2014 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting

July 6–12, 2014 • Memphis Convention Center • Memphis, Tennessee, USA

CALL FOR PAPERS

Submission Deadline - January 15, 2014

The **2014 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting** will be held jointly on July 6–12, 2014, at the Memphis Convention Center in Memphis, Tennessee, USA. The symposium and meeting are cosponsored by the IEEE Antennas and Propagation Society (AP-S) and the U. S. National Committee of the International Union of Radio Science (USNC-URSI) Commissions A, B, C, D, E, F, and K. The joint meeting is intended to provide an international forum for the exchange of information on state-of-the-art research in antennas, propagation, electromagnetics, and radio science. For more information, please visit the meeting website at: **www.2014apsursi.org**

Meeting Dates: July 6–12, 2014
Technical sessions will be held over a five-day period from July 7 through July 11, and workshops and short courses will occur on July 6 and July 12.

General Submission Information

Authors are invited to submit contributions for review and possible presentation at the symposium on topics of interest to AP-S and URSI. Topics and general information are listed in this call. Papers will be presented in either oral or poster sessions. Assignment to oral or poster sessions will be based solely on a paper's topic. All paper submissions are due **Wednesday, January 15, 2014**. This is a firm deadline. Papers will not be accepted after this date.

All paper and abstract submissions must be received in PDF format via the symposium Web site on or before Wednesday, January 15, 2014. This is a firm deadline. Papers will not be accepted after this date. Only electronic submissions in PDF format will be accepted. Please consult the symposium web site for the latest instructions, templates, and format examples. Only the author who submits the paper will receive an acknowledgement of the submission. Please do not include page numbers on submitted documents. All papers must be written in clear, idiomatic English. Please note that the symposium reserves the right to exclude a paper from distribution after the conference (e.g., removal from the proceedings submitted to IEEE Xplore) if the paper is not presented at the symposium. Address all AP-S and URSI correspondence, including inquiries concerning papers, abstracts, technical program, and copyright forms, to Fan Yang, Veysel Demir, or James Rautio, via email at **tpc@2014apsursi.org**.

Specific submission instructors for AP-S and URSI authors may be found online at the meeting website.

Exhibits and Sponsors

Exhibits

Industrial, academic, and book exhibits will be open July 8–10, 2014. Exhibitor registration and additional information can be found on the symposium web site. For additional information, contact Serhend Arvas or Rhonda Rodriguez, via email at **exhibits@2014apsursi.org**

Sponsors

The 2014 APS-URSI Symposium is the premier international forum for the exchange of information on state-of-the-art research in antennas, electromagnetic wave propagation, radio science, and electromagnetic wave propagation, radio science, and electromagnetic engineering. For additional information, contact C. J. Reddy or Jay Kralovec, via email at **sponsors@2014apsursi.org**

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	James C. Rautio (rautio@sonnetsoftware.com)

www.2014apsursi.org

Additional Activities

AP-S Student Paper Competition
Eligible entries in the Student Paper Competition must have only one student author, and that student must be the first author. Each additional coauthor must submit a signed letter indicating that his/her contribution is primarily advisory. Letters must be in PDF format and must be uploaded to the symposium's student paper web site in the indicated area at the time the paper is submitted. All Student Paper Competition entries will be evaluated using a double-blind review process in addition to the normal review process used for regular submissions. Detailed instructions will be available on the symposium Web site. For additional information, contact Reyhan Baktur, via email at spc@2014apsursi.org.

AP-S Student Design Contest
Students are invited to join the annual IEEE AP-S Student Design Challenge. In this competition, teams of students design and build an antenna or electromagnetic system to solve a specific problem. The top three teams will receive up to $2,500 in travel funds to attend the international symposium to demonstrate their working systems. From these top teams, first, second, and third place winners will be announced at the 2014 IEEE AP-S Awards Banquet at the Symposium and will receive cash prizes of $1500, $750, and $250, respectively. Further details, including submission deadlines, will be announced in Fall 2013 by e-mail, in the IEEE Antennas and Propagation Magazine, and on the IEEE Antennas and Propagation Society website at http://www.ieeeaps.org. For additional information, contact Buon K. Lau, via email at designcontest@2014apsursi.org.

