

## Registration

Name of the Applicant (first, last):

.....

.....

Gender: .....

Designation: .....

Highest Qualification: .....

Name and Address of the Organization/Institute:.....

.....

Category : (GEN/OBC/SC/ST/Others).....

City/town:.....

Email:.....

Phone Number:.....

Mobile Number:.....

Do you need accommodation?

(Yes/No):.....

Transaction ID (Applicable for Online

Transaction):.....

Signature of the Applicant:.....

Signature and Seal of the Forwarding Authority

Name .....

Designation .....

*Note: The Faculty/Staff are requested to submit the NOC from respective department before attending the session.*

*Affix passport  
size  
photograph*

## Registration Fee

**Registration Fee (Including Course Material, Snacks and Lunch )**

**Rs. 2,500/-** for Faculty, Lab Technicians and Project Staff **Rs.**

**5,000/-** for Industry Personnel, Research Scholars and Students.

**Mode of Payment: Online Only  
(RTGS/NEFT)**

### For Online Transfer

**Bank Name: State Bank of India**

**Account Name: IIT Guwahati R&D E&ICT Academy**

**Account No.: 36071160089**

**IFSC Code: SBIN0014262**

**Bank Name: State Bank of India**

**Bank Address: IIT Guwahati, GHY- 39.**

## Course Coordinators from Academy

- **Prof. Ratnajit Bhattacharjee**  
*Principal Investigator  
E&ICT Academy, IIT Guwahati*
- **Prof. Rohit Sinha**  
*Co-Principal Investigator  
E&ICT Academy, IIT Guwahati*
- **Dr. Gaurav Trivedi**  
*Co-Principal Investigator  
E&ICT Academy, IIT Guwahati*
- **Dr. Nagesh Ch**  
*Assistant Professor  
ECE Dept., IIIT Manipur*

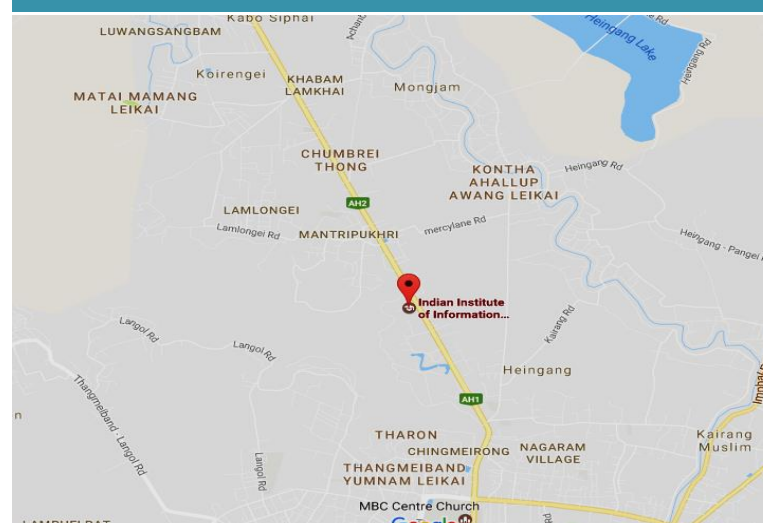
## Expert from Industry

- **Mr. Ashok Chaudhary**  
*Sr. Application Analyst HPC, Fujitsu*

## Contact Details

For more details or any queries please contact  
**Project Manager,**  
**E&ICT Academy , IIT Guwahati**  
**Email: [eictacad@iitg.ernet.in](mailto:eictacad@iitg.ernet.in),**  
**[eictacad@gmail.com](mailto:eictacad@gmail.com)**  
**Phone No: +91-3612586442**

## How To Reach IIIT Manipur



**An Initiative of Department of Electronics & Information Technology (DeitY), Ministry of Communications and IT, Government of India**



