

Xilinx University Program Workshop on Designing Xilinx Zynq-based Systems with SDSoC

The Zynq-7000 all-programmable SoCs enable extensive system-level differentiation, integration and flexibility through hardware, software and I/O programmability.

This hands-on workshop covers the development of high-performance ARM + FPGA applications using Zynq devices, working entirely within a software development environment. After a very brief introduction to the Zynq architecture, we will focus on the application development process using SDSoC to target heterogeneous compute platforms like Zynq.

Lab exercises will reintroduce attendees to the familiar design steps of identifying program hot-spots, optimizing code to improve performance and cross-compiling the application. We will use SDSoC to build not just the application binaries, but also hardware accelerators in programmable logic that communicate with the CPU and external memory through an application-specific data motion network comprised of DMAs, interconnects and other standard IP blocks. You will instrument code to measure application performance and estimate overall speed-up of moving code from software into programmable logic.

Who should attend?

Professors who are familiar with Xilinx all-programmable technology and wish to find out about the new SDSoC design methodology

Skills to be gained

- Learn how to rapidly architect bare-metal and Linux embedded systems targeting the Xilinx All Programmable Zynq SoC using Xilinx SDSoC
- Understand the methods available to identify software hotspots and measure system performance
- Implement hardware accelerators and custom IP for a Zynq embedded system using the SDSoc flow
- Build bare-metal and Linux images and test on hardware
- Use the System Debugger's capabilities to control the execution flow and examine memory
- Create your own custom platform

There is a charge to attend the workshop. The charge will be \$100 which will cover the cost of meals during the workshop and the attendees will be able to take the ZYBO board and accessories (academic list price of \$145) back with them.

Please register at <http://www.xilinx.com/support/university/workshops/schedule.html>

You will be guided on how to pay the registration fee in the confirmation email.