

Cascade Control for Pressure Calibration by Fieldbus Communication System

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Abstract : This paper is to study and control the pressure of the water inside the open tank using a cascade control with the communication in the process by fieldbus system for the pressure calibration. The plant model is to be used in experiments to control the level and flow process of the water by using Syscon program to create functions. We used to control by Intouch runtime program to create the graphic display on the screen. In this case we used PI control the level and the flow process of water in the open tank in the range of 0 - 10 L/m. The output signal of the level and the flow transmitter are the digital standard signal by fieldbus system. And all information displayed on the computer with the communication between the computer and plant model can be communication to each other through just one cable pair. And in this paper, the PI tuning, we used calculate by Ziegler-Nichols reaction curve method to control the plant model by PI controller.

Keywords : cascade control, fieldbus system, pressure calibration, microelectronics systems

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