

Summary of Workshops being offered on Friday April 29, 2011

Workshop #	Location	Capacity	Time	Title	Presenter	Affiliation
1-1	D 319	20	2:00-3:30	Project-based Learning in Engineering Assessment and Design	William A Lucas	Director of Research, MIT Gordon Engineering Leadership Program
1-2	D 320	20	2:00-3:30	Nios II Processor: Configurable μ-processor	Yung Wai Tim Johnson from WIT as a Moderator	Johnson and Wales, Rhode Island
1-3	D 420	20	2:00-3:30	OpenTok™: A Free Open Source API for Video Conferencing in Distance Education	Jerald D. Cole	University of Bridgeport
1-4	D 426	20	2:00-3:30	System Dynamics Measurements and Experimentation at Home	William J. Palm, Musa Jouaneh	University of Rhode Island
			3:30-3:45	Coffee Break		
2-1	D319	20	3:45-5:15	Texas Instrument MSP430 Wireless Network Design	Ross Kaplan Tim Johnson from WIT as a Moderator	Senior Electromechanical student at Wentworth Institute of Tech
2-2	D320	20	3:45-5:15	Hands-on Real-Time DSP Workshop using Simulink and TI TMS320C6713	Hisham Alnajjar	University of Hartford
2-3	D 420	20	3:45-5:15	Solar Energy Systems	Akram Abu-aisheh	University of Hartford

We propose to present a 75 minute tutorial at the 2011 ASEE New England Section Regional Conference. Our tutorial will provide an overview of our results obtained under an NSF grant titled "System Dynamics Measurements and Experimentation at Home". We have developed a low-cost, microcontroller-based kit with built-in A/D and PWM interface, serial/USB interface, and control software, simple enough for students to use on their own at home. In addition, a number of low-cost experiments have been developed to accompany the kit. These include two thermal response experiments, two vibrating beam experiments, and a motor speed control experiment. For the tutorial we propose to briefly present the theory behind three of the experiments (one thermal, one vibration, and the motor control experiments) and then to demonstrate the use of the kit with these three experiments.