

Faculty of Engineering & Technology

Control Systems

Information :

Course Code : MEC334 **Level :** Undergraduate **Course Hours :** 3.00- Hours

Department : Mechatronics Engineering

Instructor Information :

Title	Name	Office hours
Lecturer	Rana Mohamed Abdel Rahman Saleh	1
Teaching Assistant	Salma Haytham Talaat Abdelalim Gouda	

Description :

Introduction to control systems, Advantages of closed-loop feedback systems, The role of the system mathematical model, Block diagrams and signal flow graphs, The basic control system design problem, stability in control systems, Frequency response analysis techniques, Root locus analysis, Elementary lead-lag compensation, Examples on continuous control systems, Transient response, Static error analysis, Frequency response, Polar plots, Logarithmic plots, Relative stability, Root locus, Compensation in frequency domain, Controller design and PID tuning methods. Examples design using MATLAB.