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## Foreword

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**Biographical notes:** Yiming Li is an Associate Professor in the Department of Communication Engineering and the Deputy Director of the Modelling and Simulation Center, National Chiao Tung University, Taiwan. His research focuses on computational electronics. He has authored hundreds of research papers which appeared in book chapters, journals and conferences. He is a member of Phi Tau Phi, Sigma Xi, APS, ACM, IEICE, IEEE and SIAM and has attended several international conferences. He was the recipient of the 2002 Research Fellowship Award presented by the Pan Wen Yuan Foundation and the 2006 Outstanding Young Electrical Engineer Award from Chinese Institute of Electrical Engineering, Taiwan.

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Welcome to the Special Issue on *Computational Methods and Techniques for Nanoscale Technology Computer Aided Design, The International Journal of Computational Science and Engineering*. The purpose of this special issue is for academics and industrial professionals to present their recent advances, ideas and results and to exchange experiences in computational methods and techniques for nanoscale TCAD applications. This issue is edited by the International Editorial Committee inviting foreign researchers as the guest editors and reviewers.

The papers of this Special Issue are partially selected from the proceedings of the International Workshop on Computational Nano-Science and Technology held in conjunction with the 2005 International Conference on Computational Science in Atlanta, USA, on 22–25 May 2005 and partially from later free submission. A total of 48 technical papers were submitted. All submissions were reviewed by at least three committee members or external reviewers. Through a careful reviewing process, finally the editorial committee accepted 14 papers, about 35% of the all submissions. The papers in this Special Issue cover modelling and simulation of nanoscale semiconductor devices ranging from VLSI CMOS devices to optoelectronic transistors, advanced circuit simulation and design optimisation, computational model and numerical

techniques for process variation, nanoparticles, semiconductor nanostructures, quantum cascade lasers and MEMS and high-performance computing.

I would like to thank all authors for their valuable contributions and also the members of the International Editorial Committee for their cooperation and hard work in making the Special Issue possible. I would also like to thank the many external reviewers who ensured the quality of this Special Issue. Finally, I would like to thank the Editor-in-Chief of The International Journal of Computational Science and Engineering, Professor Laurence T. Yang for his support and all the Guest Associate Editors of this issue.

Juncheng Cao (Chinese Academy of Sciences,  
China)

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