Call for Papers

COMPUTER VISION AND IMAGE UNDERSTANDING

Special Issue on

Color Image Processing for Computer Vision and Image Understanding

Computer Vision and Image Understanding journal is seeking original and unpublished manuscripts for a Special Issue on *Color Image Processing for Computer Vision and Image Understanding*, scheduled for publication in February of 2007.

Color image processing has become commonplace as consumers choose the convenience of color imaging over traditional gray-scale imaging. Commercial products and consumer devices capitalizing on its principles are conventionally used in diverge market applications. It is therefore not surprising that digital color image processing methods are of paramount importance in the computer vision community as well as to the developers specializing in imaging systems and image-enabled consumer electronics due to the urgent needs and challenges of emerging applications. The resent advances in color theory, hardware and software, computer vision, digital imaging, multimedia, biomedicine and telecommunications made color image processing an indispensable part of modern engineering.

Processing color images is a nontrivial extension of the classical gray-scale image processing. Indeed, the vectorial nature of multichannel images suggests a different approach to this problem, that of vector algebra and vector fields. Recently, there have been many color image processing and analysis solutions, and many interesting results have been announced concerning filtering, enhancement, restoration, edge detection, analysis, compression, preservation, and manipulation of color images. Many of these solutions have been developed for application in miscellaneous color image acquisition devices and various vision analysis tasks, such as object recognition and scene interpretation, as well as used to improve the performance of computer vision and robotic inspection systems. The development and proliferation of consumer-grade as well as high-end devices for emerging computer vision and image understanding applications, such as digital color imaging, color-based multimedia and biomedical applications, cultural heritage preservation, and digital right management for entertainment applications suggest that the demand for color imaging solutions will grow considerably in the next decade.

This Special Issue aims to systematically focus on emerging applications of color image processing and comprehensively cover system, processing and application aspects of digital color imaging, computer vision and image understanding. Papers are solicited on all related aspects, from the point of view of both theory and practice. Topics of interest include, but are not limited to:

- Color image acquisition and representation
- Single-sensor color imaging
- Color image filtering, enhancement and analysis
- Vector processing of color images
- Color image interpolation and super-resolution reconstruction
- Color imaging for networked devices
- Color image processing application

Submission procedure:

Manuscript should conform to the standard guidelines of the *Computer Vision and Image Understanding* (CVIU). Guidelines for formatting papers can be found in the Guide for Authors at http://authors.elsevier.com/journal/cviu. Prospective authors should submit an electronic copy of their complete manuscript through the CVIU online submission system at http://ees.elsevier.com/cviu by **April 15, 2006**. Papers should be marked as "Special Issue" in the Article Type section and "*Color Image Processing*" Special Issue should be indicated in the corresponding cover letter. All submitted papers will be reviewed by at least three independent reviewers.

Important dates:

Manuscript submission deadline:	April 15, 2006
First notification:	July 1, 2006
Revised manuscript submission:	September 15, 2006
Notification of final decision:	October 15, 2006
Final manuscript due:	November 15, 2006
Publication of special issue:	February 2007

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