

Foreword

It gives us great pleasure to introduce this collection of papers to be presented at the 2006 International Conference on Computer Design (CDES'06) and Computing in Nanotechnology (CNAN'06), June 26 through 29, 2006, at Monte Carlo Resort, Las Vegas, Nevada, USA.

The Academic Co-sponsors of this year's event include: Massachusetts Institute of Technology's (MIT) Media Lab (<http://www.media.mit.edu/>); Texas Advanced Computer Center (TACC) of University of Texas at Austin (<http://www.tacc.utexas.edu/>); Institute for Informatics Problems of Russian Academy of Sciences, Moscow, Russia (The IIP of Russian Academy of Sciences is co-sponsoring the ILINTEC Workshop and MLMTA Conference only - <http://www.ipiran.ru/english/main.asp>); and The Ohio Supercomputer Center (OSC is co-sponsoring the CIC Conference only - <http://www.osc.edu>).

Organizers and Co-sponsors at-large include: A number of university faculty members and their staff (names appear on the cover of proceedings); World Academy of Science (http://www.world-academy-of-science.org/worldcomp06/ws/index_html); and Computer Science Research, Education, & Applications Press.

Media Co-Sponsors include: HPC wire (<http://www.hpcwire.com/>); GRID today (<http://www.gridtoday.com/>); H2CM Hodges' Health (<http://www.p-jones.demon.co.uk/>); and Charter Cable Internet Access (<http://www.ezisp.info/high-speed/cable-internet.html>).

Other Co-Sponsors include: One Laptop Per Child Association (OLPC; <http://www.laptop.org/>); and International Technology Institute (<http://www.itiworld.org/>).

In addition to the above, several publishers of computer science and computer engineering books and journals, chapters and/or task forces of computer science associations/organizations from 12 countries, and developers of high-performance machines and systems have provided significant help in organizing the conference.

The program committee would like to thank all those who submitted papers for consideration. About 62% of the submissions were from outside the United States. Each submission was evaluated by two referees (except for papers that were submitted to chairs of sessions who were responsible for the evaluation of these papers.) The overall paper acceptance rate was about 35% (as of April 30, 2006).

We are very grateful to the many colleagues who helped in organizing the conference. In particular, we would like to thank the members of the CDES'06 and CNAN'06 Program Committees who we hope will offer their help again in organizing the next year's conference. The CDES'06 & CNAN'06 Program Committee members are:

Prof. Hussain Al-Asaad, University of California, Davis, California, USA (CDES)

Dr. Waleed K. Al-Assadi, University of Missouri-Rolla, Rolla, Missouri, USA (CDES)

Dr. Jaafar Alghazo, University of Central Florida, Orlando, Florida, USA (CDES)

Prof. Hamid R. Arabnia (Coordinator/Co-Chair), University of Georgia,, USA (CDES/CNAN)

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Prof. Houcine Hassan, Polytechnic University of Valencia, Valencia, Spain (CDES)

Sandra Irobi (PhD Student Member), Technical University, Delft, The Netherlands (CDES)

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Himanshu Thapliyal (Student Member), IIIT, India (CDES)
Dr. Aleksey Urmanov (Track Chair), Sun Microsystems, San Diego, California, USA
Prof. Laurence T. Yang (Co-Chair), St. Francis Xavier University, Canada (CDES)
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Dr. Mohamed Zahran, City University of New York, New York, USA (CDES)
Members of Task Force of CGD (Computer Games)
Members of Task Force of CGVR (Graphics)
Members of Task Force of ERSA (Reconfigurable Systems)
Members of Task Force of FECS (Frontiers in Education)
Members of Task Force of ESA (Embedded Systems)
Members of Task Force of PDPTA (Parallel Machine Architectures)
Members of Task Force of RTCOMP (Real-Time Systems)

We would also like to thank the followings: UCMSS (Universal Conference Management Systems & Support, San Diego, California, USA) for managing all aspects of the conference; Dr. Tim Field of APC for managing the printing of the proceedings; and the staff of Monte Carlo Resort in Las Vegas for the professional service they provided.

Last but not least, we would like to thank Associate Editors, Prof. Kamal K. Mehta, Dr. Jun Ni, and Mr. Himanshu Thapliyal.

We present the proceedings of CDES'06 / CNAN'06.

Hamid R. Arabnia
Coordinator & Co-Chair, CDES'06/CNAN'06