

# *Call for Papers*

## *IEEE Sensors Journal Special Issue on*

### Wireless sensor systems for space and extreme environments (WSSSEE)

Since the turn of century we have seen a rapid R&D progress of wireless enabled sensing and actuating technologies. However, considering most desired and potential sensor-lead systems need to work under harsh conditions of certain dominating extreme environments such as in space, underwater, arctic temperatures, and sandy deserts, most existing solutions either fail or show serious weaknesses with serious impacts on our innovative industries. In order to maintain future developments of sensor-lead technologies we need to overcome new serious R&D challenges. We envisage the most rewarding challenges would be for new resilient devices, dynamic sensing, and further integration of intelligence.

#### Scope

This Special Issue archives selective potential contributions from technological research communities whose novel ideas would challenge the persistent problems of complexity, lack of performance, loss of power, and many obstacles associated with space and extreme environments.

Papers should contain original results, reviews, and tutorial contents useful to general audiences working in the field. We encourage, but are not limited to the following topics with respect to wireless sensor systems for space and extreme environments:

- Resilient architectures for smart and intelligent sensing
- Unstructured sensor networking systems, relaying, and ubiquitous access
- Adoption of intelligence and multi-agent systems for sensing
- Cooperative sensing, actuation, localization, clustering, and beamforming
- Spectrum sensing and dynamic spectrum sharing for space and extreme environments
- Innovative sensing designs for deep space, arctic, deserts and extreme environments
- Smart sensors for space and extreme environments
- Integrated agile and dynamic sensors, barcodes, and the Internet-of-Things
- Scarce-resource management, energy harvesting, and ambient technologies
- Smart sensors for underwater, underground, and seismic sensing and monitoring
- Development of environmentally proven devices for monitoring and surveillance
- Development of devices resistive to harsh and extreme environments

#### Submissions Guideline

All manuscripts must be submitted on-line for the standard IEEE Sensors Journal peer review process, via the IEEE Manuscript Central™, see <http://sensors-ieee.manuscriptcentral.com>. When submitting, please indicate in the “Manuscript Type” roll down menu, and also by e-mail to Ms. Alison Larkin, [a.larkin@ieee.org](mailto:a.larkin@ieee.org), that the paper is intended for the “WSSSEE” Special Issue. Authors are particularly encouraged to suggest names of potential reviewers for their manuscripts in the space provided for the recommendations in Manuscript Central. For manuscript preparation and submission, please follow the guidelines in the Information for Authors at the IEEE Sensors Journal web page, <http://www.ieee.org/sensors>

#### Schedule

- Submissions deadline: March 31, 2014
- Author notifications: July 31, 2014
- Final manuscripts due: September 15, 2014
- Expected Publication date: December, 2014

#### Guest Editors

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