensing

Rizwan Bashirullah, *Univ. of Florida*

Mohamed Mahfouz, *Univ. of Tennessee*

### Sensors and Sensor Networks

Dietmar Kissinger,  
*Univ. of Erlangen-Nuremberg*

Massoud Zandi Atashbar,  
*Western Michigan Univ.*

## Workshops Co-Chairs

Luciano Boglione,  
*Univ. of Massachusetts, Lowell*

Liuqing Yang, *Univ. of Florida*

## Plenary Session Chair

Silvio Barbin, *Univ. De Sao Paulo*

## Panel Session Co-Chairs

John Papapolymerou,  
*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

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*

## RWS Call For Papers

The 2011 IEEE Radio and Wireless Symposium (RWS2011) will be held the week of January 16, 2011 in Phoenix, AZ as part of the Radio Wireless Week (RWW2011). This year, RWS2011 and SiRF2011 will hold more joint sessions to highlight the indispensable use of silicon in modern wireless systems. In addition, RWW2011 will include topical conferences on RF Power Amplifiers, Biomedical Wireless Technologies, Networks, and Sensing Systems, and Wireless Sensors and Sensor Networks. Each of these highlighted topics will be organized separately, with their own call for papers found at <http://www.radiowirelessweek.org/>. 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

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

### 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

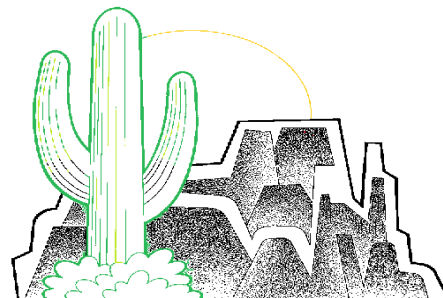
- Heterogeneous Mobile Networks and Mobile Network Convergence
- Multicasting and Broadcasting
- Satellite Network Systems
- Ultra-High Rate Communications Links

### 9. Digital Signal Processing as Applied to Wireless

- Digital/Analog Adaptive/Collaborative Signal Processing
- Methods for Maintaining Signal Integrity

### 10. Passive Components & Packaging

- Discrete, Embedded and Distributed Passive components
- Filters, Couplers and Signal Separation Devices
- Discrete and Highly Integrated Packaging



Paper submission instructions will be found at <http://www.radiowirelessweek.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.



## 2011 IEEE Topical Conference on Wireless Sensors and Sensor Networks

RF and millimeter-wave sensors and wireless sensor networks are critical system components for manufacturing, monitoring, safety as well as positioning and tracking applications. WiSNet2011 will be a two day topical conference focused in the latest developments in this area. Papers featuring innovative work are solicited in (but not limited to) the following areas of wireless sensors and sensor systems:

- » Sensors for communications, radars, positioning and imaging applications
- » Integrated RF and mm-Wave Sensor Frontends Sensors 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



## 2011 IEEE Topical Conference on Biomedical Wireless Technologies, Networks & Sensing Systems

The wireless revolution has begun to infiltrate the medical community with patient health monitoring, telesurgery, 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. BioWireless2011 will be a two day topical conference focused in 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
- » New advances in understanding microwave interaction with biological tissues
- » Biomedical devices for remote monitoring
- » Microwave systems for biological applications
- » Coexistence and modeling of wireless technologies in clinical environments
- » Health monitoring, energy scavenging & biosensor E-textiles



## 2011 IEEE Topical Conference on RF/microwave Power Amplifiers

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. PAWR2011 will be a two day topical conference 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
- » Modeling and Characterization
- » Advanced Circuit Design and Topologies
- » Linearization and Efficiency Enhancement Techniques
- » Applications and Novel Architectures
- » Packaging and Integration Technology

Papers submission instructions will be available through respective topical conference websites found at <http://www.radiowirelessweek.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.