AUTOMATIC WIRELESS HEALTH MONITORING SYSTEM IN HOSPITALS FOR PATIENTS

ABSTRACT

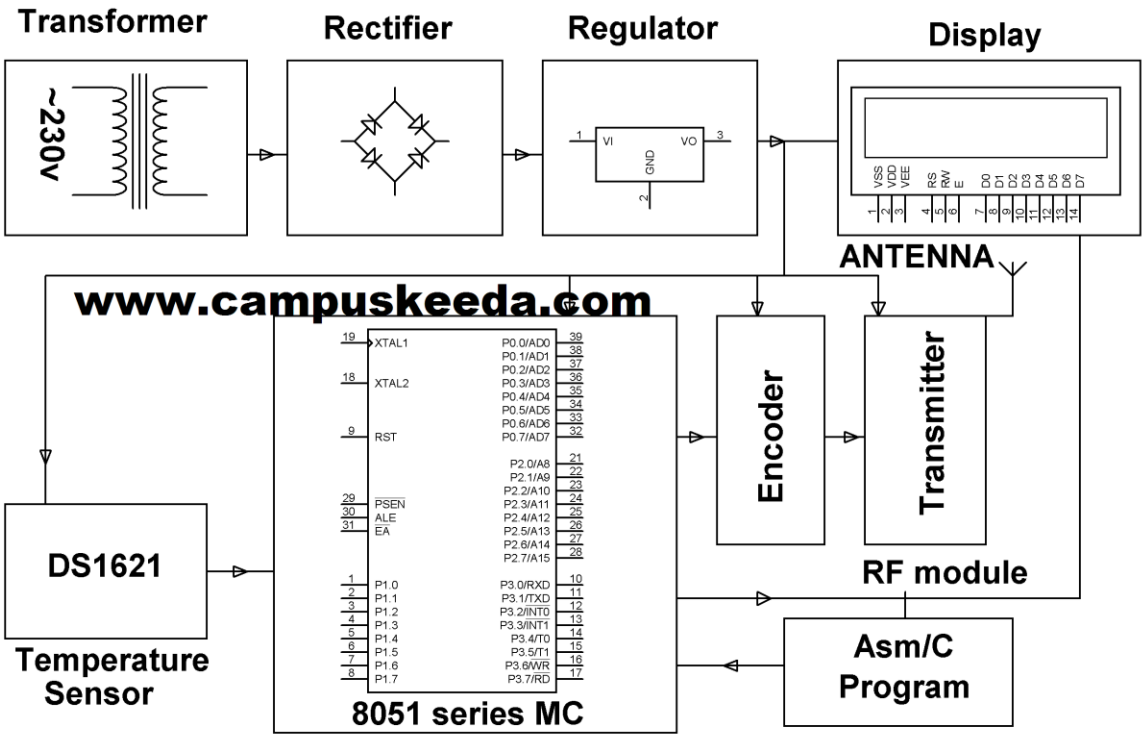
In this project, a wireless communication system is designed and developed for remote patient monitoring. The primary function of this system is to monitor the temperature of a patient's body, and display the same to the doctor through RF communication.

In hospitals, where patient's body temperature needs to be constantly monitored, is usually done by a doctor or other paramedical staff by constantly observing the temperature and maintaining a record of it. It is a very tedious method. In this proposed system transmitting module continuously reads patient's body temperature through a digital temperature sensor, displays it on the LCD screen and sends it to the microcontroller which transmits the encoded serial data over the air by RF (radio frequency) through an RF module. At the receiving end, a receiver is used to receive the data, decode it and feed it to another microcontroller which is then displayed on an LCD screen. The receiver module is kept in the doctor's chamber to continuously display the patient's body temperature wirelessly.

