Course Syllabus

Department offering the program: Industrial electronics and Control Engineering
Department offering the course: Industrial electronics and Control Engineering

Course basic information :		
Course Code: AC452	**Course Title:** Elective/4 (Control using advanced software)	**Level : (4)** **Semester :2**
Department requirement	**Teaching hours: Lecture [3] Tutorial [1] - Lab [0]**	
Course objectives	1. To study basic concepts related MATLAB programming 2. To explain advanced MATLAB Programming. 3. To learn different forms of investigating control system characteristics 4. To master advanced MATLAB applications in control systems.	
Course Contents	MATLAB fundamentals - Plotting Commands - Control Statements - DC Analysis - Transient Analysis - State space system design and Analysis	
Assessment		
Weighting of Assessment	- Class tutorial and quizzes : 16 % - Mid-term examination: 16 % - Case study and/or practical exam: … % - Final – term examination: 68 % - Other types of assessment: …… % Total 100 %	
List of text books and references:		
Text books	• Dingyü Xue, YangQuan Chen, Derek P. Atherton, "Linear Feedback Control Analysis and Design with MATLAB", McGraw-Hill, 2007.	
Recommended books	• Cesar Perez Lopez , MATLAB Control Systems Engineering, TSTC Publishing, 2014	

	• Dingyu Xue and Yang Quan Chen, Modeling, Analysis and Design of Control Systems in MATLAB and Simulink, Wiley and Sons, Nov 14, 2014 •