

**ICUWB2010** will be held in Nanjing, China on September 20-23, 2010. This conference provides a forum for the latest UWB systems, technologies and applications in both microwave and millimeter wave bands. ICUWB 2010 is a continuation of a series of annual international UWB conferences held in Baltimore (2002), Reston-VA (2003), Oulu (2003), Kyoto (2004), Zürich (2005), Waltham (2006), Singapore (2007), Hannover (2008), and Vancouver (2009). This event is sponsored by Southeast University and IEEE MTT-S.

ICUWB welcomes original research and developments in all areas of UWB technology. Prospective authors are invited to submit technical papers of their previously unpublished works in the following broadly-defined scope. All accepted papers will be published by the IEEE and included in IEEEXplore.

ICUWB is intended to provide a broad international forum and nice opportunity for the researchers to present their new ideas and exchange information in all areas of UWB technology. We welcome you to join us and share your contributions at the conference.

#### Important Dates

Paper Submission Deadline:	<b>March 15, 2010</b>
Acceptance Notification:	<b>May 15, 2010</b>
Final paper submission Deadline:	<b>June 15, 2010</b>
Advance Program Delivery:	<b>August 10, 2010</b>

#### Exhibition

An exhibition of research achievements and commercial products related to the conference topics will be held concurrently.

#### Student Paper Contest

Student paper contest is limited to full-time students who must be the first author of the paper, and are required to present their papers at the conference. The candidates are required to show their full-time student identification cards on the registration desk. Each of the three final winners will be awarded the ICUWB2010 Best Student Paper Prize with a certificate and 300USD. All the students are encouraged to participate in the contest.

#### Scope

Relevant topics of interest include, but not limited to the following:

##### **Antennas and Propagation**

- UWB antennas and arrays
- Channel measurements & modeling
- Field trials & measurements

##### **UWB Communication Systems and Signal Processing**

- Modulation & detection
- Synchronization
- Ranging, localization and positioning
- MIMO
- Interference & capacity
- Coding & decoding
- Multiple access schemes
- Time reversal

##### **Hardware Architecture and Implementation**

- RF modules, circuits & systems
- Pulse generation & detection
- Integrated circuits designs
- Low power consumption techniques
- OFDM implementations
- System architectures

##### **UWB Cognitive and Cooperative**

- Cognitive wireless networks
- Wireless access protocols and architectures
- Energy efficient cross-layer design
- Spectrum sensing and dynamic spectrum sharing
- Cooperative communications

##### **Standardization and Regulatory Issues**

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

##### **Applications**

- Wireless personal/body area network
- Home networking
- Wireless USB
- Sensing and medical imaging
- Collision, ground-penetrating and through-wall radars
- Consumer electronics
- 60 GHz millimeter wave and beyond
- Underwater UWB communications
- UWB communications over power lines

##### **Other related topics**



#### *Paper Submission*

All submissions must be electronic in PDF format only and **hard copies will not be accepted**. Authors are encouraged to select one or two suggested topics listed in the scope above.

All papers must be written in English and limited to four pages including text, references, and figures. Each submitted paper should be an IEEE Xplore® compliant PDF file, since all accepted papers will be transferred to IEEE Xplore®, the IEEE digital library. The paper template and instructions on how to create PDF files for IEEE Xplore® are available at the conference website (<http://www.emfield.org/icuwb2010>).

#### *Sponsors*

Southeast University  
IEEE Microwave Theory and Techniques Society (MTT-S)

#### *Co-sponsors*

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Nanjing University of Posts & Telecommunications (NUPT)

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IEEE Communications Society (ComSoc)  
IEEE Nanjing Section  
IEEE Beijing Section  
IEEE Shanghai Section  
IEEE Harbin Section  
IEEE Chengdu Section  
IEEE ComSoc Nanjing Chapter

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