

## CALL FOR PAPERS

19th IEEE International Conference on High Performance Computing (HiPC)  
December 18-21, 2012  
Pune, INDIA  
[www.hipc.org](http://www.hipc.org)

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### IMPORTANT DATES

April 02, 2012 Conference Paper Submission Begins  
**May 30, 2012** Conference Paper Submission Ends (Extended. **NOTE this is a firm deadline**)  
July 31, 2012 Notification of Acceptance/Rejection  
Aug 18, 2012 Camera-Ready Paper Submission  
Sep 16, 2012 Student Symposium Submissions Due  
Oct 21, 2012 Student Symposium Accept/Reject Decisions  
Nov 14, 2012 Early Registration Deadline

The 19<sup>th</sup> annual IEEE International Conference on High Performance Computing (HiPC 2012) will be held at the Le Meridien hotel in Pune, India, during December 18-21, 2012. It will serve as a forum for researchers from around the world to present their current research efforts and findings, and will act as a venue for stimulating discussions and highlighting high performance computing (HPC) related activities in Asia. The conference has a history of attracting participation from reputed researchers from all over the world. HiPC 2012 will focus on the design and analysis of high performance computing and networking systems and their scientific, engineering, and commercial applications. In addition to technical sessions consisting of contributed papers, the conference will include invited presentations, a student research symposium, tutorials, and vendor presentations in the industry, user and research symposium. The 18<sup>th</sup> meeting, held in Bengaluru in December 2011, had 40 contributed papers chosen from 206 submissions from 22 countries, and more than 450 attendees. The 17<sup>th</sup> meeting, held in Goa in December 2010, had 40 contributed papers chosen from 208 submissions from 22 countries, and more than 280 attendees. The 16<sup>th</sup> meeting, held in Kochi, India in December 2009, had 49 contributed papers that were selected from 261 submissions from 20 countries, and about 225 participants attended the meeting. Further information about HiPC 2012 and the HiPC series of meetings is available on the conference website at [www.hipc.org](http://www.hipc.org).

### CO-SPONSORED BY:

- IEEE Computer Society Technical Committee on Parallel Processing
- HiPC Education Trust

### IN COOPERATION WITH:

- ACM Special Interest Group on Computer Architecture (SIGARCH) - Pending
- European Association for Theoretical Computer Science - Pending
- IFIP Working Group on Concurrent Systems - Pending
- National Association of Software and Service Companies (NASSCOM) - Pending
- Manufacturers' Association for Information Technology (MAIT) - Pending

### VENUE AND MEETING INFORMATION

HiPC 2012 will be held at the [Le Meridien hotel](#) in Pune, India. The advance program will be available in early August 2012. Please check the conference website at [www.hipc.org](http://www.hipc.org) for updated information.

### CALL FOR PAPERS

Authors are invited to submit original unpublished research manuscripts that demonstrate current research in all areas of high performance computing including design and analysis of parallel and distributed systems, embedded systems, and their applications in scientific, engineering, and commercial areas. Topics of interest include but are not limited to:

- High-Performance Computing

- Parallel and Distributed Algorithms/Systems
- Parallel Languages and Programming Environments
- Hybrid Parallel Programming with GPUs and Accelerators
- Load Balancing, Scheduling and Resource Management
- Resilient/Fault-Tolerant Algorithms and Systems
- Scientific/Engineering/Commercial Applications and Workloads
- Emerging Applications such as Biotechnology and Nanotechnology
- Cluster, Cloud, and Grid Computing
- Heterogeneous Computing
- Interconnection Networks and Architectures
- Scalable Servers and Systems
- High Performance/Scalable Storage Systems
- Power-Efficient and Reconfigurable Architectures
- Compiler Technologies for High-Performance Computing
- Software Support and Advanced Micro-architecture Techniques
- Operating Systems for Scalable High-Performance Computing

One or more best paper awards will be given for outstanding contributed papers.

### **MANUSCRIPT GUIDELINES**

Submitted manuscripts should be structured as technical papers and may not exceed 10 letter size (8.5 x 11) pages including figures, tables and references using the IEEE format for conference proceedings (print area of 6-1/2 inches (16.51 cm) wide by 8-7/8 inches (22.51 cm) high, two-column format with columns 3-1/16 inches (7.85 cm) wide with a 3/8 inch (0.81 cm) space between them, single-spaced 10-point Times fully justified text). Submissions not conforming to these guidelines may be returned without review. Authors should submit the manuscript in PDF format and make sure that the file will print on a printer that uses letter size (8.5 x 11) paper. The official language of the meeting is English.

Manuscript submission procedures are available over the Web at [www.hipc.org](http://www.hipc.org). Electronic submissions must be in the form of a readable PDF file. Manuscripts must be received by **May 30<sup>th</sup>, 2012**. Manuscripts should demonstrate current research in any area of high performance computing. All manuscripts will be reviewed and will be judged on correctness, originality, technical strength, significance, quality of presentation, and interest and relevance to the conference attendees.

Submitted papers must represent original unpublished research that is not currently under review for any other conference or journal. Papers not following these guidelines will be rejected without review and further action may be taken, including (but not limited to) notifications sent to the heads of the institutions of the authors and sponsors of the conference. Submissions received after the due date, exceeding length limit, or not appropriately structured may also not be considered. Authors may contact the Program Chair at the address below for further information or clarification. Notification of review decisions will be mailed by July 31<sup>st</sup>, 2012. Camera-ready papers are due by August 18<sup>th</sup>, 2012. Published proceedings will be available at the conference.

