

# Lecture Notes in Business Information Processing

115

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# Modeling and Simulation in Engineering, Economics, and Management

International Conference, MS 2012  
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Proceedings

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# Preface

The Association for the Advancement of Modeling and Simulation Techniques in Enterprises (AMSE) and Iona College are pleased to present the main results of the International Conference of Modeling and Simulation in Engineering, Economics, and Management, held in New Rochelle, New York, May 30 to June 1, 2012, through this book of proceedings published with Springer in the Series *Lecture Notes in Business Information Processing*.

MS 2012 New York was co-organized by the AMSE Association and Iona College through the Hagan School of Business, New Rochelle, New York, USA. It offered a unique opportunity for students, researchers and professionals to present and exchange ideas concerning modeling and simulation and related topics and see how they can be implemented in the real world.

In this edition of the MS International Conference, we gave special attention to the use of intelligent systems in science. Especially, we focused on the use of these techniques in business administration. The title of the book is Modeling and Simulation in Engineering, Economics, and Management. The importance of having the most efficient techniques in economic sciences in order to maximize benefits or minimize costs is clear when dealing with all the complexities of our uncertain world. Every day the world is changing and we need to adapt our economic models so we can efficiently adapt to the necessities of the market. Therefore, it is necessary to improve the available models with new technologies such as the general field of intelligent systems so we can efficiently manage the economy.

The MS 2012 proceedings are constituted by 27 papers from 17 countries. We have also included a summary of the plenary presentation given by Ronald R. Yager, an IEEE Fellow. The book mainly comprises papers close to the field of intelligent systems and its applications in economics and business administration. It also covers some papers with a stronger orientation to modeling and simulation in general fields of research.

We would like to thank all the contributors, referees and the Scientific and Honorary Committees for their kind co-operation with MS 2012 New York; Joseph Nyre, President of Iona College, Brian Nickerson, Interim Provost of Iona College, Vin Calluzo, Dean of the Hagan School of Business, for his support; Jaime Gil Aluja for his role as the President of AMSE; the whole team of the Organizing Committee, including Warren Adis, Shoshanna Altschuller, Jaime Gil Lafuente, Anna Klimova, Salvador Linares, Donald Moscato, Robert Richardson, Ore Soluade, Heechang Shin, Emilio Vizuite and Ronald Yager; Megan Droge, Dawn Insanalli, Joanne Laughlin Steele, Cindy Zapata and the rest of the Iona team for their support regarding the logistics of the conference;

and to Ralf Gerstner, Christine Reiss and Viktoria Meyer (Springer) for their kind advise and help in publishing this volume. Finally, we would like to express our gratitude to Springer and in particular to Wil van der Aalst, John Mylopoulos, Michael Rosemann, Michael J. Shaw and Clemens Szyperski (editors of the book series *Lecture Notes in Business Information Processing*) for their support in the preparation of this book.

March 2012

Kurt J. Engemann  
 Anna M. Gil-Lafuente  
 José M. Merigó

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