

A Self-Sponsored  
One Week Short Term Course  
on  
Advanced Analog and Digital  
VLSI Design



**Dec. 26-30, 2017**

**Venue:**

Department of Electronics Engineering,  
S. V. National Institute of Technology,  
Surat – 395007. Gujarat. India  
Ph:0261-2201552  
Website: [www.svnit.ac.in](http://www.svnit.ac.in)

**Coordinators:**

Prof.(Dr.) A.D.Darji, Prof.(Dr.) Z.M.Patel,  
Prof. P.J. Engineer, Prof.(Dr.) R.N.Dhavse

**REGISTRATION FORM**

One Week Short term course on  
Analog and Digital VLSI Design  
26-30 Dec. 2017

Date: \_\_\_\_\_

NAME: \_\_\_\_\_

DESIGNATION: \_\_\_\_\_

QUALIFICATIONS: \_\_\_\_\_

ORGANIZATION: \_\_\_\_\_

POSTAL ADDRESS: \_\_\_\_\_

EXPERIENCE: \_\_\_\_\_ Yrs

EMAIL: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

PAYMENT DETAILS:

DD No. \_\_\_\_\_ Date: \_\_\_\_\_

Rs. \_\_\_\_\_ Bank: \_\_\_\_\_

Signature and Seal of Head of Institution (below)

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Scanned copies of completed form and DD are to be sent

(by E-mail only) to:

[zpatel.75@gmail.com](mailto:zpatel.75@gmail.com) on or before **15<sup>th</sup> Dec., 2017**

DD can be drawn in favour of “Director, SVNIT-CCE,  
Surat” payable at Surat. The final selected candidates will  
be informed through E-mail only by **20<sup>th</sup> Dec. 2017.**

**Speakers**

> Faculties from IITs and NITs

**Who can attend**

> Engineering students (UG/PG/PhD)  
> Academicians from engineering colleges  
> Persons from related industries

**Pre requisites**

> Basic knowledge of Electronic Circuits and Devices  
> Familiarity in programming with Hardware  
Description Languages such as VHDL

**Course Fee**

UG/PG/PhD Students	Rs. 1500
Faculties (from Engineering Inst.)	Rs. 2500
Persons from Industry	Rs. 3000

**Accommodation and food**

Furnished accommodation will be provided to outstation candidates upon prior request in the hostel's guest house of the SVNIT on **payment basis**. The room tariff is Approx. **Rs. 300 (for AC)** and **Rs. 200 (for non AC)** per person per day on twin sharing basis. Only **breakfast and tea** will be provided to the participants. **The participants will not be paid TA and DA.**

**Contact Persons**

- (1) Dr. Z. M. Patel  
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- (2) Dr.R.N. Dhavse  
Mob. 9723815535, Email: [dhavserasika@gmail.com](mailto:dhavserasika@gmail.com)

**Dept. of Electronics Engineering,**  
S. V. National Institute of Technology,  
Ichchhanath, Surat- 395007. Ph: 0261-2201552

One Week Short Term Course on  
**Advanced Analog and Digital  
VLSI Design**

**About the Program**

The microelectronics and VLSI field offers exciting growth opportunities for engineers who are interested in electronic design fundamentals, VLSI design, optimization and verification. VLSI professionals are always in high demand in the fast-changing chip designing industry. Besides deeper level of subject knowledge, successful VLSI chip designer requires practical skills and hands on experience using state of the art EDA tools. This short course is planned exactly to cater these needs of VLSI designer. This course aims at preparing manpower in the front-end design, logic synthesis, timing analysis, physical design, analog and mixed signal CMOS design, CAD tools development and hardware verification and validation. Some major highlights of Course contents are

- Analog CMOS Design
- Single Stage and Multistage Amplifiers
- Current Source and Sinks
- Op-Amp Circuits
- Data Converters (ADCs and DACs)
- Digital VLSI Design flow
- Digital Integrated Circuits
- HDL and Digital Simulation
- FPGA and Reconfigurable Hardware
- Design of Digital Systems using HDL

**Skills to be Gained**

After completing this workshop, you will be able to

- Get intuitive understanding of CMOS Analog Circuits and learn various design techniques and design trade off.
- Build large and complex Circuits using analog building blocks
- Design digital integrated circuits
- Learn Digital system design using ASIC and FPGA implementation flow
- Gain practical understanding of
  - Simulation and Evaluation Analog VLSI circuits in **Cadence** and **Mentor Graphics**
  - Performance evaluation of Digital Integrated Circuits using **Synopsys** and **Cadence**
  - Working of EDA tools for ASIC design from description to final chip tape out
  - FPGA implementation of digital system using **Synopsys & Xilinx tools** and **Advance FPGA Kits**
  - Process of Synthesis, Mapping, Placement and Routing for IC chip.

**About SVNIT**

The Sardar Vallabhbhai National Institute of Technology was established in 1961 as one of the RECs. University Grants Commission, has declared the Sardar Vallabhbhai Regional College of Engineering & Technology (SVREC), Surat to Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat with status of “Deemed University” with effect from 4th December 2002. The

Institute has been granted the status of ‘Institute of National Importance’ w.e.f. Aug. 15, 2007. At present, the Institute is offering Six UG Programmes, Eighteen PG Programmes and Three M.Sc. Five Years Integrated Programme. PhD programmes offered by institute covers various streams of engineering and applied sciences.

**About Electronics Engineering Department**

In the year 1983-84, the UG program in Electronics Engineering was introduced. Electronics Engineering Department is conducting two M. Tech. programs with specialization in “Communication Systems” and “VLSI & Embedded Systems”. The department also offers PhD programme to enhance our research endeavor. VLSI Lab in Electronics Engineering Department contains the well-established research facilities in the field of VLSI design both in analog and digital domain. Well known EDA tools from reputed vendors such as **Synopsys, Mentor Graphics, Cadence, Xilinx** and **Altium** are available for front-end and back-end VLSI design flow as well as for device simulation. EDA tools are equipped with Cell Libraries from TSMC, SCL and UMC.

**NOTE:**

Only 30 participants will be selected on a first come first served basis. Intimation of selection will be only through email. Limited accommodation would be provided on payment and first-cum-first-serve basis.



**Dept. of Electronics Engineering,  
S.V. National Institute of Technology, Surat-7.**