

## Registration Form

Name of the Applicant (first, last):

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Fathers Name:.....

.....

Mothers Name:.....

Gender: .....

Category(Gen/ST/SC).....

Date of Birth:.....

Designation: .....

Highest Qualification: .....

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

.....

City/town:.....

Postal Address:.....

Email:.....

Phone Number:.....

Mobile Number:.....

Do you need hostel accommodation? (Yes/No):.....

Transaction ID (Applicable for Online Transfer):.....

Signature of the Applicant:.....

Signature and Seal of the Forwarding Authority

Name .....

Designation .....

Affix passport  
size  
photograph

### Note:

- The Faculty/Staff are requested to submit the NOC from respective department before attending the session.
- The Faculty member belonging to SC/ST Category need to carry caste Certificate(both in original & photocopy).
- The participant need to carry the Institute/Organization valid Identity Card (Both in Original & Photocopy).
- Hostel will be available at Tezpur University. Please drop an email if hostel is required at biplob.tezu@gmail.com (Guest House booking is subjected to the availability of rooms).

## Registration Fee

### Registration Fee

(Including Course Material, Snacks and Lunch )

- Rs. 1,000/- for Faculty, Lab Technicians and Project Staff
- Rs. 1,500/- for Industry Personnel, Research Scholars and Students.

## Course Coordinators from Academy

- Prof. Ratnajit Bhattacharjee,**  
*Principal Investigator, E&ICT Academy, IIT Guwahati.*
- Dr. Gaurav Trivedi**  
*Co-Principal Investigator, E&ICT Academy, IIT Guwahati.*

## Organising Committee from Tezpur University

### Patron:

- Prof. Dhruba Kumar Bhattacharria**  
*Dean Academic Affairs, Tezpur University.*

### Chairman:

- Prof. P. P. Sahu**  
*Head, Department of ECE, Tezpur University.*

### Advisory Members:

- Prof. M. Bhuyan**  
*Professor, Department of ECE, Tezpur University.*

### Coordinators:

- Dr. Soumik Roy**  
*Associate Professor, Department of ECE, Tezpur University.*
- Dr. Biplob Mondal**  
*Assistant Professor, Department of ECE, Tezpur University.*

## Expert from Industry

- Mr. Ankur Sangal**  
*Sr. Application Engineer, CoreEL Technologies.*

## How to Reach Tezpur University

Tezpur is well connected to Guwahati, the capital city of Assam, both by road and railways. There are two roads to Tezpur from Guwahati, one via Nagaon, the other via Mangaldoi. The distance between Tezpur and Guwahati is 190 kilometres, and it takes around four hours by bus. Buses are available from the Guwahati Railway Station to Tezpur from 5 am to 8 pm. The bus fare is around Rs 250. On reaching Tezpur, participants may avail of the University bus service at the Tezpur Bus Station to come to the University campus (by paying Rs 20), or hire an auto (by paying Rs 150). Participants can also hire an (app-based) shared taxi at Guwahati or the Guwahati Airport to reach the Tezpur University campus direct by paying a maximum of Rs 3,500.



An Initiative of Ministry of Electronics &  
Information Technology (MeitY),  
Government of India

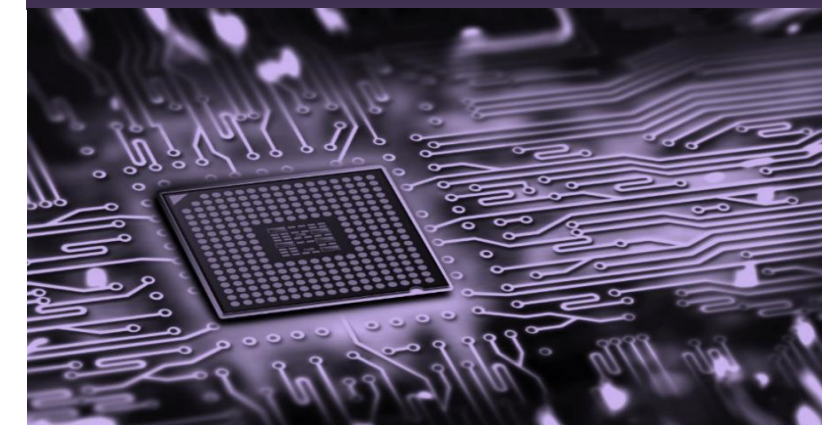


Electronics & ICT Academy  
IIT Guwahati, Assam



A Three-day Workshop on

## Mentor Graphics ASIC Design Flow



In Association with  
**Tezpur University**

And Organized with support from  
**CoreEL Technologies**



Course Date: 26 – 28 April, 2018

Last Date of Registration: 20.04.2018

(Online Registration Link has been opened from 10.03.2018)

Venue: Department of ECE, Tezpur University, Tezpur,  
Assam

## Course Outcome

The participants are expected to understand:

- Full custom and semi-custom design flow
- Pyxis tool flow for CMOS Design
- Simulation using ELDO simulator
- DC and transient analysis using Pyxis and Ezwave
- Layout Design Rule
- Design rule check and parasitic extraction
- Deep sub-micron condition of MOSFET
- Effects using 60nm and 45nm technology
- Generating physical Layout using Pyxis
- Physical Verification using Calibre tool

## Assignments and Project

Assignments will be of the following type:

- Lecture sessions
- Instructor led hands-on sessions with 30% lecture and 70% hands on a daily basis
- MCQ model reviews for each topic
- Assignments and Projects

## Preferred Pre- Requisites for the Course

The preferred pre-requisites for the course are:

- Basic Electronics.

## Hands-on Topics

Lab sessions

- Schematic & HDL code design using Pyxis schematic
- TRAN analysis using Questa ADMS and EZ wave
- Generating physical layout of Common Source amplifier using Pyxis Layout

**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.**

## Topics Covered

Following topics will be covered during session :

- Full custom and semi-custom design flow
- Pyxis tool flow for CMOS Design
- Simulation using ELDO simulator
- DC and transient analysis using Pyxis and Ezwave
- Layout Design Rule
- Design rule check and parasitic extraction
- Deep sub-micron condition of MOSFET
- Effects using 60nm and 45nm technology
- Layout versus Schematic with Calibre tool
- Schematic of Circuits using Pyxis schematic
- DC and AC analysis using ELDO and EZ wave
- Generating physical layout of Circuits using Pyxis Layout
- Performing physical verification using Calibre tool

## About E&ICT IIT Guwahati

Electronics and ICT Academy is an initiative of Ministry of Electronics & Information Technology (MeitY), 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.



## Objective of the Course

Course Objective is to provide basic knowledge in full custom and semi-custom design flow, tool flow for CMOS design, layout design rule. The programme will focus on practical aspects and include examples which are relevant to the current industry requirements.

Lab sessions will include the following:

- Generating layout from schematic using Pyxis layout tool
- Removing all DRC errors and create GDS II file
- Removing DRC error in layout with the help of Calibre tool
- Creating a schematic of Common Source amplifier and NAND gate using Pyxis Layout

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

## 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.

## Contact Details

**For more details or any queries please contact**  
**Programme Manager, EICT Academy**  
**IIT Guwahati**

**Email: [eictacad@iitg.ernet.in](mailto:eictacad@iitg.ernet.in), [eictacad@gmail.com](mailto:eictacad@gmail.com)**

**Phone No: +91-3612583009/3182/2503/2536**

**Local Coordinators:+91- 9613852591/+91-8638206014**

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