

Preface

This volume contains the papers presented at the 1st Workshop on Artificial Intelligence & Design (AIDE 2015, <http://www.di.uniba.it/~lisi/AIDE2015/>) held on September 22, 2015 in Ferrara, Italy, and organized by Stefano Borgo (ISTC-CNR Trento, Italy), Domenico Camarda (Politecnico di Bari, Italy) and Francesca A. Lisi (Università degli Studi di Bari “Aldo Moro”, Italy).

Design is a fundamental activity in all human disciplines that require to decide in advance what to do. This encompasses most of, if not all, the applied sciences: from engineering to architecture, from biology to computer science. Design is based on the assumption that we can positively improve our personal, social and cultural life by choosing how to change the environment in which we live. This approach has been proven successful enough to be applied to larger and larger parts of our world. We indeed live in a designed rather than a natural world, and spend most of our time in or surrounded by designed, that is, artificial environments (house, office, city, transportation system). Design research aims to develop an understanding of design both as a theory and as an activity, and to produce models that can be used to aid design.

The AIDE workshop provides a forum for researchers and practitioners interested in the interplay between AI and design via the presentation and discussion of state-of-the-art and cutting edge research, and developments of material that integrates these two areas.

The programme of AIDE 2015 included a keynote presentation, three technical sessions and a thematic panel.

The keynote talk, entitled “AI tools in the design process of industrial products”, was given by Carlo Poloni, Professor of Mechanical Engineering at the University of Trieste, Italy, and co-founder and current President of ESTECO.

The technical sessions covered topics spanning from the ontological foundations of Design to applications of AI to Design in architecture and engineering. The workshop received 10 submissions, 8 of which as regular papers. After the review process, 7 papers were accepted for presentation.

The panel on the theme “Spatial Planning and Spatial Organizations: The challenges to AI” was chaired by Dino Borri, Professor of Urban Planning at the Politecnico di Bari, Italy, and involved the following experts:

- Amedeo Cesta (ISTC-CNR Roma, Italy)
- Grazia Concilio (Politecnico di Milano, Italy)
- Raffaele Giordano (IRSA-CNR Bari, Italy)
- Nicola Guarino (ISTC-CNR Trento, Italy)
- Giovanni Rabino (Politecnico di Milano, Italy)

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