



The Abdus Salam  
**International Centre  
for Theoretical Physics**

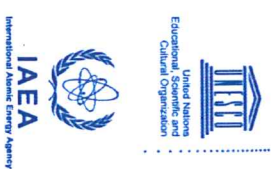
**Joint ICTP-IAEA School on Hybrid Reconfigurable Devices for Scientific Instrumentation**

**1 June - 12 June 2015**

**Venue: Euler Lecture Hall, Leonardo Building**

**PRELIMINARY PROGRAMME**

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Week 1		Mon 01	Tues 02	Wed 03	Thurs 04	Fri 05
08h30 – 09h15 (45 min)	Registration Leonardo Building, Lobby	Vivado design <i>EULER</i> Dondo	<b>ALL DAY (Breaks as usual)</b> <i>(Coffee 10h-10h20; Lunch 12h-13h30; Coffee 15h-15h20)</i>			
09h20 – 10h05 (45 min)						
10h05 – 10h25 (Coffee)	<i>Coffee Break</i>		Project 1 Real-time Data acquisition and Ethernet on ZYNQ FPGA LB Lab H. Rongen Groups: ★ (Darby) ◆ (Kaniu)	Project 1 Real-time Data acquisition and Ethernet on ZYNQ FPGA LB Lab H. Rongen Groups: ● (Crespo) ● (Dondo)	Project 1 Real-time Data acquisition and Ethernet on ZYNQ FPGA LB Lab H. Rongen Groups: ■ (Cicuttin) ◆ (Sisterna)	
10h25 – 11h10 (45 min)	Opening Darby Intro to ICTP Niemela <i>EULER</i>	Intro to Zedboard System Architecture Intro to OS <i>EULER</i> Rincon	Project 2 Digital Pulse Processor for Nuclear Spectroscopy LECTURE HALL D M. Bogovac Groups : ■ (Cicuttin) ◆ (Sisterna)	Project 2 Digital Pulse Processor for Nuclear Spectroscopy LECTURE HALL D M. Bogovac Groups: ★ (Darby) ◆ (Kaniu)	Project 2 Digital Pulse Processor for Nuclear Spectroscopy LECTURE HALL D M. Bogovac Groups: ● (Crespo) ● (Dondo)	
11h15 – 12h00 (45 min)	FPGA & VHDL Fundamentals <i>EULER</i> Sisterna					
12h – 13h30 (Lunch)	<i>Lunch Break</i>					
13h30 – 14h15 (45 min)	FPGA & VHDL Fundamentals (cont.) <i>EULER</i> Sisterna	Basic Examples Demo on Zedboard <i>EULER</i> Rongen				
14h20 – 15h05 (45 min)						
15h05 – 15h25 (Coffee)	<i>Coffee Break</i>					
15h25 – 16h10 (45 min)	Zynq Architecture PS (ARM) and PL <i>EULER</i> Rincon	Basic Example Tutorial Sessions LB - ★, ◆, ■ LECTURE HALL D -●, ●, ◆	Project 3 Software application on Linux with hardware accelerator MLAB Rincon Groups: ● (Crespo) ● (Dondo)	Project 3 Software application on Linux with hardware accelerator MLAB Rincon Groups : ■ (Cicuttin) ◆ (Sisterna)	Project 3 Software application on Linux with hardware accelerator MLAB Rincon Groups: ★ (Darby) ◆ (Kaniu)	
16h15 – 17h (45 min)						
Evening Programme						
19h – 19:30h	Faculty Presentations		Participant Presentations			
19:30h – 21h	Refreshment Social (LB)	Ice Cream Social			Project Pitches to Staff Panel	

Week 2	Mon 08	Tues 09	Wed 10	Thurs 11	Fri 12
08h30 – 09h15 (45 min)	<b>High Level Synthesis using Vivado</b>	<b>ALL DAY (Breaks as usual)</b> <i>(Coffee 10h-10h20; Lunch 12h-13h30; Coffee 15h-15h20)</i>			<b>Advanced topics on hybrid Soc devices</b>
09h20 – 10h05 (45 min)	Euler Dondo	Project 1 How to create new Red Pitaya WEB app.	Project 1 How to create new Red Pitaya WEB app.	Project 1 How to create new Red Pitaya WEB app.	Euler Sisterna
10h05 – 10h25 (Coffee)	<i>Coffee Break</i>	LB Lab Luka Golinar Groups: ★ (Darby) ◆ (Kaniu)	LB Lab Luka Golinar Groups: ● (Dondo) ● (Mladen)	LB Lab Luka Golinar Groups: ■ (Cicuttin) ◆ (Sisterna)	<i>Coffee Break</i>
10h25 – 11h10 (45 min)	<b>High Level Synthesis Demo</b>				<b>Dynamic partial reconfiguration using Vivado</b>
11h15 – 12h00 (45 min)	Euler Dondo				Euler Dondo
12h – 13h30 (Lunch)	<i>Lunch Break</i>	Project 2	Project 2	Project 2	<i>Lunch Break</i>
13h30 – 14h15 (45 min)		Measurement of cable length using Red Pitaya and LabVIEW	Measurement of cable length using Red Pitaya and LabVIEW	Measurement of cable length using Red Pitaya and LabVIEW	Design Discussion Panel Moderator Bogovac
14h20 – 15h05 (45 min)	<b>Intro. to Red Pitaya</b> EULER Crt Valentincic	LECTURE HALL D Primož Perušek Groups: ■ (Cicuttin) ◆ (Sisterna)	LECTURE HALL D Primož Perušek Groups: ★ (Darby) ◆ (Kaniu)	LECTURE HALL D Primož Perušek Groups: ● (Dondo) ● (Mladen)	Applications Discussion Panel Moderator Darby
15h05 – 15h25 (Coffee)	<i>Coffee Break</i>				<i>Coffee Break</i>
15h25 – 16h10 (45 min)		Project 3 Red Pitaya sensors and graphical programming	Project 3 Red Pitaya sensors and graphical programming	Project 3 Red Pitaya sensors and graphical programming	
16h15 – 17h (45 min)	<b>Intro. to Red Pitaya (cont.)</b> EULER Crt Valentincic	Žiga Brinšek MLAB Groups: ● (Dondo) ● (Mladen)	Žiga Brinšek MLAB Groups: ■ (Crespo) ◆ (Sisterna)	Žiga Brinšek MLAB Groups: ★ (Darby) ◆ (Kaniu)	<i>Closing, Pitch Results &amp; Certificates</i>
Evening Programme					
19h – 19:30h	Project Pitches to Staff Panel		Pitch Evaluations	Departing Social	
19:30h – 21h	Refreshment Social				