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Preface

Pattern recognition is a central topic in contemporary computer sciences, with continuously evolving topics, challenges, and methods, including machine learning, content-based image retrieval, and model- and knowledge-based approaches, just to name a few. The Iberoamerican Congress on Pattern Recognition (CIARP) has become established as a high-quality conference, highlighting the recent evolution of the domain.

These proceedings include all papers presented during the 15th edition of this conference, held in Sao Paulo, Brazil, in November 2010.

As was the case for previous conferences, CIARP 2010 attracted participants from around the world with the aim of promoting and disseminating ongoing research on mathematical methods and computing techniques for pattern recognition, computer vision, image analysis, and speech recognition, as well as their applications in such diverse areas as robotics, health, entertainment, space exploration, telecommunications, data mining, document analysis, and natural language processing and recognition, to name only a few of them. Moreover, it provided a forum for scientific research, experience exchange, sharing new knowledge and increasing cooperation between research groups in pattern recognition and related areas.

It is important to underline that these conferences have contributed significantly to the growth of national associations for pattern recognition in the Iberoamerican region, all of them as members of the International Association for Pattern Recognition (IAPR).

The scientific program included a tutorial day, with three topics addressed: an introduction to kernel machines, by Stéphane Canu; multimodal human – computer interaction for mobile computing, by Matthew Turk; and soft computing, f-granulation and pattern recognition, by Sankar Pal. We warmly thank the three speakers for having agreed to give these tutorials.

The next three days were organized in a single-track conference, with invited talks, oral presentations, and posters. We were very pleased to welcome four distinguished invited speakers: Alexandre Falcão on design of pattern classifiers using optimum-path forest with applications in image analysis; Stéphane Canu on recent advances in kernel machines; Matthew Turk on computational illumination; and Seth Hutchinson speaking on vision-based control of robot motion. We are very grateful and would like to thank them. The oral and poster sessions included 70 papers selected from 145 submissions. All submissions were double-blind reviewed by at least two reviewers. We thank all reviewers, who provided high-quality reviews in a short time.

To enhance the visibility of the best submissions and to stimulate further good scientific papers, some authors will be invited to submit an enhanced version of

their paper to a special issue of International Journal of Pattern Recognition and Artificial Intelligence, to be published in 2012.

In addition, an award, consisting of a cash prize, a trophy and a certificate, was given to the author(s) of the Best Paper registered and presented at CIARP 2010. The aim of this award is to acknowledge and encourage excellence and originality of new models, methods and techniques with an outstanding theoretical contribution and practical application to the field of pattern recognition and/or data mining. The selection of the winner was based on the wish of the author to be considered to the prize, the evaluation and recommendations from members of the Program Committee and the evaluation of the IAPR-CIARP Award Committee. This committee, carefully chosen to avoid conflicts of interest, evaluated each nominated paper in a second review process, which included the quality of the oral and/or poster presentation.

The conference was organized by the University of Sao Paulo. We would like to thank all participants of the organizing committee and auxiliary committee, at USP and UFABC, for their tremendous work, which made the conference a success.

Finally, we would like to thank all authors and participants, who contributed to the high quality of the conference and scientific exchanges.

November 2010

Isabelle Bloch
Roberto M. Cesar-Jr.

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CIARP 2010 was organized by the Institute of Mathematics and Statistics—IME-USP, Brazil, and Telecom ParisTech, France; endorsed by the International Association for Pattern Recognition (IAPR); and sponsored by several scientific societies listed below.

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