

CALL FOR PARTICIPATION

**10th INTERNATIONAL CONFERENCE ON
HIGH PERFORMANCE COMPUTING**

HiPC 2003
DECEMBER 18-21, 2003
HYDERABAD, INDIA

www.hipc.org



**10th International Conference on High Performance Computing
December 18-21, 2003 • Hyderabad, India • www.hipc.org**

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HiPC 2003 ORGANIZATION

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N. Raghakrishnan, US Army Research Lab
Sartaj Sahni, University of Florida
Assaf Schuster, Technion, Israel Institute of Technology, Israel

MEETING INFORMATION

The advance program will be available in July 2003. Check www.hipc.org for updated information.

*Artwork inspired by the needle craft practiced by the Banjaras (tribal nomads) of the
Telangana region of Andhra Pradesh.*



High Performance Computing 2003
University of Southern California, EEB 200C
Los Angeles, CA 90089-2562, USA

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C O S P O N S O R E D B Y

International Institute of Information Technology, Hyderabad
IEEE Computer Society Technical Committee on Parallel Processing
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)

H E L D I N C O O P E R A T I O N W I T H

Indian Institutes of Technology
Software Technology Parks of India
Tata Institute of Fundamental Research, India
Centre for Artificial Intelligence Research (CAIR), India
CSIR Centre for Mathematical Modeling and Computer Simulation, India

H I P C 2 0 0 3

The 10th Annual International Conference on High Performance Computing (HiPC 2003) will be held in Hyderabad, an emerging center for Information Technology in India, during December 18-21, 2003. It will serve as a forum to present current work by researchers from around the world as well as highlight activities in Asia in the high performance computing area. The conference has a history of attracting participation from reputed researchers from all over the world.

The ninth meeting held in Bangalore, India, in 2002 had 57 contributed papers that were selected from 145 submissions from 12 countries, and additional special sessions. The conference had tutorials on cutting edge topics in high performance computing and related areas by leading researchers from academia and industry. The 8th HiPC Conference (HiPC 2001) held in Hyderabad, India, in December 2001, had 29 contributed papers that were selected from 108 submissions from 18 countries and approximately 220 participants attended the meeting. Please refer to the website <http://www.hipc.org> for more information on previous meetings.

Hyderabad, known as the City of Pearls, is the fifth largest metropolitan city in India and is fast emerging as the hub of Information Technology. Many multi-national companies including Microsoft, Motorola, Oracle, GE Capital, IBM, among others have set up development units in Hyderabad. It is home to premier universities such as International Institute of Information Technology and Indian School of Business and also some of the oldest and prestigious universities in India including Osmania University and Jawaharlal Nehru Technical University. Hyderabad is highly cosmopolitan and presents a mix of various cultures which is reflected in its ethnic, cultural, architectural, and culinary diversity. Details on local accommodations as well as travel tips will be posted on the Web by August 2003, so you are encouraged to regularly check the HiPC Web site at www.hipc.org for updates.

HiPC 2003 will emphasize the design and analysis of high performance computing and networking systems and their scientific, engineering, and commercial applications. In addition to technical sessions of contributed paper presentations, the conference will offer invited presentations, a poster/presentation session, tutorials, vendor presentations, and exhibits.

G E N E R A L C O - C H A I R S

Viktor K. Prasanna, University of Southern California, Internet: prasanna@ganges.usc.edu
M. Vidyasagar, Tata Consultancy Services, Internet: sagar@atc.tcs.co.in

V I C E G E N E R A L C H A I R

David A. Bader, University of New Mexico, Internet: dbader@ecece.unm.edu

C A L L F O R P A P E R S

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. Topic areas of interest include but are not limited to:

- Wireless and Mobile Computing
- Communication Networks and Sensor Networks
- Web-based Meta/Grid/P2P Computing
- Scalable Servers and System Area Networks
- Scientific/Engineering Applications
- Commercial Applications and Workloads
- High-speed Networks and Interconnection Networks
- Power-Efficient and Reconfigurable Architectures
- Superscalar, Speculative, VLIW, and SMT Microarchitectures
- Compiler Technology for Power-aware and High-performance Computing
- Parallel and Distributed Computing
- Heterogeneous Computing
- Network- and Cluster-based Computing
- Embedded Applications and Systems
- Network Processor and Router Architectures
- Scalable and Latency-tolerant Algorithms
- Parallel Languages and Programming Environments
- EPIC Compilers and Software Support for ILP and TLP
- Operating Systems for Scalable and High-performance Computing

