

In this work, a discrete Proportional-Integral-Derivative (PID) controller was trained using a Tagaki-Sugeno type fuzzy logic system. The PID parameters were acquired online without the need for manual tuning, calibration or prior knowledge of plant parameters. The developed system has the advantage of fast action and can be easily implemented with a Peripheral Interface Controller (PIC) integrated circuit. Simulation results show that the required PID gains can be acquired in less than 0.03 seconds.