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Performance Evaluation for SE 113 Flow Control System Plant Using Self-Tuning Fuzzy PI Controller (Conference Paper)

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The aim of this project is to evaluate the dynamic process performance of SE113 Flow Control System Plant using self-tuning Fuzzy PI controller. The experimental data is used to model the process and the control analysis is done using Self-Tuning Fuzzy PI Controller. The performance evaluation is based on the percent overshoot, rise time and settling time of the process. The overall performance is compared with the conventional Proportional-Integral control method. The results had shown that self-tuning Fuzzy PI controller simplify the tediousness in tuning the controller and enhance the capability of PI controller. © 2018 IEEE.

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Topic: Tanks (containers) | Controllers | Coupled tank

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Author keywords

Fuzzy PI controller Matlab Simulink Proportional-Integral control

Indexed keywords

Engineering controlled terms: Controllers Flow control Two term control systems Water craft

Engineering uncontrolled terms: Control analysis Conventional proportional integrals Dynamic process Fuzzy - PI controllers MATLAB/SIMULINK Percent overshoot Proportional-integral control Settling time

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