

**CALL FOR PARTICIPATION**

**15th IEEE International Conference on  
High Performance Computing  
(HiPC 2008)**

**December 17-20, 2008  
Bangalore, India**

**<http://www.hipc.org>**

**Submission Deadline: May 12, 2008**

The 15th annual IEEE International Conference on High Performance Computing (HiPC 2008) will be held in Bangalore, India, during December 17-20, 2008. It will serve as a forum to present the current work by researchers from around the world, and act as a venue to provide stimulating discussions and highlight high performance computing (HPC) activities in Asia. The conference has a history of attracting participation from reputed researchers from all over the world.

The 14<sup>th</sup> HiPC Conference held in Goa, India, in December 2007, had 53 contributed papers chosen from 253 submissions from 31 countries. The conference included technical paper sessions, keynotes from leading HPC researchers, a poster paper session, an exhibition, an industry session with presentations from leading HPC companies, a HPC user community meeting, tutorials on hot topics in computing and networking, and several workshops focused on emerging areas. The 13<sup>th</sup> HiPC Conference held in Bangalore, India, in December 2006, had 52 contributed papers that were selected from over 335 submissions from 40 countries, and the 12<sup>th</sup> HiPC Conference held in Goa, India, in December 2005, had 50 contributed papers that were selected from over 362 submissions from 30 countries. The HiPC attendance is approximately 300 with a good mix of participants from India and the rest of the world. Further information about HiPC 2008 and the HiPC series of meetings is available on the conference website at <http://www.hipc.org>.

HiPC 2008 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 poster session, tutorials, and vendor presentations.

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**CO-SPONSORED BY:**

- IEEE Computer Society Technical Committee on Parallel Processing (TCPP)
- ACM SIGARCH
- European Association for Theoretical Computer Science
- IFIP Working Group on Concurrent Systems
- National Association of Software and Service Companies (NASSCOM)
- Manufacturers' Association for Information Technology (MAIT)

**HELD IN COOPERATION WITH:**

- Goa University
  - Indian Institutes of Technology
  - Institute of Technology, Banaras Hindu University, Varanasi
  - Software Technology Parks of India
  - Tata Institute of Fundamental Research, India
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## VENUE AND MEETING INFORMATION

Bangalore, a bustling metropolis, is the fifth largest city in India and the capital of the state of Karnataka. It is the main center of the Information Technology (IT) industry in India; almost every Indian and multi-national IT Company has a presence here. Bangalore is home to the Indian Institute of Science, a premier research institute, and many other aerospace and high technology industries including the Centre for Development of Advanced Computing. Karnataka is the home to many ancient Indian architectural marvels, wildlife sanctuaries, rain forests (Western Ghats), pristine beaches, and rich cultural traditions

The advance program will be available in July 2008. Please check the conference website at <http://www.hipc.org> for updated information.

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## IMPORTANT DATES

April	05, 2008	Conference Paper Submission Begins
May	12, 2008	Conference Paper Submission Ends
May	12, 2008	Workshop Proposals Due
May	19, 2008	Tutorial Proposals Due
July	14, 2008	Notification of Acceptance/Rejection
August	18, 2008	Camera-Ready Paper Submission
September	15, 2008	Student Symposium Submissions Due
October	20, 2008	Student Symposium Accept/Reject Decisions
November	07, 2008	Early Registration Deadline

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**HiPC 2008**  
**CALL FOR PAPERS**  
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Authors are invited to submit **original unpublished** 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
- Parallel Languages and Programming Environments
- Load Balancing, Scheduling and Resource Management
- Fault-Tolerant Algorithms and Systems
- Scientific/Engineering/Commercial Applications and Workloads
- Emerging Applications such as Biotechnology and Nanotechnology
- Cluster and Grid Computing
- Peer-to-peer Algorithms and Networks
- Heterogeneous Computing
- Wireless and Mobile Computing
- Communication/Sensor Networks and Embedded Applications
- 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
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## **MANUSCRIPT GUIDELINES**

Submitted manuscripts should be structured as technical papers and may not exceed 14 letter size (8.5 × 11) pages including figures, tables and references. Formatting requirements are 12-point font size, single spaced or higher, with margins of at least 1 inch on each of the four sides. 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 × 11) paper. The official language of the meeting is English.

Manuscript submission will start on April 5, 2008. Manuscript submission procedures will then be available over the Web at <http://www.hipc.org>. Electronic submissions must be in the form of a readable PDF file. Manuscripts must be received by May 12, 2008. 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 14, 2008. Camera-ready papers are due by August 18, 2008. The proceedings will be published by Springer-Verlag, Lecture Notes in Computer Science, and will be available at the conference.

