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Space Solar Power Workshop

Passive Wireless Sensor Workshop

Space-Terrestrial Inter-networking Workshop

Wireless Sensor Systems Workshop

WiSEE 2015

NASA Tour: Dec 16, 2015
Kennedy Space Center

Accepted and presented papers will be published in the conference proceedings and submitted to IEEE Xplore as well as other Indexing dbs.

Paper Submission Deadline Sept 1 (Firm deadline)
Acceptance Notification Sept 15
Early Registration (US$495) Oct 1
Final Camera Ready Paper Oct 15

Conference Venue
Fairwind Alumni Center
University of Central Florida
Orlando, FL, USA

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WiSEE'13 (Baltimore, USA), WiSEE'14 (Amsterdam, NL), WiSEE'15 (Orlando, FL), WiSEE'16 (Aachen, Germany)

Scope: Spaceflight involves critical sensing and communication in extreme environments such as planetary surfaces, space vehicles, and space habitats. The many challenges faced in space sensing and communication are extremely diverse and overlap significantly with those found in many terrestrial examples of extreme environments such as extreme hot or cold locations, extreme high- or low-pressure environments, critical control loops in aircraft and nuclear power plants, high-speed rotating equipment, oil/gas pipelines and platforms, etc. All of these environments pose significant challenges for radio-frequency or optical wireless sensing and communication and will require the application of a broad range of state of the art technologies in order to generate reliable and cost effective solutions. Although the specific challenges vary significantly from environment to environment, many of the solutions offered by sensing, communication, and statistical signal processing technologies can be applied in multiple environments, and researchers focusing on space applications can benefit greatly from understanding the problems encountered and solutions applied in alternative environments. This IEEE conference will bring together investigators from the National Aeronautics and Space Administration (NASA), the Canadian Space Agency (CSA), the European Space Agency (ESA), and other space agencies, along with aerospace and space defense industries and academic researchers, in an effort to understand and solve the emerging problems facing wireless sensing and communication in space and related extreme environments.

Areas of Particular Interest:

Full length Research Papers (6 pages) and posters abstracts (3 pages) are sought that address solutions to problems in all areas of wireless sensing and communication in space and extreme environments related to spaceflight, including but not limited to the following:

- Low-power active wireless sensors, systems, and networks
- Passive wireless sensors, systems, and networks
- RFID devices and systems
- Protocols and architectures for delay and disruption tolerant networking
- Network architectures, middleware integration, and data management
- Cognitive radio networks
- Localization and tracking over wireless links
- Antenna design, smart antennas, beam-forming, and multiple-antenna techniques
- Propagation modeling for planetary surfaces and complex multipath environments
- Wireless and cyber security
- Optical communication systems
- Availability, certification, and spaceflight qualification for wireless devices and systems
- Integrated vehicle systems

Workshops

The following workshops will be co-located with WiSEE main conference. All paper submissions are through the same online system. Make sure to select your desired workshop or main conference during submission. In addition to the Full length Research Papers (6 pages) and posters abstracts (3 pages), workshops will also accept presentation only format without inclusion in IEEE Xplore package. Contact workshop chairs for more info:

- Space Solar Power: R. Zekavat (Michigan Tech) and D. Preble (SSP Inst.), rezaz@mtu.edu
- Passive Wireless Sensor Technology: George Studor (NASA NESC), george.f.studor@nasa.gov
- Space-Terrestrial Internetworking: E. Birrane (JHU) and J. Fraire (U of Cordoba), Edward.Birrane@jhuapl.edu
- Wireless Sensor Systems - Chairs: H. Rashvand (U of Warwick), P. Mitchell (U of York), h.rashvand@ieee.org

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Victor Tomashevich, University of Passau, Germany
Vikaram Singh, IntelCom Lab, India
Werner Schiffer, Rolls-Royce, United Kingdom

Accommodation Information

The following hotels are within walking distance of the conference venue (20 min walk or 5 min drive) with prices ranging from $100-140 USD not including tax.

DoubleTree by Hilton Hotel Orlando East-UCF Area
12125 High Tech Ave
Orlando, FL 32817

TownePlace Suites Orlando East/UCF Area
11801 High Tech Ave
Orlando, FL 32817

Residence Inn Orlando East/UCF Area
11651 University Blvd
Orlando, FL 32817

Local Attractions

When it comes to filling your vacation itinerary, Orlando offers no shortage of things to do. Take advantage of experiences that are uniquely Orlando, like splashing thrill rides at one of Orlando's multiple **water parks** or getting up close with alligators and other **wildlife** at **Gatorland**. Adrenaline lovers can experience the thrill of **indoor skydiving** or feel the speed of **driving** an authentic NASCAR-style stock car. And the fun doesn't stop when the sun goes down: check out a show at **Cirque du Soleil**, **Blue Man Group** or one of Orlando's many **dinner theaters** for an entertaining nightcap. For more info visit:

http://www.visitorlando.com/

WiSEE 2015