Special Sessions
Requests to organize special sessions should be submitted to Kubilay Sertel via email at specialsessions@2014apsursi.org no later than October 15, 2013. Each proposal should include the title of the special session, a brief description of the topic, and justification for its designation as a special session. All proposals should be submitted in PDF format. Special sessions will be selected and finalized by the end of November 2013. At that time, additional instructions will be provided to the organizers of the special sessions chosen for inclusion in the symposium and/or the meeting. The associated papers or abstracts will be due January 15, 2014. A list of special sessions will be posted on the symposium Web site in December 2013.

General Topics

APS Topics

Antennas
1. Antenna theory
2. Antenna feeds and matching circuits
3. Antenna near fields and mutual couplings
4. Dielectric resonator antennas
5. Microstrip antennas, arrays, and circuits
6. Slotted and guided wave antennas
7. Phased-array antennas
8. Reflector and reflectarray antennas
9. Small antennas
10. Broadband/wideband antennas and systems
11. Multi-frequency antennas
12. Adaptive, active, and smart antennas
13. Reconfigurable antennas and arrays
14. Software control of antennas

Electromagnetics and Materials
15. Electromagnetic theory
16. Electromagnetic properties of materials
17. Electromagnetic measurement techniques
18. Frequency-selective surfaces
19. Electromagnetic bandgap materials
20. Metamaterials
21. Nano-electromagnetics
22. Electromagnetic education

Computational and Numerical Techniques
23. High frequency and asymptotic methods
24. Numerical methods
25. Integral equation methods
26. FDTD methods
27. FEM methods
28. Transients and time-domain techniques
29. Optimization methods in EM designs
30. Parallel and special-processor based numerical methods

Propagations and Scatterings
31. Indoor, urban, terrestrial, and ionospheric propagation
32. Propagation and scattering in random or complex media
33. Scattering, diffraction, and RCS
34. Inverse scattering and imaging
35. Remote sensing

Wireless Applications
36. Biomedical applications
37. MIMO implementations and applications
38. Mobile and PCS antennas
39. Radar imagery
40. RFID antennas and systems
41. Ultra wideband antennas and systems
42. Vehicular antennas and electromagnetics
43. Wireless antennas and applications

URSI Topics

Commission A - Electromagnetic Metrology
Chair: Christopher L. Holloway
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A.1 Microwave to sub-millimeter measurements/standards
A.2 Quantum metrology and fundamental concepts
A.3 Time and frequency
A.4 Time-domain metrology, EM-field metrology
A.5 EMC and EM metrology
A.6 Noise
A.7 Materials
A.8 Bioeffects and medical applications
A.9 Antennas
A.10 Impulse radar
A.11 Interconnect and packaging
A.12 Test facilities
A.13 THz metrology
A.14 High-Frequency and Millimeter Wireless metrology

Commission B - Fields and Waves
Chair: Sembiam Rengarajan
sembiam.rengarajan@csun.edu
B.1 Antenna arrays
B.2 Antenna theory, design, and measurements
B.3 Complex, novel, or specialized media:
B.3.1 Electromagnetic bandgap (EBG structures)
B.3.2 Biological media
B.3.3 Geophysical media
B.3.4 Metamaterials
B.4 Educational methods and tools
B.5 Electromagnetic interaction and coupling
B.6 Guided waves and wove-guiding structures
B.7 High-frequency techniques
B.8 Imaging, inverse scattering and remote sensing
B.9 Microstrip antennas and printed devices
B.10 Nanoscale electromagnetics
B.11 Nonlinear electromagnetics
B.12 Numerical Methods
B.12.1 Fast Methods
B.12.2 Finite-Difference methods
B.12.3 Frequency-Domain methods
B.12.4 Hybrid methods
B.12.5 Integral-Equation methods
B.12.6 Time-Domain methods
B.13 Optimization techniques
B.14 Propagation phenomena and effects
B.15 Rough surfaces and random media
B.16 Scattering and diffraction
B.17 Theoretical electro magnetics
B.18 Transient fields, effects, and systems
B.19 Ultra-wideband electromagnetics
B.20 Wireless communications
B.21 Cognitive Radio

