हाइपीसी HiPC

25th IEEE International Conference on
High Performance Computing, Data, and Analytics
December 17-20, 2018 | Bengaluru, India | www.hipc.org

Co-sponsored by

IEEE computer society

HiPC Education Trust, India

In co-operation with

acm

CALL FOR PARTICIPATION

HiPC 2018 is the 25th edition of the IEEE Conference on High Performance Computing, Data, and Analytics. It serves as a forum to present current work by top researchers in the field and to highlight the activities in Asia in the area of high performance computing and related scientific, engineering, and commercial applications. The conference technical program held on days 2, 3 and 4 will showcase three keynote speakers and three days of single track presentations of peer reviewed papers from all over the world.

25th Anniversary of HiPC Celebration

To mark the 25th anniversary of HiPC, a special lecture and several celebratory events are planned.

Technical Sessions

Thirty three papers out of 149 submissions have been accepted for presentation at the conference (22% acceptance rate). The papers were submitted either to HPC tracks (Algorithms, Applications, Architecture and Software) or to Data Science tracks (Big Data Algorithms and Analytics, Big Data Systems and Software). Accepted papers will be presented in six technical sessions on days 2, 3 and 4 – Learning, Graph Algorithms, GPUs, Linear Algebra and Fault Tolerance, Algorithms and Data Analysis, and Applications and System Tools.

Keynote Speakers

Day 2 - Balaraman Ravindran, Indian Institute of Technology, Madras
Looking Under the Hood of Deep Neural Networks
Day 3 - Marc Snir, University of Illinois at Urbana-Champaign
The Future of Supercomputing
Day 4 - Srini Devadas, Massachusetts Institute of Technology
Secure High-Performance Computer Architectures: Challenges and Opportunities

Workshops

Complementing the main technical program, six workshops with programs and speakers that help to broaden the technical scope of the conference will be held on day 1 of the conference:

1: Parallel Fast Fourier Transform (PFFT)
2: Computational Fluid Dynamics (CFD)
3: Artificial Intelligence Meets Blockchain (AIMB)
4: Women in Data Science and High Performance Computing (WDSHPC)
5: Education for High-Performance Computing (EduHiPC)

In association with

भारतीय विज्ञान संस्थान

विज्ञान एवं प्रौद्योगिकी विभाग
DEPARTMENT OF SCIENCE & TECHNOLOGY

Ministry of Electronics and Information Technology Government of India

ELSEVIER

iiit-b International Institute of Information Technology Bangalore

INTERNATIONAL INSTITUTE OF INFORMATION TECHNOLOGY HYDERABAD

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Tutorials

The meeting will offer several tutorials covering topics of interest to the broader HPC and Data Science Communities. All Tutorials are free to registered conference attendees, however, the Satellite Tutorials may require pre-registration with the presenter. See web for details.

Pre-conference Satellite Tutorials (16th December)

- FPGA-based Accelerated Cloud Computing - Xilinx
- Cloud Services for Performing Scientific Computing and Data Management - Microsoft

Conference Tutorials (20th December)

- HCLib: A Task based Parallel Programming Model
- A Language and Framework for Prototyping and Experimenting with Edge Oriented IoT

Student Research Symposium

The meeting will also host the 11th Student Research Symposium (SRS) aimed at fostering student research and providing a forum for students to present their work in all areas related to HPC and Data Science. Twenty-one papers have been accepted for poster presentation.

Industry Research & User Symposium (IRUS) and Industry Exhibits

The theme for this year's IRUS is the *Impact of Computational and Data Science technologies on emerging Digital Economy*. The symposium will be held on 19th December and will contain 3 speakers from established as well as emerging players. On days 2 and 3, there will be a full program of industry exhibits and events.

General Co-Chairs: Chiranjib Sur, Shell, India and Yinglong Xia, Huawei Research America, USA
Program Chair, HPC: Olivier Beaumont, Inria, France
Program Chair, Data Science: Srinivas Aluru, Georgia Institute of Technology, USA
Steering Chair: Viktor K. Prasanna, University of Southern California, USA

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