

# **Special Issue on “Visual Understanding and Applications with RGB-D Cameras” Journal of Visual Communication and Image Representation (JVCI)**

The prevalence of affordable RGB-D cameras, such as Microsoft's Kinect and ASUS's Xtion Pro Live Sensors, is driving a revolution of the landscape of computer vision and vision related research. The pixel-level depth and visual (RGB) information provided by a RGB-D camera not only enables robust vision applications but also opens up new research problems and opportunities across a wide range of areas including 3D perception, robotics, human machine interactions, and intelligent surveillance. Since the first release of Microsoft Kinect sensors in November 2010, we have witnessed a rapid growth of research in visual understanding and applications with RGB-D cameras.

The aim of this special issue is to solicit the state-of-the-art approaches and technical solutions in the area of visual understanding and applications using RGB-D cameras. The issue will provide a convincing forum for researchers and practitioners to disseminate their latest research results.

## **Scope**

This special issue covers all aspects of visual understanding and applications using RGB-D cameras. Topics of interest include, but are not limited to:

- Sensor technology, calibration and data pre-processing
- Shape analysis, matching and spatial inference
- Depth fusion, 3D reconstruction and modelling
- Object description, detection, tracking and recognition
- Human detection, tracking and activity understanding
- Gesture recognition and biometrics
- Human-machine interactions
- Scene understanding and segmentation
- Navigation, localization, SLAM and semantic mapping
- Augmented reality
- Annotation and retrieval of RGB-D data
- Perception for mobile manipulation in robotics
- Semantics for long-term operation in dynamic environments
- Empirical studies and benchmark datasets
- Industrial applications

## **Information for Authors**

Authors should prepare their manuscript according to the Guide for Authors available from the online submission page of the 'Journal of Visual Communication and Image Representation' at <http://ees.elsevier.com/jvci/>. When submitting via this page, please select “VUA2012” as the Article Type. Prospective authors should submit high quality, original manuscripts that have not appeared, nor are under consideration, in any other journals. All submissions will be peer reviewed following the JVCI reviewing procedures.

## **Important Dates:**

Manuscript submission deadline: July 15th 2012

First round review decision: October 1st, 2012

Second round review decision: January 15th, 2013

Final manuscript due: March 10th, 2013

Expected Publication Date: June, 2013

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