

**Online training on VLSI Design Using VHDL**  
**Learn VLSI design using VHDL from scratch**  
**Duration: 6 weeks | Certified Training**

### **About VLSI DESIGN USING VHDL Training**

The Internshala Online Training Program on VLSI Design with VHDL is a 6 weeks training program in the fields of VHDL Basics, Combinational Circuits, Sequential Circuits and Advanced Circuits. In this training, students will learn VHDL, a hardware description language for VLSI design. Students will be learning about simulating and synthesizing ICs using VHDL. After going through rich content and multiple illustrations, students would be able to simulate the demonstrated ICs using VHDL. Following are the detailed table of contents of the training:

### **Table of Contents**

1. **Basics:** *Learn about VHDL and its syntax. Study about VHDL code structure and generate test bench.*
  - Introduction
  - DSCH
  - Logic Gates
  - Combinational Circuits
  - Practice Set 1
  - Sequential Circuits
  - Practice Set 2
  - Installing ModelSim
  - Using ModelSim
  - VHDL: Intro and Syntax
  - VHDL: Code Structure
  - Generating Test Bench
  - Practice Set 3
  - Resources
  
2. **Combinational:** *Study about Library and different data types. Learn how to use logical operators.*
  - Library & Datatypes
  - Data types in detail
  - Operators
  - Concurrent Code
  - Using Logical Operators
  - Concurrent Statements
  - Using When/Else
  - Using With/Select/When
  - Resources
  
3. **Sequential:** *Learn about Sequential coding and statements. Also, understand the key concepts of clocking and resources.*

- Sequential Code
- Sequential Statements
- Using if-else
- Using case
- Signal vs. Variables
- When vs. Case
- Clocking
- Resources

4. **Advanced:** Learn about Structural Model and how it is used.

- Structural Model
- Using Structural Model
- Carry Look Ahead
- RAM
- ROM
- Resources

Excited to learn VLSI, click [here](#) to sign-up for the training.

#### FAQs

##### **What is this training program about?**

This is an online training program in the field of VLSI Design using VHDL. Students will be trained in the basics of VLSI, VHDL, Combinational Circuits, Sequential Circuits and Advanced Circuits.

##### **What are the timings of this training program?**

As this is a purely online training program, students can choose to learn at any time of the day. We will recommend a pace to be followed throughout the program, but the actual timings can be decided by students according to their convenience.

##### **Will there be a certificate provided at the end of the training?**

Yes, a certificate will be provided by Internshala upon completion of the training. Students may download a soft copy of the certificate through our portal.

##### **Who can join?**

College students and recent graduates are eligible to join this program.

##### **How will the training be imparted?**

Training will be delivered using state of the art online tutorials and interactive exercises.

##### **How would you solve my doubts and queries?**

We shall have an online doubt clearing system (live chat + forum) in place to address your doubts.

##### **What is the duration of this training?**

This is a 6 weeks training.

##### **Will there be any practical aspect to this training?**

Yes. You will have the option of designing all the circuits demonstrated in this training on your own. The problem statement and solutions for these will be provided.

**I am a beginner/advanced user, is this training program for me?**

This program would be better suited to beginners who have no prior knowledge of web development.

**Are there any pre-requisites for joining this program?** This program is for beginners. There are no pre-requisites.

**What are the benefits of joining this training program?**

The demand of VLSI design engineers is growing at a rapid pace, as the IC design business is growing at fast pace in India. A bachelor's degree in electronics, electrical or computer science and, of course, a good understanding of the topic is all it takes to launch your career in this fast-growing industry. Students who sign up for the program will be trained in the basics of VLSI, VHDL, Combinational Circuits, Sequential Circuits and Advanced Circuits. At the end of the training, the student would have enough skills to design circuits in VLSI using VHDL language.

**What would be training content?**

The training will be based on the basics of VLSI, VHDL, Combinational Circuits, Sequential Circuits and Advanced Circuits.

**Will I be able to download the training content?**

If you sign up for this course as an individual course, you can download entire course content towards the end of your training. The download link will be available on your home page 18 days after the start of your training till the end of your training.

**Can the material be used by a group of students?**

No. These trainings are meant for individual users. Multiple users will not be allowed to access the portal using the same account.

If you have any queries or doubts regarding the training, please write to us at [trainings@internshala.com](mailto:trainings@internshala.com) or call us on +91 85860 80747.