

# **Proceedings of INSS 2008**

## **FIFTH INTERNATIONAL CONFERENCE ON NETWORKED SENSING SYSTEMS**

**June 17 - 19, 2008**

**Kanazawa, Japan**

**SICE**<sup>®</sup>



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## MESSAGE FROM THE GENERAL CO-CHAIRS

Welcome to the 5th International Conference on Networked Sensing Systems 2008 (INSS2008) in Kanazawa, Japan.

This conference started five years ago as a workshop with the vision to form symbiosis and to give the place for multidisciplinary discussions regarding networked sensing systems to the researchers in the information, network, sensor devices and systems fields.

Networked Sensing Systems or Sensor Network is a very attractive field of technology for the social systems of now and future. It promises us the future application that will satisfy the social interests and needs. To realize the networked sensing systems in the real world, it would be essential that we bring together the people of different technical fields; not only from academic society but also from the industry. From this point of view, we organized INSS2008.

We are fortunate to have distinguished talks, by Professor José M. F. Moura of Carnegie Mellon University, USA, as a Keynote Speaker, and invited talks by Professor Hartmut Hillmer, University Kassel, Germany, Professor Kazusuke Maenaka, University of Hyogo, Japan and Dr. Mike Hazas, Lancaster University, UK. Also we have a panel discussion titled "Sensor Network: Moving from labs to real-World Applications" moderated by Dr. Feng Zhao from Microsoft Research, USA. A tutorial by Professor Hideyuki Tokuda, Keio University Japan, and three workshops of related fields of INSS are held before and after INSS2008 at the same venue.

This conference was managed by many people's hard work. We would like to thank the Program Chair Marc Langheinrich, Program Vice-Chairs Jin Nakazawa and Steven Gaverick, Industrial Track Program Chair Masateru Minami, and other chairs and staff members listed in the following pages.

By pre-registration, we have already more than a hundred attendees from twelve countries. We are grateful to you for sharing your insights and experiences with the conference attendees. We also hope you will gain cultural experience in the traditional Japanese city of Kanazawa.

General Co-Chairs:

Hideto Iwaoka, Kanazawa Institute of technology, Japan  
Steven Glaser, University of California Berkeley, USA  
Henry Tirri, Nokia Research centre, Finland

## MESSAGE FROM THE PROGRAM CHAIRS

As the International Conference on Networked Sensing System (INSS) goes into its fifth year, it has established itself as a forum for researchers in both industry and academia to come together and discuss issues in the growing multidisciplinary field of networked sensing systems.

In 2008, we received a record number of 84 academic and industrial papers, which were submitted to three separate tracks -- a full paper academic track, an academic short paper track, and an industry track. The industry track was organized for the first time within the scope of the INSS conference. A majority of the papers (63) was submitted to the full paper track, with 10 and 11 submissions sent to the short and industry track, respectively.

A program committee of 35 distinguished international experts, together with roughly a dozen external reviewers, wrote over 220 reviews for the 73 academic submissions and conducted a 6-hour program committee meeting via video conferencing to finalize the selection of 13 full papers and 21 short papers, corresponding to a very competitive 21% acceptance rate for full papers. An additional 17 full papers were accepted into either the short paper track (15) or the industry track (2). This typically included a second review cycle by a designated "shepherd" from the program committee, as many of these papers needed to be significantly shortened in order to fit the page limit of the respective track.

From the 10 papers originally submitted to the short paper track, 4 were directly selected for inclusion in this track. Together with 2 referrals from the industry track (see below) and those 15 referrals from the full paper track, we arrive at the total of 21 short paper submissions in this volume. A separate industrial track program committee, comprised of 12 industry researchers and practitioners, selected 8 submissions from the original set of 11 industry papers and accepted 2 referrals from the full paper track for a total of 10 industry track papers. 2 industry submissions were referred to the short paper track (as described above).

The more than 240 authors who submitted their work to INSS 2008 came predominantly from Asia and Europe (about 40% each), with North and South America accounting for the remaining 20%. We are truly grateful to all the authors, as their work and efforts are the foundation of our successful conference series. We are aware of the competitive acceptance rate in the full paper track and hope that, for those authors whose work we could not include, our reviews provided insightful and helpful comments that will lead to an improved paper.

We would also like to thank all members of the program committee who so generously donated their time and expertise to this conference, often at non-standard hours. Due to the international diversity of the committee, the six-hours online meeting took place at 5-11am on the U.S. West Coast, 8am-1pm on the U.S. East Coast, 2-8pm in Central Europe, and 10pm-4am in Japan. We are truly fortunate to have been able to work with such dedicated committee members!

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Marc Langheinrich, ETH Zurich, Switzerland

Jin Nakazawa, Keio University, Japan

Steven Garverick, Case Western Reserve University, USA

Industry Track Program Chair:

Masateru Minami, University of Tokyo, Japan

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