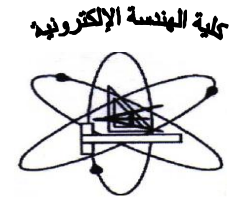


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## Course Syllabus

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

Course basic information :		
Course Code: AC345	Course Title: Elective-1 (Modeling and Simulation of Control System )	Level : (3) Semester :1
Department requirement	Teaching hours: Lecture [3] Tutorial [1 ] - Lab [0 ]	
Course objectives	<ol style="list-style-type: none"><li>1. To acquire a good knowledge of different types of modeling and simulation of control systems</li><li>2. To explain the relation between electronic systems and mechanical systems.</li><li>3. To integrate electrical, electronic and mechanical components and equipment with transducers, actuators and controllers in control systems.</li><li>4. To learn how to simulate control systems using MATLAB</li></ol>	
Course Contents	Introduction to control systems - Some types of control systems - Mathematical Modeling of some types of control systems- Linearization-Simulation of control system using Matlab	
Assessment		
Weighting of Assessment	- Class tutorial and quizzes : - Mid-term examination: - Final – term examination: - Other types of assessment:	16 % 16 % 68 % ..... %
Total 100 %		
List of text books and references:		
Text books	<ul style="list-style-type: none"><li>• S. B. Niku, Introduction to robotics: Analysis, Control and Applications, John Wiley &amp; Sons Ltd, 2011.</li></ul>	
Recommended books	<ul style="list-style-type: none"><li>• R. S. Burns, Advanced Control Engineering, McGraw-Hill, NY,2001</li><li>• System Dynamics: Modeling, Simulation, and Control of Mechatronic Systems, Dean C. Karnopp and Donald L. Margolis, Feb 28, 2012.</li></ul>	