



The FPGA and VHDL courses covers the design and implementation of digital circuits using FPGA devices and the VHDL hardware description language.

These courses are typically targeted at professionals in the field of electronic engineering, and are designed to provide them with the skills and knowledge they need to design and implement complex digital systems using FPGAs and VHDL.

In an FPGA course, participants will learn about the architecture and features of FPGA devices and how to implement digital circuits using them. The design flow of FPGA-based systems and the use of hardware description languages, such as VHDL, will also be covered. In the other hand, a VHDL course will focus on the specific VHDL hardware description language, including its syntax, data types and design methodologies.

**VHDL Language basics** The VHDL Language Basics course is designed to provide professionals with a comprehensive understanding of the VHDL hardware description language. The course covers basic concepts with VHDL, VHDL syntax, combinational logic in VHDL, synchronous logic in VHDL, synthesis and testbenches, and hierarchical conception.

**FPGA Architecture** These topics are essential for the development of digital circuits and systems using VHDL, and are applicable to a wide range of applications, including the design of FPGA-based systems. The course is suitable for professionals with a basic understanding of digital design concepts, and is designed to provide a strong foundation in VHDL language development, architecture and instruction set for attendees. They will learn the basics of FPGAs, including RTL, assembly code, simulator, writing and running assembly code, and basic logic programming. The course covers topics such as interfacing and exception handling, memory management, multiprocessing and concurrency, performance optimization, hardware design, and future developments. Hands-on experience will be provided through 18 sessions.  
**Advanced VHDL Projects** Hands-on experience will be provided through 18 sessions. If you already know how to use inquiry