



Indian Institute of Technology Mandi
&
Centre for Development of Advanced Computing (C-DAC), Pune



Present a

Five-day Faculty Development Program (FDP)

On

HIGH-PERFORMANCE COMPUTING (HPC)



November 26 to 30, 2018 at the Indian Institute of Technology (IIT) Mandi, Kamand Campus, Himachal Pradesh

Program:

High-Performance Computing most generally refers to the practice of aggregating computing power in a way that delivers much higher performance than one could get out of a typical desktop computer or workstation in order to solve large computational problems in science, engineering, or business. The goal of this workshop is to provide the attendees, who are mainly the young faculty and senior research scholars from different institutions of Himachal Pradesh in particular, and all over the country in general, with a focus on parallel computing and in-depth platform for presentations, discussion and interaction in the field of high-performance computing (HPC).

Objectives:

- To introduce various parallel programming models, such as, OpenMP, MPI, and CUDA, a parallel computing platform and application programming interface (API) model created by Nvidia for GPU technology
- To introduce parallelisation in Python, which is the most popular programming language used in industry
- currently To conduct hands-on practice on these programming models
- To introduce parallel programming clusters and heterogeneous architectures

About IIT Mandi:

Nestled in the Sivalik Range of the Himalayas, away from the bustle of the metropolis, a new abode of learning, IIT Mandi, has germinated. A few hours before the Himalayan resort Kullu in Himachal Pradesh, IIT Mandi has been established with the vision to be a leader in science and technology education, knowledge creation and innovation, in an India marching towards a just, inclusive and sustainable society.

About C-DAC Pune:

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY) for carrying out R&D in IT, Electronics and associated areas. C-DAC has today emerged as a premier R&D organization in IT&E (Information Technologies and Electronics) in the country working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the market need in selected foundation areas.

Participants:

The workshop is open for all faculty members and bright and motivated research scholars working in government, semi-government, private engineering colleges and higher learning institutes. Preference will be given to the applicants from Himachal Pradesh and Jammu & Kashmir.

Expected number of participants: 35.

Application Procedure:

- Interested candidates are requested to send their *short CV* and *expression of interest* to the following E-mail ID: hpcworkshop.iitmandi@gmail.com.
- **No registration fees will be charged to the participants for this FDP.**
- Participants should arrange for their own travel up to IIT Mandi, Kamand Campus.
- It is expected that the participants have knowledge of *C/Fortran programming language and Linux OS*.
- Selected candidates will be provided free boarding and lodging (shared accommodation) during the workshop.
- Participants are requested to bring their *own laptops* with pre-installed Linux OS.

Important Dates:

Last Date of application : **November 15, 2018**
Date of announcement of selected candidates : **November 16, 2018**
Dates of the Workshop : **November 26-30, 2018**

Organizing Committee:

Dr. Rajendra K. Ray, IIT Mandi (Coordinator)
Dr. Gaurav Bhutani, IIT Mandi (Co-Coordinator)
Shri Ashish Kuvelkar, C-DAC Pune (Co-Coordinator)

Speakers:

Prof. Prof. T.A. Gonsalves, IIT Mandi
Prof. B. D. Chaudhari, IIT Mandi
Dr. Gaurav Bhutani, IIT Mandi
Dr. Sriram Kailasam, IIT Mandi
Dr. Prasanth P. Jose, IIT Mandi
Dr. Rajendra K Ray, IIT Mandi
Dr. Dhiraj V. Patil, IIT Dharwad
Prof. Sanjay Mittal, IIT Kanpur
Dr. Sathish Vadhiyar, IISc Bangalore
Dr. Sathya Peri, IIT Hyderabad