

## Preface

This volume collects the contributions presented at the AI\*IA 2016 Doctoral Consortium. The event provided an opportunity for doctoral students to explore and develop their research interests in the Artificial Intelligence field, in the broader sense, under the guidance of a panel of distinguished researchers from both academia and industry.

The AI\*IA 2016 Doctoral Consortium received 13 submissions, 12 accepted for presentation. The accepted papers dealt with topics in four main categories:

- *logic-based knowledge representation and reasoning*, with contributions by Giuseppe Cota about systems and learning algorithms for probabilistic logical knowledge bases, Carlo Taticchi who presented a study of robustness in abstract argumentation frameworks, and Bernardo Cuteri who discussed closed domain question answering for Cultural Heritage;
- *ontologies and their applications*, with papers by Alessia Calafiore about techniques and challenges raised by designing an ontology of social places, Laura Di Rocco about semantic enhancement of Volunteered Geographic Information, and Krzysztof Kutt on semantic Wikis versioning;
- *problem decomposition and distribution*, with works on automatic partition extraction aimed at distributing the runtime verification of a global specification by Angelo Ferrando, mechanism design approaches for energy allocation by Paolo Giuliadori, and timeline-based planning with uncertainty by Alessandro Umbrico who presented a human-robot collaboration case study;
- *computational intelligence*, with contributions by Marco Polignano on affective aspects as uncertain variables in decisional processes, Rita Pucci on evaluation and deployment of models for activity recognition, and Gaetano Rossiello about neural abstractive text summarization.

The DC authors and attendees actively contributed to the success of the event. The DC was organized in two main sessions: paper presentations and social sessions which offered the students an opportunity to compare their approaches, discuss future research problems, and receive constructive feedback from the attendees.

At the end of the Doctoral Consortium, the sponsor Camlin Italy s.r.l. assigned the DC Paper Award to Paolo Giuliadori.

We hope the Doctoral Consortium represented a great chance for the students to formulate interesting research questions, get useful answers, develop collaborative relationships with other members of the AI\*IA community, and deepen their knowledge of the AI domain.

## II

We thank all the people that made this Doctoral Consortium possible: the AI\*IA association; Camlin Italy s.r.l. which sponsored the DC Paper Award; the General and Program Chairs, the Local Organization Chairs, as well as the Local Organization Committee and the members of the Doctoral Consortium Program Committee.

Most of all, we thank the doctoral students who submitted and presented their work, making the AI\*IA 2016 Doctoral Consortium a lively, exciting, and proficuous event!

November 30, 2016

Viviana Mascardi  
Ilaria Torre

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AI\*IA 2016 was organized by AI\*IA (in Italian, Associazione Italiana per l'Intelligenza Artificiale), in cooperation with the Department of Informatics, Bioengineering, Robotics and Systems Engineering and the Polytechnic School of the University of Genoa (Italy).

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