Call for Papers

Neural Processing Letters

Special Issue on Neural Networks for Vision and Robotics

Guest Editors: José García-Rodríguez, Alexandra Psarrou, Andrew Lewis, Anastasssia Angelopoulou, Miguel Cazorla

Aims and scope

Over the last decades there has been an increasing interest in using neural networks and other computational intelligence paradigms, combined with computer vision techniques, to create autonomous systems that solve vision problems in different fields. This special issue is designed to provide researchers and developers with a forum to publish original, innovative and state-of-the art neural networks algorithms and architectures for real time applications in the areas of computer vision, image processing, robotics, biometrics, virtual and augmented reality, intelligent interfaces and biomimetic object-vision recognition. This special issue provides a platform for academics, developers, and industry-related researchers belonging to the vast communities of *Neural Networks*, *Computational Intelligence*, *Machine Learning*, *Biometrics*, *Vision systems*, and *Robotics*, to share experience and explore traditional and new areas of the computer vision and computational intelligence combined to solve a range of problems. The objective of the special issue is to integrate the growing international community of researchers working on the application of Computational Intelligence techniques in Vision and Robotics in fruitful discussion on the evolution and benefits of this technology to the society.

Topics:

The Special Issue topics can be identified by, but are not limited to, the following subjects:

- Artificial Vision
- Video tracking
- 3D Scene reconstruction
- 3D Tracking in Virtual Reality Environments
- Volume visualization
- Computational Intelligence
- Intelligent Interfaces (User-friendly Man Machine Interface)
- Self-adaptation and self-organisational systems
- Multi-camera and RGB-D camera systems
- Robust computer vision algorithms (operation under variable conditions, object tracking, behaviour analysis and learning, scene segmentation)
- Gesture and posture analysis and recognition
- Biometric Identification and Recognition
- Extraction of Biometric Features (fingerprint, iris, face, voice, palm, gait)
Surveillance systems
Robotics vision
Hardware implementation and algorithms acceleration (GPUs, FPGAs, ...)

Original papers that have not been submitted or published are welcome. Extended and revised version of the best papers presented in the 2nd Special Session on Neural Networks applied to Vision and Robotics (NNVR) of the World Conference on Computational Intelligence WCCI 2014, http://www.dtic.ua.es/~jgarcia/IJCNN2014/, are also invited to this special issue. The revised version must have at least 30% difference from the conference paper.

Submissions:

Submission must include the title, abstract of your paper, and the corresponding author’s name and affiliation. Further, for WCCI 2014 Special Session NNVR extended papers, the Paper ID must be provided. Concerning the preparation of the manuscript, please refer to the "Instructions for Authors" page at the journal website, http://www.springer.com/computer/ai/journal/11063. All papers will be rigorously reviewed by at least three reviewers based on the quality: originality, high scientific quality, well organized and clearly written, sufficient support for assertions and conclusion.

Use the online Editorial Manager System http://www.editorialmanager.com/nepl/ to submit your papers indicating the special issue.

Dates
Papers submission: September 15, 2014
First round of review: November 15, 2014
Submission of revised version: December 15, 2014
Acceptance of papers: January 31, 2015
Final manuscript due date: February 15, 2015

Guest Editors:

José García-Rodríguez
University of Alicante (Spain)
Email: jgarcia@dtic.ua.es

Alexandra Psarrou
University of Westminster (UK)
Email: psarroa@wmin.ac.uk

Andrew Lewis
Griffith University (Australia)
Email: a.lewis@griffith.edu.au

Anastassia Angelopoulou
University of Westminster (UK)
Email: agelopa@wmin.ac.uk

Miguel Cazorla
University of Alicante (Spain)
Email: miguel.cazorla@ua.es

Contact:

Email: jgarcia@dtic.ua.es
Website: http://www.dtic.ua.es/~jgarcia/