



IEEE Radio & Wireless Symposium



10 - 14 January, 2010 New Orleans, LA, USA

Celebrating 125 Years
of Engineering the Future



IEEE
COMMUNICATIONS
SOCIETY



Electronic Submission
Deadline: 2 August 2009!

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Session Tracks

RF Power Amplifiers

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

Biomedical Applications of Microwave Systems

Victor Lubecke, *Univ. of Hawaii*
Arye Rosen, *Drexel Univ.*
Rizwan Bashirullah, *Univ. of Florida*

Sensor and Sensor Networks

Manos Tentzeris, *Georgia Inst. of Tech.*
Roger Kaul, *MTT*
Danijela Cabric, *UCLA*

Workshop Chair

John Papapolymerou,
Georgia Inst. of Tech.

Plenary / Focused / Panel Sessions:

Debabani Choudhury, *Intel*
Luciano Boglione,
Univ. of Massachusetts Lowell

Poster Sessions

Mehdi Shadaram, *Univ. of Texas at San Antonio*

Electronic Paper Submissions

Jeremy Muldavin, *MIT Lincoln Lab*
George Heiter, *Heiter Microwave Consulting*
Jeff Pond, *Naval Research Lab*
John Barr, *MTT*

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Call For Papers

The 2010 IEEE Radio and Wireless Symposium (RWS2010) will be held the week of January 10, 2010 in New Orleans, LA. This year, RWS10 and SiRF10 will hold more joint sessions to highlight the indispensable use of silicon in modern wireless systems. In addition, RWS10 will include a **Two Day Track of Sessions** on:

- **RF Power Amplifiers**
- **Biomedical Applications of Microwave Systems**
- **Sensors and Sensor Networks**

Each of these highlighted topics will be organized separately, with their own call for papers found at <http://www.radiowireless.org/>. In addition to these topics, RWS invites papers on all areas of radio and wireless systems, including but not limited to:

- 3G/4G Wireless Communication Services
- Satellite Network Systems
- Wireless LAN Systems
- Software Defined/Cognitive Radio and other Emerging Technologies
- 802.16/LMDS Broadband Fixed Wireless Techniques and Last-Mile Access Techniques
- Wireless Mesh and Broadband Local/Personal Area Networks
- Wireless Sensor Technologies
- RFID Systems and Applications
- Spectrum Sensing Technologies
- Powerline Communication Technologies
- RF Tracking and Positioning Devices
- Ad Hoc Network Techniques for Anytime, Anywhere Internetworking
- Ultra-Wideband (UWB) Systems
- Microwave Energy Transmission
- Propagation and Channel Characterization and Modeling for RF and THz Systems
- Heterogeneous Mobile Networks and Mobile Network Convergence
- Multicasting and Broadcasting
- High Data Rate THz Communication Links, and THz Imaging Radar

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

- Transmitter Components
- Receiver Components
- Highly Integrated Packaging
- Multilayer integration of RF, energy and sensing components
- Electrically Small, MIMO, and Smart Antennas
- Signal Generation and Modulation Circuits
- Methods of Maintaining Signal Integrity
- RF/Optical, Optical, and Fiber Techniques

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 **August 2, 2009**. 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. A student paper competition will be held, and prizes will be given at the conference banquet.





RF Power Amplifier Session Track Chairs

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

Call for Papers Two Day Track of Sessions RF Power Amplifiers

RF power amplifiers are the subject of one of the greatest research efforts in recent times due to the increased demand of linearity and power efficiency of today's wireless communication equipment. This year, the RWS will feature a special two-day, archival RF Power Amplifier Session Track to specifically focus on the latest developments in this field. Papers featuring innovative work are solicited in (but not limited to) the following areas of RF power amplifier technology:

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

Biomedical Applications Session Track Chairs

Victor Lubecke,
Univ. of Hawaii
Arye Rosen, *Drexel Univ.*
Rizwan Bashirullah,
Univ. of Florida

Call for Papers Two Day Track of Sessions Biomedical Applications of Microwave Systems

Microwave systems have been successfully applied to a wide range of biomedical applications, from specimen analysis to disease therapy. Emerging wireless approaches to sensors, telemetry, and information management are taking on the unique challenges of biomedical applications. This year, the Radio and Wireless Symposium will feature a special two-day, archival RF Session Track to specifically focus on the latest innovations applying radio technology from KHz to THz, to challenges in medicine and biology. Papers featuring innovative work are solicited in (but not limited to) the following areas of Biomedical Applications of Microwave Systems:

- Medical treatment and therapies
- Electromagnetic measurement, imaging, and characterization of biological tissue
- Biological signals and sensors
- Health hazards and radio interference
- Privacy issues and data standards
- Implantable devices and systems

Sensor and Sensor Networks Session Track Chairs

Manos Tentzeris,
Georgia Inst. of Tech.
Roger Kaul, *MTT*
Danijela Cabric, *UCLA*

Call for Papers Two Day Track of Sessions Sensors and Sensor Networks

Sensors and sensor networks are critical components for manufacturing, structural health, security and transportation monitoring and location and tracking systems. This year, the Radio and Wireless Symposium will feature a special two-day, archival RF Sensors and Sensor Networks Session Track to specifically focus on the latest developments in this field. Papers featuring innovative work are solicited in (but not limited to) the following areas of wireless sensors systems:

- Wireless Sensors
- RFID Technologies (tag, readers, antennas)
- Nanotechnology-enhanced RF sensing
- Power issues in RF/Wireless sensors
- Multi-hopping WSN's
- Ad-Hoc sensor systems
- Packaging and integration of RF, power and sensor components
- Local positioning systems
- Sensing in "Rugged" environments
- Channel and system modeling for UGS (Unattended Ground Sensors)

Papers shall be submitted to the RWS using the submission instructions 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 **August 2, 2009**. All accepted papers will be published in a digest and be included in IEEE Explore.