Submitted manuscripts may not exceed 15 double-spaced pages of text using 12 point size type on 8.5 x 11 inch pages with margins of at least 1 inch on each of the four sides. References, figures, tables, etc. may be included in addition to the fifteen pages of text. Authors should submit a correct PostScript (level 2) file of their paper to be considered and make sure that the PostScript file will print on a PostScript printer that uses 8.5 x 11 inch size (letter size) paper. The official language of the meeting is English.

Manuscript submission procedures are available over the Web at <http://www.hipc.org>. Electronic submissions must be in the form of a readable postscript file. Authors unable to submit over the web can send an e-mail message to hipc2003@usc.edu containing the following header information in ASCII form: title, author name(s) and affiliation, abstract, keywords or topic area, postal address, e-mail address, and telephone and fax numbers. The header (in ASCII) should be followed by the PostScript version of the complete manuscript (including title, author names, affiliation, and abstract). The subject line of the email should include either one of the topic areas for the paper as given above or 5-10 keywords for the paper.

Hard copy submissions are permitted but electronic submissions are strongly encouraged. Like electronic submissions, hard copy submissions must be received by May 2, 2003. Please send six copies of the manuscript to the Program Chair. Fax submissions will not be considered.

Manuscripts must be received by May 2, 2003. All manuscripts will be reviewed. Submitted papers must not be currently under review for any other publication. Submissions received after the due date or exceeding the length limit may not be considered. Notification of review decisions will be mailed by July 10, 2003. Camera-ready papers are due August 15, 2003. Proceedings will be available at the conference and also on the Web after the conference.

Selected papers will be considered for publication in a special issue of IEEE Transactions on Computers to be published in 2004.

P R O G R A M C H A I R

Timothy Pinkston, University of Southern California
Department of EE-Systems
3740, McClintock Ave., EEB 208
University of Southern California
Los Angeles, CA 90089, USA
Internet: tpink@charity.usc.edu

P R O G R A M V I C E C H A I R S

Algorithms: Yuanyuan Yang, State University of New York at Stony Brook
Applications: Xiaodong Zhang, National Science Foundation
Architecture: Rajiv Gupta, University of Arizona
Communication Networks: Stephan Olariu, Old Dominion University
Systems Software: José E. Moreira, IBM T.J. Watson Research Center

P R O G R A M C O M M I T T E E

Algorithms:

Mikhail Atallah, Purdue University
Michael A. Bender, State University of New York at Stony Brook
Xiaotie Deng, City University of Hong Kong
Ding-Zhu Du, National Science Foundation
Qianping Gu, Simon Fraser University
Ran Libeskind-Hadas, Harvey Mudd College
Koji Nakano, Japan Advanced Institute of Science and Technology
Yavuz Oruc, University of Maryland at College Park
Arnold L. Rosenberg, University of Massachusetts at Amherst
Christian Scheideler, Johns Hopkins University
Jinwoo Suh, University of Southern California/ISI
Albert Y. Zomaya, University of Sydney

Applications:

Srinivas Aluru, Iowa State University
Randall Bramley, Indiana University
Jack Dongarra, University of Tennessee
Craig Douglas, University of Kentucky and Yale University
Ananth Grama, Purdue University
David Keyes, Old Dominion University
Xiaoye Li, Lawrence Berkeley National Laboratory
Aiichiro Nakano, University of Southern California
P.J. Narayanan, Intl. Institute of Information Technology, Hyderabad
Yousef Saad, University of Minnesota
Eric de Sturler, University of Illinois at Urbana-Champaign
Xian-He Sun, Illinois Institute of Technology
Xiaoge Wang, Tsinghua University
Li Xiao, Michigan State University