Program Chair: P. Sadayappan  
Ohio State University, USA  
Email: [saday@cse.ohio-state.edu](mailto:saday@cse.ohio-state.edu)

## **BEST PAPER AWARDS**

Best paper awards, sponsored by Infosys, will be given for outstanding contributed papers.

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## **WORKSHOPS**

Proposals are solicited for workshops to be held in conjunction with the main conference. Interested individuals should submit a proposal by May 12, 2008 to the Workshops Chair. Additional details and submission guidelines will be available at the conference website.

Workshops Chair: Manimaran Govindarasu  
Iowa State University, USA  
Email: [gmani@iastate.edu](mailto:gmani@iastate.edu)

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## **STUDENT RESEARCH SYMPOSIUM**

HiPC 2008 will feature the first student research symposium 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 included in the program. The symposium reception will provide an opportunity for students to interact with HPC researchers and practitioners (and recruiters) from academia and industry. To be considered, students should submit a 5 page extended abstract of their research. Submission procedures will be available at the Student Symposium web site, accessible from <http://www.hipc.org>, after August 15, 2008. For additional details, please see the conference web site or contact the Symposium Co-Chairs.

Symposium Co-Chairs: Ashok Srinivasan  
Florida State University  
Email: [asriniva@cs.fsu.edu](mailto:asriniva@cs.fsu.edu)

Rajeev Thakur  
Argonne National Laboratory, USA  
Email: [thakur@mcs.anl.gov](mailto:thakur@mcs.anl.gov)

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## TUTORIALS

Proposals are solicited for tutorials to be held at the meeting. Interested individuals/groups should submit a proposal by May 19, 2008 to the Tutorials Chair. The proposal (5 pages maximum) should include a brief description of the intended audience, a lecture outline, and a vita for each lecturer. For additional details, contact the Tutorials Chair.

Tutorials Chair: Rajeev Sivaram  
Google, USA  
Email: [rajeev.sivaram@gmail.com](mailto:rajeev.sivaram@gmail.com)

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## INDUSTRY EXHIBITION

Companies and R&D laboratories are encouraged to present their exhibits at the meeting. Additionally, a full day of vendor presentations is planned. Further details can be obtained at the conference website or by contacting the Industry Liaison Chair.

Industry Liaison Chair: Rama K. Govindaraju  
Google, USA  
Email: [rama.govindaraju@gmail.com](mailto:rama.govindaraju@gmail.com)

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## USER/INDUSTRY SYMPOSIUM ON HPC TECHNOLOGIES, APPLICATIONS & EXPERIENCE

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. HPC applications and the experiences of application developers will be of special interest to this mini symposium. The symposium will consist of invited as well as contributed talks by leading experts from industry, research laboratories and universities, as well as panels and open discussions. For further details and to submit abstract, please visit the conference website.

User/Industry Symposium Co-Chairs: Rama K. Govindaraju  
Google, USA  
Email: [rama.govindaraju@gmail.com](mailto:rama.govindaraju@gmail.com)

Santosh Sreenivasan  
Talentain, India

Email: santosh@talentain.com

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## **TRAVEL SCHOLARSHIPS FOR STUDENTS FROM INDIA**

HiPC 2008 will be awarding travel scholarships to students from Indian Engineering Colleges to encourage them to attend the conference. This merit-based scholarship will cover their travel and accommodation expenses. The last date of application is October 31, 2008. For more details, please visit the conference website or contact the Scholarships Co-Chairs.

Scholarships Co-Chairs: Sumam David  
NITK, India  
Email: sumam@ieee.org

Madhusudan Govindaraju  
SUNY Binghamton, USA  
Email : mgovinda@cs.binghamton.edu

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Ramamurthy Badrinath, HP, India

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<b>Communication Networks:</b>	José Neuman de Souza, Federal Univ. of Ceará, Brazil
<b>Mobile and Sensor Computing:</b>	Chen-K Tham, National University of Singapore
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Harrick M. Vin, Tata Research, Development and Design Center (TRDDC), Pune, India

Steering Committee 2008 membership also includes the general co-chairs, program chairs and vice general co-chairs from 2007, 2008 and 2009.

## **PROGRAM COMMITTEE**

### **Algorithms:**

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Partha Ranganathan, HP Research Laboratories, USA  
Pat Teller, University of Texas at El Paso, USA

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**Mobile and Sensor Computing:**

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