

Special Issue on Visual Information Processing for Virtual Reality

Journal of Visual Communication and Image Representation

Recent years have witnessed the rapid development of head mounted displays, 360 degree capturing devices, GPU/CPU, and content production, that promote a great popularity of Virtual Reality (VR) related multimedia applications and services. High efficiency visual information processing technologies for VR has become key research issues. Various technologies are being investigated to achieve high efficiency in visual information processing for Virtual Reality, such as the development of high performance video compression, subject and object quality assessment, 3D interaction/selection/manipulation, and immersive media-cloud system and service. We see a timely opportunity for organizing a special issue to bring together active researchers to share recent progress in this exciting area.

This Special Issue invites researchers in all related fields (including but not limited to image and video signal processing, computer vision and pattern recognition, multimedia communications, human-computer interaction) to join us to share their latest innovations and experiences on all aspects of recently-developed techniques and new methods for VR and its related areas such as augmented reality (AR), mixed reality (MR), and 3D user interfaces. ALL submissions must highlight their approaches and discuss how their solutions deal with solution of Virtual Reality. The topics of interest of this Special Issue include but are not limited to:

Topics of Interest

- VR video compression, and streaming
- Video content analysis and mining
- Vision Analysis: Sync, tracking, detection
- Client-Cloud computing for immersive media
- Immersive media systems
- Multi-sensor data fusion
- Object modeling for VR/AR/MR
- Quality of Experience/Service for VR/AR/MR
- Security and privacy in VR/AR/MR
- 3D interaction for VR/AR/MR

Guest Editors

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- 1st. Round of Reviews Dec. 31, 2017
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