

Call for Papers

Computer Vision and Image Understanding CVIU Special Issue: 3D Imaging and Modelling

A special issue of the CVIU Journal on 3D Imaging and Modeling will be published following the 3DIM'09 workshop in conjunction with ICCV'09. The special issue will comprise extended versions of invited papers from the 3DIM'09 workshop and other submissions related to this field. All papers must present original research and will be subject to peer review. Invited papers and other submissions must include at least 50% original work not previously published in workshops, conferences or elsewhere.

The field of 3D imaging, modeling and visualization has undergone a rapid growth over the last decade. While some research issues have received significant attention and matured into stable solutions, new problems and goals are emerging as the focus of the 3-D research community. Improved methods for the acquisition of 3-D information by optical means are driven by new algorithmic approaches in computer vision and image processing. Advanced methods for the processing and transformation of geometric information open new types of applications. Following the 3DIM workshop this CVIU special issue will bring together papers related to acquisition, processing and modelling of 3D information and their applications.

Submissions of invited and original high quality papers should be made to the special issue "3DIM 3D Imaging/Modelling" via the CVIU submission site (<http://www.elsevier.com/locate/cviu>) by **February 15th 2010**. All papers will be subject to peer review by both members of the 3DIM programme committee and other experts in the field. Papers are invited in the following and related areas:

Smart/enhanced/hand-held 3-D sensors
3-D sensor calibration methods and performance assessment
Automated 3-D view planning
3-D from multiple images and video
Geometric signal processing
Shape-from-X techniques
3-D image registration & integration
Multi-resolution 3-D representations
Shape and appearance modeling

Deformable models
Real-time 3-D systems
3-D video acquisition and analysis
Object recognition and classification
Surface/solid modeling from images
Reverse engineering
Dimensional inspection & metrology
Object/human/environment models
Manufacturing/medical applications
Cultural/archaeological applications

In order to maintain the special issue focus, the research described in the paper should comprise: innovative techniques producing 3-D information from active or passive optical devices; techniques for the early processing of 3-D information, possibly along with other sensing modalities; transformation of the 3-D information into higher level models; applications or assessment of such techniques. In case of doubt concerning the relevance of a paper's topic, prospective authors may contact in advance the program chairs.

Special Issue Schedule:

Paper submissions due:	February 15th 2010
Notification of initial review decisions:	April 15 th 2010
Submission of revised manuscripts:	June 1 st 2010
Final decision:	August 1 st 2010
Target publication date:	by end of 2010

Guest Editors:

Guy Godin, *National Research Council, Canada*
Adrian Hilton, *University of Surrey, UK*
Takeshi Masuda, *AIST, Japan*
Chang Shu, *National Research Council, Canada*