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CALL FOR PAPERS
IEEE Sensors Journal Special Issue on
Smart Sensors for Smart Grids and Smart Cities

The public electric system and cities are today experiencing a radical transformation which is affecting both the grid design and the infrastructure of city. Smart Grids and Smart Cities concepts are based on a new way to conceive buildings, transportation, healthcare, energy and public services. The aim is to improve the quality of life by providing more and more efficient mobility, safety, automated house, water supply, energy efficiency, renewable energy and new public services for better living. It is expected that power grids and cities will make an extensive use of sensor networks to provide specific services, to control traffic, and in general to get information for managing energy flow.
Advanced sensing systems and smart transducers will have a fundamental role in the smart grid and smart city of the next future. Smart sensors and actuators can improve performances and features of public services and can improve quality and efficiency of energy supply, home automation, transportation and healthcare applications.
Several perspectives and open research problems have to be investigated such as the treatment of the signal, standardized communication protocols, security, architecture, reliability, maintenance, accuracy and management. Research and development have an important task to improve performances and features of sensing systems by including issues such as green communication, reliability assurance, high accuracy and system maintenance.

Scope
The present Special Issue aims to present and highlight the advances and the latest novel and emergent technologies, best practices, implementations, applications and even innovative research outcomes concerning the design and the development of sensors and sensor networks for smart grid and smart cities applications. The scope of this Special Issue is to provide readers with a clearer overview of the current state of the art on this field; the proposal will also stimulate international scientific community to suggest new features and ideas. It will provide a forum for the research community to share advances and new ideas in sensing technologies.

The Guest Editors encourage submission of papers addressing smart transducers and sensors related to this specific application fields. Original research contributions, tutorials, and review papers are even encouraged. Manuscripts should provide content to be accessible to general audiences working in the field.

This call invites significant contributions in the field of sensors and sensing systems dedicated to smart grid, power networks and smart cities on, but not limited to, the following topics:

- Smart transducers and sensors for grid management and energy distribution
- Advances in smart grid sensing
- Sensor interface and synchronization in smart grid
- Multisensor data fusion models for smart grids and smart cities
- Traceability and calibration of distributed sensing grids
- Distributed and networked sensors for smart cities
- Security, privacy and management in smart city sensing networks
- Reliability and faults of sensing grids in smart city
- Sensors for smart mobility and building automation
- Transducers and sensors for homecare and assisted living applications

Submission Guideline
All manuscripts shall undergo the standard IEEE Sensors Journal peer review process. All manuscripts must be submitted on-line, via the *IEEE Manuscript Central™*, see http://sensors-ieee.manuscriptcentral.com/sensors. When submitting, please indicate in the "Manuscript Type" roll down menu, and also by e-mail to Ms. Gina Colacchio, g.colacchio@ieee.org, that the paper is intended for the *"Smart Sensors for Smart Grids and Smart Cities"* Special Issue. Authors are particularly encouraged to **suggest names of potential reviewers** for their manuscripts in the space provided for these 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-sensors.org/journals.

Schedule
- **Submissions deadline:** March 31, 2017
- **Author notifications:** July 15, 2017
- **Final manuscripts due:** September 15, 2017
- **Expected Publication date:** December, 2017

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