

Preface

This volume of the proceedings is the collation of selected papers presented in ‘Symposium E’ in the International Conference on NextGen Electronic Technologies—Silicon to Software—ICNETS2 conducted from March 23 to 25 at VIT, Chennai.

The development of microelectronics and VLSI design spans a time period, which is less than 50 years, but it has seen as many as four generations. Thus Symposium E—**VLSI Design: Circuits, Systems and Applications**’ provided an international platform for researchers and international speakers to present their research findings and innovative methodologies in various avenues of VLSI design.

The VLSI design symposium of ICNETS2 attracted 98 abstracts from different countries and also from within India. The full-length papers were reviewed by a panel of 40 reviewers from reputed technical institutions like Indian Institute of Technology (IIT), National Institute of Technology (NIT), Anna University; professors from abroad; and experts from industries along with the editors of this volume. After a meticulous review process, 61 papers were selected for oral presentation in the symposium. These papers were presented in nine parallel sessions conducted throughout the three-day conference. Three keynote talks were delivered in Symposium E on the following topics: radio-frequency integrated circuit design (Jie Li, University of Melbourne, Australia), an overview on memristor-based non-volatile LUT of an FPGA (T. Nandha Kumar, University of Nottingham, Malaysia), rare earth-doped semiconducting thin films for Si-based light-emitting devices (Christopher Labbé, Normandie University, France). The papers presented in each session were evaluated by two experts from academia and industries. Of the 61 papers presented in the symposium, 27 manuscripts were selected by the session chairs for this LNEE proceedings publication.

The selected papers span a wide spectrum of topics on low-power design techniques, analog and mixed-signal design, RF IC design, testing and verification of VLSI circuits, high-performance DSP architectures, architectures for hardware

security, memristor-based circuit designs, SOC designs, design of ADC, on-chip memories, etc. We the editors are happy in bringing up this volume which is a treasure for the budding VLSI researchers.

Melbourne, Australia
Chennai, India
Chennai, India

Jie Li
A. Ravi Sankar
P. Augusta Sophy Beulet

VLSI Design: Circuits, Systems and Applications

Select Proceedings of ICNETS2, Volume V

Li, J.; Sankar, A.R.; Beulet, P.A.S. (Eds.)

2018, XIV, 270 p. 229 illus., 114 illus. in color.,

Hardcover

ISBN: 978-981-10-7250-5