

ABSTRACT

Automation is the use of control systems and information technologies to reduce the need for human work in the production of goods and services.

Programmable logic controller represented one of the control systems using in different applications fields which offered various features.

In the past the control processes was accomplished using hundreds or thousands of relays switches and The process for updating such facilities for the yearly model change-over was very time consuming and expensive, as electricians needed to individually rewire each and every relay.

According to the need to overcome these limitations this research aim to integrate the programmable logic controller with wireless technology which have highly accepted due to the higher mobility it brings for the user and the Longer-range remote control.

This research mainly focuses on the controlling of factory appliances remotely and providing security when the operating manager is away from the place after the duty finished.

This done by integrate the GSM wireless technology as the master controller with Siemens s7-200 programmable logic controller which programming using the step7 micro/win software with ladder language to total shut down to the factory with using Hardwares include DTMF decoder, 74373 chip, two mobile phones, Siemens s7-200 PLC and programming device.

The result is a system provides ideal solution to the problems faced by factory monitors in daily work from the Cell Phone Operated Devices System that can be operated using DTMF technology to overcome the limited working range of remote control and to provide larger coverage area, more adaptable and cost-effective. Also the system Controlled number of devices with unique code offered from using the plc and its programming feature additional to perform any operations through a remote phone line the customer need.