Special Issue CFP

Signal Processing Techniques for Detection of Breast Diseases
- Breast Disease Detection -

Breast cancer is the second leading cause of cancer deaths in women today and is the second most common cancer among women. According to the American Cancer Society (ACS), about 1.3 million women will be diagnosed with breast cancer annually worldwide and about 465,000 will die from the disease. Breast cancer rates decreased around 2% between 1998 and 2007, according to the ACS. However, this decrease was only among women aged 50 and older. About 1 in 35 women die from breast cancer in the United States. Moreover, breast cancer can be easily treated if it is early detected by image analysis. The main theme of this issue is related with such advances on breast disease earlier detection.

This issue is interested in the field of 2D/3D breast imaging, signals and video analysis from non-conventional techniques (signal analysis, modelling, detection, classification, adaptive algorithms, etc.) as it is the case of thermal images, electrical impedance tomography, magnetic resonance images (MRI) and 3D laser screen data, among others. However such papers may have to emphasis on how signal processing is combined for the interpretation of the medicine side.

Topics of interest include, but are not limited to, the following related to non-conventional breast image analysis:
- review articles
- creation of ground-truth databases and benchmark for research
- automatic region-of-interest (ROI) and feature extraction
- new data acquisition protocols
- adaptive detection algorithms
- multi-modal breast image analysis
- numerical modelling of breast and its diseases
- breast signal analysis and modelling,
- detection algorithm for breast pathologies
- innovative sensors;
- computer-aided detection (CADe) and diagnosis (CADi) systems

Submission Details
Authors should prepare their manuscript according to the Guide for Authors available from the online submission page of the Signal Processing at http://ees.elsevier.com/sigpro/. All the papers will be peer-reviewed following the Signal Processing reviewing procedures.

Important Dates
• Paper submission due: February 1, 2012
• First notification: April 1, 2012
• Revision: June 1, 2012
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