

## OBJECTIVE

This workshop aims to provide good opportunities for the Faculty members, Research scholars and PG students to have an insight about research issues in the design aspects of VLSI circuit methodologies and interaction with the field experts.

Use Xilinx Design Constraints to communicate performance. Rapidly architect an embedded system targeting the ARM processor of Zynq Device using Vivado and IP Integrator. Extend the hardware system with Xilinx provided peripherals. Create a custom peripheral and add it to the system. Debug a design using Vivado hardware analyzer. Use Vivado HLS to generate an IP-XACT compliant hardware accelerator.

This workshop provides a technical designing of signal and image processing applications using MATLAB simulink and verification by hardware co-simulation on Zynq SoC. This workshop will help the Academicians, Professionals and Students to explore ways to harness more of digital circuit design logics and signal & image processing applications in FPGA tool for real time applications.

## RESOURCE PERSONS



Enabling Excellence

Sessions will be handled by experts from CoreEL Technologies, Bangalore.

**Mr.H.Balachandran,**  
FAE Manager,  
CoreEL Technologies,  
Bangalore.

**Mr. Rajesh Murugan,**  
Application Engineer , CoreEL  
Technologies, Bangalore.

## COURSE CONTENTS

- An Introduction to Xilinx
- Introduction to 7 series FPGA, Architecture and Zynq SoC
- Zynq PS Flow & Adding IP Core in PL
- Extending the hardware design by adding AXI Peripheral using IP catalog
- Creating and adding your own custom Peripheral IP.
- PMOD Wifi Interfacing Using Zynq SoC
- Monitoring on-Chip Temp Sensor using Zynq SoC.
- Introduction to Xilinx System Generator
- Gray scale Image Enhancement and Median Filter Design and its verification by Hardware Co-simulation on Zynq SoC

## BOARDING AND LODGING

Boarding and lodging will be provided to the selected candidates in the college campus. Accommodation will be provided in the college hostel to the participants only on a chargeable basis. Participants are required to make their own arrangements for those accompanying them, if any.

## REGISTRATION DETAILS

Faculty Members	Rs. 800/- *
PG Students & Research Scholars	Rs. 590/- *

\* Including Tax

Demand Draft for the registration fee payable at Perundurai must be drawn in favor of "IIP Cell Grant-in-aid A/C", Kongu Engineering College.

## HOW TO APPLY

The applicants should send their applications in the specified format to reach us on or before 05.07.2019. If selected, they should confirm their participation in time.

## IMPORTANT DATES

Last Date for Receipt of Applications	: 05.07.2019
Date of intimation regarding selection	: 08.07.2019
Confirmation by Participants	: 09.07.2019

**Kongu Engineering College**  
*(Autonomous)*  
PERUNDURAI, ERODE 638 060 TAMILNADU  
&  
**CoreEL Technologies, Bangalore**  
NATIONAL WORKSHOP

on

**“Xilinx Vivado Design for Signal and Image Processing using Hardware Co-Simulation in Zynq SoC”**

**11-07-19 &12-07-19**

## APPLICATION FORM

Name :  
Designation :  
Organization :  
Gender :  
Age :  
Educational Qualifications :  
Address for :  
Communication :  
Mobile Number :  
E-mail ID :  
Experience :  
Teaching : \_\_\_\_\_years  
Others (Specify) : \_\_\_\_\_years  
**DD Details**  
DD. No. :  
Amount :  
Date :  
Bank Name :  
Need Accommodation : YES / NO

## ABOUT THE COLLEGE

Kongu Engineering College (KEC) established in 1984, approved by AICTE, New Delhi, and an autonomous institution affiliated to Anna University Chennai, has completed 34 years of dedicated and excellent service in the field of technical education. The college offers 14 UG, 19 PG and 16 research programmes in Engineering and Applied Sciences. IPC received Sustainable Institute Industry Partnership Award consecutively for two years (2014 & 2015) from the Institution in Society for Educational and Entrepreneurship Development, Chennai. It has got NBA accreditation for most of the UG programmes and is an ISO certified institution. It has also got the Best Engineering College award and the Best Principal Award from ISTE. It has established a Technology Business Incubator (TBI) supported by the Department of Science and Technology, Government of India, and won the National Award presented by the President of India on Technology Day in New Delhi. Kongu Engineering College has been awarded as the Most Clean Campus for the Year 2017 by AICTE.

## ABOUT THE DEPARTMENT

The Electrical and Electronics Engineering department occupies a prominent place in the chronicles of its academic history. The department has been consistently producing illustrious Engineering graduates of high caliber who occupy prestigious positions in the academic and industrial fields. The specialization of the faculty includes Power System Engineering, Power Electronics, Applied Electronics, VLSI and etc. The department offers four year UG programme in EEE and two year PG programme in Power Electronics and Drives and Applied Electronics. Department has bagged the National level award under the category "Best Industry linked Technical Institute for the Electrical Engineering stream", on the survey organized jointly by AICTE and CII during June-July 2013, for the year 2012-13.

## ABOUT COREEL TECHNOLOGIES

CoreEL Technologies is a Customer Application Specific Product & Solutions (CASPS) company offering INNOVATIVE solutions from its

diverse portfolio of expertise that includes Intellectual Property (IP) cores, System Design, Manufacturing, Sustenance and OEM solutions in the form of EDA tools, CAE tools, COTS products and Technology training. CoreEL's strength lies in its ability to blend deep domain knowledge with the right ingredients across its portfolio of offerings. It is a leading developer of advanced electronic system level products and solutions to three primary markets – Aerospace & Defence, Digital Media Broadcast, and Universities & Institutions of higher learning.

The distribution services encompass a range of products and solutions for the electronic design and embedded systems arena. CoreEL is the authorized representative in India for many leading global technology players. We offer a comprehensive portfolio of advanced EDA tools that enable you to make the most of your resources. Develop smaller, faster, cost-effective and intelligent next-generation electronic products.

## ABOUT COREEL UNIVERSITY PROGRAM

The CoreEL University Program brings world class design suites, development platforms & tools and technical support to academia community which includes; VLSI Lab infrastructure setup assistance as per the course curriculum of institutions. EDA Tools installation and enabling the tools utilization through customized training offerings. Embedded and real time system, 3D printing design and experience, Domain specific workshop modules to address the requirements of research enthusiasts, Consultation services for academia community in their R & D activities, The latest addition of solutions being a direct gold partner to Siemens-The Siemens range of CAD/CAM/CAE –PLM products.

Application form completed in all respects is to be sent to:

**Dr. S. Maheswari, M.E., Ph.D.,**

Associate Professor /EEE

Coordinator

## Xilinx Vivado Design for Signal & Image Processing using Hardware Co-Simulation in Zynq SoC

Department of EEE, Kongu Engineering College  
Perundurai Erode-638 060 TamilNadu  
Contact Mobile – 9629638203, 9443350335

## NATIONAL WORKSHOP



on

## Xilinx Vivado Design for Signal and Image Processing using Hardware Co-Simulation in Zynq SoC

11-07-2019 to 12-07-2019

### Coordinators

**Dr.S.Maheswari**  
Associate Professor

**Mr. S.K.Logesh**  
Assistant Professor

**Ms.S.Aruna**  
Assistant Professor

### Organized by



Department of Electrical and Electronics Engg.

**Kongu Engineering College**

Perundurai – 638 060 Erode TamilNadu

In Association with

**CoreEL Technologies, Bangalore**

Tel : 04294 - 226538

Fax : 04294 – 220087

E-mail : s.maheswari@kongu.ac.in  
sklogesh@kongu.ac.in

Website : www.kongu.ac.in