FOREWORD

Welcome to the 1997 International Symposium on VLSI-TSA

This year marks the 14th anniversary of the Symposium, and it also coincides with the 50th birthday of the transistor. As we all know, ever since the commercialization of the first integrated circuits, the "Moore's Law" has ruled the microelectronics industry, and there are reasons to believe that this exponential trend will continue for the foreseeable future. Therefore, it is befitting to see a continued growth of this symposium, as it not only reflects the technical advances in VLSI around the world, but also echoes the rapid development of the VLSI industry in Taiwan, the host location of this symposium.

This year's Technical Program Committee selected 65 contributed papers out of 183 abstracts submitted from 19 countries and regions around the world. The paper acceptance ratio is thus a record low of 36%, and the Committee had a difficult task of rejecting many high quality papers. The contributed papers constitute 10 technical sessions, which coincide with the number of invited papers given by leading experts in their respective fields.

To celebrate the 50th anniversary of the invention of the transistor, we are honored to have Dr. Ian M. Ross, President Emeritus of AT&T Bell Laboratories, USA, to give the opening keynote speech entitled "The Transistor Anniversary". We also have the pleasure of two other distinguished plenary speakers, Dr. Hiroyoshi Komiya, COO of SELETE, Japan, who will talk about "Challenges to the 300mm Technology", and Mr. Peter Baltus of the Philips Research Laboratories, the Netherlands, whose topic is "Design Issues for Low Power Mobile Transceiver Frontends". To top it off, this year we have the pleasure of a special luncheon speech by Dr. F. H. Hsu of the IBM Deep Blue team, who will talk about the well publicized chess match last year and the recent rematch between Deep Blue and Garry Kasparov, the World Champion.

I would like to express my gratitude to all members of the Technical Program Committee for their dedication and hard work in putting together this program. In particular, I would like to thank Drs. Tak Ning and Jyuo-Min Shyu, the Co-Chairs of the Program Committee, for their critical support, and Drs. K. Fujishima and W. Sansen for their coordination in Japan and Europe. My special thanks go to Dr. Ping Yang, the Symposium Chair, for sharing his experience and continued help. It is also my sincere wish to thank Drs. Chintay Shih, Genda Hu, Lewis Terman, and H. N. Yu for their unwavering support and invaluable guidance. In addition, I would like to acknowledge the sponsoring organizations, the Industrial Technology Research Institute (ITRI) and National Science Council of ROC for making this symposium possible. In closing, I wish to extend my deepest gratitude to Ms. Rachel Huang, our Symposium Secretary, for all the detailed preparation and thoughtful arrangements that every attendee of this symposium enjoys.

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          K3. Dr. Hiroyoshi Komiya (Semiconductor Leading Edge Technologies, Japan)

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Co-Chairmen: Seiichiro Kawahura (Fujitsu, Japan)
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SESSION B: High-Performance Circuits & Mixed Signal Design Techniques
Co-Chairmen: Peter Lim (Oak Technology, USA)
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SESSION C:Graphic Processors and Communications
Co-Chairmen: Peng H. Ang (TeraLogic, USA)
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SESSION F: Advanced Microprocessors
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SESSION G: Technology Computer-Aided Designs
Co-Chairmen: Shiu-Wuu Lee (Intel, USA)
             S. C. Sun (TSMC, ROC)

SESSION H: Low-Voltage Low-Power Circuit Design
Co-Chairmen: Ran-Hong Yan (AT&T Bell Labs., USA)
             Jieh-Tsorng Wu (National Chiao Tung University, ROC)

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