

#### **About Cadence Design systems:**

Cadence Design Systems, a leader in EDA technologies with a vision of being an indispensable partner of VLSI design, has been in the forefront of innovation since its inception in 1988. Cadence enables global electronic-design innovation and plays an essential role in the creation of today's integrated circuits and electronics. Customers use Cadence® software and hardware, methodologies, and services to design and verify advanced semiconductors, consumer electronics, networking and telecommunications equipment, and computer systems. The company is headquartered in San Jose, Calif., with sales offices, design centers, and research facilities around the world to serve the global electronics industry. The Cadence University Partner Program aims at developing trained and "design aware" manpower who can be readily employed by the electronic design industry. In India, over 300 institutes train their VLSI students on Cadence EDA platforms, allowing students to use the technologies and develop the skill sets required in the real world.

#### **About The College :**

Since its inception in 1995, R.M.K Engineering College has grown into a unique institution providing high quality academic environment. The college maintains close interaction with several R&D institutions. The National Board of Accreditation of AICTE has accredited seven programmes of the college. The college is affiliated to Anna University and is certified under ISO 9001-2008. Presently, the college offers 7 under-graduate programmes and 7 post-graduate programmes. The institution has excellent infrastructural facilities to support both undergraduate, postgraduate programmes and research activities.

The College, located at a distance of about 35 km from Chennai on the Chennai - Vijayawada National Highway (NH 5), is easily reachable both by road and rail.

#### **About Our Department :**

The Department of Electronics and Communication Engineering started in the year 1995 is accredited by the National Board of Accreditation (NBA). It has a BE course with an intake of 180 and ME programmes in Applied Electronics and VLSI Design. The Department has adequate infrastructure and well equipped laboratories with advanced design tools. It has well qualified faculty members with rich academic, industry experience and R&D exposure. The Department is a Recognized Research Center of Anna University, Chennai.

#### **Resource Person:**

**Mr. Uma Shankar Sahu**

Cadence Support Engineer,  
Cadence Design Systems India Pvt. Ltd,  
Bangalore

### **INFORMATION TO APPLICANTS**

#### **Eligibility**

Only open to faculty of ECE branch who are interested in VLSI Design and Researchers.

#### **Travel and Hospitality**

Participants can avail the college bus facility and working lunch will be provided.

**Bus route URL:** www.rmkec.ac.in/

**Registration Fee:** NIL

**Batch size:** Limited to 50 on the basis of  
First-come, first-serve

#### **Agenda:**

1. Introduction to Linux
2. Introduction to Cadence tools and mappings
3. Usage of Faraday and UMC libraries
4. Demo on digital labs
5. Demo on Analog lab

#### **Hands on:**

1. RTL coding and Synthesis for 10 bit NCO
2. Simulation of 10 bit NCO
3. PNR for 10 bit NCO using SoC Encounter
4. DRC ,RC extraction and back annotation
5. Schematic entry and layout of inverter using Virtuoso
6. Verification of laid inverter using Assura
7. Post layout simulation using Spectre
8. Differential amplifier design using steps 5-7
9. Research issues

#### **What you will learn:**

- The main objective of the workshop is to provide in-depth exposure on using Cadence EDA tools.
- Hands on in conducting EC2357 – VLSI Design Lab of Anna University syllabus.

#### **Potential Benefits from the Workshop:**

- 1. Hands on sessions on the Cadence EDA tools
- 2. Learning directly from the Industry experts.
- 3. Chance to register for free 3-user evaluation license (Trial period – 1 month)
- 4. Planning for future chip tape out
- 5. Usage of Faraday and UMC libraries
- 6. Enhancing your research facility

## **WORKSHOP ON VLSI DESIGN USING CADENCE EDA TOOLS**

**11<sup>th</sup> & 12<sup>th</sup> December -  
2012**

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

**R.M.K ENGINEERING COLLEGE  
R.S.M. NAGAR,  
KAVARAIPETTAI- 601 206.  
TAMILNADU, INDIA**



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**Convenor**  
Dr.R.Sivakumar, HOD/ECE

**Cordinator**  
Mr.Joshua Kumaresan, Associate Professor - ECE