

Introduction to VLSI

VLSI $\rightarrow$ Very Large Scale Integration.

$\hookrightarrow$ millions of transistors.

$\hookrightarrow$ CMOS technology.



Complementary Metal Oxide Semiconductor.

$\hookrightarrow$ high packing density

$\hookrightarrow$ very low power consumption.

→ VLSI design flow specifies process from a design / market requirement till the outcome through fabrication.

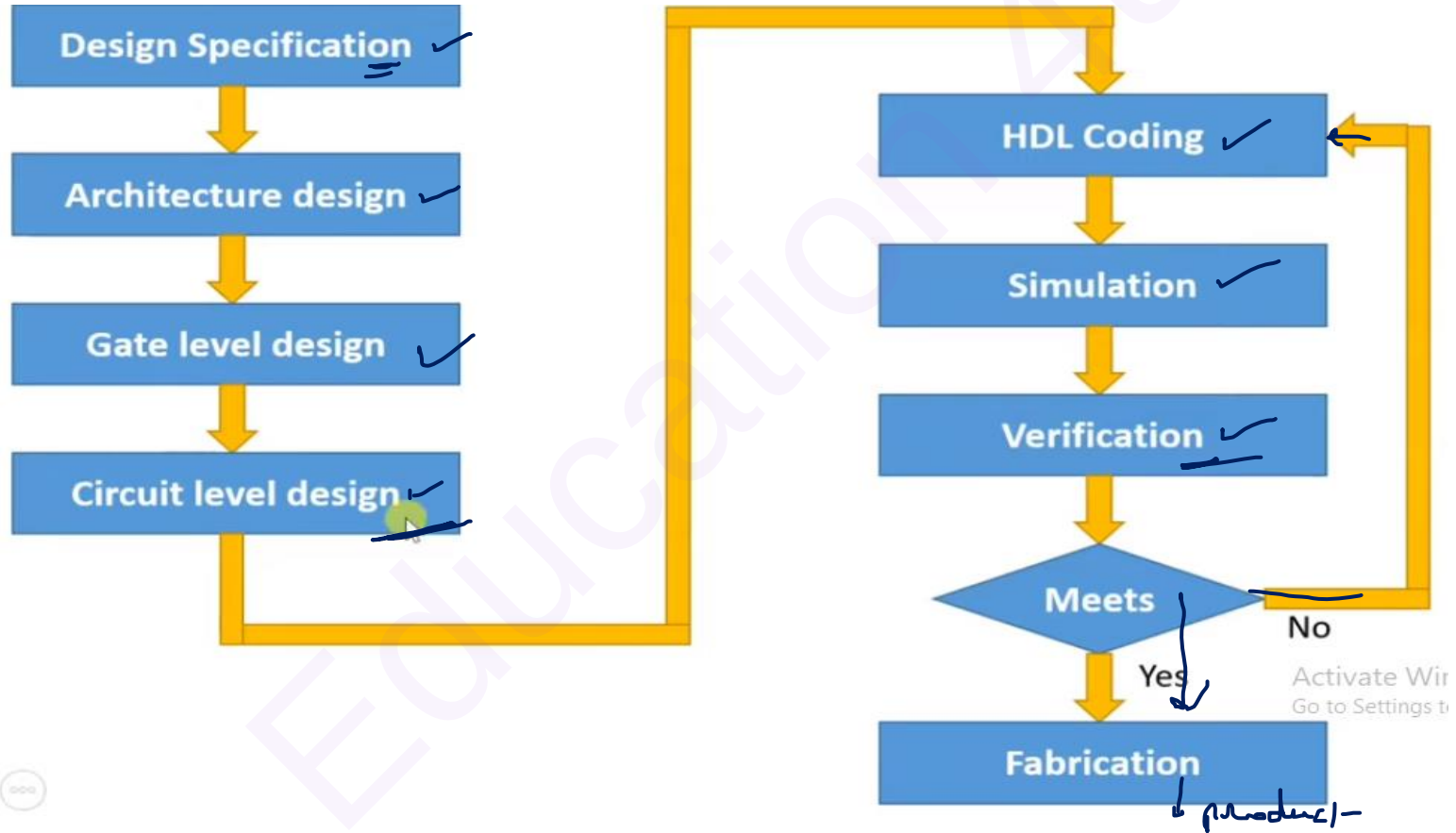
→ Design specification considers the current / market requirement.

→ Architecture design:- outer shape / expectation is created.



→ Gate level design:- using AND, OR, NOT gates the circuit (logic) is going to be built.

VLSI Design flow



→ Ckt level design → consists of transistor diggramy.

→ HDL → Hardware Description Language.

↳ VHDL (Very High Speed IC HDL)

↳ Verilog HDL

→ Simulation is the process of verifying the code with i/p.