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Field-Programmable Logic and Applications

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Preface

This book contains the papers presented at the 14th International Conference on Field Programmable Logic and Applications (FPL) held during August 30th–September 1st 2004. The conference was hosted by the Interuniversity Micro-Electronics Center (IMEC) in Leuven, Belgium.

The FPL series of conferences was founded in 1991 at Oxford University (UK), and has been held annually since: in Oxford (3 times), Vienna, Prague, Darmstadt, London, Tallinn, Glasgow, Villach, Belfast, Montpellier and Lisbon. It is the largest and oldest conference in reconfigurable computing and brings together academic researchers, industry experts, users and newcomers in an informal, welcoming atmosphere that encourages productive exchange of ideas and knowledge between the delegates.

The fast and exciting advances in field programmable logic are increasing steadily with more and more application potential and need. New ground has been broken in architectures, design techniques, (partial) run-time reconfiguration and applications of field programmable devices in several different areas. Many of these recent innovations are reported in this volume.

The size of the FPL conferences has grown significantly over the years. FPL in 2003 saw 216 papers submitted. The interest and support for FPL in the programmable logic community continued this year with 285 scientific papers submitted, demonstrating a 32% increase when compared to the year before. The technical program was assembled from 78 selected regular papers, 45 additional short papers and 29 posters, resulting in this volume of proceedings. The program also included three invited plenary keynote presentations from Xilinx, Gilder Technology Report and Altera, and three embedded tutorials from Xilinx, the Universität Karlsruhe (TH) and the University of Oslo.

Due to the inclusive tradition of the conference, FPL continues to attract submissions from all over the world. The accepted contributions were submitted by researchers from 24 different countries:

USA	37	Canada	6	Netherlands	3	Mexico	2
Spain	21	Portugal	6	Austria	2	Switzerland	2
Germany	20	Brazil	5	Belgium	2	Australia	1
UK	11	Finland	3	Czechia	2	China	1
Japan	9	Ireland	3	Greece	2	Estonia	1
France	7	Poland	3	Italy	2	Lebanon	1

We would like to thank all the authors for submitting their first versions of the papers and the final versions of the accepted papers. We also gratefully acknowledge the tremendous reviewing work done by the Program Committee members and many additional reviewers who contributed their time and expertise towards the compilation of this volume. We would also like to thank the members of the Organizing Committee for their competent guidance and work in the last month. Especially, we acknowledge the assistance of Michael Hübner and Oliver Sander from Universität Karlsruhe (TH) and Rolf Enzler from ETH Zurich in compiling the final program. The members of our Program and Organizing Committees as well as all other reviewers are listed on the following pages.

We would like to thank Altera, Synplicity and Xilinx for their sponsorships. We are indebted to Richard van de Stadt, the author of CyberChair. This extraordinary free software made our task of managing the submission and reviewing process much easier.

We are grateful to Springer-Verlag, particularly Alfred Hofmann, for his work in publishing this book.

June 2004

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