

## ACCOMMODATION

No TA / DA will be paid to the participants. On prior request, accommodation can be arranged in our college hostel with breakfast & dinner at a nominal fee.

## WHO CAN REGISTER?

The programme is open for all college faculty members, industrial persons, research scholars and students. Application can be downloaded from the website [www.klnce.edu](http://www.klnce.edu)

## REGISTRATION FEE

- |   |          |
|---|----------|
| 1) Delegates from Academic Institution and Industry | Rs.700/- |
| 2) Research Scholars/Students                       | Rs.600/- |

The registration fee should be paid through Demand Draft drawn in favour of "THE PRINCIPAL, K.L.N. COLLEGE OF ENGINEERING" payable at Madurai.

## LOCAL TRANSPORTATION

Our college buses are plying on daily over 35 routes from various parts of city. Participants can use these buses to reach K.L.N.C.E. For further information please contact coordinators.

## IMPORTANT DATES

Registration form along with D.D should reach us on or before 26<sup>th</sup> June 2017. Limited spot registration only be allowed.

## CORRESPONDENCE

- 1) **Dr.N.Janakiraman** (Mobile: 98944 24665)  
E-Mail: [janakiramanforu@yahoo.com](mailto:janakiramanforu@yahoo.com)  
Professor
- 2) **Mr.D.Anand** (Mobile: 80982 60007)  
E-Mail: [anand.duraiswamy@gmail.com](mailto:anand.duraiswamy@gmail.com)  
Assistant Professor

Department of ECE  
K.L.N. College of Engineering  
Pottapalayam – 630 612. Madurai, Tamilnadu.

## COURSE CONTENT

- Introduce and understand the concept of **"Software-Defined" Systems on Chip (SDSoC)** and its development environment
- Get hands-on experience creating application-specific systems on chip from C/C++ programs using the SDSoC

### Day-1

- 7-Series Architecture Overview
- Zynq Architecture
- **Lab 1: Vivado Design Flow & Hardware Debugging Lab**  
Use Vivado IDE to create a simple HDL design. Simulate the design using the XSIM HDL simulator available in Vivado design suite. Generate the bit-stream and verify in hardware. Use Mark Debug feature and also available Integrated Logic Analyzer (ILA) core (available in IP Catalog) to debug the hardware
- Introduction to Embedded System Design using Zynq
- **Lab 2: Simple Hardware Design**  
Extending the Embedded System into Programmable Logic
- **Lab 3: Adding Peripherals in Programmable Logic**

### Day-2

- Zynq AP SoC architecture and Vivado IPI
- SDSoC tool overview
- **Lab 4: Getting started with SDSoC design flow**  
Go through the process of using SDSoC to create a new project using available templates.
- Data motion networks
- **Lab 5: Pragmas and data motion networks**  
Handling data movements between the software and hardware accelerators using various pragmas and SDSoC API.
- Coding Considerations
- Profiling
- **Lab 6: Profiling application and create accelerators**  
Profiling an application, analyzing the results, and identifying function for hardware implementation.

## A Two day National Workshop

On

# "System Design Flow on Zynq using Xilinx SDSoC"



28-06-2017 & 29-06-2017  
(Wednesday & Thursday)

Chairman

**Dr.A.V.Ramprasad, Principal**  
Convener & H.O.D - ECE

**Dr.V.Kejalakshmi**  
Coordinators

**Dr.N.Janakiraman**  
**Mr.D.Anand**



Organized by  
**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**

In Association with



**K.L.N.COLLEGE OF ENGINEERING**

Pottapalayam - 630 612  
Madurai District.

Phone: 0452 2090971, 2090972  
URL : [www.klnce.edu](http://www.klnce.edu)

## ABOUT THE INSTITUTE

K.L.N. College of Engineering has been the first self-financing co-educational Engineering College started in Madurai in 1994. The College has been affiliated to Anna University and approved by All India Council for Technical Education (AICTE). The College is located in the south eastern outskirts of Madurai and is 11 Km away from Madurai city. The college runs 7 undergraduate engineering programs and 7 Master Programs including M.E. Communication Systems.

## DEPARTMENT OF ECE

The Department of ECE was started in 1994. The Department has adequate infrastructure with spacious classrooms, conference halls and well developed ten laboratories having the advanced designing tools like Xilinx Vivado System Edition with SDSoC, Cadence Front-end & Back-end design suites, LabView, MATLAB, ADS, AnSoft, Orcad P-Spice and modernized equipments like Analog discovery kit, Microwave power meter, Spectrum analyzer, Network analyzer. The department initiates the U.G., P.G. & research projects in Embedded Systems through the Centre for Embedded Systems which is based on the collaboration of institution & embedded industry. AICTE, New Delhi has sanctioned fund as under MODROB scheme for modernizing Microwave Lab and DSP Lab of this department. The department library has over 2000 books, magazines and journals.

## About CoreEL Technologies

CoreEL Technologies (I) Pvt Ltd, CoreEL is a customer Application Specific Products & Solutions company offering Intellectual Property (IP) Hardware, Software & Engineering Services to customers, enabling them to Design Manufacture and Market world class electronic products. The portfolio of offerings include IP cores, System Design, Architecture, Validation, Sustenance, Prototype Manufacturing, Next-Gen products, Semiconductor solutions & Distribution of EDA Tools & COTS products. CoreEL was founded in 1999 and is an ISO 9001:2015 certified headquartered at Bangalore India.

## About CoreEL University Program

CoreEL University Program provides Eco-System support to Indian Academia in Engineering Higher Education, in the field of embedded systems thereby enabling the delivery of quality education. CoreEL university achieves this by providing state of the art products from XILINX, MENTOR GRAPHICS, STRATASYS, MATLAB, ANSYS, VxWorks (WIND RIVER), Speedgoat (Rapid Controller Prototyping, Hardware-in-the-Loop simulation, and deployment), PCB Design Tools from Mentor Graphics, Analog Discovery Kits from Digilent (Analog Discovery kit can replace the conventional regulated power supply, Function Generator, Oscilloscope, and smaller parts like Bread board etc with one portable, compact and power effective and low cost solution!) to universities Multiyear application engineering support on these products Faculty and student training, providing industry specific inputs to update the curriculum and helping universities set up Centers of Excellence in Embedded Systems arena.

## RESOURCE PERSONS

### *CoreEL Technologies, Bangalore*

**Ms.Sadiya**, National Manager

**Mr.G.Prakash**, Lead Application Engineer

**Mr. R.Vijayakumar**, Manager-Univ. Relations

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**REGISTRATION FORM**

Name :

Qualification :

Designation :

Experience :

Department :

Organization :

Address for :

Communication

Phone No. :

Mobile No. :

E-mail id :

Accommodation required : Yes  No

Date:

Signature of the Applicant