



Third International Conference on Intelligent Sensors, Sensor Networks and Information Processing

3-6 December 2007, Melbourne, Australia

Call for Papers:

Symposium on Sensor Fusion, Intelligent Sensors and Applications

Symposium Chairs

Danil Prokhorov, Toyota, USA
Thomas Hanselmann, UniMelb, Australia

Program Committee

Martin Adams, NTU, Singapore
Dmitri Dolgov, Toyota, USA
Arnaud Doucet, UBC, Canada
Hugh Durrant-Whyte, UniSyd, Australia
Neil Gordon, DSTO, Australia
Thomas Hanselmann, UniMelb, Australia
Michael James, Toyota, USA
Anthony Kuh, University of Hawaii, USA
Barbara LaScala, UniMelb, Australia
Norbert Lehmann, U. Fribourg, Switzerland
Wing-Kin Ma, National Tsing Hua, Taiwan
Raj Madhavan, Nat. Inst. Stand.&Tech., USA
Ronald Mahler, Lockheed Martin, USA
Mark Morelande, UniMelb, Australia
Darko Musicki, UniMelb, Australia
Lyle Noakes, UWA, Australia
Anthony Overmars, Softronics, Australia
Danil Prokhorov, Toyota, USA
M.-Jafar Rezaeian, UniMelb, Australia
Leon Reznik, Roch. Inst. Tech. NY, USA
Branko Ristic, DSTO, Australia
Michael Samples, Toyota, USA
Craig Savage, NICTA, Australia
Ying Tan, UniMelb, Australia
Mohan Trivedi, UCSD, USA
Ivan Tyukin, Univ. Leicester, UK
Nikita Visnevski, GE Research, USA
Ba-Ngu Vo, UniMelb, Australia
Xuezhi Wang, UniMelb, Australia
Sardha Wijesoma, NTU Singapore
Alex Zelinsky, CSIRO/ANU, Australia

Registration Chair

Rezaul Begg, Victoria University, Australia

The 3rd International Conference on Intelligent Sensors, Sensor Networks and Information Processing – 2007 (ISSNIP 2007, www.issnip.org), running under the umbrella of the ARC Research Network on Sensor Networks (www.sensornetworks.net.au), will be held in the beautiful city of Melbourne early December. The conference consists of several symposia. A special symposium has been dedicated to the theory and applications of intelligent sensors and smart systems with sensor fusion as an integral part.

Special invited keynote and plenary speakers are: **Hugh Durrant-Whyte**, University of Sydney (*Autonomous Mobile Sensor Networks*), **Ronald Mahler**, Lockheed Martin, (*Random Sets*), **Mohan Trivedi**, University of California at San Diego (*Holistic Perception and Dynamic Displays for Active Safety*) and **Alex Zelinsky**, Director of the CSIRO ICT Centre (*Real World Problems Driving a Multi-Disciplinary Approach to Sensor Network Solutions*).

Several Sessions within the Symposium will be held under the following themes:

- Data Fusion for Target tracking
- Sensor Fusion to achieve Intelligent Sensors
- Computer Vision & Robotics

The symposium committee invites contributions addressing Sensor Fusion, Intelligent Sensors and Applications thereof. Topics of interest include (but are not limited to):

**Machine Learning
Detection & Tracking
Nonlinear Estimation & Filtering
Computer Vision**

**Surveillance & Situation Analysis
Sensor Networks
Random Sets & Data Fusion
Robotics & Control**

Machine Learning (Adaptive Learning, Neural Networks, Support Vector Machines, Genetic algorithms, Hybrid intelligent systems, Multi-agent systems, Reinforcement Learning, Intelligent control with possible applications to sensor technology).

Sensor Networks (Network Architecture, Sensor Arrays, Sensor Deployment, Sensor Localization, Tracking, energy issues, in-situ calibration methods, dynamic sensor network architectures, attribute-based named nets, routing protocols, media access control, distributed and collaborative signal processing).

Sensor Fusion and Tracking (Multi-Sensor Fusion, Target Detection, Tracking & Identification, Data Association, Sensor Registration, Situation Assessment, Image or Sensor Data Fusion, Distributed Estimation, Inference and Fusion, Sensor Scheduling, Control and Optimization).

End User Applications (Application of sensor networks to all kind of vehicles, such as robots, automotive, underwater and airborne ones).

Paper submission: Prospective authors are invited to submit full papers, up to 6 pages in length, using electronic submission via the conference web site. Papers will be fully refereed and accepted papers will be published in the conference proceedings and will appear in IEEE Xplore. Please select this symposium if you want your paper to be considered herein. It is intended to have a special issue on the symposium topic in the IEEE Computational Intelligence Magazine.

Organised by



Department of Electrical and Electronic
Engineering, University of Melbourne, Australia

Conference Dates: December 3-6, 2007

Tutorials: December 3, 2007

Submission Deadline: July 31, 2007 *extensions may be granted if asked contact below*

Notification of acceptance: September 14, 2007

Camera ready manuscript: October 1, 2007

Web: www.issnip.org

Email: sensorfusion@issnip.org