

# **Fuzzy Based Conveyor Speed Control System**

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## **Abstract**

*A motor speed controller is to take a signal representing the demanded speed, and to drive a motor at that speed. A simple method of controlling the speed of a motor is to vary its voltage. Turning the dial increases or decreases the voltage reaching the motor and so the motor changes speed. This is a rather inefficient, however: most motor speed controllers use a technique known as pulse width modulation (PWM) where voltage to the motor is rapidly turned on and off several hundred or even several thousand times per second.*

*The purpose of the conveyor speed control system is to control the conveyor speed according the object's position based on fuzzy approach when this is taking on the conveyor. The fuzzy logic controller is also implemented to the system for keeping the conveyor motor speed to be controlled when the load varies. In this system, the conveyor speed has been controlled with microcontroller. The conveyor speed control system will be implemented with PIC by using fuzzy logic control. The conveyor speed control system has been designed by using microcontroller (PIC16F877A) and the control strategy has been implemented by using MikroC Language in PIC.*