9th Workshop on Advances in Parallel and Distributed Computational Models – APDCM'07

Organizers:

Oscar H. Ibarra, University of California, Santa Barbara, USA Koji Nakano, Hiroshima University, Japan Jacir L. Bordim, University of Brasilia, Brazil

Foreword

Parallel and distributed computing offer the promise to deliver the computing power necessary to solve many important problems whose requirements exceed the capabilities of the most powerful existing computers. Aiming to fulfill this promise, recent years have seen a flurry of activity in the arena of parallel and distributed computing which evolved into novel and robust computing models. These models reflect advances in computational devices and environments such as optical interconnects, programmable logic arrays, networks of workstations, radio communications, mobile computing, DNA computing, quantum computing, sensor networks, etc. The workshop on Advances in Parallel and Distributed Computational Models – APDCM – aims to provide a forum to present current work by researchers from around the world as well as highlight activities and techniques in the field of the parallel and distributed computing.

The 9th edition of the APDCM Workshop will feature a Special Section on Massively Parallel Processing (MPP) systems. The MPP Section will center its attention to computer systems that can scale to many thousands of processing elements and are used to solve a single problem. The MPP Section aims to identify new and novel ideas rather than proving incremental advances.

As in the previous years, the APDCM'07 received a large number of excellent submissions where each paper was of exceptional quality and presented a unique contribution in the field. The Program Committee undertook the difficult job of carefully evaluating the submitted papers. After a thorough reviewing process, with extensive discussions, thirteen papers (13) have been selected for presentation at the APDCM'07 and four (4) papers have been selected for presentation at the MPP Section.

On behalf of the APDCM workshop, we would like to express our appreciation for the large efforts of the program committee members. We thank all the authors that submitted their papers to the APDCM workshop. We sincerely hope that the authors whose articles have not been selected for presentation can benefit from the reviewer's comments.

APDCM'06 – Workshop Organizers

Workshop Chair

• Oscar H. Ibarra, University of California, Santa Barbara, USA

Program Co-Chairs

- Koji Nakano, Hiroshima University, Japan
- Jacir L. Bordim, University of Brasilia, Brazil

Program Committee

- Anu Bourgeois, Georgia State University, USA
- Satoshi Fujita, Hiroshima University, Japan
- Akihiro Fujiwara, Kyushu Institute of Technology, Japan
- Shuichi Ichikawa, Toyohashi University of Technology, Japan
- Yasushi Inoguchi, JAIST, Japan
- Chuzo Iwamoto, Hiroshima University, Japan
- Xiaohong Jiang, Tohoku University, Japan
- Hirotsugu Kakugawa, Osaka University, Japan
- Keqiu Li, Dalian Maritime University, China
- Weifa Liang, Australian National University, Australia
- Ami Marowka Shenkar, College of Engineering and Design ,Israel
- Susumu Matsumae, Tottori University of Environmental Studies, Japan

Massively Parallel Processing (MPP) -- Special Section Organizers

General Chair:

Darren J. Kerbyson, Los Alamos National Laboratory

Publicity Chair:

Michael Scherger, Texas A&M University - Corpus Christi

- Eiji Miyano, Kyushu Institute of Technology, Japan
- Mitsuo Motoki, JAIST, Japan
- Sanguthevar Rajasekaran, University of Connecticut, USA
- Ivan Stojmenovic, University of Ottawa, Canada
- Yasuhiko Takenaga, University of Electro-communications, Japan
- Jerry L. Trahan, Louisiana State University, USA
- Ramachandran Vaidyanathan, Lousiana State University, USA
- Biing-Feng Wang, National Tsinhua University, Taiwan
- Dajin Wang, MontClair State University, USA
- José Alberto Fernández Zepeda, CICESE, Mexico
- Jingyuan Zhang, University of Alabama, USA

Steering Committee

- Joseph Ja'Ja', University of Maryland, USA
- George Paun, Institute of Mathematics of the Romanian Academy, Romania
- Arnold L. Rosenberg, University of Massachusetts, USA
- Sartaj K. Sahni, University of Florida, USA
- Jie Wu, Florida Atlantic University, USA
- Pen-Chung Yew, University of Minnesota, USA
- Albert Y. Zomaya, University of Sydney, Australia

Organizing Committee

- Johnnie Baker, Kent State University
- Hank Dietz, University of Kentucky
- Ray Hoare, Concurrent EDA
- Alex Jones, University of Pittsburgh
- Daniel Katz, LSU & JPL
- John Michalakes, NCAR, Boulder
- Nick Nystrom, Pittsburgh Supercomputing Center
- Robert Walker, Kent State University