

Motivation

Field Programmable Gate Arrays (FPGAs) provide the processing power for products that drive a wide range of applications. India has a rich source of manpower in Electronics in general and Microelectronics in particular. With the advent of FPGAs we have entered the era of reconfigurable computing. FPGAs can not only act as a sort of system-level silicon super-glue, sitting at the periphery of the circuit board making anything to connect to anything else, but also as a complete *System on a Programmable Chip*. Through this workshop we try to provide interesting insights into the world of FPGAs. The workshop will provide an understanding of Design-implementation flow involved in FPGA Design and Implementation using ALTERA EDA Tools. Lab exercises will provide the participants with hands-on tool usage experience under the guidance of expert instructors from ALTERA and ENIXS reinforcing the design and implementation steps covered in the lectures.

NITK Surathkal

NITK Surathkal celebrating its golden jubilee in 2009-2010, is a premier Institution engaged in imparting quality technological education and providing support to research and development activities. NITK is recognized as an Institute of National Importance by an act of Parliament. NITK has carved a niche for itself among the best technical institutes in India. NITK offers 9 UG, 26 PG Programmes and PhD programmes. The Institute is located at Surathkal, 20 km north of Mangalore on NH 17. The campus, in the midst of beautiful natural settings, offers an undisturbed and peaceful environment for education. The sandy beachline of the campus provides an unique scenario. The campus is well connected by air via Mangalore airport and by train and bus services via Mangalore/Surathkal.

The Department of E&C, NITK Surathkal has excellent research expertise and fully equipped laboratories in VLSI Design, Signal Processing, and Communication. We interact very closely with several industries and research groups both in India and abroad. The Department is a member of Altera University program for the past 10 years.

Altera® University Program

Altera Corporation is a pioneer of programmable logic solutions, and offers FPGAs, CPLDs, and HardCopy ASICs in combination with software tools, intellectual property, and customer support to provide high-value programmable solutions. Forging the next evolution in electronic design, Altera reprogrammable solutions provide fast time to market and cost advantage over high-risk ASIC development and inflexible ASSPs and digital signal processors.

Altera Corporation works with professors and lecturers around the world to help teach students digital technology better. Altera's University Program provides a variety of teaching materials, including state-of-the-art software tools, best-in-class teaching hardware, tutorials that introduce students and lecturers to Altera's tools and hardware, and *ready-to-teach* laboratory exercises that can be employed in university-level digital logic and computer organization courses.

Enixs Technology India Pvt Ltd

Enixs Technology India Pvt Ltd, is one of the fast growing Advanced Electronic Equipment Suppliers in India. Enixs is engaged in the development of electronic products and has operational centres at Chennai, Bangalore, Hyderabad, Pune and New Delhi. Enixs quickly became one of the popular supplier of Embedded, VLSI and Test & Measurement equipments and it has become the University Program Channel Partner for Altera Semiconductors, USA.

REGISTRATION FORM

ONE DAY PROFESSOR'S WORKSHOP

FPGA BASED SYSTEM DESIGN USING ALTERA TOOLS

August 22, 2009

Name:

Designation:

Qualification:

Organization:

Address for Correspondance:

Phone :.....E-mail :.....

Experience : Teaching Industry

Comment on your exposure to Digital System Design using FPGA:

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Whether Accommodation Needed : Yes / No

Signature of the candidate

Signature of the Head of Department/Institute :

Workshop Schedule

- 9.00 am Registration
- 9.30 am Inauguration & Overview
- 10.00 am Introduction to ASIC & FPGA
- 11.00 am Tea
- 11.15 am Case study on FPGA Application
- 12.00 pm Introduction to Altera Tools
- 12.30 pm Lunch
- 01.30 pm Hands-on Implementation using Quartus II Software
- 02.30 pm Hands-on Implementation using SOPC Builder & NIOS II Processor
- 04.45 pm Tea
- 05.00 pm Feedback & Valedictory

Lucky Draw at end of Workshop

Prizes : Altera Development kit, VLSI books

Target Group

Faculty engaged in teaching Digital System Design at undergraduate and postgraduate level.

Resource Persons

Faculty of NITK Surathkal and experts from Altera and Enixs Technology India Pvt Ltd.

Registration

No registration fee will be charged. No TA and DA will be given to the participants.

Outstation participants may be provided with shared accommodation facility in the Institute Guest House on prior request. Participants have to bear the boarding and lodging cost.

Please email your form to sumam@ieee.org before 20 August 2009 to:

Contact Information:

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