

Registration Form

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 (Snacks and Lunch)

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

Rs. 1,000/- 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.

Workshop Coordinators

- **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

Expert from Industry

- **Mr. H.Balachander**
FAE Manager CoreEl Technologies

Workshop Programme

Workshop Programme is split into two parts:

- Lectures.
- Labs/Hands-on sessions daily.

Contact Details

For more details or any queries please contact

Project Manager

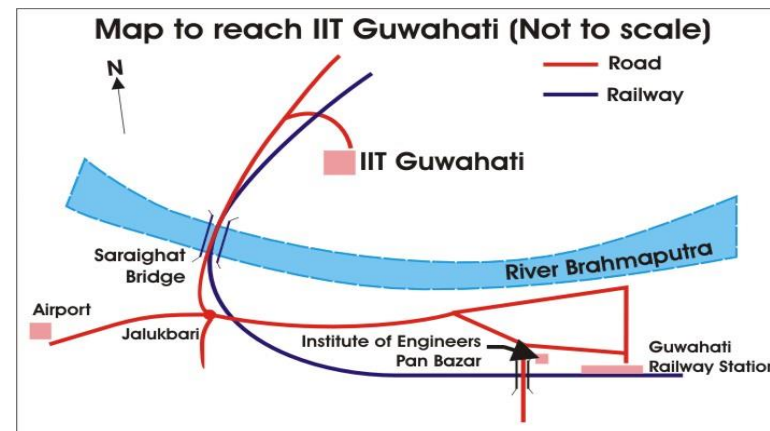
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How To Reach IIT Guwahati



**An Initiative of Department of Ministry of
Information Technology (MeitY),
Government of India**



Electronics & ICT Academy 
IIT Guwahati, Assam
A Workshop on

Enabling Excellence

**VLSI DESIGN TRENDS AND VIVADO
DESIGN FLOW**



support from CoreEL Technologies.



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

**“VLSI DESIGN TRENDS AND VIVADO
DESIGN FLOW”**

Course Date: 6 OCT - 8 OCT 2017

Last Date of Registration: 1.10.2017

(Online Registration Link will be open from 01.09.2017)

Venue: IIT Guwahati

Course Outcome

The participants are expected to understand:

- Describe the general Artix-7 All Programmable FPGA architecture
- Understand the Vivado design flow
- Create and debug HDL designs
- Configure FPGA and verify hardware operation
- Configure FPGA architecture features, such as Clock Manager, using the Architecture Wizard
- Pinpoint design bottlenecks using the reports
- Utilize synthesis options to improve performance
- Create and integrate IP cores into design flow using IP Catalog
- Use Logic Analyzer to perform on-chip verification
- Perform simulation verification

Preferred Pre- Requisites for the Course

The preferred Pre-Requisites for the course are:

- Basic Digital Concepts.
- Basic knowledge on Xilinx FPGA
- Basic Knowledge on Verilog/VHDL.
- Familiarity with Windows & Linux Environment.

Hands-on Session

The Hands- on session will include the following:

- Implement any sequential and combinational design using Xilinx Vivado Tool
- Vivado Design Flow (Synthesizing a RTL Design Architecture Wizard and Pins Assignment
- Xilinx Design Constraints
- Debugging using Logic Analyzer Tool Lab
- Creating Project and Understanding Reports
- Improving Area and Resource Utilization
- Simple Hardware Design
- Adding Peripherals in Programmable Logic
- Creating and Adding Your Own Custom IP

About E&ICT Academy

MeitY has sponsored a scheme entitled "Scheme of Financial Assistance for setting up of Electronics and ICT Academies". Electronics and ICT Academy would aim to provide specialized training to the faculties of Engineering, Arts, Commerce & Science colleges, Polytechnics etc, by developing state-of-the-art facilities. 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. It is envisaged that the Electronics and ICT Academy will become a central hub of activities on training, consultancy work and entrepreneurship programmes.

About CoreEL

CoreEL Technologies is a Customer Application Specific Product & Solutions (CASPS) company offering **INNOVATIVE** solutions, which ranges across Intellectual Property (IP) cores, Design & Development, Bespoke System Design & Prototype Development, Next-Gen Digital products, Integrated solutions, Low Volume Manufacturing, System Upgrades and Obsolescence management, EDA tools, COTS products, Semiconductor solutions and Technology Training. CoreEL is a leading developer of advanced electronic system level products and solutions to three primary markets – Aerospace & Defence, Digital Media Broadcast and Universities & Institutions of higher learning

Objective of the Course

Course Objective is to provide basic knowledge in Digital VLSI using FPGA board. The programme will focus on practical aspects and include examples which are relevant to the current industry requirements.

Lab sessions will include the following:

- Digital Design concepts.
- FPGA design flow using Vivado.
- Clocking resources implementation in Vivado & Static timing analysis Vectorization.
- Block Memory implementation in vivado.
- FSM implementation in Vivado & XSIM simulation
- Vivado logic analyzer & its features
- Introduction to HLS
- Optimizing for Area and Resources

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, eictacad@iitg.ernet.in). Application format given in this brochure may also be downloaded from the website.

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

For details please log on to Electronics and ICT Academy website: <http://eict.iitg.ernet.in/>