SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution| Accredited with 'A' Grade by NAAC)

PULLOOR, KARIAPATTI – 626 115.

DEPARTMENTOF ELECTRICAL AND ELECTRONICS ENGINEERING

Activity Supports Employability/Entrepreneurship/Skill Development

Course Code : 15UEE910

Course Name : VLSI Design and Architecture

Academic Year : 2020 – 2021 (EVEN) **Class** : III Year

Category	Employability and Skill Development
Activity	• Simulation based on the design of combinational and sequential logic circuits • HDL programming for digital design
Outcome	The remarkable growth of the electronics industry is primarily due to the advances in large-scale integration technologies. With the arrival of **VLSI designs**, the number of possibilities for ICs in control applications, telecommunications, high-performance computing, and consumer electronics as a whole continues to rise. Presently, technologies like smart phones and cellular communications afford unprecedented portability, processing capabilities, and application access due to VLSI technology. The forecast for this trend indicates a rapid increase as demands continue to increase. Overall, VLSI IC design incorporates two primary stages or parts: 1. Front-End Design: This includes digital design using a hardware description language, for example, Verilog, System Verilog, and VHDL. Furthermore, this stage encompasses design verification via simulation and other verification techniques. The entire process also incorporates designing, which starts with the gates and continues through to **design for testability**. 2. Back-End Design: This consists of characterization and CMOS library design. Additionally, it involves fault simulation and physical design. This Course will be very useful for the students to be employable in Electronic sector by improving the HDL programming skills which was gained through this activity.

Course Instructor

HoD/EEE