

(54) Title of the invention : A SENSOR-BASED INDUSTRY AUTOMATION SYSTEM TO MONITOR THREE-PHASE INDUCTION MOTORS

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(57) Abstract :
 An Embedded system is a controller programmed and controlled by a real time operating system (RTOS) with a dedicated function within a larger mechanical or electrical system, often with real time computing constraints. Embedded systems control many devices in common use today. The aim of the proposed method is to design an efficient smart automation system for industrial applications using Bluetooth technology. The project is carried out in Siby Solvent Extraction Pvt Ltd. It is a small-scale industry where white petroleum transmission has been performed. Since white petroleum is overly sensitive, it will burst when high frequency is applied. In Siby Solvent, 60 motors have been running for ON/OFF purposes. They must travel 500 meters for that we are using low frequency Bluetooth module to ON/OFF motor. In case of an emergency purpose, we can shut down entire motors. The main objective of the project is to control the 3- phase induction motor (ON/OFF function) in white petroleum transmission industry automatically using Bluetooth technology. Bluetooth HC-12 module covers up to 1 distance. It can be used in two ways. The first method is giving input using switch in transmitter side and another method uses android applications to give input. This system is implemented by using Bluetooth terminal HC-12.

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