

Springer Transaction on Computational Science

CALL FOR PAPERS: Special Issue on
**Computer Vision / Image Processing Techniques and
Applications**

Deadline: **October 31, 2014**

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Aims and Scope

Papers are invited for a Special Issue of Springer Transactions on Computational Science on 'Computer Vision/Image Processing and Applications'. The SI is aimed to provide a comprehensive understanding of the fundamentals as well as the cutting edge technologies and innovative applications of computer vision and image processing techniques.

Over last few decades, image processing and computer vision communities have been one of the dominant contributors in the domain of research in Computer Science. We have seen a growing interest in theoretical aspects of image formation, modeling, preprocessing, analysis, object recognition etc. as well as deployment of such new ideas into various applications. In the course of journey the researchers have explored various avenues successfully for a wide range of computer vision and image processing tasks, such as feature

extraction, image restoration, super-resolution, compression, visual tracking, surveillance, biometrics, medical image processing, robot vision and many others.

This special issue of STCS welcomes submissions of developing and novel techniques for computer vision and image processing problems; emerging and innovative applications of computer vision-based applications, as well as theoretical contributions that are relevant to computer vision and image processing.

Topics of Interest

- **Image processing and visual recognition:** feature extraction and learning; scene and object classification; action recognition; scene parsing; image description;
- **Image preprocessing:** denoising; deblurring; inpainting; super-resolution; inverse problems; image enhancement; multispectral imaging; medical imaging; interpolation; compression;
- **other computer vision applications:** tracking; segmentation; 3D-reconstruction; pose estimation; image matching; computational photography; image retrieval; contour estimation; optical flow;
- **Methodological and theoretical contributions relevant to computer vision:** dictionary learning; optimization for sparse estimation; hierarchical models, compressed sensing.

The topics of interest include the following topics related to Computer Vision/ Image Processing and Applications, but are not limited to

- Image Formation, Preprocessing, Scanning, Display and Printing
- Image Segmentation and Thresholding
- Image and Video Processing, Analysis and Understanding
- Industrial Applications and Services for Image Processing
- Motion Tracking and Stereo Vision
- Computer Vision-based Gesture Recognition
- Computer Vision and Human-Computer Interaction
- Image Processing and Intelligent Environments
- Image Processing and Multimedia Applications
- Intelligent Imaging and Robot Vision
- Machine Learning and Pattern Recognition for Computer Vision
- Industrial Applications for Computer Vision

- Image Processing for Object Modeling
- Image and Video Quality Attribute Characterization and Metrics
- Applied Digital Signal Processing
- Wavelets, Watermarking for data hiding, image copyright
- Medical Image Processing
- FPGA-based Image Processing
- Image Processing and Video Surveillance
- Image Feature Extraction
- Recognition of Actions from Video Sequences
- Coding and Transmission
- Computer Graphics and Visualization
- Biometrics Techniques and Applications
- Digital Signal Processing in Communications
- Emerging Technologies in Digital Signal Processing
- Image & Signal Processing Applications
- Machine Learning, Biological Vision
- Image Storage, Compression, Retrieval

Submission Process

All the authors are advised to look for relevant information about the LNCS Transactions on Computational Science from the following link:

<http://www.springer.com/computer/lncs?SGWID=0-164-6-151275-0>.

Manuscripts must conform to the LNCS style, and be limited to 20 pages (<http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0>).

Authors are encouraged to submit high-quality, original work that has neither appeared in, nor is under consideration by, other journals. All open submissions will be peer reviewed subject to the standards of the journal. The expanded versions of previously published conference research papers must have at least 30% new material; authors should attach a separate sheet on the submission describing how the manuscript differs from the conference paper.

Each submitted manuscript will be reviewed double-blind. Submissions should be anonymous and must not make any direct reference indicating that the current work is an extension of the same author's earlier work. Authors are advised to create a separate cover page with title, keywords, author names and complete affiliations, addresses including email ids. This cover page will not be forwarded to the reviewers. The

main manuscript to be reviewed should follow this cover page and must contain title of the paper without the details of the authors.

Complete manuscript in PDF format should be submitted for review to the **Corresponding Guest Editor, Soharab Hossain Shaikh** at Email: soharab.h.shaikh@ieee.org by the submission deadline. For any questions, please contact the Corresponding Editor.

Important Dates

Submission Deadline: **October 31, 2014**

Author Notification: **November 30, 2014**

Revised Manuscripts Due: **December 21, 2014**

Notification of Final Acceptance: **January 10, 2015**

Final Manuscripts Due: **February 28, 2015**

Publication Date: **April 2015**