Commission C - Radiocommunication and Signal Processing Systems
Chair: Amir I. Zaghloul - amirz@vt.edu
C.1 Cognitive radio and software defined radio
C.2 Computational imaging and inverse methods
C.3 Information theory, coding, modulation and detection
C.4 MIMO and MISO systems
C.5 Radar systems, target detection, localization, and tracking
C.6 Radio communication systems
C.7 Sensor networks, and sensor array processing and calibration
C.8 Signal and image processing
C.9 Spectrum and medium utilization
C.10 Synthetic aperture and space-time processing
C.11 Ground Penetrating Radar (GPR)

Commission D - Electronics and Photonics
Chair: Jennifer T. Bernhard
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D.1 Novel transmission line structures and materials
D.2 Electronic devices, circuits and applications
D.3 Photonic devices, circuits and applications
D.4 Physics, materials, CAD, technology and reliability of electronic and photonic devices

Commission E - Electromagnetic Environment and Interference
Chair: Everett G. Farr
efarr@farr-research.com
E.1 Electromagnetic environment
E.1.1 Electromagnetic noise of natural origin
E.1.2 Man-made noise
E.2 Electromagnetic compatibility measurement technologies
E.3 Electromagnetic compatibility standards
E.4 Legal aspects of electromagnetic compatibility
E.5 Electromagnetic radiation hazards
E.6 Electromagnetic compatibility education
E.7 Computational electromagnetics in electromagnetic compatibility
E.7.1 Computer Modeling
E.7.2 Model Validation
E.7.3 Statistical Analysis
E.8 Effects of natural and intentional emissions on system performance
E.8.1 Crosstalk
E.8.2 Effects of transients
E.8.3 System analysis
E.8.4 Signal integrity
E.8.5 Electromagnetic compatibility in communication systems
E.8.6 Statistical analysis
E.9 High-power electromagnetics
E.9.1 Electrostatic discharge
E.9.2 Electromagnetic pulse and lightning
E.9.3 Transients
E.9.4 Power transmission
E.10 Spectrum management

Commission F - Wave Propagation and Remote Sensing
Chair: V. Chandrasekar
chandra@engr.colostate.edu
F.1 Point-to-point propagation effects
F.1.1 Measurements
F.1.2 Propagation models
F.1.3 Multipath/mitigation
F.1.4 Land or water paths
F.1.5 Scattering/diffraction
F.1.6 Indoor/outdoor links
F.1.7 Mobile/fixed paths
F.1.8 Horizontal/slant paths
F.1.9 Surface/atmosphere interactions
F.1.10 Atmospheric constituents
F.1.11 Dispersion/delay
F.1.12 Natural/man-made structures
F.2 Remote sensing of the Earth by radio waves
F.2.1 Atmospheric sensing
F.2.2 Ocean and sea ice
F.2.3 Field campaigns
F.2.4 Interferometry and SAR
F.2.5 Subsurface sensing
F.2.6 Scattering/diffraction
F.2.7 Radiation and emission
F.2.8 Propagation effects
F.2.9 Urban environments
F.2.10 Soil moisture & terrain
F.3 Propagation and remote sensing in complex and random media

Commission K - Electromagnetics in Biology and Medicine
Chair: Erdem Topsakal
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K.1 Biological effects
K.2 Dosimetry and exposure assessment
K.3 Electromagnetic imaging and sensing applications
K.4 Therapeutic, rehabilitative, and other biomedical applications
K.5 Human body interactions with antennas and other electromagnetic devices

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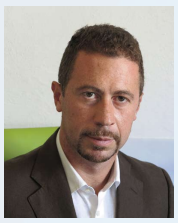

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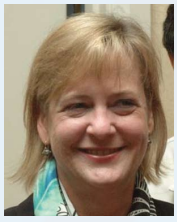

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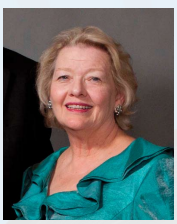

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