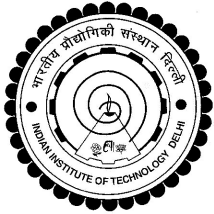


QIP Sponsored 2-week Short Term Course on High Performance Computation

June 5 - June 16, 2017



Indian Institute of Technology Delhi



Program Coordinator:

Prof. Subodh Kumar
Department of Computer Sc. & Engineering

INTRODUCTION

Computer systems of the day are parallel. They comprise multiple cores, GPUS, and other accelerators. Large scale scientific applications scale to multiple connected computers. In this context, the traditional sequential programming style is getting outdated. It is important to prepare the next generation of IT engineers with the requisite knowledge to take advantage of the ubiquitous parallelism, or they may themselves become non-competitive soon. This course is designed as a first step in filling this void in many curricula.

Participants will learn how to think and reason in parallel contexts and differentiate it from sequential style of programming.

PROGRAMME OBJECTIVES

Basic linux primitives and concurrency Reason in parallel and distributed control Parallel programming environments Parallel tools, CUDA, OpenMP, and MPI.

PEDAGOGY

The programme consists of lecture and lab sessions by multiple experts in the area. Theory and practical aspects will be covered. A follow-up unpaid internship of one month after the workshop is available to candidates to help build expertise in HPC using IITD supercomputer.

COMMUNICATION ADDRESS

Prof. Subodh Kumar
Department of Computer Sc. & Engineering
Indian Institute of Technology Delhi
Hauz khas, New Delhi -110 016

PROGRAMME CONTENTS

- Introduction to Linux
- Parallel computer organization and GPUs
- Parallel performance measurement
- Parallel code organization
- Parallel programming environments
- Distributed memory programming
- Shared memory programming
- Scheduling and Load balancing
- Inter-process communication
- Synchronization.

REGISTRATION

Please email a scanned copy of your duly filled registration form latest by May 29, 2017 to hpc.qip@cse.iitd.ac.in and send the hard copy along with DD* of Rs. 500/- for registration fee in the favour of “Registrar IIT Delhi” payable at New Delhi.

****Registration fee is refundable for those, who participate in the event.***

Parallel Programming for HPC
Department of Computer Science & Engineering, IIT Delhi
June 5 - June 16, 2017

Registration Form

Name: _____

Designation: _____

Department: _____

Organization: _____

Current academic duties: _____

Address for Communication: _____

Tel: _____ **Mobile:** _____

Email: _____ *(Please write it clearly)*

DD Number: _____

Accommodation required*: YES/NO _____