

Message

from the Prime Minister of Japan

I am pleased to extend my hearty welcome to all participants from all over the world on this occasion of the opening ceremony of The 21st International Conference on Pattern Recognition in Tsukuba.

I am happy to express that the conference is held under the joint-sponsorship of the Science Council of Japan, the Information Processing Society of Japan, and the Institute of Electronics, Information and Communication Engineers, Information and Systems Society.

I wish a great success of this international conference for advancement in the field of Pattern Recognition.

Yoshihiko Noda

Prime Minister

Message from the General Chairs

Welcome to the 21st International Conference on Pattern Recognition (ICPR2012)!

In 1978 the Fourth International Joint Conference on Pattern Recognition was held in Kyoto. Now with ICPR2012, it is the second time that ICPR is hosted in Japan. ICPR2012 is being held at the Tsukuba International Congress Center, from November 11th to 15th, 2012.

Tsukuba Science City is located 50km northeast of Tokyo. It was constructed to help address Tokyo's overpopulation problem and to establish itself as the nation's largest research and education center. The University of Tsukuba and the National Institute of Advanced Industrial Science and Technology (AIST) are both located in Tsukuba Science City. A post-conference technical tour to these institutes is scheduled on Friday 16th.

Satellite workshops, tutorials, and contests are being held on Sunday 11th. The main conference runs for four days, from the 12th to the 15th. The main conference features five parallel tracks. Each track addresses a key field of interest to the pattern recognition community. We received 1,941 paper submissions in total. They have been peer reviewed under the control of program co-chairs, track co-chairs, and area co-chairs. From these submissions, 313 papers have been accepted for oral presentations and 629 papers have been accepted for poster presentations. The technical program includes 65 oral sessions organized as 5 parallel presentation tracks and 7 poster sessions. We have arranged poster-shotgun sessions to briefly overview the poster session papers.

Such a large event as ICPR cannot take place without the help of many people who take responsibility for some parts of the complex event. We would like to express our cordial thanks to the program committee who reviewed and selected this impressive collection of papers representing the state of the art in the field, and to the authors for the high scientific quality of the works presented. We express our gratitude to the Science Council of Japan, Information and Systems Society of IEICE, Information Processing Society of Japan, AIST, and the University of Tsukuba for hosting the conference, to Japan Society for the Promotion of Science, the Telecommunication Advancement Foundation, the Tsukuba Tourist and Convention Association, and private companies for their financial support. Last but not least, we would like to thank all the members of the organizing committee and the local arrangements committee for their enthusiastic support, and for spending extra hours preparing the conference.

Jan-Olof Eklundh, Yuichi Ohta, Steven Tanimoto
ICPR2012 General Co-Chairs

Message from the President of IAPR

It is my pleasure to welcome the IAPR community to Tsukuba for the 21st International Conference on Pattern Recognition (ICPR). The ICPR is the main IAPR event and is a forum where researchers meet for exchanging ideas on pattern recognition and related fields and for presenting their own work. A special welcome is addressed to students attending the conference. Their participation in ICPR events is very important and their interest in IAPR activities is a key element for IAPR's growth.

Less than two years ago, Japan was hit by a devastating earthquake and tsunami. This disaster was not only a major shock for the country but also for the members of the ICPR Organizing Committee both at the professional and personal levels. The Executive Committee has cooperated with the ICPR Organizing Committee and has confirmed its trust in the group of people who had already worked very hard to prepare the event and who worked even harder after the disaster to promote the conference. The IAPR community has responded admirably with a record number of paper submissions and an active participation in the conference. I take the opportunity to thank all participants who have demonstrated their trust in the Organizing Committee, the ICPR and the IAPR.

My most sincere thanks go to the General Chairs of the ICPR 2012, Jan-Oluf Eklundh, Yuichi Ohta and Steven Tanimoto for making this conference a success. Our gratitude also goes to the Program Chairs, Alberto del Bimbo, Kim Boyer and Katsushi Ikeuchi, and to the Track Co-Chairs for setting up a very strong program and for addressing the daunting task of managing the huge number of papers that were submitted to the conference. The work of other members of the Organizing Committee is acknowledged as well. Thanks also to the members of the ICPR Liaison Committee, Chaired by Rangachar Kasturi, for monitoring the organization process and providing advice along the way.

The five tracks of the conference not only reflect the stability of the foundations of the IAPR but also prove its evolution with the advances in science and technology. It is good to see that the IAPR community is dynamic and eager to explore new paths of investigation. This vitality promises a bright future for the association.

The ICPR 2012 will also acknowledge the career achievements of Professor Rama Chellappa from the University of Maryland who will receive the prestigious K-S Fu Prize for his pioneering contributions to statistical methods for image and video-based recognition. The J-K Aggarwal Prize, which acknowledges the work of a young investigator, goes to Professor René Vidal of Johns Hopkins University for his contributions to the original formulation of generalized PCA and subspace learning. The other IAPR awards and fellow nominations will be announced at the conference.

Finally, I take this opportunity to thank my colleagues on the IAPR Executive Committee and the chairs and members of the IAPR Standing Committees and Technical Committees. Their work, dedication and friendship have made my last two years as president very enjoyable and rewarding.

Denis Laurendeau

IAPR President

Message from the Program Chairs

It is our great pleasure to introduce you to the technical program of the 21st International Conference on Pattern Recognition (ICPR2012).

After the paper deadline, the papers were distributed to the Area Chairs by the Track Chairs. This year, since some tracks had more submissions than expected, we recruited additional Area Chairs after the deadline in order to keep the review quality high. Area Chairs assigned each paper to at least three reviewers and made the review summary reports. The Track Chairs made the decision of acceptance based on the Area Chairs' reports. Finally, the Track Chairs composed the sessions, and the Program Chairs scheduled them and assigned rooms.

All of this review process is the result of dedicated hard work by members of various conference committees and additional volunteers, and we would like to thank all of them for their generous efforts. Especially, we gratefully acknowledge the fundamental contribution of the Track Chairs, who directly supervised the review process carried out by 88 Area Chairs and more than 1,700 reviewers, who timely delivered high-quality reviews and decision reports.

This year we received a total of 1,941 paper submissions from 68 countries. 313 papers were accepted as oral presentations and 629 papers were accepted as poster presentations. We arranged 65 sessions for oral presentations and 7 poster sessions. This year we set a poster shotgun session before each poster session to give a brief summary of the poster papers. We organized two prize lectures and four invited talks, and in addition to these, we have Prof. Takeo Kanade, one of the great pioneers in our area, to give a keynote lecture.

We expect this conference to be very lively and exciting form for all of us to meet, inspired and be inspiring in many presentations and discussions. We wish you a memorable stay in Tsukuba. Welcome to ICPR2012 and to Tsukuba!

Alberto Del Bimbo, Kim L. Boyer, Katsushi Ikeuchi
ICPR2012 Program Co-Chairs