Design of PI Controller for coupled tank system

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Abstract

This Paper presents the mathematical modelling of the practical interacting coupled tank system and then designing the PI controller for controlling liquid level in the tank for single Input Single Output (SISO) model. The controller parameters are obtained by different tuning techniques and the results of all the techniques are compared. Based up on the comparisons one of these tuning method is identified that fits best for the setup. The controller for non linear coupled tank system is designed in the MATLAB software in which set point is given as a unit step function. The coupled tank system is represented in the software by the differential equation model.

References:

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