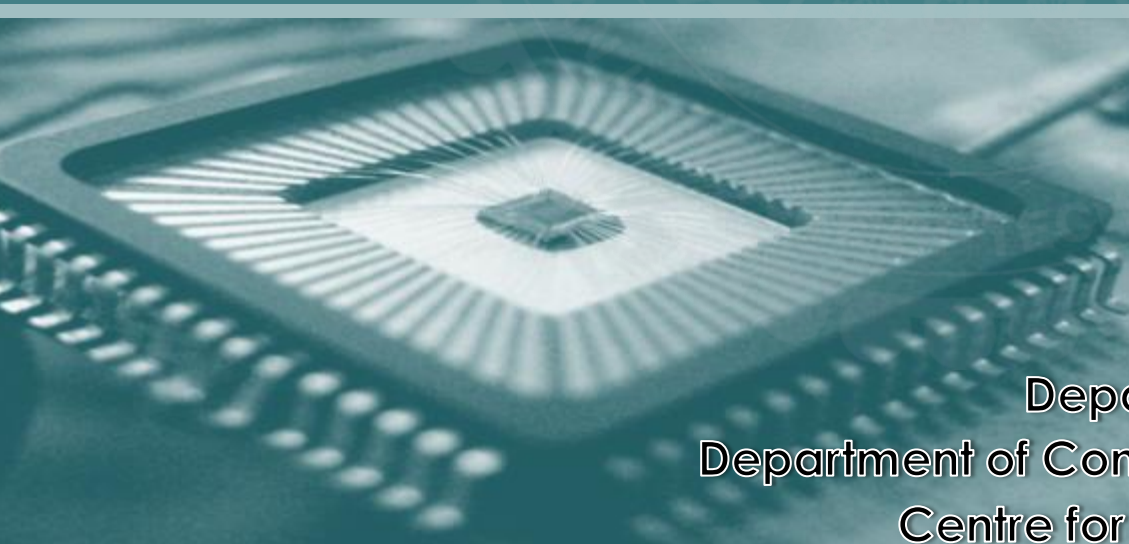


The logo for VLSI (Very Large Scale Integration) is rendered in a stylized, white, double-line font. The letters are bold and modern, with the 'V' and 'L' being particularly prominent. The background of the entire slide is a dark grey with a faint, circular watermark of the Indian Institute of Technology Delhi seal, which contains the text 'भारतीय प्रौद्योगिकी संस्थान दिल्ली' (Indian Institute of Technology Delhi) in Hindi and 'INDIAN INSTITUTE OF TECHNOLOGY DELHI' in English.

VLSI

Placement Brochure 2012 -13

INDIAN INSTITUTE OF TECHNOLOGY DELHI



<http://iec.iitd.ernet.in/>
<http://vdt.iitd.ernet.in/>

Department of Electrical Engineering
Department of Computer Science and Engineering
Centre for Applied Research in Electronics



VLSI PROFESSIONALS OF TOMORROW

I am happy to introduce our graduating batch of VLSI M.Tech. students as they prepare themselves for the forthcoming campus placement season. These students are looking forward to June 2013 when they will graduate and enter the exciting world of VLSI industry, after having gone through a rigorous program of two years.

The VLSI M.Tech. program at IIT Delhi is one of the most sought after VLSI program in the country. The program is known for its strong industry linkages and interdisciplinary curriculum. In this program, we are able to attract not only fresh engineering graduates, but also people with 2-3 years of industry experience who realize the value of constantly upgrading themselves in this rapidly changing field.

These students have already completed their core courses and have now started with their elective courses and major project work. We are confident that while the former has helped them build the required theoretical foundations, the latter will allow them to specialize in their chosen directions and to shape themselves professionally in distinct ways.

We invite you to Placements 2012 - 13 and hope that your participation would prove fruitful to all involved.

*Prof. Anshul Kumar
Coordinator of VDTT Program*



RECRUITING EXCELLENCE

Welcome to the VLSI placement season of 2012 – 2013. We believe that the two years of course work and project work at IIT Delhi would have equipped our students with the right skills, minds and attitudes to take on the pressures and demands of the corporate world.

The alumni of the VLSI group at IIT Delhi have been leaders and pioneers in academia and industry alike. They continue to make inroads in their respective areas of expertise and this is heartening for us to see. We believe that the graduating students of the 2012-13 batch, will be no different in their commitment towards excellence. I am sure your organization will provide them the necessary incentives and motivation to continue to excel, even as they add to your technical strength and diversity.

I take this opportunity to invite you to be a part of the placement season this year. We are sure this will be fruitful for our students as well as productive for your organization. We look forward to your active participation and hope that this will in turn strengthen the relationship that we as an institution enjoy with you.

*Dr. Shouri Chatterjee
Coordinator of IEC Program*

PLACEMENTS BROCHURE



HIGHLIGHTS

Oldest VLSI Program in the Country

Two M.Tech Programs

- Integrated Electronics and Circuits
- VLSI Design Tools and Technology

5 tapeouts by the M.Tech batch of 2008 -12

18 industry sponsored projects in 2009 - 12



VLSI @ IIT DELHI

The VLSI group at IIT Delhi has been one of the oldest and most prominent groups in this field in India. Since its inception in the year 1976 the group has been actively involved in research and development with numerous publications, patents and tape-outs to its credit.

