Abstract

This paper describes the development of a fuzzy gain scheduling scheme of PID controllers for three tank process. This paper presents the controllers for three tank multi loop system using fuzzy gain scheduling. The application of fuzzy logic controller (FLC) appears to be encouraging in the sense that it is robust in disturbance rejection under various conditions. The controller designed by FLC technique is based on the choice of Fuzzy rules and Reasoning is used to determine the controller parameters based on the error signal and its first difference. Simulation results show that better control performance can be achieved in comparison with conventional-PI controllers. The simulation result of the process is carried out by using MATLAB simulink software.

References

- M. Zhaung and D. P. Atherton (1994), "PID controller design for TITO
system, "IEE processes control Theory Appl., Vol. 141 no. 2 pp 111-120.


Computer Science

Index Terms
Fuzzy Systems

Keywords
FLC  three tank  multi-loop