

# Seminar Invitation

# AVNET<sup>®</sup> SILICA

## REGISTRATION

Online

## MINIZED SPEEDWAY DESIGN WORKSHOPS

The MiniZed SpeedWay Design Workshops™ help engineers jump start the development of single-core Xilinx® Zynq®-7000 All Programmable SoC devices using the Avnet MiniZed™ Zynq SoC development board, a cost-optimized prototyping platform for embedded vision and Industrial IoT systems.

These one-day instructional programs will train customers on the latest design flows using Xilinx's Vivado® Design Suite through a mix of lecture and interactive labs.

For designers new to Xilinx SoC technology and tools, or those looking to brush up their skills, Avnet will offer two introductory courses: Developing Zynq Hardware and Developing Zynq Software.

More experienced designers can choose from two advanced course offerings: Integrating Sensors on MiniZed with PetaLinux and A Practical Guide to Getting Started with Xilinx SDSoC™ Development Environment.

For a full list of courses and locations, please visit [avnet-silica.com/speedways](http://avnet-silica.com/speedways)

Seats are limited. Register today!



## DATE & LOCATIONS

January – December 2018  
Pan-European, multiple dates / locations

## SEMINAR FEE

- 1 full-day workshop: 130,25 €\*
- 2 full-day workshops: 155,70 €\*
- 3 full-day workshops: 180,70 €\*
- 4 full-day workshops: 201,70 €\*

\* Includes MiniZed board and TE Connectivity Pmod



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### DEVELOPING ZYNQ SOFTWARE

In the Developing Zynq Software Speedway, you will be introduced to Xilinx SDK and shown how it offers everything necessary to make Zynq software design easy. This class will cover these capabilities, including BSP creation, built-in drivers, example C code, interrupts, debugging, flash programming, I2C interface between a TE connectivity Pmod, and where to get more help.

### DEVELOPING ZYNQ HARDWARE

In the Developing Zynq Hardware Speedway, you will be introduced to the single ARM Cortex -A9 processor core as you explore its robust AXI peripheral set. Doing so you will utilize the Xilinx embedded systems tool set to design a Zynq AP SoC system, add Xilinx IP as well as custom IP, run software applications to test the IP, and finally debug your embedded system.

### INTEGRATING SENSORS ON MINIZED WITH PETALINUX

From within an Ubuntu OS running within a virtual machine, learn how to install PetaLinux 2017.1 and build embedded Linux targeting MiniZed. In the hands-on labs learn about Yocto and PetaLinux tools to import your own FPGA hardware design, integrate user space applications, and configure/customize PetaLinux. Use Xilinx SDK tools to develop/debug user applications and use example application code to capture data from a TE Connectivity HTU21D I2C sensor. Where service is available, an Internet of Things (IoT) application will be used to publish the sensor data periodically to the cloud using the MQTT protocol. Source code for the user applications are included with the hands-on labs for you to leverage as a launch point in your custom design.

### A PRACTICAL GUIDE TO GETTING STARTED WITH XILINX SDSOC

Using proven flows for SDSoC, the student will learn how to navigate SDSoC. Through hands-on labs, we will create a design for a provided platform and then also create a platform for the Avnet MiniZed. You will see how to accelerate an algorithm in the course lab. This experience should give you the background to assist you in developing custom platforms with custom algorithms, accelerated by SDSoC.



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