Foreword

The present volume contains the Proceedings of the International Conference on Image Analysis and Processing (ICIAP 2003), held on September 17 – 19 in Mantova, (Italy).

ICIAP2003 is the 12th meeting organized by G.I.R.P.R., the Italian chapter of the International Association for Pattern Recognition (IAPR-IC). Among the international conferences on image processing, ICIAP has a long standing tradition that dates back to its first edition, held in 1980 in Pavia. Since then, the event has been scheduled every other year, in proper synchronization with ICPR. The goal of ICIAP has always been providing an international forum and discussion on advances in the field of Pattern Recognition, both in its theoretical foundation and real life applications.

This issue has been set in Mantova, under the scientific supervision of Dipartimento di Informatica e Sistemistica of the University of Pavia, and the logistic support of the Foundation for the University of Mantova. ICIAP2003 has elicited a total of 176 submissions from researchers of 35 countries, a further proof of its established international status. Of the regulars submissions, the Program Committee has selected 108 papers.

The organization of the sessions reflects the main topics of the Conference: shape analysis and reconstruction, 3D models, early vision and image analysis, pattern recognition and image inference, visual processing for communication and various application domains.

Three invited talks from distinguished world experts reflected the main tracks of the Conference as outlined above: “Multimodal Biometric Authentication Using Quality Signals in Mobile Communications” (Josef Bigun, Halmstad University and Chalmers Institute of Technology); “Content-Based Video Summarization and Adaptation for Ubiquitous Media Access” (Shih-Fu Chang, Department of Electrical Engineering, Columbia University); “Modeling the World: the Virtualization Pipeline” (Hans-Peter Seidel, Max-Plank Institut für Informatik, Universität des Saarlandes).

Oral presentations (45 papers) were organized in 14 sessions along a single track: Shape I and II, Face recognition, 3D and statistical extraction, Hough and voting based methods, Segmentation, Matching, 3D objects, Graphs, Video Analysis, Stereo and 3D matching, Audio and Video, Application A and B. Four poster sessions included 71 papers; as in the previous edition (ICIAP2001, Palermo) these sessions were planned with sufficient length to encourage the direct dialogue and exchange of ideals among researches in contiguous areas.

The best paper award for young authors, in honour of Prof. A. Caianiello, has stimulated the submission of 16 papers. The award encourages the participation of young researchers and has been assigned through an international
Committee that selected the winner after a second review of the best papers evaluated in the ordinary reviewing process.

We wish to thank the International Association for Pattern Recognition for sponsoring ICIAP2003, and its Italian Chapter for giving us the opportunity to organize this important event. The financial and technical support from several scientific Institution is gratefully acknowledged: the University of Pavia and its Dean, Prof. Roberto Schmid, the “Fondazione Università di Mantova”, and, among the members of the Fondazione, Provincia and Comune di Mantova. A special mention is due to Provincia di Mantova, for the direct support of the Caianiello award and the official patronage of the conference.

We take this opportunity to thank those who have personally contributed to the scientific organization of ICIAP2003. First of all, the Authors, who have supported the Conference with a large number of submissions; the members of the Steering and Program Committee. This event would never have become a real thing without the invaluable work of Dr. Federico Guerrini, Dr. Emanuele Noè and Ivano Vitaloni, who took care of the many facets of the scientific organization.

But ICIAP2003 has been possible only through the continuous advice and steering of Paolo Polettini: his standing in Mantova, and his experience with other successful international events he organizes every year in the town, have been the true success factor. Finally, we thank the staff of the Facchini Viaggi srl for their professional work in assisting both organizers and attendees of ICIAP 2003.

We wish all conference participants a successful meeting and a pleasant stay in Mantova.

Marco Ferretti
Conference Chair

Maria Grazia Albanesi
Conference Vice-Chair