

# Call for Papers

## Special Issue on

### Sensors for Process Imaging

The monitoring of processes provides valuable information for controlling and decision-making strategies as well as for support on understanding and modeling of phenomena involved. A current trend to accomplish such requirements is the use of imaging sensors and sensor systems generating and processing multidimensional data to obtain information from processes. A prominent example is the so-called multiphase flow which occurs in chemical and oil&gas industries, where a growing demand of obtaining the physical parameters of multiphase mixtures and visualizing of their distribution is present. Also in the field of non-destructive testing and evaluation imaging systems are present but facing an increasing need on accuracy and reliability. In both fields, several imaging modalities have been developed and tested, based on electrical, nuclear, thermal, optical, magnetic sensors and measurements. The cutting-edge theory or techniques of the applied physics are usually introduced to solve those problems, which still attracts a wide range of interests of researchers from various disciplines, such as electronics, mathematics, physics, mechanics, material and chemical science. Papers are solicited in, but are not limited to, the following and related topics:

- Tomography sensor design and optimization
- Sensing system design and instrumentation
- Measurement modeling by using tomographic data
- Signal processing in the process imaging and measurement
- Multi-modality imaging systems design and applications
- Multi-sensor data fusion
- Image reconstruction, super-resolution and compressive sensing
- Image reconstruction and processing on hardware

#### Submissions Guideline

Solicited and invited papers shall undergo the standard IEEE Sensors Journal peer review process. All manuscripts must be submitted on-line, via the IEEE Manuscript Central™, see <http://mc.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](mailto:g.colacchio@ieee.org), that the paper is intended for the “Sensors for Process Imaging: Systems and Data Processing” 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 (tentative)

- Submission deadline February 27, 2017
- Author notifications May 31, 2017
- Final manuscripts due July 31, 2017
- Publication September, 2017

#### Guest Editors

**Chao Tan**

School of Electrical  
Engineering and  
Automation,  
Tianjin University  
Tianjin 300072 China  
[tanchao@tju.edu.cn](mailto:tanchao@tju.edu.cn)

**Manuchehr Soleimani**

Department of Electronics  
& Electrical Engineering  
University of Bath  
Bath, BA2 7AY, United  
Kingdom  
[m.soleimani@bath.ac.uk](mailto:m.soleimani@bath.ac.uk)

**Marco Jose da Silva**

Department of Electrical  
Engineering (CPGEI)  
Universidade Tecnológica  
Federal do Paraná  
80230-901 Curitiba-PR  
Brazil  
[mdasilva@utfpr.edu.br](mailto:mdasilva@utfpr.edu.br)

**André Bieberle**

Helmholtz-Zentrum  
Dresden -Rossendorf  
Bautzner Landstraße 400  
01328 Dresden  
Germany  
[a.bieberle@hzdr.de](mailto:a.bieberle@hzdr.de)