

Registration Form

1. Name (in block letters) :
2. Designation :
3. Organization :
4. Address for communication :
5. Phone No. (with STD Code)
Office :
- Residence :
6. E-mail ID. :
7. Professional Experience
Teaching :years
Research :years
Industry : years
8. Signature of the Participant :

Demand Draft Details

- Amount :
- DD No. :
- Bank :
- Dated :
- Signature :

Patrons

Dr. C. E. Krishnan
Director, SNGCE

Dr. Saji C. B.
Principal, SNGCE

Conveners

Dr. S. Parameswaran Namboothiri
Head of ECE Department

Dr. Suriyakala C. D.
Professor, ECE Department

Resource Person

Mr. Mamidi Nagaraju, Application Engineer
CoreEL Technologies (I) Pvt. Ltd
Bangalore 560034


Co-ordinator

Asst. Prof. Seema Padmarajan
ECE Dept., SNGCE
Ph: 9496178457

About CoreEL Technologies

CoreEL University Technologies is a CASPS technology company with business spread across design services & product development, distribution and training. Headquartered in Bangalore, India, CoreEL is a leading provider of VLSI & Embedded Systems design services and Intellectual Property. Since its inception in 1999, CoreEL Technologies a privately held corporation has always strived to deliver quality solutions & support in all the business areas that it serves. Services offerings include Distribution of Silicon solutions, EDA tools, COTS products, Engineering Services (Turn Key Systems Design, Turn Key FPGA Design and High Speed PCB Design), Education and Manufacturing. These services are offered to our broad customer base comprising Defense and Aerospace, Telecommunication and Networking, Homeland Security, Broadcast Video and Education segments.

An ISO 9001:2008 certified Institution


**SREE NARAYANA GURUKULAM COLLEGE OF ENGINEERING**
All it takes to reach the top is your ambition, hard work and a great "GURUKULAM"

Two Days Workshop
On Design & Implement Software
Defined Radio Systems on Xilinx Zynq SOC


Organized by

**Department of Electronics & Communication
Engineering**

In association with


A CASPS Company

on 24th & 25th July 2015



Sree Narayana Gurukulam College of Engineering
Kadayiruppu P.O., Kolenchery

Phone : 0484-2597800 (30 lines), 2764841
Fax : 0484-2762541
Website: www.sngce.ac.in

ABOUT INSTITUTE

Sree Narayana Gurukulam College of Engineering (SNGCE) is a new age, multi-disciplinary institute offering a portfolio of courses in Engineering, Computer Applications and Management streams. Ensuring the right blend of academic rigor and business focus of the industry, the institution has transformed into a trend setter in professional education since 2002. SNGCE prides itself in creating a congenial academic environment, conducive to learning on the strength of most modern infrastructural facilities provided by the management and a highly motivated and competent team of faculty constantly endeavoring to mould world-class professionals of the future. It has assumed multiple dimensions, both in the sphere of academics, as well as in infrastructure facilities. Today, it is conceded on all hands that, it is one of the premier institutions for higher education in the state, has an excellent faculty with high qualifications (Ph. D, M. Tech and M. Phil) and versatile experience in industry and academics, the institution is affiliated to Mahatma Gandhi University, Kottayam, Kerala and approved by the All India Council for Technical Education, New Delhi. The college offers 6 undergraduate courses and 13 post-graduate courses. SNGCE believes in the overall development of students and therefore has initiated several co-curricular and extra-curricular activities like Department Associations, NSS, Arts Club, Sports & Entrepreneurship Development, IEEE, ISHRAE and ISTE Students Chapter, etc. We are also accredited by the International Accreditation Organization (IAO), National Board of Accreditation (NBA) (4 branches in Engineering and MBA department). We are one among the premier engineering colleges in India to achieve this rare accomplishment of certification by all the three organizations. We have also signed MoU with reputed foreign universities for collaboration including Stevens Institute of Technology, USA and Wayne State University, USA.

ABOUT ELECTRONICS DEPARTMENT

The Department of Electronics and Communication Engineering evolved in the year 2002 (NBA Accredited). The Electronics & Communication Engineering Department has been consistently producing illustrious Engineering graduates of high caliber who occupy prestigious positions in academics & industrial fields. Currently the department offers 4 year undergraduate programme in Electronics & Communication Engineering and 2 Postgraduate programmes (M. Tech.) in Electronics with specialization in VLSI and Embedded Systems & Communication Engineering. The Department has competent and dedicated faculty members experienced in both teaching and industry and many are pursuing their doctoral programs. Department organizes workshops, conference, seminars in order to update latest happening in the research areas in communication engineering and industries.

COURSE AIM & OBJECTIVES

This workshop provides an introduction to the advanced tools you need to design and implement SDR algorithms targeting FPGAs. Focuses on learning how to use System Generator for SDR domains RF and Wireless design flow, IP Core and design implementation tools. Through hands-on exercises, you will implement a SDR designs from algorithm to real-time hardware implementation

Highlights

- ✓ Basic concept of digital communications SDR systems
- ✓ Understanding why FPGAs lend to high-performance DSP based RF/Wireless designs
- ✓ Model and Simulate a System Generator designs in Simulink Environment
- ✓ DSP-Targeted Reference Design – Introduces DSP-targeted hardware boards and software tools
- ✓ Emphasis on real-time processing your models in hardware.
- ✓ Design & Implementation of Filters, ADC/DAC, DUC/DDC, QAM, FFT/DCT, Modulation Techniques
- ✓ Xilinx application notes on OFDM Transceiver Design for SDR and available board solutions
- ✓ Witness the power, ease of use, and design efficiency of Xilinx DSP tools and IP

COURSE CONTENTS

Day 1: 24-07 -2015

- The advantages of using FPGAs over traditional processors for DSP designs.
- Utilize fixed point binary arithmetic and identify how to use this knowledge to create efficient designs in FPGAs.
- Recognize how both the CLB slices in FPGAs and the more advanced DSP48s are used to implement DSP algorithms.
- Construct different FIR filter and FFT implementations and how to optimize these implementations in the FPGA.

Day 2: 25-07-2015

- Xilinx DSP Design flow and concepts of Hardware co-simulation with Demo design
- Construct DUC and QAM Modulation Techniques implementations and how to optimize these implementations in the FPGA
- OFDM Transceiver for Software Defined Radio (SDR) Design & Implementation
- Design Discussion on CDMA, WCDMA application notes a design Implementation on Hardware

Afternoon sessions hands-on experience in Lab

WHO CAN ATTEND?

Students & Faculty members from academic institutions & industry people working in Communication Engg. area.

REGISTRATION FEE

Student: **750/-**

Faculty: **1,000/-**

Note: DD should be taken in favor of **Principal, SNGCE payable at Kolenchery.**

IMPORTANT DATE

Last date of registration: **15.07.2015**