With equal focus on VLSI Design, Technology, CAD and System Level Modeling the curriculum covers all facets of the VLSI industry with special focus on research problems. Research encompasses various domains that include System Level Design and Modeling, Computer Architecture, Analog and Mixed Signal Circuits, Nanoelectronics, Device Modeling and Power Devices, Biomedical Engineering, Signal Processing Applications, Machine Learning Algorithms, Communication Systems etc.

The VLSI group consists of distinguished faculty in this field renowned for their contributions through papers published in reputed journals and conference proceedings, book publications, guest lectures at various universities and conferences around the world and many other national and international awards. Many of them are associated with the editorial boards of leading journals and have consistently been part of the program committees of International Conferences in the VLSI domain.

The Doctoral and Masters Level students are handpicked from a narrowed down list of bright young students from all over India. The Professors also work very closely with many of the leading industries and research institutes in the country and work on research problems in collaboration with these organizations. This gives the students an opportunity to work on current issues pertaining to this field.

PLACEMENTS BROCHURE

COURSES

Technology Courses

- Microelectronics
- IC Technology

Circuit Design Courses

- MOS VLSI
- Integrated Electronics and Circuits Laboratory
- Analog Integrated Circuits
- Physical Design Laboratory
- Memory Design and Testing
- Mixed Signal Circuit Design
- Issues in Deep Sub-Micron Design
- RF CMOS Design

System Level Design and CAD Courses

- Synthesis of Digital Systems
- Computer Aided Design for VLSI
- System Level Design and Modeling
- Digital System Design Laboratory

Other Para VLSI courses

- Architectures of High Performance Computers
- Digital Signal Processing
- Bio-Medical Electronics
- Neural Networks

Special Short Course Modules

- VLSI Testing (Auburn University)
- Low Power VLSI Design Techniques (AU)
- Compact Device Modeling (IBM)
- Special Module in Nanoelectronics

RESOURCES

Laboratories

- VLSI Design Lab (EE)
- VLSI Design Lab (CSE)
- Digital Hardware Design Lab
- Cyber Lab
- VDTT Lab

Tools and Design Software

- Cadence Design suite
- Synopsys Synthesis Tools
- Mentor Graphics Catapult C Synthesis
- Mentor Graphics IC Nanometer Design Tools
- MAGMA Physical Design Tools
- ATLAS device simulation framework
- Xilinx Foundation Series

Library

- IITD Central Library
- VDTT Library

Fabrication Facilities

- IC Fabrication and Testing facility at the CARE for 3 micron technology

Past/Ongoing Industrial Collaborations/ Projects

Intel, Texas Instruments, STMicroelectronics, IBM, Freescale, EADS, Calypto Design Solutions, Cypress Semiconductors, NXP Semiconductors, Synopsys, SiRF, Philips Research Netherlands, National Semiconductors, Nokia Research Germany, Cadence Design Solution.

