

**Faculty Development
Program/Industrial Training
On
VLSI Design Trends using FPGA
Implementation Verilog/VHDL**

Under the banner of
**Electronics and ICT academy,
National Institute of Technology, Patna**

08th - 12th October, 2018



Patrons
Prof. P.K. Jain
Director, NIT, Patna

Coordinator (NIT Patna)
Dr. Bharat Gupta
Co-Coordinator (NIT Patna)
Dr. Sangeeta Singh

Sponsored by
**Ministry of Electronics & Information
Technology, Govt. of India**

Organized by
**Department of Electronics and
Communication Engineering,
National Institute of Technology, Patna**

About NIT Patna

National Institute of Technology Patna is the 18th National Institute of Technology created by the Ministry of H.R.D. Government of India after rechristening the erstwhile Bihar College of Engineering Patna on 28.01.2004. NIT Patna marked its humble beginning in 1886 with the establishment of pleaders survey training school which was subsequently promoted to Bihar College of Engineering Patna in 1924. This made this institute the 6th oldest Engineering Institute of India. The Institute is situated on the south bank of holy river Ganges behind Gandhi Ghat (where the ash of father of the Nation, Mahatma Gandhi was offered in the river Ganges). The campus has a picturesque river view with historic building presenting a spectacle of architecture delight and natural beauty. The Institute imparts high level education training, research and development in science, engineering technology and humanities along with high quality education and values at UG, PG and Ph.D. level. At present the Institute offers courses in six major technical disciplines viz. Architecture, Civil Engineering, Computer Science & Engg., Electrical Engg., Electronics & Communication Engg. and Mechanical Engg. It also consists of well-established departments of Physics, Chemistry, Mathematics and Humanities and Social Sciences.

Electronics and ICT Academy

Ministry of Electronics and Information Technology, Government of India has instituted seven Electronics and Information & Communications Technology (ICT) Academies of which, the academy of NIT Patna is one. The Academy at NIT Patna aims to design and organize basic as well as specialized training programmes in niche areas of electronics and ICT for the development of required knowledge base, skills and tools to equip the teaching community with better knowledge and understanding.

Objective and Scope

Primary objective of this program is to provide hands on experience in Digital VLSI using FPGA board. During this program our focus will be on practical realization of digital circuits using Vivado and become aware of current state-of-

art in industry in this domain. The following are the broad topics, going to be covered in this course:

- Recent trends in FPGA technologies and identifying and understanding open problems and challenges.
- Basic of hardware description languages Verilog/VHDL and FPGA based realization.
- Industries based embedded system designing
- Advancements in ASIC designing

One of the key features of this course is that, along with discussing the advanced research topics and cutting edge technologies, it will encompass fundamental aspects of digital as well as Electrical and Electronics domain technologies.

Outcomes

- Knowledge and understanding of fundamental recent trends in FPGA technologies and identifying and understanding open problems and challenges.
- Preliminary ideal for using hardware description languages Verilog/VHDL and FPGA based realization as per today's industry needs.
- Basic awareness of ASIC design, full custom design flow, spice net list, spice models and analysis, layer map file, DRC and LVS rule layout design.

Who Can Participate

Industry personals, Faculty members of UGC/AICTE recognized Universities and Engineering colleges all over India, Research scholars, M. Tech. students, however there are very limited number of seats for Ph.D. /PG/UG students; priority will be given to the faculty members and Ph.D. students.

Resource Person

Highly experienced industry personnel from Coreel Technology & Academia

- Mr. H Balachander, Coreel Technology
- Mr. Ankur Sangal, Coreel Technology
- Dr. Sangeeta Singh, NIT Patna

Registration Fee

- Faculty Member: Rs 1500/-
- Ph.D/PG Students : Rs 500/-
- Industry Personnel: Rs 3000/-

Registration fee includes Registration kit, Tea, Snacks, Lunch and a Course Completion Certificate. **Certificate will be given by Electronics & ICT Academy NIT Patna.**

Registration Process

1. Scanned copy of the filled application form duly endorsed by the forwarding authority and the demand draft are to be mailed at (sangeeta.singh@nitp.ac.in). No travelling allowance will be paid by the Academy. The demand draft as applicable, should be drawn in favour of "Director, NIT Patna" payable at Patna.
2. Registration fee can also be paid by the online mode, the account details for this purpose is
Account Name: NIT Patna
Account No.: 50380476798
IFSC Code: ALLA0212286
3. Selection will be made purely on First-Come-First-Serve basis (Subject to fulfilling the eligibility criteria).
4. Maximum fifty (50) participants will be accommodated in the program.
5. The brochure and the registration form may be downloaded from the Institute website www.nitp.ac.in.

The registration fee can also be deposited in cash.

Last date of submission of application: **05th October, 2018.**

Address for Correspondence

Enquiry should be addressed to:

Dr. Sangeeta Singh
Assistant Professor
Department of ECE,
NIT Patna
Mob. No.: 09479646111
Email: sangeeta.singh@nitp.ac.in

Venue

Department of Electronics and Communication Engineering, NIT Patna.

Accommodation

Accommodation will be provided in hostels as per the availability with nominal charges.

Location

Patna Railway Junction is well connected to almost all parts of the India. NIT Patna is located within a distance of only about 6 km from the Patna Railway Junction. Also Patna Jay Prakash Narayan International Airport is well connected via Air to the whole India. There are direct flights to Patna from Kolkata, Delhi, Chennai, Mumbai, Bengaluru, etc. The Institute is located within a distance of about 11 km from the airport. Taxis, Auto-rickshaws, are available as conveyance.

Advisory Committee

Prof. P. K. Jain, Director, NIT, Patna
Dr. Gayadhar Pradhan, HOD (ECE), NIT Patna.

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(8th - 12th October, 2018)

REGISTRATION FORM

1. Name (block letter):

(a) Gender Male Female

(b) Category Gen OBC SC ST

2. Designation

3. Organization:

4. Highest Academic Qualification:

5. Experience (in years):

(a) Teaching:

(b) Industrial:

6. Address for communication:

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Pin code: Ph. No.:

Fax No.:

E-mail:

7. Mode of Payment Through DD

Through NEFT

CASH

8. DD No./NEFT Trn Ref no. :

Date:

Bank Name:.....

Amount:

DECLARATION

I do hereby agree to abide by the rules and regulations of the FDP.

Place:

Date:

.....
Signature of the applicant