

# Ph.D. Program in VLSI

offered by

## Network of Engineering Institutions (NEI)

### Founding Institutions Under the NEI

The LNM Institute of Information Technology (LNMIIT), Jaipur  
Yeshwantrao Chavan College of Engineering (YCCE), Meghe Group of Institutions, Nagpur  
International Institute of Information Technology (I<sup>2</sup>IT), Pune  
Dhirubhai Ambani Institute of Information and Communication Technology (DAIICT), Gandhinagar

### Ph.D. in VLSI - Program Structure

Student will enroll at his home institution under the regular Ph.D. program.

In addition to the Ph.D. degree requirements set by the (home) institution, the student will also have to satisfy NEI's requirements:

- Complete two Type-1 courses
- Complete two Type-2 courses
- Complete few Type-3 courses

- Type-1 courses are introductory courses in Physics, Mathematics, etc, aimed at preparing the student for specialized Type-2 courses.
- Type-2 courses are specialized courses, in the subjects of analog and mixed-signal circuits.
- Type-3 courses are seminar courses, based on independent study/reading by the student, followed by a presentation, that is examined by the invited expert panel.

All the above courses will be offered during a 2-week workshop (two workshops per year during semester breaks), hosted at various engineering institutions across India.

- Each workshop will have one Type-1, one Type-2, and more than one Type-3 courses.
- Type-1 and Type-2 courses will be taught by recognized subject experts, invited from the academia and industry.
- Each workshop will have a few hours of discussions, where the student can interact with these leading VLSI experts and other faculty.

### Benefits of NEI's Ph.D. Program

- Final degree certificate may contain the logos of several institutions participating in the NEI.
- Recognized experts are available as mentors to the student throughout the program.
  - The NEI will pay the student and his advisor (at home institution), for traveling/accommodation for attending at least two workshops.
- Resources and CAD tools at participating institutions will be available to all students.
- NEI website will allow the online interaction and knowledge sharing amongst the VLSI peer group.

### Network of Engineering Institutions

The NEI was founded on 18<sup>th</sup> Jan, 2011, through an MOU between the above institutions.

The vision of NEI is to:

- Provide a means of guidance to research and project students through an expert panel.
- Create a peer group of research students for exchange of ideas, expertise and experience.
- Enable available resources for research purposes.

The current governing council of NEI consists of:

- Dr. S.C.Sahasrabudhe, DAIICT
- Dr. A. Kapur, YCCE
- Dr. A. Rakshit, I<sup>2</sup>IT
- Dr. S. Raniwala, LNMIIT

The current panel of experts consists of:

- Dr. D.K. Sharma, IIT - Bombay
- Dr. G. S. Visweswaran, IIT- Delhi
- Dr. D. Nagchoudhuri, DAIICT

### Proposed Workshops

The first workshop will be held at LNMIIT, Jaipur during Dec, 2011.

This workshop will offer following courses:

- Type-1: Device Physics
  - Prerequisite: Signals and Systems (to be taken at home institution)
- Type-2: Analog Circuits
- Type-3: Paper presentations (papers assigned after admission to the program)

The second workshop will be tentatively held at I<sup>2</sup>IT, Pune or BITS, Goa, during June/July 2012.

This workshop will offer following courses:

- Type-1: Data Interpretation (review of signal processing)
- Type-2: Mixed-Signal & Advanced Analog Circuits
- Type-3: Paper presentations (papers assigned during first workshop)

### Admission Process

Follow the regular PhD admission process/requirements outlined by your admissions office. Contact your home institution's admissions office for more details.

For more information about NEI's Ph.D. program in VLSI, contact the executive committee member at your home institution:

- Dr. D. Nagchoudhuri, DAIICT (dnc@daiict.ac.in)
- Dr. Pravin Dakhole, YCCE (pravin\_dakhole@yahoo.com)
- Dr. Mazad S. Zaveri, DAIICT (mazad\_zaveri@daiict.ac.in)
- Dr. Rabinder Henry, I<sup>2</sup>IT (rabinderh@isquareit.ac.in)
- Dr. Subhajit Sen, DAIICT (subhajit\_sen@daiict.ac.in)
- Dr. Somnath Biswas, LNMIIT (drsomnathbiswas@gmail.com)