



DEPARTMENT OF ELECTRONICS COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY

Faculty Development Programme

“Rapid Prototyping of Embedded Systems through Code Generation”

7th - 11th May 2018



PROGRAMME CO-ORDINATED BY

Dr. Bijoy A. Jose
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HEAD OF THE DEPARTMENT

Dr. Supriya M. H.
Professor, DOE, CUSAT

For details & form go to : doe.cusat.ac.in/news.php
<https://goo.gl/forms/EPizCqgq1IXAMa5x2>
Fee for the programme : Rs. 1000/-



Focus Areas

This Faculty Development Programme aims to teach how code generation can result in higher performance and faster prototyping. FDP includes practical sessions on software synthesis tools in our state of the art Digital Design laboratory facility. Industry trainers, researchers and faculty will guide on how to design using Xilinx, Mentor, SimpleScalar, etc. There will be keynotes from industry on how they are using Digital Design tools for hardware and software design.

Day 1 - Introduction

- 9am to 10am - Registration
- 10am to 11am- Inauguration
- 11.30am to 12.30pm- Keynote Address by Sujata Madhav, Global Head, Asset Leveraged Solutions, Analytics & Insights Unit, TCS
- 2pm to 3.15pm -Talk on "Vivado Design Flow : Creating an HDL Design"
- 3.30pm to 4.45pm - Talk on " Debugging using Vivado Logic Analyzer cores"

Day 2 - Lab (Digital Design)

- 9.30am to 11am - Embedded System Design with Custom IP
- 11.15am to 12.30pm - Introduction to High-Level Synthesis with Vivado HLS
- 2pm to 3.15pm - Creating a Processor System using Accelerator
- 3.30pm to 4.45pm - Use the generated accelerator to build a complete system
- Resource Person : Prakash G, Lead Application Engineer, CoreEL Technologies.

Day 3 - Lab (VLSI)

- 9.30am to 11am - Fundamentals of VLSI chip design methodology
- 11.15am to 12.30pm - HDL design, verification & synthesis
- 2pm to 3.15pm - Concepts of ASIC Full custom & Semi-custom methodologies
- 3.30pm to 4.45pm - Layout verification methodologies (DRC,LVS,PEX,DFM,PERC)
- Resource Person : Prakash G, Lead Application Engineer, CoreEL Technologies.

Faculty Development Programme

About the Department

Department of Electronics started in the year 1975 at CUSAT. The Department was envisaged as a postgraduate Department with Master's Degree and Doctoral programmes in frontier fields of Electronics. Realising the growing needs of trained man-power in various fields of Electronics, the University decided to start teaching programmes in the Department which was formally approved by the University Grants Commission and All India Council for Technical Education.

Day 4 - Lab (Digital Design)

- 9.30am to 11am - HDL Code generation from MATLAB functions for an adder by Pramod, Senior Application Engineer, CoreEL Technologies.
- 11.15am to 12.30pm - HDL Code generation from MATLAB functions for Sobel edge detection by Pramod, Senior Application Engineer, CoreEL Technologies.
- 2pm to 3.15pm - Application Synthesis for Heterogeneous Architectures by Dr.Nalesh.S, Assistant Professor, DOE, CUSAT.
- 3.30pm to 4.45pm - Introduction to Micro-architecture Modeling by Dr. Tripti Warriar, Assistant Professor, DOE, CUSAT.

Day 5 - Industry Talks

- 9.30am to 11am - Talk on "VLSI design at Wipro" by Sreejith S, Manager, Wipro Technologies.
- 11.15am to 12.30pm - Talk on "FPGA Emulation" by Sujith Mathew Iype, CTO, Ignitarium.
- 2pm to 3.15pm - Talk on "Healthcare domain systems" by Manoj Paul, President, SFO Technologies
- 3.30pm to 4.00pm - Concluding ceremony

FDP kit and food is included in the fee.