

Career Opportunities:

VLSI Front End Designer :

The role of the front end engineer is to understand the specifications of the customer and based create the VLSI Design through RTL Coding or Schematic Drawing. The design is synthesized as ASIC Hardware components or Transistor LUTs in FPGAs. The designed model is verified for correctness and refined until the optimized design is obtained.

VLSI Backend Engineer :

The role of the Backend engineer is to manufacture and fabricate the Integrated Chip. The various steps involved are Floorplanning and Placement in which the designer assign particular locations for the hardware components and the connections are established between them. After Physical the Integrated chip is manufactured.

Analog and Mixed VLSI Engineer :

Analog and mixed signal design engineers are responsible for evaluating various mixed signal techniques for dynamic and static power reduction. A strong understanding of circuit simulation and circuit layout are required for this position, as is a knowledge of bipolar, CMOS, passive structure, and interconnect failure modes. The design engineer should also be proficient in computer aided design (CAD) tools including Spice simulation, post processing, and schematic capture.

VLSI Verification & Test Engineer:

The role of the VLSI verification engineer include functional check and verification of the abstract model created in RTL. It includes finding functional bugs and fixing it using test benches. Other duties include Performance Verification and Power Usage Verification and Clocking Verification.

VLSI Fab Engineer:

The role of the VLSI fabrication engineer is to maintain and control the VLSI IC fabrication process. The duty of the Fab engineer is to collect the design file from the customer and fabricate the IC according to the specifications. The fabrication process involves etching the design pattern on to the Silicon Wafer. From Wafer preparation to packaging of the IC, the engineer need to look after the process.