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The **2012 IEEE International Conference on Ultra-Wideband (ICUWB 2012)** will be held in *Syracuse, NY USA* on 17 – 20 September 2012. This conference provides a forum for the latest UWB systems, technologies and applications in both microwave and millimeter wave bands. ICUWB 2012 is a continuation of a series of annual international UWB conferences held in Baltimore, Reston-VA, Oulu, Kyoto, Zürich, Waltham, Singapore, Hannover, Vancouver, Nanjing, and Bologna from 2002 to 2011. This event is cosponsored by the IEEE Syracuse Section, IEEE MTT Society, and Syracuse University, and technically supported by the IEEE Signal Processing Society (SPS), IEEE Communication Society (ComSoc), and IEEE Antennas and Propagation Society (AP-S).

ICUWB 2012 welcomes previously unpublished original research and development related to ultra-wideband (bandwidth greater than 500 MHz or 20%). All accepted papers will be published by the IEEE and included in IEEE Xplore. The manuscript template and complete information about the electronic paper submission process can be found at www.ICUWB2012.org.

Topics of interest include but are not limited to:

Antennas and Propagation

UWB antennas and arrays
Channel measurement and modeling
Field trials and measurements

Hardware Architecture and Implementation

RF modules, circuits, and systems
Pulse generation and detection
Integrated circuits designs
Low-power consumption techniques
OFDM implementations, Wireless USB
Consumer electronics
System architectures

UWB Communication Systems and Signal Processing

Modulation and detection
Synchronization
MIMO systems
Interference and capacity
Coding and decoding
Multiple access schemes
Time reversal
UWB green communications
Energy efficient cross-layer design
Pulse based systems

UWB Cognitive and Cooperative Radio, Networking

Cognitive wireless networks
Wireless access protocols and architectures
Spectrum sensing and dynamic spectrum sharing
Cooperative communications
Home networking
UWB communications over power lines
Wireless personal/body area networks
60 GHz and beyond short range communications

UWB Sensing and Imaging

UWB radar
Ground penetrating radar
Through-wall radar
RF identification
Short-range imaging front-ends
Medical sensing and imaging
Industrial sensing and imaging
First responder sensing and imaging
Non-destructive testing
Material Characterization

Standardization and Regulatory Issues

Spectral management
Measurement for type approval
Emerging wireless standardization
Co-existence

Workshops/Tutorials: ICUWB 2012 invites experts in the field to submit proposals. Syracuse will be a great opportunity to communicate and exchange the latest UWB developments with fellow researchers and student delegates.

Student Paper Contest: ICUWB 2012 encourages student participation. The requirements, prizes, and sponsors are listed on the conference website.

Exhibition: An exhibition of research achievements and commercial products is held concurrently.

Important Dates

Tutorial/Workshop Proposal Submission	3 February 2012
Technical Paper Submission	9 March 2012
Acceptance Notification	11 May 2012
Final Manuscript Submission	15 June 2012