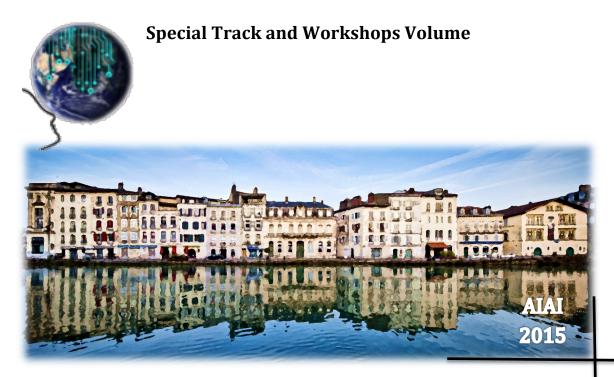
The 11th International Conference on Artificial Intelligence Applications and Innovations (AIAI'15)



September 14-17, 2015 Bayonne, France

http://aiai2015.sigappfr.org/





AIAI'15 keywords' cloud



Contents

Committee Message	vi
Contents	ix

Committee Message

The International Federation for Information Processing (IFIP) was founded in 1960 under the auspices of UNESCO, following the first historical World Computer Congress held in Paris in 1959. The 1st AIAI conference (Artificial Intelligence Applications and Innovations) was organized in Toulouse, France, in 2004 by the IFIP. Since then, it has always been technically supported by the Working Group 12.5 "Artificial Intelligence Applications". After 10 years of continuous presence, it has become a well-known and recognized mature event, offering AI scientists from all over the globe the chance to present their research achievements. The 11th AIAI was held in Bayonne/Biarritz, for a second time in France, during September 14-17, 2015. Previous events took place in Rhodes (2014), Paphos (2013), Chalkidiki (2012), Corfu (2011), Larnaca (2010), Thessaloniki (2009), Athens (2007), Athens (2006), Beijing (205), and Toulouse (2004).

The 11th AIAI involved lot of people and maintained 107 PC members including 14 external reviewers (See Figure 1); all of whom have been selected for their strong expertise and special interest in their respective research areas.

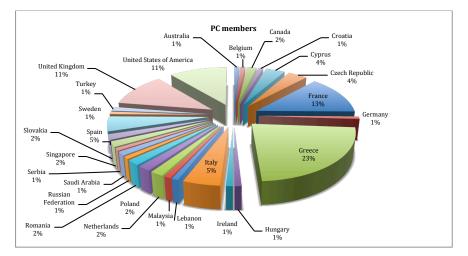


Figure 1. Countries of PC members of AIAI 2015.

The following wide areas were included in the call for papers: *Theoretical Advances, Knowledge Engineering, Multimedia, Graphics & AI, Signal Processing Techniques and Knowledge Extraction, AI Applications and Trends in Computing.* In the 11th AIAI conference, 81 papers were submitted for the main conference and 13 papers for the special tracks. We are really gratified by the international diversity of this conference: authors of submitted work hail from no less than 24 countries (See Figure 2).

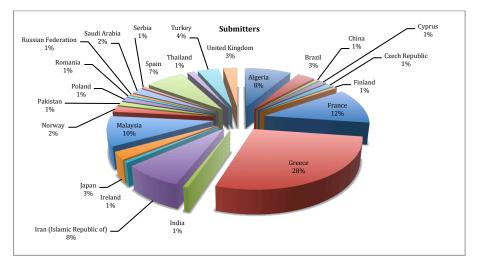


Figure 2. Countries of submitted papers.

All papers went through a peer-review process by at least four independent academic reviewers. Where needed, a fifth reviewer was consulted to resolve any potential conflicts. The conference program committee had a very challenging task of choosing high quality submissions. Out of all submissions, 35 papers were selected and accepted, based on the referee recommendations, for oral presentation and inclusion in the main conference Proceedings (See Figure 3), thus reaching around 43% acceptance ratio, while only 8 papers were accepted for oral presentation and inclusion in the special track Proceedings.

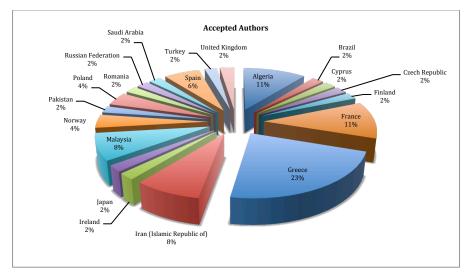


Figure 3. Countries of accepted papers in AIAI 2015.

The AIAI 2015 program shows the diverse nature of papers and demonstrates the vitality of AI computing methods and proves the wide range of AI applications. This year's AIAI conference program also includes one parallel session on Wednesday 16th related to the European project HIT2GAP "Highly Innovative building control Tools Tackling the energy performance GAP".

The conference is proud to host three exceptionally keynote talks:

- 1. Professor Hiroshi Iskikawa of the Tokyo Metropolitan University, Japan
- 2. Professor Ernesto Damiani of the Universita' degli Studi di Milano, Italy
- 3. Professor Panos Kalnis, King Abdullah University of Science and Technology, Saudi Arabia

We would like to thank our invited speakers as well our Honorary Chair and Advisory Committee, the Program Committee and Local Organizing Committee members and, finally, our external reviewers as well. All of them, they have contributed to reach this point. We are very grateful to several institutions and corporations for their sponsorship and assistance: University of Pau and Adour Countries, IUT de Bayonne et Pays Basque, ACM SIGAPP.fr, and LIUPPA. Finally, we hope that you will find these proceedings to be a valuable resource in your professional, research, and educational activities (whether you are a student, academic, researcher, or a practicing professional), and you will be highly motivated and stimulated for further research in the domain of AI in general.

Richard Chbeir and Yannis Manolopoulos, General Chairs Ilias Maglogiannis and Reda Elhajj, Program Chairs