



SDS1: Embedded SDSoc Development Environment and Methodology

SDS1: SDSoc entorno de desarrollo y Metodología

Language: The classes are in Spanish, but working material is in English (available also in English at In-Company).

Who Should Attend? Hardware, firmware, and system design engineers who are interested in quickly adding hardware acceleration to a software system.

Duration: 16 h (2 days, 8 h/day).

Prerequisites: Knowledge of Essential Embedded Systems Design course (EM02) or equivalent experience with embedded systems design and the Vivado Design Suite. C/ C++ programming experience. Familiarity with the Vivado Design Suite, notions Vivado-HLS* tool, and SDK.

Introduction: This course is organized to help new designers to the SDSoc development environment to quickly create accelerated systems. The focus is on utilizing the tools to accelerate an existing design at the system architecture level, not on the optimization of the accelerator microarchitectures*.

*For the acceleration of microarchitecture is strongly recommended the Vivado-HLS course (HLSI).

Skills Gained: After completing this training, you will know how to:

- Identify candidate functions for hardware acceleration by using the TCF profiling tool
- Use the System Debugger's capabilities to control the execution flow.
- Move designated software functions to hardware and estimate the performance of the accelerator and the effect on the entire system

- Override tool defaults to improve the performance of the individual accelerators and the overall system.
- Analyze the tradeoffs and advantages of performing a function in software versus PL
- Effectively select and design an interface between the Zynq PS and programmable logic (PL) that meets project goals

Material: Each student will have a computer with the development tools (SDSoC 2017.x), documentation, repository whit exercises (and solutions) and a FPGA development board for exercises that require it.

Related Courses:

EMB01: Embedded Systems Design with Xilinx FPGA (this course).

EMB02: Advanced Features and Techniques of Embedded Systems Design

HLSI: High Level Synthesis for Xilinx FPGAs using Vivado-HLS

Dates, location and registration:

Visit www.electratraining.org

Price & Course Packs and Discounts:

SDSI: 975 €

HLSI: 950 €

HLSI + SDSI: 1550€ (-20%)

HLSI + SDSI coming from Xilinx Embedded Courses (EM01 or EM02): 1445€ (-25%)

SDSI coming from Xilinx Courses (EMB01, EMB02, FPGA1, FPGA2, FPGA3 or FPGA4): 790€ (-18%)

Additional discounts for several engineers from same company or institution