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Preface

IBERAMIA is the biennial Ibero-American Conference on Artificial Intelligence. This volume presents the proceedings of the 13th edition in this series, IBERAMIA 2012, held during November 13–16, 2012, in Cartagena de Indias (Colombia). The conference is supported by the main Ibero-American societies of artificial intelligence (AI), and provides researchers from Portugal, Spain, and Latin America the opportunity to meet with AI researchers from all over the world. Since its inception (Barcelona, 1988), IBERAMIA has expanded its scope to become a well-recognized international conference in the AI field. Its papers have been published in English by Springer in the LNCS/LNAI series since the sixth edition in Lisbon (1998).

The organizational structure of IBERAMIA 2012 was similar to other international scientific conferences. The backbone of the conference was the scientific program, which is complemented by tutorials, workshops, and open debates on the principal topics of AI.

The scientific program of the conference was organized along several areas, coordinated by Area Chairs. Each submitted paper was reviewed by three members of the Program Committee (PC), coordinated by the corresponding Area Chair. In certain cases, extra reviewers were recruited to write additional reviews. The PC consisted of 220 researchers from 29 different countries. The statistics of the PC members are shown in Table 1; the full list of Area Chairs, PC members, and reviewers can be found in the pages after this preface.

Table 1. PC members by country

Country	PC Members
Argentina	16
Australia	1
Austria	1
Belgium	3
Brazil	46
Canada	2
Chile	5
Cuba	3
Cyprus	1
Czech Republic	1
France	6
Germany	4
Greece	1
Ireland	1
Italy	5

Country	PC Members
Korea	1
Malaysia	1
Mexico	25
The Netherlands	1
Norway	1
Poland	2
Portugal	32
Slovenia	1
Spain	45
Turkey	1
UK	5
USA	5
Uruguay	1
Venezuela	3
Total:	220

IBERAMIA 2012 received 170 papers from 23 different countries, 11 from Ibero-America, and 12 from other regions of the world, attesting to the truly international nature of the conference. After review by the international PC, 75 papers were accepted for presentation and publication in this volume. The number of submissions to IBERAMIA is similar to the last edition, but it seems that the quality has considerably improved, according to the reviews that papers received. The Program Chair together with the Area Chairs considered whether to maintain a lower rate of acceptance, as in previous editions at around 30%, but this would imply rejecting papers that did not receive any negative review or relevant points against them. Because of this, the acceptance rate is around 44% this time. By areas, the distribution of submissions and accepted papers is the following:

Table 2. Contributions for each area

Area	Submitted	Accepted
AI in Education	14	7
Bioninspired computing	17	7
Information and Knowledge Processing	3	1
Knowledge Discovery and Data Mining	19	10
Knowledge Engineering and Applications	12	5
Knowledge Representation and Reasoning	4	4
Machine Learning and Data Mining	26	10
Multi-Agent Systems	15	4
Natural Language Processing	9	4
Planning and Scheduling	10	4
Computer Vision and Robotics	20	10
Uncertainty and Fuzzy Systems	4	4
Modelling and Simulation	9	3
Human-Computer Interface	5	1
Ambient Intelligence	3	1
Total:	170	75

We would like to express our sincere gratitude to all the people who helped to bring about IBERAMIA 2012. First of all, thanks to the contributing authors, for ensuring the richness of the conference and for their cooperation in the preparation of this volume. Special thanks are due to the members of the PC and reviewers for their professionalism and their dedication in selecting the best papers for the conference. Thanks also to the IBERAMIA Executive Committee for its guidance and continuous support.

We owe particular gratitude to the invited speakers, Ajith Abraham, the director of MIR Labs (USA), Hector Geffner, research professor at the ICREA and University Pompeu Fabra in Barcelona (Spain), María Manez, senior researcher at the Climate Service Center in Hamburg (Germany), and Jaime Simão

Sichman, professor at Universidade de São Paulo (Brazil), for sharing with us their experiences and their most recent research results.

Nothing would have been possible without the initiative and dedication of the Organizing Committee from the Universidad Nacional de Colombia. We are very grateful to all the people who helped in the large variety of organizing tasks.

Also, we thank IBERAMIA's Secretariat for their continuous support in administrative matters, as well as Federico Barber and his team from Universidad Politécnica de Valencia (Spain) for supporting the website of the conference. We also want to acknowledge EasyChair for the facilities provided to support the submission and review of the papers, as well as for the preparation of the proceedings.

Finally, we would like to acknowledge the role of the IBERAMIA 2012 sponsors: Universidad Nacional de Colombia, Sociedad Colombiana de Computación (SCo2), Universidad Tecnológica de Bolívar en Cartagena, Universidad de Caldas, and Universidad Tecnológica de Pereira. All of them provided constant support for both the conference organization and the proceedings publication.

November 2012

Juan Pavón
Néstor Darío Duque Méndez
Rubén Fuentes-Fernández

Organization

IBERAMIA 2012 was organized by the Universidad Nacional de Colombia, Colombia. The conference was sponsored by the main Ibero-American artificial intelligence and computer science societies: Sociedade Brasileira de Computação (SBC), Asociación Española para la Inteligencia Artificial (AEPIA), Sociedad Mexicana de Inteligencia Artificial (SMIA), Associação Portuguesa Para a Inteligência Artificial (APPIA), Sociedad Cubana de Matemática y Computación (SCMC), Sociedad Peruana de Inteligencia Artificial (SPIA), Asociación Argentina de Inteligencia Artificial (AAIA), Sociedad Colombiana de Computación (SCo2), and Sociedade Brasileira de Inteligência Computacional (SBIC).

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