

Laboratory Facilities

1. FPGA Boards (Altera, Xilinx, Digilent, Cypress)
2. PMODS
3. FPAAs
4. Microchip Can bus
5. Cadence s/w
6. Mentor Graphics
7. Quartus II
8. Digital Storage Oscilloscope
9. Digilent-Analog Discovery Kit

Workshops

Some of the broad areas covered in Workshops are

1. CMOS VLSI Design
2. Quatus II & Altera FPGA
3. Hands-on Mentor Graphics
4. Hands-on Cadence



Career & Internship Opportunities

Centre for University Industry Collaboration at College of Engineering, Anna University assists the students for securing placement and internship in reputed companies. Some of the companies in which VLSI Design students secure internships and placement are

1. Wipro
2. nVIDIA
3. Mbit Wireless
4. Caterpillar
5. HCL Technologies
6. IBM
7. Microsemi
8. Open Silicon Research
9. Infosys
10. Cognizant Technology Solutions (CTS)

FOR FURTHER INFORMATION PLEASE CONTACT

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DEPARTMENT OF
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ANNA UNIVERSITY, CHENNAI-600 025, INDIA



M.E VLSI DESIGN

Professor-in-charge: Prof.Dr.Y.V.Ramana Rao



VISION

To be recognized as a benchmark and trend setter in Electronics and Communication Engineering domain keeping in pace with rapidly changing technologies through effective partnership with reputed academic institutions, research organizations, industries and community.

Prologue

Digital technology completely revolutionized the quality and style of human living. It is virtually impossible not to stay away from this digital revolution. This is the reality after the advent of digital computers which can be thought of as a significant milestone to refer to eras as one before and after it. The power of this digital technology can be seen and felt from our capability in reducing distances between people, reaching the planets beyond Earth, extending human survival age etc. Benefits of digital technology can be seen in all fields such as Entertainment, Communications, Medicine, Sciences etc. This was possible only because of the technological developments in electronic industry through Very Large Scale Integration (VLSI) Technology in Integrated Circuit manufacturing. That one small step of Jack Kilby, the inventor of IC which is the main component in a digital computer, was a giant leap for the mankind in the quality of human life and existence.

Course Objectives

The aim of this course is to impart an all-round knowledge to the students in analysis and design techniques along with hardware development skills of VLSI circuits and systems using latest hardware and CAD software, on par with the current work in VLSI industry. A student of this course will have the necessary confidence to independently design and develop electronic systems useful to the society. Besides classroom learning, students get industrial exposure by way of industrial visits.

About the Course

M.E. VLSI DESIGN is a four semester programme offered at Department of ECE, College of Engineering, Anna University, Chennai. It has the right mixture of essential theoretical and practical content that is necessary to give a student the required expertise in VLSI DESIGN so as to meet Industry standards.

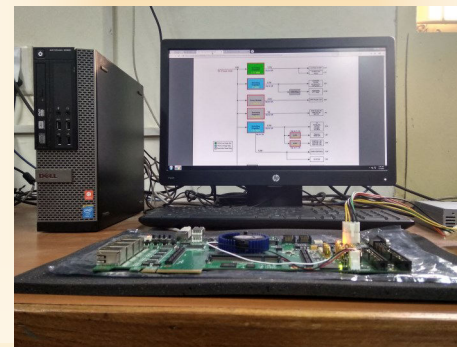


Course Curriculum

Curriculum is revised once in four years to keep pace with emerging trends and includes fundamental subjects, advanced designs and testing, electives and labs hands-on oriented towards hardware development. A student is required to complete 70 credits for earning a Masters degree. Prefinal and final semesters of this 4 semester programme have significant duration allocated for project work. Students are encouraged to take up internship in companies and carry project work in the final 4th semester.

Research Areas

1. Analog VLSI Design
2. Low Power VLSI
3. VLSI Signal Processing
4. Reconfigurable Computing
5. Evolvable Hardware
6. Signal and Image Processing
7. Solar Power Electronics



Project Work Phase I & II

Audit Courses I & II

Open Elective

Testing of VLSI Circuits

Low Power VLSI Design

Advanced Digital System Design

Research Methodology & IPR

Advanced Applied Mathematics

Analog Integrated Circuits

Digital CMOS VLSI Design