

##COL7447 : MAJOR CONTROL SYSTEM

KEY WORD : OPTIMUM TUNING/PID CONTROLLER

PISANU KIJPAITULAYA : OPTIMUM TUNING OF PID CONTROLLER. THESIS

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This thesis presents a method for PID controller tuning. The process was characterized by a second-order-plus-dead-time model. Model parameter estimations were obtained from the control area of a step response. Then, the controller parameters were calculated by an optimization method proposedd by Zangwill.

Simulations were carried out with a process model ; and the simulation results were satisfactory in the sense that the determine parameters resulted in the minimum performance indices. This work can be applied in industrial control systems.