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**IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING (JSTSP)**

**Special Issue on Light Field Image Processing**

As a representative approach for passive depth sensing, light field imaging and processing techniques has attracted great attentions from computer vision, computer graphics and signal processing communities. Specifically, light fields implicitly capture 3D scene geometry and reflectance properties by coding the spatial and angular information of a scene, allowing a wide range of applications. Compared with 2D image, this new visual information representation provides ways for better vision understanding and interacting capability for human. Traditional vision problems like image segmentation, scene parsing, salience detection, video stabilization, motion tracking, object detection, tracking and recognition, etc. can be better solved using the light field information. Moreover, it allows new applications including light field display, light field microscopy, etc. However, compared with commercial 3D depth sensing devices such as Microsoft Kinect using active 3D imaging approaches (structure light and time-of-flight imaging), light field imaging still suffers from crucial problems such as low spatial resolution and poor reconstructed depth quality. Therefore, the light field research is still calling for better theories and methods, targeting for more efficient data capture and better ways for data analysis. This special issue aims at such goal, and will deliver the timely and state-of-the-art research works on light field capture, processing, display and their applications. Topics of interest include, but are not limited to:

- Light Field Camera and Capture
- Light Field Synthesis
- Light Field Display
- Light Field Microscopy
- Light Field Data Compression and Transmission
- Light Field Editing and Application
- Light Field for VR/AR/MR
- Light Field Super-resolution
- Image Processing for Multiview Image
- Camera Array Technique and System
- Depth Estimation Using Light Field
- Computer Vision Using Light Field
- Time-of-Flight Depth Sensing
- Snapshot Depth Acquisition and Processing
- Plenoptic Imaging and Signal Processing
- Deep Learning Methods for Light Field Data

Tutorial or overview papers, creative papers outside the areas listed above but related to the overall scope of the special issue are also welcome. Prospective authors can contact the Guest Editors to ascertain interest on such topics. Submission of a paper to JSTSP is permitted only if the paper has not been submitted, accepted, published, or copyrighted in another journal. Papers that have been published in conference and workshop proceedings may be submitted for consideration to JSTSP provided that (i) the authors cite their earlier work; (ii) the papers are not identical; and (iii) the journal publication includes novel elements (*e.g.*, more comprehensive experiments). For submission information, please consult the IEEE JSTSP Information for Authors: <http://www.signalprocessingsociety.org/publications/periodicals/jstsp/>. Manuscripts should be submitted at <http://mc.manuscriptcentral.com/jstsp-ieee> and will be peer reviewed according to standard IEEE processes.

**Important Dates**

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Revised Manuscript Due: April 1, 2017  
2nd Review Completed: May 15, 2017  
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