Computer Vision and Image Understanding

an Elsevier journal

Call for Papers: Special Issue on

NEW ADVANCES IN 3-D IMAGING AND MODELING

Important dates

Submission due:
April 30, 2008

Results of first round:
August 31, 2008

Revised paper due:
November 30, 2008

Decision:
January 31, 2009

Final paper due:
February 28, 2009

Publication date:
Spring 2009

Motivation

3-D imaging and modeling is the process of optically capturing and numerically representing the shape and appearance of objects and scenes. Research areas range from the design of new sensors to the construction of high quality photorealistic models. While some issues have received significant attention and matured into stable solutions, new problems and goals are emerging as the focus of the 3D research community. Such trends include the development of new approaches for the efficient recovery of accurate and complete surface geometry but also, for the combined estimation of object appearance for producing visual simulation. The recent 6th 3-D Digital Imaging and Modeling Conference held in August 2007 offered a forum to explore many related problems.

Topics

This special issue of CVIU will focus on new advances in 3D imaging and modeling, with a particular emphasis on domains that are not adequately addressed by current state-of-the art sensors and algorithms. For example, some objects or scenes present challenges to existing techniques due to their size, complexity, reflectance properties, and state of motion or deformability. With the increased capability for rapidly acquiring large quantities of 3D data, many existing algorithms face issues of computational complexity and data representation, and need to be revisited. Driven by real-world applications, the importance of assessing the quality and efficiency of 3D imaging and modeling methods is also motivating some research efforts.

Potential selected topics for the special issue include:

- Sensors and efficient sensing strategies for capturing geometry or appearance
- New 3-D shape recovery principles and approaches
- Scene capture and 3D modeling under time-varying motion, deformation, or illumination
- Efficient geometry or appearance representation for modeling
- Geometric signal and 3-D data processing
- New methods for 3-D view registration, learning and recognition
- 3-D modeling from large or complex data sets
- New applications of 3-D modeling with challenging objects

Submission process

This special issue is open to all new submissions. They must be full journal length versions, prepared in accordance with the CVIU Guidelines. Manuscripts must be submitted through the CVIU online submission system: to insure proper routing of the submission, the "Article Type" must be selected as "Special Issue: New Advances in 3D Imaging and Modeling", and the cover letter should also mention "Submitted to the Special Issue: New Advances in 3D Imaging and Modeling". All submissions will undergo the complete CVIU peer review process. Papers previously accepted or published in a conference should contain sufficient new and extended material to warrant publication in the journal. As this is a special issue, relevance to the themes of the call for papers will be an important criterion for acceptance. The guest editors may return some submissions without evaluation if they fall outside the scope of the issue. If in doubt concerning the relevance of a proposed paper, the authors are encouraged to contact in advance the guest editors of the special issue.

For more information

http://www.3DIMconference.org/cviu-na3d/

Guest editors

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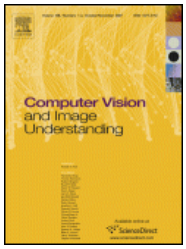

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