

Xcelerium Digital Design Training 2025 – Training Breakdown

1. Training Duration and Structure

- Total Duration: 4 Weeks (Monday to Friday)
- Daily Schedule:
 - Morning Coaching (09:00 – 12:00) – Lectures, discussions, and demos.
 - Afternoon Lab (12:00 – 04:00) – Hands-on coding/design sessions.

2. Weekly Breakdown

Week 1 – Productivity Tools

- C programming
- Linux essentials, shell scripting, Git/GitHub, MakeFile, TCL Scripting.
- RISC-V ISA, Spike
- Documentation practices (Markdown, reporting)

Week 2 – Digital Systems Design

- Fundamentals of digital logic & HDL.
- RTL design using SystemVerilog.
- FSM, Datapath & Controller

Week 3 – Computer Architecture

- Introduction to RISC-V ISA.
- Microarchitecture basics (pipeline, memory).
- Advanced Computer Architecture Concepts & implementation

Week 4 – Verification

- Verification methodologies and testbench design.
- UVM Basics
- Simulation tools (Verilator, GTKWave).

3. Evaluation and Expectations

- Attendance: 90% required.
- Weekly Quizzes: Knowledge and coding challenges.
- Assignments: Lab submissions evaluated for correctness & clarity.
- Final Project: Team-based design + verification.

4. Career Pathway

- Post-Training Internship: 30k – 40k/month on proprietary projects.
- Full-time Roles: 130k – 150k/month (Digital Design / Verification Engineer).