



“Parallel Computing in Science and Engineering (PCSE-2023)”

DAE-BRNS National Workshop

Wednesday, April 19, 2023

Multipurpose Hall, TSH
Anushaktinagar, Mumbai - 400094

Organizer

Chemical Engineering Division, Computer Division
and Computational Analysis Division
Bhabha Atomic Research Centre
Trombay, Mumbai - 400085



Scope of the Workshop

A national workshop on “Parallel Computing in Science and Engineering (PCSE-2023)” is being organized by Chemical Engineering Division, Computer Division and Computational Analysis Division, Bhabha Atomic Research Centre (BARC), Trombay, Mumbai, India, on April 19, 2023. The workshop is supported by the Board of Research in Nuclear Sciences (BRNS), Department of Atomic Energy (DAE).

The computational capacity is growing rapidly with the continuing development of CPU and GPU based compute power as well as development of new and robust scientific and engineering software. Large scale computational modeling of molecules and materials and electromagnetics are crucial for addressing the technological challenges related to new generation of material and processes. The objective of the workshop is to bring together the experts in CPU and GPU based parallel computation, Quantum Computing and computational modeling in science and engineering from DAE and other research institutes to discuss the activities being pursued in the field of parallel computing and its application in atomistic and continuum modeling. This will help the users as well as the developers for effective utilization of immense power of advanced supercomputing facility available at their disposal. The workshop will encompass the advanced computing developments related to the following fields:

1. Parallel Computing Architectures
2. Parallel Programming Models and various tools for HPC
3. Parallel Programming for HPC systems using OpenMP and MPI
4. Parallel Programming for Heterogeneous HPC systems using CUDA, OpenACC and OpenCL
5. Large Scale Atomistic Modeling
6. Quantum Computing

Patron

Dr. A.K. Mohanty
Director, BARC

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Board of Research in Nuclear Sciences (BRNS) supports research and development activity in universities, institutes of higher learning and national laboratories in India in the fields relevant to the mandate of Department of Atomic Energy. BRNS also supports symposia, conferences, seminars and workshops in various areas of science and technology.

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No Registration Fee for Participants

Interested participants may please contact Secretary, Organizing Committee by email through Head of the Division.

Last Date for Registration: April 10, 2023