Call for Papers
IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Emerging Techniques in 3D: 3D Data Fusion, Motion Tracking in Multi-View Video, 3DTV Archives and 3D Content Protection

As a result of increasing consumer demand for 3D content, content creation associated with this new modality has increased significantly in conjunction with some recent standardization activities on this data type. Hence, a scientific revisit is required particularly to some challenging problems associated with the conventional video, considering the fact that multi-view video has many promising solutions to such problems. Moreover, any 3D representation also produces its own requirements to be dealt with. This special issue is an effort to compile and review the current advances in 3D multimedia and multimodal information analysis and processing. Particularly, it deals with emerging 3D techniques for 3D data integration and object analysis based on multi-views, as well as 3D content protection.

We would like to invite authors to submit their recent and original research results as well as experience reports. In the following, a non-exclusive list of related topics is suggested:

- Creation of 3D Content
    - 3D multi-view and multimodal data fusion
    - Calibration methods for 3D multi-camera system
- Tracking, Registering and Processing of 3D Content
    - 3D multi-view image/video processing
    - 3D registration of multi-view data
    - Motion tracking in stereo and multi-camera systems
- Archiving of 3D Content
    - Creation, compression in 3D digital archives
    - Indexing and retrieval of 3D content
- Security Issues for 3D Content
    - Methods for 3D content protection
    - 3D digital watermarking, fingerprinting and related security solutions
- 3D Objective Quality Measures
    - Artifacts Characterization
    - Full-reference and partial-reference measures
- Multimedia systems and applications using emerging techniques in 3D

Prospective authors should visit http://www.signalprocessingsociety.org/publications/periodicals/jstsp/ for information on paper submission. Manuscripts should be submitted using the Manuscript Central system at http://mc.manuscriptcentral.com/jstsp-ieee. Manuscripts will be peer reviewed according to the standard IEEE process.

Manuscript submission due:	**July 10, 2011**
First review completed:	October 20, 2011
Revised manuscript due:	November 20, 2011
Second review completed:	February 1, 2012
Final manuscript due:	March 1, 2012

Lead guest editor:

A. Aydın Alatan, Dept.of Electrical & Electronics Engineering, M.E.T.U., Turkey, alatan@eee.metu.edu.tr

Guest editors:

Joern Ostermann, Institut für Informationsver., Leibniz Universität Hannover, Germany, ostermann@tnt.uni-hannover.de
Levent Onural, Dept. of Electronics Engineering, Bilkent University, Ankara, Turkey, onural@ee.bilkent.edu.tr
Ghassan AlRegib, School of Electrical & Computer Eng., Georgia Institute of Technology, Atlanta, USA, alregib@gatech.edu
Stefano Mattoccia, Faculty of Engineering of the University of Bologna, Italy, smatt@ieee.org
Chunrong Yuan, Cognitive Neuroscience, University of Tuebingen, Germany, chunrong.yuan@uni-tuebingen.de