Call for Papers

Special Section on Signal Processing for Sensing and Diagnosis


Precision signal processing technologies are essential for modern fast and precise sensing and measurement applications. On the contrary, high-level requirements in measurement applications such as radar, sonar, medical imaging, and electrocardiography have led to a lot of breakthrough algorithms such as spectral analysis, correlation analysis, adaptive signal processing, and independent component analysis. Available computations, which were a bottleneck in practical applications in early days, are now almost overcome thanks to VLSI technologies and fast algorithms, and are still expanding to sufficient amount towards parallel redundant algorithms. Large capacity communications technology enables ubiquitous sensing and computations, allowing huge amount of data for monitoring large building structures and entire human body. Diagnosis using this huge amount of sensing data is becoming practical by big-data analysis. This special section seeks to provide a venue for ongoing research in signal processing technologies for sensing and diagnosis using the new data.

1. Scope
   - Signal processing for all kind of sensors: Vibration sensor, Acoustical sensor, Image sensor, Radio wave sensing, Biological sensing, and Sensor fusion.
   - Signal processing for specific applications where measurement plays an important role: Robotics, Medical, Mobile devices, etc.
   - Monitoring, analysis, or diagnosis methods using sensor data.

* If the editorial committee finds that the topic of a paper does not fall in the scope of this special section, the manuscript may be returned to the author without a review.

2. Submission Instructions

It is recommended that the length of a paper for this special section does not exceed eight and two printed pages for a full paper and a letter, respectively. Please refer to Information for Authors of the Transactions for the format and the style. Information for authors can be found at the IEICE web site: http://www.ieice.org/eng/shiori/mokuji_ess.html. Please note that this special section will accept papers only by electronic submission. Submit a complete paper and electronic files (TeX/Word files, figures, authors’ photos and biographies) for publishing using the IEICE Web site https://review.ieice.org/regist/regist_baseinfo_e.aspx.

Submission Deadline: December 5, 2014, 24:00 JST

Contact to:
Masanori TSUJIKAWA
Information and Media Processing Laboratories, NEC Corporation
1753, Shimonumabe, Nakahara-Ku, Kawasaki, Kanagawa 211-8666, Japan
Tel: +81 44 431 7554, Fax: +81 44 431 7588, E-mail: tujikawa@cb.jp.nec.com

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