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.
* RISCV 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).