IEEE JOURNAL OF SELECTED TOPICS IN SIGNAL PROCESSING
Call for Papers
PERCEPTION-DRIVEN 360-DEGREE VIDEO PROCESSING

Normally, virtual reality (VR) content is in the form of 360-degree video, also called omnidirectional video or panoramic video. Recent years have witnessed the considerable research efforts in 360-degree video processing. In general, 360-degree video processing is a new multimedia technology for improving the quality of experience (QoE). The perception model of human is essential in investigating QoE of viewing 360-degree video. However, the perception model of 360-degree video is significantly different from that of traditional video. The main difference is that 360-degree video offers immersive and interactive viewing experience, as the viewers are able to freely move their heads in the range of 360° × 180° to access different viewports. Therefore, the perception models and their applications deserve to receive more attention for 360-degree image. This special issue will provide a forum for the latest models, innovations, and applications of perception-driven 360-degree video processing, which will bridge the gap between theory and practice in the design of 360-degree video systems. Prospective authors are invited to submit original manuscripts on topics including, but not limited to:

- Attention models in 360-degree image/video
- JND models of 360-degree image/video
- Attention-based object detection for 360-degree image/video
- Attention-based captioning for 360-degree image/video
- ROI-based virtual cinematography of 360-degree image/video
- Perception-driven VQA approaches for 360-degree image/video
- Perception-driven 360-degree image/video compression
- Emerging applications of the perception models in 360-degree image/video processing

Prospective authors should submit their manuscripts following the IEEE J-STSP guidelines at http://www.signalprocessingsociety.org/publications/periodicals/jstsp/. Authors should submit a PDF version of their complete manuscript to http://mc.manuscriptcentral.com/jstsp-ieee according to the following schedule:

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Revisions due:	01-Aug2019
Second Review:	15-Sep-2019
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