

Special Issue on “Real-Time Perceptual-inspired Imaging Systems with Computational Science & Aesthetics”



Introduction

The objective of perceptual-inspired imaging system is to explore consumer-focused hardware and software applications of recognition, tracking, visualization and augmented reality. Perceptual approaches have been widely used in many areas of multimedia and visual information processing. As multimedia system is producing sounds, images and videos that are ultimately perceived by a human, it is essential to account for how the human visual system (HVS) is processing this information. The HVS is complex, exhibiting many non-linearities as well as feedback and is only partially understood. While this poses a challenge, it can also be seen as an opportunity which can be exploited in multimedia systems with computational science & aesthetics which bridges the analytic and synthetic by integrating aspects of computer science, psychology, emotional engineering, cognitive science and fine, applied and media arts.

The goal of this special issue is to explore real-time models, algorithms and technologies needed to enable perceptual-inspired multimedia systems. This is intended to foster the dissemination of state-of-the-art research related to “**Real-Time Perceptual-inspired Imaging Systems with Computational Science & Aesthetics**” that can invoke the human emotional responses. Original research articles are solicited in all real-time aspects of perceptual system technologies including emerging trends and applications, theoretical studies, and experimental prototypes. The manuscripts should not be submitted simultaneously for publication elsewhere. Submissions of high quality manuscripts describing future potentials or on-going work are sought.

Topics of interest include, but are not limited to:

- Real-time computational analysis modeling
- Real-time artistic image transformation techniques
- Real-time image style and salience analysis
- Measuring and describing aesthetics
- Real-time computational tools for artists
- Real-time visualization (perceptual or aesthetics)
- Real-time sketching, simplification techniques -
- Real-time composition, visual balance, layout
- Real-time non-photorealistic rendering
- Real-time applied visual perception
- Real-time Computer Vision/Image Processing
- Real-time interactive graphics for mobile devices
- Real-time Human-Computer interaction
- Real-time multimedia security and privacy
- Real-time high-performance computing
- Real-time interaction methods for online 3D content
- Real-time multimedia platforms
- Real-time big data systems (multimedia)

Instructions for Manuscripts

Authors are invited to submit manuscripts reporting original unpublished research and recent developments. All the submitted papers should conform to the standard guidelines of the Journal of Real-Time Image Processing. <http://www.springer.com/computer/image+processing/journal/11554>.

Prospective authors should submit an electronic copy of their manuscript through the online Editorial Manager (<https://www.editorialmanager.com/jrtip>) clearly indicating that the paper should be assigned to this special issue on “**Real-Time Perceptual-inspired Imaging Systems with Computational Science & Aesthetics**”. All potential authors are requested to volunteer as reviewers in the peer-review process for manuscripts submitted for this special issue. Information about the manuscript (title, full list of authors, corresponding author’s contact, abstract, and keywords) should also be sent to the corresponding editor Dr. SangHyun Seo (edit.shseo@gmail.com). All the papers will be peer-reviewed following the JRTIP reviewing procedures.

Important Dates

Paper submission deadline: July 31, 2015

End of first round review: October 30, 2015

End of second round review: December. 31, 2015

Camera ready papers due: January 31, 2016

Guest Editors

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