

Óbuda University <i>Kandó Kálmán Faculty of electrical engineering</i>		Institute of Instrumentation and Automation	
Name and code of the subject: Automatic manufacturing systems IV. KMAGY41AND Credits: 4			
<i>7th semester</i>			
Specialization: Electrical engineer,			
Subject leader:	Dr. Boráros-Bakucz András	Teachers:	Gábor Major
Prerequisites: (codes)			
Number of lessons:	Lecture:	Seminar:	Laboratory exercise: 3 Consultation:
Way of marking (si,e,se):e	semester mark		
Education material			
<i>Students should acquire complex knowledge on automatic production systems, such as mechanical, electrical and software topic. Other goal is student should be able to recognize problems and solve them. They should be as creative as its is possible.</i>			
<i>Topics of lessons:</i>			
Topic:		Week	Lessons
IPC programming with C and C++ programming languages.		1.	
IPC programming, sockets.		2.	
process visualization PERL-TK		3.	
process visualization PERL-TK		4.	
ARM programming.		5.	
ARM programming PWM		6.	
ARM programming CAN and Ethernet		7.	
FPGA basics		8.	
FPGA soft processors		9.	
FPGA soft processors		10.	
		11.	
		12.	
		13.	
		14.	
Requirements			
The exam conditions are students have to take a successful laboratory test during the semester and participated in all the laboratory courses. Who does not succeeded the course can repeat the laboratory test free of charge in the 14 th week and a paid one in the first 10 days of the exam period.			
Literature: Sam Cubero:Industrial Robotics: Theory, Modelling and Control ISBN 3-86611-285-8			