Message from the Technical Program Chairs

It is with great pleasure that we welcome you to the 17th IEEE Computer-Society Symposium on VLSI (ISVLSI 2018, http://www.eng.ucy.ac.cy/theocharides/isvlsi18/) in the city, Hong Kong SAR, China. ISVLSI is a sister conference of a league of successful meetings such as ARITH, ASAP, iNIS, IWLS, and SLIP which are sponsored by the Technical Committee on VLSI (TCVLSI, http://www.ieee-tcvlsi.org/), of IEEE Computer Society (IEEE-CS). ISVLSI explores emerging trends and novel ideas and concepts in the area of VLSI. Over more than a decade the ISVLSI has been a unique forum promoting multidisciplinary research and new visionary approaches in the area of VLSI. The ISVLSI brings together leading scientists and researchers from academia and industry. The papers from this symposium have been published as the special issue to top archival journals and for the ISVLSI 2018 selected papers will be invited for consideration in special issues in the IEEE Transactions on Nanotechnology (TNANO) and IEEE Consumer Electronics Magazine. This is one of the facts that indicate a very high quality of the ISVLSI papers, and we are determined to keep a strong emphasis on this critical aspect of any conference. The symposium proceedings are published by IEEE-CS conference publication services (CPS).

ISVLSI 2018 covers a range of topics: from VLSI circuits, systems and design methods to system level design and system-on-chip (SoC) issues, to bringing VLSI experience to new areas, architectures, and technologies. Future design methodologies as well as new Electronic Design Automation (EDA) tools to support them will also be the key topics. ISVLSI 2018 papers are in the following 6 tracks:

1) Analog and Mixed-Signal Circuits (AMS)
2) Computer-Aided Design and Verification (CAD)
3) Digital Circuits and FPGA based Designs (DCF)
4) Emerging and Post-CMOS Technologies (EPT)
5) System Design and Security (SDS)
6) Testing, Reliability, and Fault-Tolerance (TRF)

ISVLSI 2018 papers can be divided into two separate categories: regular papers and special session papers. The regular session papers have been selected after a rigorous review process. The special session papers have been by invitation from the established researchers from different areas of VLSI, which have also been reviewed by special session chairs and individual special session proposers. Due to the time constraints the papers are either selected oral presentation or poster presentations. However, both oral and poster presentation papers got 6-page budget in the proceedings. This is one of the unique aspects that the accepted papers get similar importance in the proceedings. In addition, ISVLSI 2018 also has a Student Research Forum (SRF) in which the papers are presented as posters and appear in proceedings as 6-page papers. The SRF papers have gone through a different review process by the SRF chairs and other volunteers.

The ISVLSI 2018 has received a very good response for the manuscript submission. The submissions were received from all parts of the globe, with major submissions from United States of America (USA), India, China, Singapore, Japan, Taiwan and Switzerland. Due to time constraints in the 3-day event, ISVLSI 2018 could only accept limited number of papers of high quality. ISVLSI 2018 received 192 submissions, out of these 54 high quality papers are accepted for oral presentation and the proceedings. These are divided into 18 oral sessions. Thus making an acceptance ratio of 29%. This shows the quality and competitiveness of the conference. All submitted papers had undergone double-blind-review process by a strong team of leading experts from around the globe in respective fields and the program committee members and additional
reviewers. There are 50 special session oral presentations from prominent authors divided into 14 sessions. In addition, a poster session contains 35 posters from general pool and 6 posters Student Research Forum will enrich the technical discussions.

The success of this magnitude is not possible without since help from various volunteers. We wish to express our sincere appreciation to the hardworking track chairs, dedicated members of the Technical Program Committee and additional reviewers. We also thank the authors and invited speakers for their contributions to an outstanding technical program. Our special thanks go to the Steering Committee and Organizing Committee members of ISVLSI 2018 for their support and cooperation. We acknowledge the high quality editing work of production editor of the IEEE Computer Society Conference Publishing Services for the high-quality and timely production of the ISVLSI 2018 Proceedings.

We wish you a very productive ISVLSI 2018 and hope you will find papers presented at the ISVLSI 2018 to be a valuable source of reference for your current and future research. We hope your stay during the ISVLSI 2018 at Hong Kong, will be an enjoyable experience and help in professional networking.

We also look forward to your participation in ISVLSI 2019 next year to be held at Miami, Florida, USA.

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