Symposium on Sparse Signal Processing and Deep Learning

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CALL FOR PAPERS

The IEEE Global Conference on Signal and Information Processing (GlobalSIP) is the flagship conference of the IEEE Signal Processing Society. GlobalSIP 2016 will be held in Washington, DC, USA, December 7-9, 2016. The conference will focus broadly on signal and information processing with an emphasis on up-and-coming signal processing themes.

> The Sparse Signal Processing and Deep Learning symposium will explore deep connection between sparsity of signals and deep learning theory , and will thus focus on novel signal processing ideas and results, both experimental and theoretical, in learning compact and meaningful signal representations, in efficient signal sampling and sensing, and in computational methods for high-dimensional big data sets that pervade the current information age. Technical paper submissions are solicited in the interest topics, which may include, but are not limited to:

- Connections between sparse auto encoders and sparse representation.

- Sparse coding, sparse representations, and dictionary learning.

- Sparse and low-rank approximation algorithms.

- Learning on graphs.

- Connections between learning rate and sampling rate.

- Sparsity and super resolution.

- Recurrent neural networks for periodic and quasi-periodic signals.

- Phase retrieval and bilinear problems.

- Tensor sketching and factorizations.

- Compressed learning – compressive sensing for learning: new theory and methods.

- Dimensionality reduction, feature extraction, classification, detection, and source separation.

- Geometric wavelet theory.

- Sparsity measures in approximation theory, information theory and statistics.

- Regularization theory with low-complexity / low-dimensional structures.

- Statistical models and algorithms for sparsity.

- Sparse network theory and analysis.

- End-to-end deep-learning pattern recognition systems.

- Advanced supervised and unsupervised deep-learning algorithms.

- Deep-learning software and hardware architecture.

- Big data applications, including but not limited to geophysics, neuroscience, biomedical imaging, array signal processing, genetics, optics and radar, feedback control, communication, computer vision, high-level scene/activity analysis, and social networks.

Submission of Papers: Prospective authors are invited to submit full-length papers, with up to four pages for technical content including figures and possible references, and with one additional optional 5th page containing only references. Manuscripts should be original (not submitted/published anywhere else) and written in accordance with the standard IEEE double-column paper template. All paper submissions should be carried out through the CMS system (http://www.ieeeglobalsip.org/). A selection of best papers and best student papers will be made by the GlobalSIP 2016 best paper award committee upon recommendations from the Technical Committees.

Notice: The IEEE Signal Processing Society enforces a "no-show" policy. Any accepted paper included in the final program is expected to have at least one author or qualified proxy attend and present the paper at the conference. Authors of the accepted papers included in the final program who do not attend the conference will be subscribed to a "No-Show List", compiled by the Society. The "no-show" papers will not be published by IEEE on IEEEXplore or other public access forums, but these papers will be distributed as part of the on-site electronic proceedings and the copyright of these papers will belong to the IEEE.

Timeline for paper submission:

June 5, 2016:	Paper submission deadline
August 5, 2016:	Review results announced
September 5, 2016:	Camera-ready papers due