# CHAROTAR UNIVERSITY OF SCIENCE & TECHNOLOGY Chandubhai S Patel Institute of Technology V.T. Patel Department of Electronics & Communication

### **Report Summary**

# One Day Workshop On Design and Simulation of CMOS VLSI Circuits

Dates : - 22nd August, 2023

No. of Participants: - 55

Students			
55			

**Resource Person:** 1.Dr.Arpita Patel.

Associate Professor, EC Department, CSPIT, CHARUSAT

2.Dr.Pallavi Darji

Associate professor, EC Department, DDU, Nadiad

### **Brief of Workshop:**

The goal of this workshop is to enhance the skill of the participants in the VLSI Technology especially in Verilog Programming. Very-large-scale integration (VLSI) is the process of creating an integrated circuit (IC) by combining thousands of transistors into a single chip. Verilog, standardized as IEEE 1364, is a hardware description language used to model electronic systems. It is most commonly used in the design and verification of digital circuits at the register- transfer level of abstraction. This workshop will be a platform for the students to learn LTSpice Tool from the scratch. LTSpice is a SPICE-based analog electronic circuit simulator computer software, produced by semiconductor manufacturer Analog Devices. It is the most

widely distributed and used SPICE software in the industry. This would provide an extensive opportunity to the participants for getting knowledge of LTSpice Tool. Under this perspective, aim of this workshop is to discuss in depth about LTSpice Tool and cater to the needs of students, faculty members and practicing engineers.

## VLSI CLUB-ChipXplorers

V T Patel Department of Electronics & Communication Engineering

organizes

**One day Hands on Workshop** 

# Design & Simulation of CMOS VLSI Circuits

using open source EDA tool





Chandubhai S. Patel
Institute of Technology
(A Constituent Institute of CHARUSAT)

V. T. Patel Department of Electronics & Communication Engineering

Organizes

ONE DAY HANDS ON WORKSHOP

ON

DESIGN & SIMULATION OF CMOS VLSI CIRCUITS

August 22, 2023



CHAROTAR UNIVERSITY OF SCIENCE AND TECHNOLOGY CHANGA - 388421, DIST: ANAND, GUJARAT

Scan For Registration



#### About the Workshop

This workshop will be a platform for the students to learn LTSpice Tool from the scratch. LTSpice is a SPICE-based analog electronic circuit simulator computer software, produced by semiconductor manufacturer Analog Devices. It is the most widely distributed and used SPICE software in the industry. This would provide an extensive opportunity to the participants for getting knowledge of LTSpice Tool. Under this perspective, aim of this workshop is to discuss in depth about LTSpice Tool and to design and simulate various CMOS based VLSI circuits.

#### Technical Contents

The Workshop would cover following:

- ➤ Introduction to Open source EDA Tool
  ➤Schematic Capture and simulation of CMOS inverter with various technology node
- ➤ Performance, Power & Area analysis of various low power VLSI circuits
- ➤ Analysis of V-I characteristics of various CMOS based circuits

#### Resource Persons

Dr. Arpita Patel, Associate Professor, CSPIT Dr. Pallavi Darji, Associate Professor, DDU Nadiad

#### Chief Patron

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#### Convener

Dr. Upesh Patel, Head, EC Department CSPIT, CHARUSAT

#### Coordinator

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