ABSTRACT

In this final project will be made a tool for controlling and monitoring the water levels on the tank level process. The control process using the Adaptive Neuro Fuzzy Interference System (ANFIS). This control use to build for minimize overshoot and rise time. To detect the level of water used infrared object detector sensor (Sharp GP2d12) and then connected to Op Amp circuit and forwarded to the circuit analog to digital converter (ADC 0804). ADC convert analog data from sensors into digital data in binary form, then the data from ADC with 8-bit wide going on out into a single output through a multiplexer circuit (CD4051), the data from this multiplesker will enter into the computer via a parallel communication to be processed through a LabVIEW program, which will be monitoring water levels and levels of motor control stepper so that the expected height of the water level (setpoint) is reached.

Key Words : Analog to digital converter (ADC), Adaptive Neuro Fuzzy Interference System (ANFIS), Infrared Object Detector, Multiplekser and Motor Stepper.