PLC base Building automation Web-based Smart Home

Automation: PLC-controlled Implementation

Abstract:

The most important source of motivation in continuity of technological developments is to upgrade human living standards. The technological development provides and increases human-beings’ safety and comfort directly and indirectly. Developing technologies for this purpose directly affects the life standards by means of smart home systems design.

It is possible to classify smart home systems into two as local and remote. In this study, a smart home automation system design was carried out by using Delta DVP28SV model PLC (Programmable Logic Controller). Smart home system can be controlled in two different ways either by any internet-connected device or an operator panel assembled on PLC.

Control of the ventilation, lighting and security units in the smart home were carried out. Instantaneous states and variations of the smart home system which is feedback based are monitored and can be changed from the user interface prepared with the C# programming language. Unusual circumstances occurred in security units have been reported to the user with SMS (Short Message Service).
Block Diagram:-