#### **Program Chair:**

Dhabaleswar K. (DK) Panda  
Ohio State University, USA  
Email: panda at cse.ohio-state.edu

#### **WORKSHOPS**

Workshops for HiPC 2012 have been finalized and the latest updates for the planned set of workshops can be found at [www.hipc.org/hipc2012/workshops.php](http://www.hipc.org/hipc2012/workshops.php)

#### **STUDENT RESEARCH SYMPOSIUM**

HiPC 2012 will feature the Fifth Student Research Symposium (SRS) on High Performance Computing (HPC) aimed at stimulating and fostering student research, and providing an international forum to

highlight student research accomplishments. The symposium will also expose students to the best practices in HPC in academia and industry. The one-day symposium will feature brief presentations by student authors on their research, followed by a poster exhibit. Short invited talks by leading HPC researchers/practitioners will be part of the program. The HiPC Conference Reception and Student Symposium Poster Exhibits will provide an opportunity for students to interact with HPC researchers, practitioners and recruiters from academia and industry. To be considered, students should submit a 5 page extended abstract of their research. Submissions will be reviewed and evaluated by the program committee for technical quality, innovative contributions, and presentation. Submission instructions will be available at the Student Symposium web site, accessible from [www.hipc.org](http://www.hipc.org) after **August 15, 2012**. For additional details, please visit the conference web site or contact the Symposium Co-Chairs.

### **Student Research Symposium Contacts**

Ashok Srinivasan	Yogesh Simmhan	Kishore Kothappalli
Florida State University	University of Southern California	IIT Hyderabad
ashokpriya at yahoo dot com	simmhan at usc dot edu	kkishore at iit dot ac dot in
Symposium Co-Chair	Symposium Co-Chair	Symposium Coordinator

### **INDUSTRY, RESEARCH AND USER SYMPOSIUM (IRUS)**

The HiPC Industry/User Symposium aims at bringing together the users/practitioners of HPC including both commercial and non-commercial users, and giving them a platform to share their challenges and successes, as well as to discuss relevant technology issues. The topics selected for IRUS sessions this year can be found at [www.hipc.org/hipc2012/usersymposium.php](http://www.hipc.org/hipc2012/usersymposium.php). Interested participants and experts on this area should contact the IRUS co-chairs for further details and to be considered as panelists in the sessions.

### **IRUS Co-Chairs**

Jigar Halani	Vipin Chaudhary
Wipro, India	CRL, India
jigar.halani at wipro dot com	vipinc at gmail dot com

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### **HiPC 2012 ORGANIZING COMMITTEE**

<b>STEERING CHAIR:</b>	Viktor K Prasanna	Univ. of Southern California, USA
<b>GENERAL CO-CHAIRS:</b>	Ramamurthy Badrinath, HP, India	Rama Govindaraju, Google, USA
<b>VICE GENERAL CO-CHAIRS:</b>	Rajeev Muralidhar, Intel India	Manish Parashar, Rutgers, USA
<b>PROGRAM CHAIR:</b>	Dhableswar K (DK) Panda	Ohio State University, USA

### **PROGRAM VICE CHAIRS:**

<b>Algorithms:</b>	Yves Robert	ENS Lyon, France
<b>Applications:</b>	Adolfy Hoisie	Pacific Northwest National Laboratory, USA
<b>Architecture:</b>	Ron Brightwell	Sandia National Laboratories, USA
<b>Alan Sussman:</b>	Alan Sussman	University of Maryland, USA

### **WORKSHOPS CO-CHAIRS:**

Pavan Balaji	Argonne National Laboratory, USA
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Manimaran Govindarasu Iowa State University, USA  
Chiranjib Sur IBM, India

**STUDENT RESEARCH SYMPOSIUM CO-CHAIRS:**

Ashok Srinivasan Florida State University, USA  
Yogesh Simmhan University of Southern California, USA

**INDUSTRY, RESEARCH, USER SYMPOSIUM CO-CHAIRS:**

Vipin Chaudhary CRL, India  
Jigar Halani Wipro, India

**LOCAL COORDINATION CO-CHAIRS:**

Seetharam Krishna CRL, India  
Santhosh Daivajna 8KMiles, India

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Yinglong Xia IBM, USA  
N. Chakravarthy SGI, India

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Sally Jelinek Electronic Design Associates, USA  
Jyothisna Kasturirengan Fiberlink, India

**STEERING COMMITTEE:**

Srinivas Aluru Iowa State University, USA; IIT Bombay, India  
P. Anandan Microsoft Research, India  
David A. Bader Georgia Institute of Technology, USA  
Ramamurthy Badrinath, HP, India  
Frank Baetke HP, USA  
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Luc Bouge' ENS Cachan, Brittany extension, France

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Rama Govindaraju	Google, USA
Manish Gupta	India Systems and Technology Lab, IBM, India
Stefan Heinzl	Garching Computing Centre (RZG), Max Planck Society, Germany
Victor Malyshkin	Russian Academy of Sciences, Russia
Ashwini K. Nanda	HPC Research Inc.
Siddhartha Nandi	NetApp, India
Manish Parashar	Rutgers University, USA
Ishwar Parulkar	Cisco, India
Viktor K. Prasanna	University of Southern California, USA ( <b>Steering Chair</b> )
Ramesh Rajagopalan	Dell India R&D, Bangalore, India
Venkat Ramana	Cray-Hinditron, India
Sartaj Sahni	University of Florida, USA
Lokendra Shastri	Infosys, India
Sunil Sherlekar	Intel, India
Santosh Sreenivasan	Talenta Technologies, India
V. Sridhar	SRM Research Institute, India
Harrick M. Vin	Tata Research, Development and Design Center, Pune, India

Steering Committee 2012 membership also includes the general co-chairs, program chairs and vice general co-chairs from 2011, 2012 and 2013.