Architecture:

Prith Banerjee, Northwestern University
Sandhya Dwarkadas, University of Rochester
Manoj Franklin, University of Maryland
Kanad Ghose, Binghamton University, State University of New York
Daniel Jimenez, Rutgers University
Mahmut Kandemir, Pennsylvania State University
Olav Lysne, University of Oslo
Avi Mendelson, Intel, Israel
Dhaleswar Panda, Ohio State University
Fabrizio Petrini, Los Alamos National Laboratory
Antonio Robles, Polytechnic University of Valencia
Andre Seznec, IRISA, France
Per Stenstrom, Chalmers University of Technology
David Whalley, Florida State University
Jun Yang, University of California, Riverside

Communication Networks:

Marco Conti, CNUCE/CNR Pisa
Abhay Karandikar, Indian Institute of Technology, Bombay
Victor Leung, University of British Columbia
Cauligi Raghavendra, University of Southern California
Dheeraj Sanghi, Indian Institute of Technology, Kanpur
Pradip Srimani, Clemson University
Mani Srivastava, University of California, Los Angeles
Ivan Stojmenovic, University of Ottawa
Jie Wu, Florida Atlantic University
Jingyuan Zhang, University of Alabama
Albert Y. Zomaya, University of Sydney

Systems Software:

Gianfranco Bilardi, University of Padova
Rahul Garg, IBM India Research Laboratory
Hironori Kasahara, Waseda University
Barney Maccabe, University of New Mexico
Rajib Mall, Indian Institute of Technology, Kharagpur
Sam Midkiff, Purdue University
Edson Midorikawa, University of Sao Paulo
Michael Phillipsen, Friedrich-Alexander-University
Lawrence Rauchwerger, Texas A&M University
Dilma Da Silva, IBM T.J. Watson Research Center
Anand Sivasubramaniam, Pennsylvania State University
Yanyong Zhang, Rutgers University

B E S T P A P E R A W A R D S

These awards, sponsored by Infosys, will be awarded to outstanding contributed papers in the areas of Systems and Algorithms and Applications.

AWARDS CHAIR

Arvind, MIT

W O R K S H O P S

Proposals are solicited for workshops to be held in conjunction with the main conference. Interested individuals should submit a proposal by May 06, 2003 to the Workshops Chair. For additional details and submission procedure visit <http://www.hipc.org/hipc2003>.

WORKSHOPS CHAIR

C. P. Ravikumar, Texas Instruments India, Internet: ravikumar@india.ti.com

P O S T E R / P R E S E N T A T I O N S E S S I O N

In addition to the contributed papers session, a plenary poster/presentation session emphasizing novel applications of high performance computing is planned. It will offer brief presentation time for each poster and will be followed by a "walk-up and talk" setting. To be considered, send a 5 page summary of your work to the Poster/Presentation Chair by October 2, 2003. For additional details contact the Poster/Presentation Chair.

POSTER/PRESENTATION CHAIR

Rajkumar Buyya, The University of Melbourne, Internet: rajkumar@buyya.com

T U T O R I A L S

Proposals are solicited for tutorials to be held at the meeting. Interested individuals should submit a proposal by May 15, 2003 to the Tutorials Chair. The proposal should include a brief description of the intended audience, a lecture outline, and a vita for each lecturer.

TUTORIALS CHAIR

Srinivas Aluru, Iowa State University, Internet: aluru@iastate.edu

E X H I B I T S / V E N D O R S P R E S E N T A T I O N S

Companies and R&D laboratories are encouraged to present their exhibits at the meeting. In addition, a full day of vendor presentations is planned. For details, visit www.hipc.org/hipc2003.

M E E T I N G I N F O R M A T I O N

The advance program will be available in July 2003. Check www.hipc.org for updated information.

I M P O R T A N T D A T E S

May 2, 2003	Conference Paper Due
May 6, 2003	Workshop Proposal Due
May 15, 2003	Tutorial Proposal Due
July 10, 2003	Notification of Acceptance/Rejection
August 15, 2003	Camera-Ready Paper Due
October 2, 2003	Poster/Presentation Summary Due