

Temperature and Light Control of Three phase Induction Motor Speed Drive by PIC

Abstract

PIC is a family of Harvard architecture microcontrollers made by Microchip Technology, derived from the PIC1640 originally developed by General Instrument's Microelectronics Division. The name PIC initially referred to "Peripheral Interface Controller". PICs are popular with the developers and the hobbyists due to their low cost, wide availability, large user base, extensive collection of application notes, free development tools, and serial programming (and re-programming with flash memory) capability. In modern days, PIC microcontrollers are used in the industrial world to control many types of equipment, ranging from consumer to specialized devices. They have replaced older types of controllers, including microprocessors. Also, there is a growing need for off-line support of a computer's main processor. The demand is going to grow with more equipment uses more intelligence. In the engineering field for instance, PIC has brought a very positive impact in designing an automation control system and controlling industrial machineries. Accordingly, this paper shows the change in the motor speed by the use of PIC in accordance to the light and level of temperature. The project focuses on programming the PIC by embedded software that detects the temperature and light signals and send it to 3 phase induction motor of 240 volt. A theoretical analysis and the practical approach in achieving this work goal have proved that PIC plays an important role in the field of electronics control.