HiPC 2012 Student Research Symposium

Message from the co-chairs

Welcome to the proceedings of the fifth Student Research Symposium at the International Conference on High Performance Computing (HiPC), 2012. This symposium continues the first four symposia held at HiPC from 2008 onwards, aimed at providing a premier forum in India for stimulating and fostering student research, and offering an international forum to highlight student research accomplishments. The symposium exposes students to the best practices in high performance computing (HPC) in academia and industry, and allows them to network with their peer group in India.

This year, we received 42 submissions. Of these, we were able to accept 17 high quality papers that were presented and another 13 as posters. Each manuscript was reviewed by two or more members of our international Technical Program Committee. A separate awards committee is tasked with selecting authors for the Best Paper and Best Poster awards sponsored by the IEEE Technical Committee on Parallel Processing, and a Best GPU Paper award sponsored by NVIDIA.

In addition to research papers and their presentation, poster exhibits constitute an important component of the symposium. This year, we have organized additional activities in the symposium to enhance its value to students attending the symposium. In particular, it features invited talks by two distinguished experts in the field. In future years, we expect to include activities that will further promote interactions and cross-pollination among students and the broader research community research, and continue to offer an international venue to showcase student research in HPC.

We wish to thank a number of people for their help in organizing this workshop. The Technical Program Committee, listed on the next page, performed a thorough review of the manuscripts within a brief time to allow us to complete our selection on schedule. Animesh Pathak was always prompt in maintaining our web pages up to date, despite the numerous requests that we made. We acknowledge Manisha Gajbe for her help with publicity. We thank the HiPC Steering Committee chair, Viktor K. Prasanna, the HiPC co-chairs Ramamurthy Badrinath and Rama Govindaraju, and the HiPC co-chairs Rajeev Muralidhar and Manish Parashar, for their numerous contributions. Finally, we thank IEEE TCPP and NVIDIA for sponsoring the symposium awards.

December 2012

Yogesh Simmhan General Co-Chair University of Southern California, USA Ashok Srinivasan General Co-Chair Florida State University, USA

HiPC 2012 Student Research Symposium

Technical Program Committee

1.	Nitin	Auluck	IIT Ropar, India
2.	Rajendra	Boppana	University of Texas at San Antonio, USA
3.	Surendra	Byna	Lawrence Berkeley National Lab, USA
4.	Venkatesh	Choppella	IIIT Hyderabad, India
5.	Kishore	Kothapalli	IIIT Hyderabad, India
6.	Sudheer	Kumar	SSSIHL, India
7.	Wei	Lu	Microsoft Research, USA
8.	Kamesh	Madduri	Lawrence Berkeley National Lab, USA
9.	Amitava	Majumdar	San Diego Supercomputer Center, USA
10.	Suresh	Marru	Indiana University, USA
11.	Pavankumar	Mohanamurali	NAL, India
12.	Ranjani	Parthasarathy	Anna University, India
13.	Kalyan	Perumalla	Oak Ridge National Lab, USA
14.	Sushmita	Ruj	University of Ottawa, Canada
15.	Subhash	Saini	National Aeronautics and Space Administration, USA
16.	Yogesh	Simmhan	University of Southern California, USA (co-chair)
17.	Vikram	Sorathia	University of Southern California, USA
18.	Ashok	Srinivasan	Florida State University, USA (co-chair)
19.	Parimala	Thulasiraman	University of Manitoba, Canada
20.	Ramesh	Tirumale	DAC, USA
21.	Satish	Vadhiyar	Indian Institute of Science, India
22.	Abhinav	Vishnu	Pacific Northwest National Lab, USA
23.	Xin	Yuan	Florida State University, USA
24.	Joseph	Zambreno	Iowa State University, USA