# Special Issue Call for Papers

# Machine Vision Applications

## Guest Editors

**Katsushi Ikeuchi,** *The University of Tokyo,* ki@iis.u-tokyo.ac.jp
**Yasuyo Kita**, *AIST,* y.kita@aist.go.jp
**Hiroshi Ishikawa**, *Waseda University,* hfs@waseda.jp
**Takeshi Masuda**, *AIST,* t.masuda@aist.go.jp

## Paper Submission

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. Manuscripts based on previously published conference papers must be extended substantially.

Springer offers authors, editors and reviewers of **the International Journal of Computer Vision** a web-enabled online manuscript submission and review system. Our online system offers authors the ability to track the review process of their manuscript.

Manuscripts should be submitted to: http://VISI.edmgr.com. This online system offers easy and straightforward log-in and submission procedures, and supports a wide range of submission file formats.

## Important Dates

- Submission open:
    March 15, 2015
- Submission deadline:
    August 15, 2015
- Preliminary results:
    October 30, 2015
- Revisions due:
    January 30, 2016
- Notification:
    March 30, 2016
- Final manuscripts due:
    April 30, 2016

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## Aim and Scope

Machine Vision technology has steadily progressed over the last few decades and taken the lead in showing the significance of computer vision technology in our life, especially in the field of industrial and office automation. On the other hand, it is also true that many existing machine vision systems work only in artificially-controlled circumstances crated by making the real world closer to the toy world for which the algorithms are developed. However, in recent years computer vision technology has made great strides in dealing directly with real world problems thanks to the massive progress of computational power, the accumulation of common big data sets, as well as the ubiquity of 2D and even 3D cameras. This enables us to foresee a new era of Machine Vision Applications. The aim of this special issue is to explore the current challenges in Machine Vision Applications and to stimulate the exchange of knowledge in highly effective and practical Machine Vision techniques.

## Topics and Guidelines

Manuscripts are solicited to address a wide range of topics in machine vision applications, including, but not limited to, the following:

- Sensing, including
    Vision Sensors, Shape from X, Optical Phenomenon Sensing, Color / Multiband Sensing, Active Sensing, Motion / Deformation Sensing, Calibration
- Algorithms, including
    Feature Extraction, Shape / Motion / Deformation Analysis, Registration / Alignment, Change and Background, Tracking, Color / Multiband Analysis, Segmentation, Pattern Recognition, Detection / Recognition / Identification, Statistical Image Processing, Large-Scale Data Analysis, Image Processing Systems
- Applications, including
    Factory Automation, Robotics, Intelligent Transport Systems, Surveillance,Human Computer Interaction, Biomedical, Multimedia, Life

All papers will undergo the same rigorous IJCV review process. Please refer to the IJCV website for detailed instructions on paper submission. Please choose "SI: Machine Vision Applications" as the Article Type. The review process will be single-blind. The editors reserve the right to reject without review submissions that are either low quality or are out of scope.

This issue is a follow up to the Fourteenth IAPR International Conference on Machine Vision Applications, MVA2015, that is held in May 2015 in Tokyo, Japan. However, the issue is open for all papers with significant new results in Machine Vision and its Applications. If a preliminary version of the paper appeared in a prior conference including MVA2015, a detailed description of the differences between the submissions is required.

Authors who are unsure whether their planned submission is in scope may contact the guest editors prior to the submission deadline with an abstract, in order to receive feedback.