

Image Analysis and Information Fusion, 6-7 Nov 97 Adelaide

Host and Sponsors:

Cooperative Research Centre for Sensor Signal and

Information Processing (CSSIP), Australia

Defence Science and Technology Organization (DSTO), Australia

Keynote Speeches:

"Sensor Signal and Information Processing"

Henry d'Assumpcao, Director of CSSIP

"Semantic Modelling for Image Analysis"

Wolfgang Foerstner, University of Bonn, Germany

"Intelligent Agents with Belief, Intention and Desire"

Michael P. Georgeff, Australian Artificial Intelligence Institute,

Melbourne, current chair of International Joint Conference on

Artificial Intelligence

"Cool Fusion - key themes in designing information fusion systems"

Daniel McMichael, Data and Information Fusion Program, CSSIP

Workshop Chair and Co-Chairs:

Heping Pan, Mike Brooks, Daniel McMichael and Garry Newsam

Program Committee:

Mike Brooks, University of Adelaide

Wolfgang Foerstner, University of Bonn, Germany

Armin Gruen, Swiss Federal Institute of Technology, Zurich

Douglas J. Kewley, DSTO

Deren Li, School of Information Engineering, WTUSM, Wuhan, China

Yan Lue, GDE Systems, San Diego, USA

Daniel McMichael, CSSIP

Mark Nelson, DSTO

Ram Nevatia, University of Southern California, USA

Garry Newsam, DSTO

Heping Pan, CSSIP

Vittala Shettigara, DSTO

John Trinder, University of New South Wales, Sydney

CALL FOR PAPERS

Hosted by Australia's Cooperative Research Centre for Sensor Signal and Information Processing (CSSIP), and sponsored by Australia's Defence Science and Technology Organization (DSTO), IAI'97 is the first international workshop on theoretical, experimental and applied research and development in image analysis and information fusion. It provides a unique forum for presentation of research and technological advances by scientists and engineers working in image analysis, computer vision, photogrammetry, statistical inference, knowledge-based

inference, and information fusion, as well as related applications in industry, defence, medicine, and geoinformation.

SCOPE:

1. GEOMETRIC IMAGING SITUATION RECOVERY:

aspects of geometric situation of image formation, single and stereo camera calibration and image orientation, image network recovery and adjustment, structure and motion from image sequence.

2. IMAGE ANALYSIS AND FEATURE EXTRACTION:

multiresolution image analysis, scale space, wavelets, phase-based representation, polymorphic features, feature detection and tracking.

3. STEREO VISION AND MULTIPLE IMAGE FUSION:

stereo image matching, phase-based matching, feature-based matching, object-space image matching, fusion of visual modules, multiple image matching, surface reconstruction, disparity discontinuity and occlusion, horizontal and hierarchical disparity propagation.

4. INFORMATION FUSION THEORIES AND ARCHITECTURES:

interfacing signals with symbols, Bayesian networks, probabilistic knowledge representation and inference, Blackboard architectures, neural networks, intelligent agents with belief, desire and intention.

5. APPLICATIONS:

active vision systems, photogrammetry and remote sensing, monitoring and control of dynamic engineering systems, situation and threat assessment for defence, battlefield information fusion, medical expert systems with sensors, geographic information systems, etc.

SUBMISSION PROCEDURES:

Prospective authors are invited to submit papers in any of the technical areas listed above. To submit a proposal, prepare a 3-6 page extended abstract of the paper including text, figures and references. The abstract should be headed by paper title, authors and their affiliations, including the contact author's name and address, including telephone number, fax number, and email address. Attached to the back of the extended abstract should be an additional page containing a short paragraph on biographical details of each author. Four copies should then be sent to:

All submissions will be reviewed by at least two reviewers. The final version of a paper is limited to 12 pages and will be published in the edited Proceedings of IAIF'97.