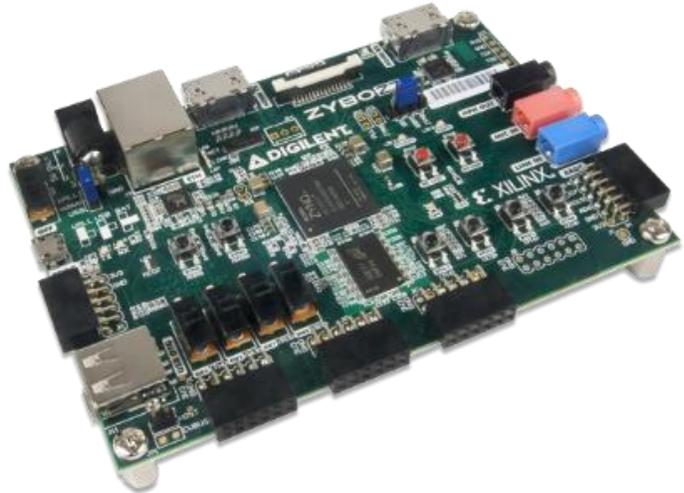


Workshop on Xilinx FPGA for real-time video processing

Accelerate the design through Digilent ZYBO Z7 & Vivado HLS

Objectives and Goals

- Introduce participants to the basics of High Level Synthesis for FPGAs and Real-time Video Processing pipelines. Illustrate the viability of video processing in reprogrammable logic instead of software running on a general purpose microprocessor.
- Demonstrate the ease of use of Digilent Video Processing Platforms.
- Show how Digilent freely available Intellectual Property modules can be (re)used in customer projects.



Description:

The workshops keeps in line with Digilent's mission of providing hands-on, project-based, open-ended approach to education. The Zybo Z7 allows every participant to implement a real-time video processing platform and visualize the results in hardware.

Zybo Z7 board from Digilent and the free WebPack version of Vivado HLS from Xilinx expose students to the newest technologies both in hardware and software. The examples will use VHDL and C++ language and will demonstrate HLS design flow, IP core usage, simulation and HW debugging.

Location:

Laboratorio Multimedia – Edificio A
Escuela Politécnica Superior
Universidad Autónoma de Madrid (UAM)
Francisco Tomás y Valiente, 11
28049 MADRID

Date & time:

Friday, December 1st, 2017. 9AM-2PM

Pre-Registration:

<http://www.electraining.org/2017/digilent-workshops/>

Presenter: Elod Gyorgy

Elod GYORGY is a Digital Design Engineer with over 8 years of experience in Xilinx FPGA technologies and embedded software development. Currently, he works at the Romanian branch of Digilent Inc., a leading electrical engineering products company serving students and universities with education design tools.

Audience: The anticipated audience includes faculty members, instructors, and laboratory staff in Electrical and Computer Engineering and Engineering Technology, Mechanical Engineering and Engineering Technology, First Year Engineering Education, Engineering Physics, Physics, and middle and high school teachers in the physical sciences. Participants need to have basic knowledge about VHDL, C/C++ and digital design. They will leave the workshop with instructional materials so that participants can easily adopt this innovative technique in their own courses.

Take-Away Skill, Knowledge, and Material: Participants will learn about the active hands-on learning pedagogy, see how others have integrated hands-on learning modules into the engineering and engineering technology courses, and labs and suggestions on ways in which the participants can adapt the pedagogical approach for their use. Flash drives will be distributed that will include the workshop presentation. The workshop will be held in English.

Logistics / Venue:

Digilent will bring 20 Zybo Z7- 10 boards + USB a to Micro B cables. No HW donation during the workshop.

EPS-UAM will bring 20 seats laboratory with computer and projector. Additionally, attendants can also use their own laptops but needs Vivado 2016.4 installed.

Event Organizer:

Digilent (www.digilentinc.com), TME (www.tme.eu), and Escuela UAM-Electraining (Universidad Autónoma de Madrid) (www.electraining.org)