Dear Educator,

Get hands-on with a non-obfuscated fully-verified MIPS core for teaching and projects!

The Imagination University Programme is pleased to host a series of one-day workshops specifically for teachers, based on the new "MIPSfpga" core.

MIPSfpga is the RTL source code of the MIPS microAptiv for implementation on an FPGA. It is a member of the same family found in many embedded devices, including the popular PIC32MZ microcontroller from Microchip and Samsung's new Artik1.

This workshop will show you how to use this core as part of a Computer Architecture course, which will pave the way for your students to use it in their projects, in effect creating their own SoC designs.

With its long heritage and excellent documentation MIPS is the preferred choice of RISC architecture for many teachers around the world. But in the past, to demonstrate key concepts, teachers had to settle for creating partial "MIPS-like" cores or using unofficial copies of dubious heritage. Not now! MIPSfpga is the real "industrial" RTL, non-obfuscated, and available freely for academic use.

These workshops are part of a global programme of events to enable teachers to harness this wonderful technology. You can be among the first to get hands-on with MIPSfpga!

Teaching Computer Architecture using MIPSfpga and the Xilinx-Digilent Nexys 4 DDR platform

TRAINERS:

- Prof. Sarah Harris, University of Nevada at Las Vegas. Co-Author of companion textbook: "Digital Design & Computer Architecture" by Harris & Harris
- Cathal McCabe, Trainer & Application Engineer for the Xilinx University Program ("XUP")
- Prof. Daniel Chaver, Univ. Complutense de Madrid
- Munir Hasan, Solutions Engineer at Imagination Technologies
- Enrique Sedano, MIPS Hardware Design Engineer, Imagination Technologies

WORKSHOP CONTENT:

- Welcome & Introduction to the Imagination University Programme ("IUP")
- Introduction to MIPSfpga
- MIPSfpga and Vivado Demonstration:
    1. Simulation: Increment LEDs program
    2. Increment LEDs delay program on the Nexys 4 DDR
    3. Synthesizing core on the Nexys4 DDR
    4. Codescape MIPS SDK: using Codescape to develop & debug C and assembly code
       Bus Blaster/OpenOCD: using the Bus Blaster JTAG probe and OpenOCD to debug a target system
- Lab 1: Writing C code
- Lab 2: Adding a 7-segment display I/O
- Integrating Xilinx IP blocks with MIPSfpga
- Porting to other boards – Example: Digilent's Basys3
- Teaching Materials for MIPSfpga / Wrap-up / Q&A

After your day of training you will be proficient in porting MIPSfpga to a suitable platform, and aware of its potential to revolutionise your teaching of Computer Architecture.
All delegates will be given access to the MIPSfpga core, the full Getting Started Guide (written by Sarah Harris with contributions from Xilinx), detailed reference documentation about MIPS microAptiv, and other vital information/programs that enable the whole package to work effectively.

FIND OUT ABOUT THE IMAGINATION UNIVERSITY PROGRAMME
Robert Owen and colleagues from Imagination Technologies will be on-hand and available to discuss your interests.

BOOKINGS
These workshops are free of charge for members of academia but places are limited and demand will be strong, so please apply for your place quickly. (However, please do not apply if you are not sure you can attend.)

ELIGIBILITY
- These workshops are open to academic faculty members, with a priority for those involved directly in teaching
- We reserve the right to accept or refuse registrations based on our desire to enable the broadest spectrum of Universities and Colleges to participate

- Prior experience of Vivado or Codescape MIPS SDK is useful, but not essential

LOCATIONS
- **LONDON:** Imperial College London, September 7th & 8th 2015
- **DARMSTADT:** TU Darmstadt, September 15th & 16th 2015
- **MADRID:** Univ. Complutense de Madrid, December 9th & 10th 2015
    (Note: Xilinx participation in Madrid to be confirmed)

PREPARATION: To participate in these hands-on exercises, attendees will need to bring a Windows laptop. Installing Xilinx Vivado (free Webpack Edition) and Imagination's Codescape MIPS SDK (free online edition) in advance will save time on the day.

REGISTRATION: Please apply online here

KEEPING IN TOUCH: please register for the Imagination University Programme here

You are invited to please *circulate* this e-mail to academic friends and colleagues…

Thanks for your interest - we look forward to meeting you!

Best Regards,

Manager: Worldwide University Programme
Imagination Technologies
e-mail: Robert.Owen@imgtec.com
Web: http://community.imgtec.com/university/