INDUSTRIAL AUTOMATION

AND

POWER LINE COMMUNICATION

A Project report submitted in partial fulfillment of the requirements for the award of

BACHELOR OF TECHNOLOGY

In

ELECTRONICS AND COMMUNICATION ENGINEERING

By

S PAVAN RAJ	**15H61A04A3**
S RAMAKRISHNA	**16H65A0421**
J SRIKANTH	**15H61A0481**
M NARENDRA KUMAR	**15H61A0495**

Under the guidance of

Mr. M. Murali Krishna

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ABSTRACT

Industry is a group of productive enterprises or organizations that produce or supply goods, services, or sources of income. Primary industry -agriculture, forestry, fishing, mining, quarrying, and the extraction of minerals. Secondary industry-deals with the manufacturing, Involve the manufacture of raw materials. Tertiary Industry-deals with Services industry, neither produce a raw material nor make a product. Quaternary Industries-Involve the use of high-tech industries. People who work for these companies are often highly qualified within their field of work. The IoT is a network of intelligent computers, devices, and objects that collect and share huge amounts of data. The further generation industries will be more advanced and automatic as compared with existing ones. This brings on a new terminology of "Smart Industries".

We propose a smart Industrial Automation and Power Line Communication system. This monitors the internal parameters of the industry. The internal parameters that we considered are Temperature, Smoke, Fire, Light and Motion Detection. It sends notifications to smartphone when any of the parameter crosses the threshold level and also displays the real time values on LCD. The industry officials can have a constant monitoring of the system on the mobile dashboard. This is also automatically controlled whenever a parameter goes beyond a threshold value using relays. It is powered using solar energy which is renewable source of energy. This is connected to the IOT platform server using WIFI. Power Line Communication carries data on a conductor that is also used simultaneously for AC electric power transmission or electric power distribution to consumers. This is used for carry data on the existing power lines to the industries that are located adjacent to each other. The IOT platform which we are using is "BLYNK", which is an open source application available on Android Play Store and AppStore.

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