**Electronics & ICT Academy  
IIT Guwahati, Assam**



**A Faculty Development Programme on**

## HPC and Deep Learning



**Organized in association with IIIT Manipur & support from FUJITSU.**

Applications are invited from Faculty Members/ Research Scholars/PG & UG Students/Lab Technicians/Project Staffs from Universities/Colleges/Schools & Industry Personnel working in the concerned discipline can attend the Faculty Development Programme on

**“HPC and Deep Learning”**

**Course Date: 17-22 March 2017**

**Last Date of Registration: 10.03.2017**

*(Extended till 13.03.2017)*

**Venue: IIIT Manipur**

## Course Outcome

The participants are expected to understand:

- High Performance Computing Introduction and Primitives.
- Parallel Programming Introduction and Primitives.
- Parallel Computing Architectures and Paradigms in details.
- OpenMP Introduction, Case Studies and Programming.
- MPI Introduction, Case Studies and Programming.
- Hybrid Programming with OpenMP and MPI together.
- Vectorization.
- Basics of Deep Learning.

## Assignments and Project

Assignments will be of the following type:

- MCQ based questionnaire.
- Programming Assignments (Problem statement will be provided.)
- Parallelization and Optimization of codes (Problem statement and code will be provided.)

At the end of the course “Project” will be assigned to the participants which would be an application development and parallelization in OpenMP/MPI along with demonstration of the tools usage.

## Preferred Pre- Requisites for the Course

The preferred Pre-Requisites for the course are:

- Experience with Linux/UNIX environments.
- Programming knowledge in Fortran/C/C ++.
- Candidates with Science/ Engineering background.
- Basic knowledge of Computer Architecture.

## Hands-on Session

The Hands- on session will include the following:

- Basic OpenMP C/FORTRAN programs.
- Basic MPI C/FORTRAN programs.
- Basic MPI + OpenMP C/FORTRAN programs.
- Hybrid MPI + OpenMP C/FORTRAN programs.
- Practical's on MPI Programming and Tuning.

## About E&ICT Academy

Electronics and ICT Academy is an initiative of Department of Electronics & Information Technology (DeitY) Ministry of Communications and IT, Govt. of India for Faculty/ Research Scholar Development Programme.

Academy has planned short term training programmes on fundamental and advanced topics in IT, Electronics & Communication, Product Design, Manufacturing with hands on training and project work using latest software tools and systems.

In addition, the Academy will conduct specialized/customized training programmes and research promotion workshops for corporate sector & educational institutions.

**For details of the programme and course contents etc., please log on to Electronics and ICT Academy website:  
<http://eict.iitg.ernet.in/>**

## Objective of the Course

Course Objective is to provide basic knowledge in Deep Learning and High Performance Computing with lab sessions on Parallel Programming. The programme will focus on practical aspects and include examples which are relevant to the current industry requirements.

Lab sessions will include the following:

- Get HPC/Parallel Computing ready.
- Dive and Drive into OpenMP
- Dive and Drive into MPI
- Explore more- Hybrid programming: MPI + OpenMP
- Vectorization using AVX
- Excel to newer pastures: Deep Learning.

## Course Programme

Faculty Development Programme is split into three parts:

- Lectures.
- Labs/Hands-on sessions daily on Parallel Programming.
- Assignments and Project.

## Who Can Attend

Programme is open to Faculty Members, Research Scholars, PG & UG Students, Lab Technicians and Project Staffs from Universities, Colleges & Schools. Industry Personnel working in the concerned/allied discipline may also apply.

## How to Apply

**Online** – The participants may log on to the E&ICT Academy, IIT Guwahati website: <http://eictacad@iitg.ernet.in> and fill up the google doc application form.

**Through Email** – Scanned copy of the filled in application form duly endorsed by the, forwarding authority is to be mailed at E&ICT Academy's email id ([eictacad@gmail.com](mailto:eictacad@gmail.com), [eictacad@iitg.ernet.in](mailto:eictacad@iitg.ernet.in)).

Application format given in this brochure may also be downloaded from the website.

**Contact Hours for the Course  
40 Hrs (Theory, Hands-on & Tutorial)**