

# Preface

This year's, CDVE 2015 conference returned to its Mediterranean home – Mallorca, Spain. The 12th International conference on Cooperative Design, Visualization and Engineering, CDVE 2015, was held during September 20–23, 2015 by the Mediterranean Sea at Alcudia, Mallorca.

The papers in this volume reflect the fact that we are ready and confident to answer the challenge from a completely new computing landscape. The popularity of cloud computing, social media, and big data has been the driving force behind research and development in our CDVE community.

A number of papers address the topic of big data and its relation to cooperative work. They focus on information modeling, intensive task management, and how to use cloud technology to foster cooperation, etc.

Dealing with social network issues is the topic of another group of papers in this volume. They cover creating programming languages to automate cooperative processes, social network information visualization, and the ranking of cooperative research teams by analyzing social network data.

Using mobile devices for cooperation seems to be another trend in the papers. The application areas are especially wide, which show the great potential of mobile devices in supporting cooperative applications. There are papers concentrated on mobile e-learning, online interaction for museums, mobile e-commerce, and even the cooperative monitoring of the delivery of fresh products. Each application area may have its own specific issues to address in order to optimize the efficiency, usability, and effectiveness of the cooperation.

Crowd sourcing is again one of the major topics among the papers. There are interesting papers about applying crowd sourcing to architecture design, making client decisions in e-commerce, etc. In fact we should continue to explore this new way of cooperation and expect more achievements in this direction.

In the field of cooperative engineering, there are many research results reported, such as in the collaboration for product design, operation, and process control, enabling networked enterprises to realize interoperability, etc.

With respect to the theoretical analysis and modeling of group behavior, there are reports based on the analysis of real case data, using Bayesian networks to model team behavior. The study shows that using Bayesian networks in analyzing and modeling team performance from a psychological perspective is feasible. We believe that this achievement will contribute to enriching the theoretical study of cooperative team work.

To see the great progress made in the fields of cooperative design, visualization, and engineering has been a great pleasure. I would like to thank all of our authors for submitting their papers and presenting their hard work. They are at the frontier of technological advancement for the benefit of society.

I would like to thank all of our Program Committee members, volunteer reviewers, and Organization Committee members for their continuous support of the conference. My special thanks go to my colleague, the Organization Committee Chair, Dr. Sebastián Galmés Obrador, and my university – the University of the Balearic Islands – for their constant support and encouragement of this conference. The success of this year's conference would not have been possible without their generous support.

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