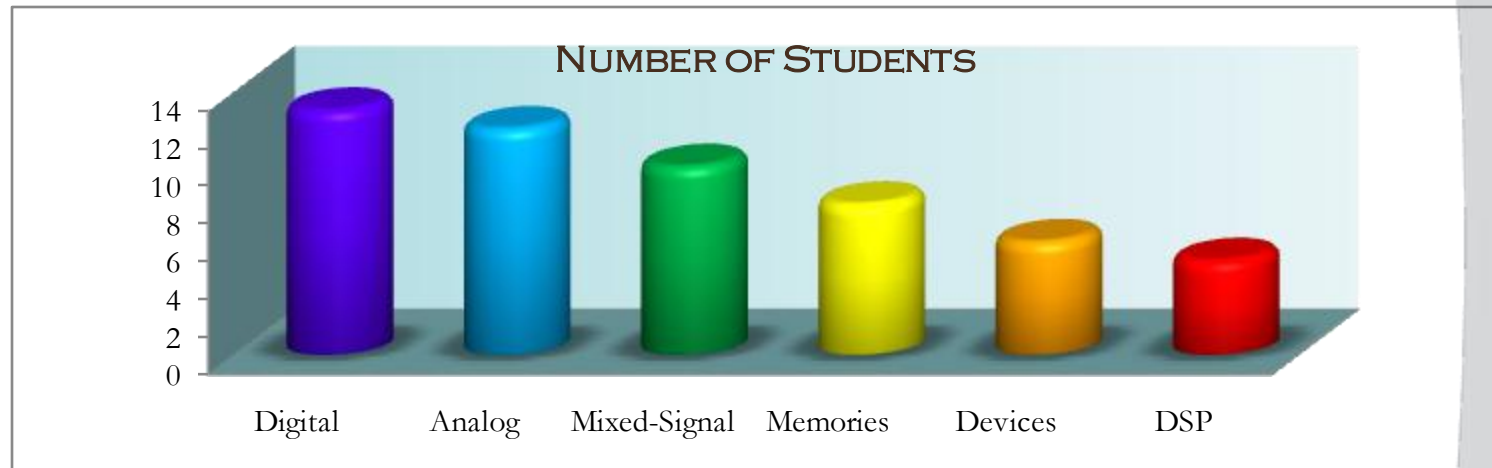
PROJECTS UNDERTAKEN BY STUDENTS AS PART OF ACADEMIC COURSES

1. RISC based 32-bit general purpose processor.
2. Low power 8Kb SRAM design in 90nm.
3. RTL implementation of Built in Self Test & Repair for 64Kb memory.
4. Low Output Impedance Variable Gain Amplifier.
5. Design of optimized time constrained scheduling algorithm.
6. Frequency synthesizer for Digital Storage Oscilloscope.
7. X band Voltage Controlled Oscillator.
8. Verification of AMBA bus model using System Verilog.
9. 900 MHz All Digital Phase Locked Loop.
10. Designing a pipe-lined MIPS simulator.
11. Intelligent usage of DSP48 hardmacro to implement FFT with optimized area and high performance.
12. Content Addressable Memory with 8b input, 32b output and 2K address locations in 90nm technology.
13. Power amplifier with PAE 30-40% at 2.4GHz.
14. Developing Support Vector Classification & Support Vector Regression in C, CUDA & on FPGA.
15. Extending SimpleScalar simulator for a pipelined multi-issue architecture.
16. Design of 2.4 GHz frequency synthesizer.

PLACEMENTS BROCHURE

STUDENT PROFILE 2011 - 13 BATCH

An exhaustive profile of the students of the current batch is presented in the attached leaflet. Below is a broad overview of their interests and specializations.



RECRUITMENT PROCESS

Companies that wish to participate in the recruitment at IIT Delhi will be required to indicate the profile, preferred skill set and approximate Cost To Company (<http://tnp.iitd.ac.in/>). Based on this information, all the participating companies will be given slots beginning from Dec 1st. Companies can choose to give a pre-placement presentation, based on which students will opt for a company of their choice. Companies will then be allowed to shortlist from the resumes of the interested students and conduct tests and interviews for these students. The procedure is left to the company's choice. All facilities and logistics for the recruitment will be arranged by the students here at IIT Delhi. Please refer attached letter for complete procedure.

PLACEMENTS BROCHURE

FACULTY PROFILE

Department Of Electrical Engineering

Prof. (Mrs). B. Bhaumik	Analog, Mixed Signal Circuit Design, Biological Neural Networks.
Prof. G. S. Visweswaran	Analog, Mixed Signal Circuit Design.
Prof. R. K. Patney	Signal Processing, Computer Architecture.
Prof. M. Jagadesh Kumar	Device Modeling, Device Technology.
Prof. Jayadeva	CAD for VLSI, VLSI Design, Neuromorphic Engineering.
Dr. Shouri Chatterjee	Analog, Mixed Signal Circuit Design, Filter Design and theory.
Dr. Anuj Dhawan	Nanomaterials, Plasmonics, Photonic devices, Biosensors, Biomedical devices.
Dr. Mukul Sarkar	Solid State Imaging, CMOS image sensors, Neuromorphic Imaging,

Department Of Computer Science and Engineering

Prof. M. Balakrishnan	CAD for VLSI, Hardware-Software Co-design, Embedded Systems.
Prof. Anshul Kumar	CAD for VLSI, Computer Architecture, Embedded Systems.
Dr. Preeti R. Panda	System Modeling, Embedded Systems, Memory Synthesis, CAD for VLSI.
Dr. Kolin Paul	Reconfigurable Computing, FPGAs, Computer Architecture.
Dr Smruti Ranjan Sarangi	Computer Architecture, Cloud & Service Oriented Computing, Pervasive Computing.

Centre for Applied Research in Electronics

Prof. R. Bahl	Sensor System Design and Simulation, Digital Signal Processing.
Prof. Sudhir Chandra	Microelectronics, IC Technology.
Prof. Arun Kumar	Digital Signal Processing, Communication Systems.
Prof. B. S. Panwar	Simulation and Subsystems, Remote Sensing.

RECRUITERS IN THE PAST

- Intel
- NVIDIA
- Cisco
- Texas instruments
- Magma
- Synopsys
- Analog Devices
- IBM
- AMD
- Cypress Semiconductors
- Cosmic Circuits
- NXP Semiconductors
- Calypto Design Systems
- Nokia
- Philips Research
- Apache Design Solutions
- ST Microelectronics
- Qualcomm
- Rambus
- Sequence Design
- Maxim IC
- Mentor Graphics
- Synfora IEC
- Freescale Semiconductors
- Ikanos Communications
- Juniper Networks
- Brocade
- Sun Microsystems
- Tejas Networks
- TANMIC
- Atrenta
- Mechatronics
- Aptina

PLACEMENTS BROCHURE

TRAINING AND PLACEMENT CELL

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Ms. Anishya Madan
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Computer Science Department
VDTT Program Coordinator

Dr. Shouri Chatterjee
Electrical Engineering Department
IEC Program Coordinator

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Ankur Singhai
Second Year, IEC
9818956244

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