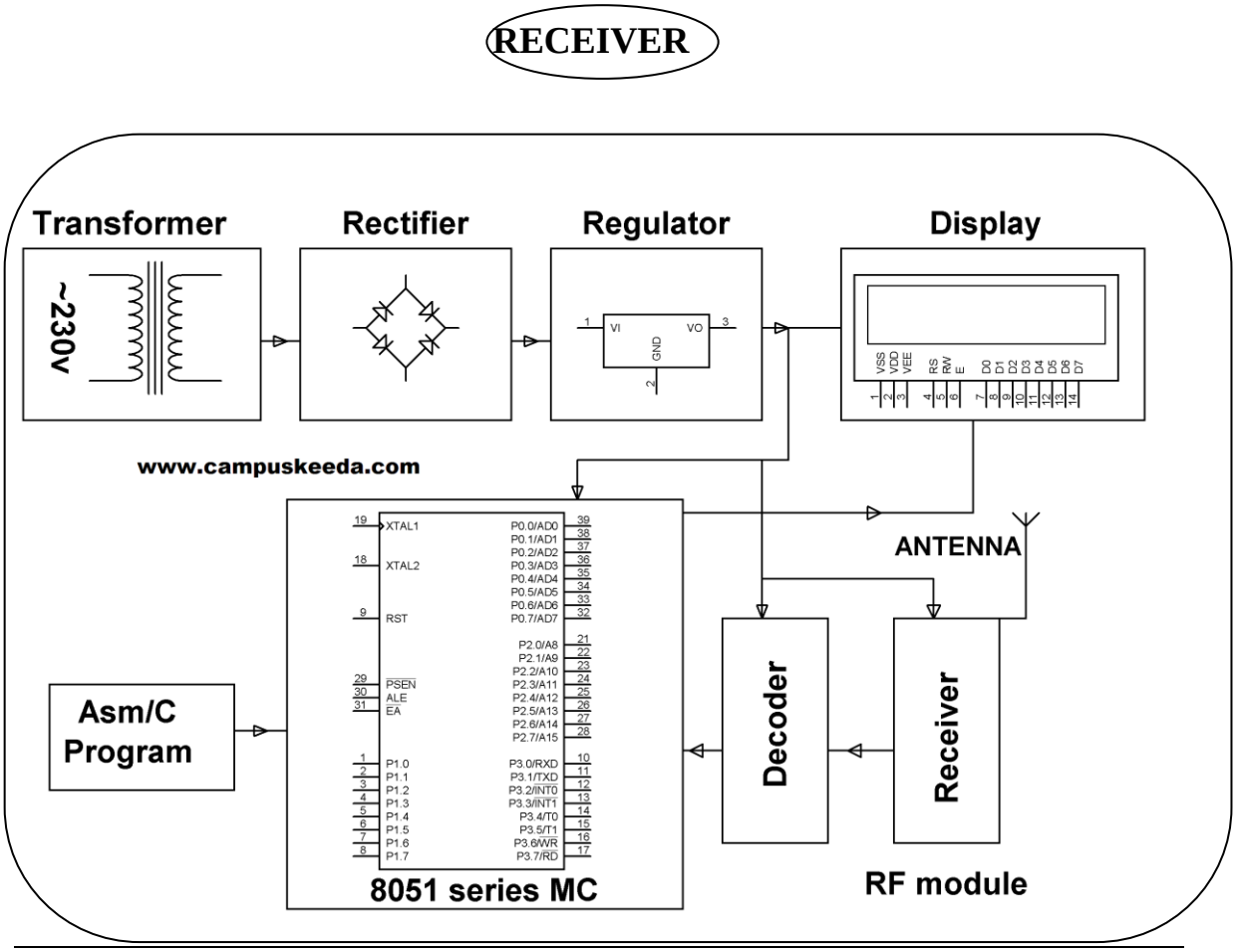
This project can be further enhanced by sensing and displaying other vital statistics of a patient like blood pressure, pulse rate etc. Another feature can be added where a warning signal is generated if the parameters cross the safe limit.

BLOCK DIAGRAM

TRANSMITTER



BLOCK DIAGRAM



HARDWARE REQUIREMENTS:

8051 series Microcontrollers, Encoder IC, Decoder IC, LCD, Transformer, Voltage Regulator, RF Module, Temperature sensor.

SOFTWARE REQUIREMENTS:

Keil compiler

Language: Embedded C or Assembly.