RISC-V Toolchain and Compiler Optimization Techniques (LFD113x)

As RISC-V has made it easier to bring up processor chipsets, the need for compiler engineers in the RISC-V ecosystem has increased. There is an implicit need for toolchain experts who can help RISC-V vendors gain an edge over competitors with their expertise in compilation technologies. Learning about internals of the toolchain, building and debugging RISC-V applications will allow you to work with thousands of companies that are building the latest hardware technologies.

Duration: 2 Days

Prerequisites for this course

- We presume the student will have familiarity with C/C++ applications, how programs are compiled to make them executable, as well as the basics of computer science (Systems level 101 courses). Learners should also be familiar with basic git commands, as well as know-how to install various Linux packages.
- For chapter 3, an x86-64-based Linux machine is required.

Outline for this course

Chapter 1 – Compiler Toolchains

Chapter 2 – Introduction to Compiler Optimizations

Chapter 3 – Building RISC-V Applications

Chapter 4 – Debugging Techniques