

## **CALL FOR PAPERS**

# **16th IEEE International Conference on High Performance Computing (HiPC 2009)**

**December 16-19, 2009  
Kochi (Cochin), India**

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

**Submission Deadline: May 25, 2009 (Extended)**

The 16th annual IEEE International Conference on High Performance Computing (HiPC 2009) will be held in Cochin, India, during December 16-19, 2009. 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 15<sup>th</sup> HiPC Conference held in Bangalore, India, in December 2008, had 46 contributed papers chosen from 317 submissions from 27 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 14<sup>th</sup> HiPC Conference, held in Goa, India, in December 2007, had 52 contributed papers that were selected from over 253 submissions from 31 countries and approximately 300 participants attended the meeting, and 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. The HiPC attendance is approximately 300 with a good mix of participants from India and the rest of the world. Further information about HiPC 2009 and the HiPC series of meetings is available on the conference website at <http://www.hipc.org>.

HiPC 2009 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) - PENDING
- ACM SIGARCH - PENDING
- 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:**

- 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

The advance program will be available in July 2009. Please check the conference website at <http://www.hipc.org> for updated information.

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### IMPORTANT DATES

|           |          |   |
|-----------|----------|---|
| April     | 04, 2009 | Conference Paper Submission Begins          |
| May       | 25, 2009 | Conference Paper Submission Ends (Extended) |
| May       | 15, 2009 | Workshop Proposals Due                      |
| May       | 18, 2009 | Tutorial Proposals Due                      |
| July      | 17, 2009 | Notification of Acceptance/Rejection        |
| August    | 17, 2009 | Camera-Ready Paper Submission               |
| September | 14, 2009 | Student Symposium Submissions Due           |
| October   | 19, 2009 | Student Symposium Accept/Reject Decisions   |
| November  | 16, 2009 | Early Registration Deadline                 |

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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 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 will start on April 4, 2009. Authors should submit their papers online via EDAS using the following link:<http://edas.info/newPaper.php?c=6874>. Additional information about manuscript submission is 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 25, 2009 (Extended). 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. There will be a short rebuttal phase for the authors before the final decisions on the submissions are made.

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 17, 2009. Camera-ready papers are due by August 17, 2009. The HiPC 2009 proceedings will be published by IEEE and included in the IEEE digital library, and will also be available at the conference.

Program Chair: Yuanyuan Yang  
State University of New York at Stony Brook, USA  
Email: [yang@ece.sunysb.edu](mailto:yang@ece.sunysb.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 15, 2009 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 2009 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 17, 2009. 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 18, 2009 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 Co-Chairs: Rama K. Govindaraju  
Google, USA  
Email: [rama.govindaraju@gmail.com](mailto:rama.govindaraju@gmail.com)

Ramamurthy Badrinath  
HP, India  
Email: [ramamurthy.badrinath@hp.com](mailto:ramamurthy.badrinath@hp.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.

Symposium Co-Chairs: Rama K. Govindaraju  
Google, USA

Email: rama.govindaraju@gmail.com

Ramamurthy Badrinath  
HP, India  
Email: ramamurthy.badrinath@hp.com

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

HiPC 2009 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, 2009. 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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## ----- **HiPC 2009 ORGANIZATION** -----

### **GENERAL CO-CHAIRS**

Manish Parashar, Rutgers University, USA  
Rajeev Muralidhar, Intel, India

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### **PROGRAM CHAIR**

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| <b>Applications:</b>                | Omer Rana, Cardiff Univ., UK                         |
| <b>Architecture:</b>                | Angelos Bilas, FORTH and University of Crete, Greece |
| <b>Communication Networks:</b>      | Xin Yuan, Florida State University                   |
| <b>Mobile and Sensor Computing:</b> | Simon Dobson, UCD, Ireland                           |
| <b>Systems Software:</b>            | Gagan Agrawal, Ohio State University                 |

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Steering Committee 2009 membership also includes the general co-chairs, program chairs and vice general co-chairs from 2008, 2009 and 2010.

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Odej Kao, TU Berlin, Germany  
Anshul Gupta, IBM T.J. Watson, USA  
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Xin Yuan, Florida State University, USA  
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Djamal Zeglache, TEELCOM & Management Sud-Paris, France  
Paolo Santi, CNR, Italy



Andreas Timm-Giel, Universitat Bremen, Germany  
Hongwei Zhang, Wayne State University, USA

**Systems Software:**

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Sriram Krishnamoorthy, PNL, USA  
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