Online/offline (Hybrid Mode)

Faculty Development Program (FDP)

on

Chip Design

(Chip2023)

July 3 - 7, 2023

Organized by

तमसो मा ज्योतिर्गमय

Department of Electronics and Communication Engineering

National Institute of Technology Calicut

Kozhikode, Kerala, India – 673601

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About National Institute of Technology

National Institute of Technology Calicut (NITC) is fully centrally funded by MHRD and is governed by the NIT Act 2007. Institute has ten departments, three schools and nine research centers. It offers ten UG, and thirty PG programs along with the Ph.D program in various fields of Science, Technology and Engineering. Faculties in the various Departments have active collaborations with universities and elite institutions within and outside India for research and have active consultancy for industries. For details visit the website: www.nitc.ac.in

Introduction

The International Business Machines corporation (IBM), nicknamed Big Blue, is an American multinational technology corporation headquartered in Armonk, New York and present in over 175 countries. It specializes in computer hardware, middleware, and software, and provides hosting and consulting services in areas ranging from mainframe computers to nanotechnology. IBM is the largest industrial research organization in the world, with 19 research facilities across a dozen countries, and has held the record for most annual U.S. patents generated by a business for 29 consecutive years from 1993 to 2021.

About Department of ECE

The department offers B.Tech in ECE and four regular M. Tech programmes, viz., Electronic Design Technology, Microelectronics & VLSI, Signal Processing and Telecommunication leading to the M. Tech degree of the institute. The Department is a recognized QIP Centre of the AICTE for both M. Tech and PhD programs. The Department is also actively engaged in R&D activities. Sponsored research programmes funded by various agencies are undertaken by the faculty of the department. For details see our website: www.ece.nitc.ac.in

Introduction

This FDP on chip design will teach you the abilities that companies want in candidates for roles requiring digital transformation in businesses and startups. Leading academics from different universities around the world and subject-matter specialists from the business will teach this course. The curriculum includes the ideas and resources you require throughout the full pipeline. You'll put your newly acquired abilities to use by creating a chip with OpenSource tools for your final project.

Key Highlights

- This FDP will focus on RISC V processor Design.
- RISC V OpenPower Instruction Set Architecture
- Industry Relevant Tools and Techniques

Course Content

- SOC Design, Flow and Connectivity
- Open ISA Architecture and Design
- Memory Design and Management
- IP Design & Verification Concepts
- SOC Test bench
- SOC Verification & Stimulus Flow
- Microwatt Simulation On FPGA
- Coriolis, Yosys
- RTL TO GDS-II ON CORIOLIS
- OpenROAD

LABs

- Lab1: Microwatt Implementation
- Lab2: Synthesis of FPGA using Vivado
- Lab3: RTL to GDSII ON CORIOLIS
- Lab4: OpenROAD-Flow-Script

How to apply?

Fee for participants (including GST) is:

UG & PG students, Research Scholars
: INR 1180/-

Faculty : INR 3540/-

Industry Professionals/Others
: INR 5900/-

Foreign (Other Than India)
: $ 80

Registration fee (non-refundable) has to be paid through online transfer. Put **Chip2023** in comment while payment. Bank details are provided below.

Account Name : Director, NIT Calicut

Account No : 37618269594

Bank : State Bank of India.

Branch : NITC Branch.

IFSC code : SBIN0002207

After payment, registration can be completed by filling the form available at https://forms.gle/9Lc4E25eQT77gXtE6

Last date for registration is June-25, 2023.

Target Participant

Professionals / Engineers from Government / Private Organizations / Teachers / Research Scholars / PG Students of VLSI and related Branches / Final Year UG (B.Tech ECE, EE & CSE and related Branches).

Resource Persons

All sessions will be handled by the experts from IBM

How to reach NIT Calicut

NIT Calicut located at 22 kms from Calicut city. Private buses are available frequently from Palayam bus stand and KSRTC buses are available from Mofussil bus stand. Palayam bus stand is around 300 m from Calicut railway station.

Accommodation & Food

For the offline participant Accommodation is available at Institute Hostel on payment basis (Twin Sharing type). Food is available in campus as well as in hostels on payment basis.

Address for Correspondence

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Dr. Ashutosh Mishra, Dr. Praveen Sankaran

Coordinators of Chip2023

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