

**DESIGN ACTIVE FAULT TOLERANT CONTROL IN
STEAM CONDENSATE TANK AT PT BADAK BONTANG
NGL KALIMANTAN TIMUR WITH FAULT AT THE
SENSOR**

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Abstract

Active fault tolerant control is a control algorithm that works when there is an error that occurs in a system. In this final project is related to errors in the level sensor transmitter in the steam condensate tank at PT Badak NGL Bontang. The first step in this final project is build simulation in MATLAB with the same data process as in the real plant. Control signal reconfiguration method is part of the active fault tolerant control for estimate the fault with additional references signal. Additional references no other signal is the residual of the sensor errors are estimated using the observer. Observer constructed by using pole placement algorithm. Errors are given like bias error and sensitivity error which is characteristic static of sensors. The simulation results obtained show that the active fault tolerant control is built to accommodate the sensor faults better than the conventional PID control system.

Keywords : Active Fault Tolerant Control, Pole Placement, Steam Condensate Tank