

Design of DC motor speed control circuit using PIC 16F877A

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Abstract: This topic focuses on designing an electronic circuit system to control the speed of a DC motor using the PIC 16F877A microcontroller. The context of the topic is defined by the necessity of automation solutions in various industries, especially in applications requiring precise control and energy efficiency. The objective of this research is to build a stable and flexible speed control system for a DC motor, while optimizing responsiveness and accuracy. The method combines theoretical knowledge of electronic engineering with experimentation to implement the system. The expected result is to provide a useful solution for machine manufacturers and operators, while contributing to the development of automatic control technology.

Keywords: DC motor, PIC 16F877A, electronic circuit, automation, speed control