

Call for Papers

Special Session on Computational Intelligence for Image, Multimedia, Signal and Vision Processing

IEEE IJCN2012, at [WCCI2012](#)

June 10-15 Brisbane, Australia

**Session chair
Khan M. Iftekharuddin**

SCOPE

Constructive understanding of computational principles of image, multimedia, signal and visual information processing, perception and cognition is one of the most fundamental challenges of contemporary science. Deeper insight into such computational intelligence helps to advance intelligent systems research to achieve robust performance. Implementing integrated principles in artificial systems may help us achieve better, faster and more efficient intelligent systems. The Symposium will address theory and applications of non-traditional computational intelligence approaches in image, multimedia, signal and vision processing.

Topics of interest include, but are not limited to the following:

- Bio-inspired Vision
- Neuronal mechanisms of visual processing
- Low level vision and its relationship to biological machinery
- Artificial learning systems for image and information processing and evidential reasoning for recognition
- Intelligent search in communications networks
- Modeling and agent-oriented vision architectures
- Perception of shape, shadows, poses, color and illumination in object recognition
- Tracking for inferring shapes and 3D motions
- Active visual perception, attention and robot vision
- Functional Magnetic Resonance Imaging (fMRI) studies of visual segmentation and perception
- Application of computational vision in areas of
 - o Automated target identification and acquisition systems in defense and industry
 - o Biomedical imaging
 - o 3D photography
 - o Face recognition
 - o Learning to segment camouflaged objects
 - o Motor actions and robotics
 - o Image databases and indexing

- Hardware implementation of computational vision
- Any other topics related to biological approaches in computer vision

SUBMISSIONS

Papers should be submitted following the instructions at the [WCCI 2012](#) web site, more details available soon.

IMPORTANT DATES

Please refer to the [WCCI 2012](#) web site.

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