

Faculty of Engineering
Smgrc Group
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Intelligent Control
Project part II



University of Kurdistan

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Deadline: 5 Jan.



Perform the following tasks:

- a) Find the range of the designed controller parameters for which the nonlinear chosen plant be stable, i.e., the maximum and the minimum values of k_p, k_i, k_d
- b) According to the range of design parameters (k_p, k_i, k_d), choose suitable fuzzy membership functions for these parameters.
- c) Design a fuzzy supervisory PI (or PID) controller for the system
- d) Compare the performance of closed loop system with fuzzy supervisory PI (or PID) controller and traditional PI control scheme.