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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING
(Accredited by NBA, New Delhi)

A PROJECT REPORT ON

" POWER SAVING USING MICROCONTROLLER AND RF"

BACHELOR OF ENGINEERING
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Under the Guidance of
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Abstract

The project automatic power saving system for an industries, restaurants, hotels, shopping malls, banks, houses, etc is a method for automatic control of devices (lights, fans, or AC s) throughout. A modern system requires different parameter control like atmospheric temperature sensing, room light sensing, the devices like heating and cooling required operating at respective temperatures.

A central embedded controller communicates with the sensors and controlled objects over a communication network, where the sensors and controlled objects can be added to the system in a `plug and play` manner.

The system described here detects the temperature, light and controls the loads. The temperature sensors senses the temperature and converts in terms of voltage per degree centigrade of temperature has been raised in terms of proportional voltages. The voltage available is now compared using opamp which acts as a comparator the particular voltage level in terms of temperature variation has been calibrated and the user settings are used to adjust the reference voltage of comparator in terms of temperature calibration.

As per the user settings the comparator output drives a particular relay which further drives a heater system or cooling system as per the requirement of user.

The relay used here provides isolation between device and low and high temperature detection devices. The heating and the cooling system work as per the user settings points and controls the action of the device.