



हाइपीसी HiPC

19TH INTERNATIONAL CONFERENCE ON HIGH PERFORMANCE COMPUTING

December 18-21, 2012 | Pune, INDIA | www.hipc.org



PROGRAM HIGHLIGHTS

The 19th International Conference on High Performance Computing (HiPC 2012), to be held in Pune, India, from December 18 - December 21, 2012, will serve as a forum for presenting current work by researchers from around the world and highlight activities in Asia, in the area of high performance computing.

KEYNOTE SPEAKERS

> JAY BOISSEAU

Director, Texas Advanced Computing Center (TACC), The University of Texas at Austin, USA

How New Technologies and Big Data Are Expanding the Impact of Supercomputing on Science and Society

> SHEKHAR BORKAR

Director, Extreme-scale Research, Intel Architecture Group, USA

The Exascale Challenge

> PETER BRAAM

Parallel Scientific and Xyratex, USA

Data Access, Management and Storage: The Road Ahead

CONTRIBUTED PAPERS

The technical program will consist of 41 contributed papers chosen from submissions from all over the world. The papers will be presented in a single-track multiple session format covering important and timely topics such as performance consistency, virtualization, fault tolerance and power management for large scale HPC and Cloud infrastructures, routing, and programming support, shared memory abstractions and applications for multi-core and GPU systems.

STUDENT RESEARCH SYMPOSIUM

The conference will feature the fifth student research symposium on High Performance Computing on December 18, aimed at stimulating and fostering student research, and providing an international forum to highlight student research accomplishments. The one-day symposium will feature brief presentations by student authors on their research and a poster exhibit, and will be followed by a reception and industry-student mixer.

WORKSHOPS

As part of the conference, 4 workshops will be hosted on Tuesday, December 18, 2012

- > Workshop on Performance Engineering and Applications (WPEA)
- > Workshop on Parallel Algorithms and Software for Analysis of Massive Graphs (ParGraph)
- > International Workshop on Cloud Computing Applications (IWCA)
- > Workshop on Massive Data Analytics on Scalable Systems (DataMASS)

SPECIAL SESSION ON INDIAN PETASCALE INITIATIVE: ROADMAP, CHALLENGES, AND OPPORTUNITIES

This plenary session will discuss the Indian Petascale initiative, the specific focus on hardware and software systems and the associated research components, the computational problems that are likely to be addressed, the current roadmap, the challenges and opportunities that lie ahead, and lessons learnt/recommendations from Petascale initiatives in other countries. The session will feature eminent speakers from India and abroad who have played leading roles in various supercomputing initiatives.

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INDUSTRY, RESEARCH AND USERS SYMPOSIUM

The symposium will bring together providers and users of HPC to provide a forum for presenting the state-of-the-art in HPC platforms and technologies, for discussing best practices and for exchanging experiences. This symposium, to be held on December 19 and 20, will feature special sessions with presentations from international experts focused on the role of HPC:

- Big Data meets High Performance Computing
- Computational Challenges in Large Scale Molecular Dynamics Simulations
- Computational Fluid Dynamics in Automotive Sector
- Digital Animation/Entertainment

INDUSTRY/RESEARCH EXHIBITS

This two-day exhibition session, to be held on December 19 and 20, will consist of exhibits /presentations from vendor companies and R&D laboratories.

CONFERENCE REGISTRATION

Conference registration includes attendance at all workshops and technical sessions and a copy of the HiPC 2012 proceedings. The early registration deadline for discounted fees is November 14, 2012. International attendees are advised to start the process for their registration and application for a travel visa as soon as possible. Visit the conference website for further details.

INFORMATION FOR INDIA-BASED PARTICIPANTS

Registration at reduced rates is made possible for India-based faculty, students, and researchers through sponsorships from India based industries and organizations. Travel scholarships for India-based students are available on a merit basis to promote HPC research in India.

SPONSORSHIP OPPORTUNITIES

The HiPC conference is annually sponsored by several Indian and international organizations, institutions, and companies. Please visit the conference website at www.hipc.org for sponsorship details and list of current sponsors.

For sponsorship opportunities, contact the Industry Co-Chairs at industry@hipc.org.

CONFERENCE ORGANIZATION

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RAMA GOVINDARAJU, Google, USA

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