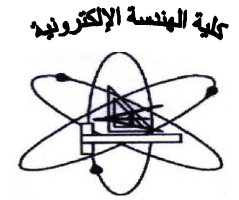


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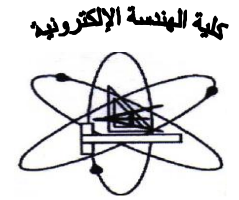
To view the reconstructed contents, please SCROLL DOWN to next page.



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: AC448	Course Title: Industrial Automation systems Level : (4) Semester : 2
Department requirement	Teaching hours: Lecture[2] Tutorial [2] - Lab [0]
Course objectives	<ol style="list-style-type: none">1. To explain the principles of industrial automation systems2. To study methods of integrating different technologies and machines in industrial automation systems .3. To define the methods of programming of industrial automation systems4. To prepare the application of industrial automation systems
Course Contents	Introduction to Automated systems -Supervisory control Data acquisition in automated system SCADA Configuration, Communication - Distributed Control System - Applications of Distributed Control System - Automation system - Robotics and CNC machines - Types of CNC machines - CNC components, programming
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	<ul style="list-style-type: none">• Guide to Industrial Control Systems (ICS) Security - Supervisory Control and Data Acquisition (SCADA) systems, Dec 19, 2013• A.S Boyer ,” SCADA : Supervisory Control and Data Acquisition “,John Wiley , 2004



	<ul style="list-style-type: none">• H. Kopetz, M.G. Rodd ” Distributed Computer Control Systems”, Prentice Hall Int , 1992
Recommended books	<ul style="list-style-type: none">• Vehappen and A .Perrira ,” Foundation Fieldbus” ISA 2005• A. S. Tannenbaum “Computer Networks “ Prentice Hall Int. 1996• Antti.j Koivo " Fundamentas for control of Robotic manipulators" John Wiley,1989.•

