Preface

This book contains extended and revised versions of the highest-quality papers that were presented during the 22nd edition of the IFIP/IEEE WG10.5 International Conference on Very Large Scale Integration (VLSI-SoC), a global System-on-Chip Design and CAD conference. The 22nd conference was held at Iberostar Hotel in Playa del Carmen, Mexico (October 6–8, 2014). Previous conferences have taken place in Edinburgh, Scotland (1981); Trondheim, Norway (1983); Tokyo, Japan (1985); Vancouver, Canada (1987); Munich, Germany (1989); Edinburgh, Scotland (1991); Grenoble, France (1993); Chiba, Japan (1995); Gramado, Brazil (1997); Lisbon, Portugal (1997); Montpellier, France (2001); Darmstadt, Germany (2003); Perth, Australia (2005); Nice, France (2006); Atlanta, USA (2007); Rhodes, Greece (2008); Florianopolis, Brazil (2009); Madrid, Spain (2010); Kowloon, Hong Kong (2011), Santa Cruz, USA (2012), and Istanbul, Turkey (2013).

The purpose of this conference, which was sponsored by IFIP TC 10 Working Group 10.5, the IEEE Council on Electronic Design Automation (CEDA), and by IEEE Circuits and Systems Society, with the In-Cooperation of ACM SIGDA, was to provide a forum for the exchange of ideas and presentation of industrial and academic research results in the field of microelectronics design. The current trend toward increasing chip integration and technology process advancements has brought new challenges both at the physical and system design levels, as well as in the test of these systems. VLSI-SoC conferences aim to address these exciting new issues.

The quality of submissions (103 regular papers from 18 countries, excluding PhD Forum and special sessions) made the selection processes a very difficult one. Finally, 33 were accepted as full papers and 11 as posters. Out of the 33 full papers presented at the conference, 12 papers were chosen by a selection committee to have an extended and revised version included in this book. The selection process of these papers considered the evaluation scores during the review process as well as the review forms provided by members of the Technical Program Committee and session chairs as a result of the presentations.

The chapters of this book have authors from China, Denmark, France, Germany, Hong Kong, Italy, Ireland, Korea, The Netherlands, Switzerland, and USA. The Technical Program Committee comprised 112 members from 28 countries.

VLSI-SoC 2014 was the culmination of the work of many dedicated volunteers: paper authors, reviewers, session chairs, invited speakers, and various committee chairs. We thank them all for their contribution. Special thanks to Prof. Roberto Murphy for his invaluable help in the cumbersome tasks of local organization, finances, and registration.

This book is intended for the VLSI community, mainly those who did not have the chance to attend the conference. We hope you will enjoy reading this book and that you will find it useful in your professional life and for the development of the VLSI community as a whole.

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Luc Claesen
Maria-Teresa Sanz-Pascual
Ricardo Reis
Arturo Sarmiento-Reyes

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