VISHNU INSTITUTE OF TECHNOLOGY

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Department of Electrical and Electronics Engineering

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VISION AND MISSION OF THE DEPARTMENT

VISION:

To be recognized as a Centre of Excellence in the field of Education and Research so as to produce Competent & Ethical Engineers capable enough to contribute to the society.

MISSION:

- To develop innovative, efficient and proficient electrical engineers.
- To keep the curriculum industry friendly, with due regard to the University curriculum.
- To be a place for innovative blended learning and entrepreneurship development in multidisciplinary areas.
- To promote ethical and moral values among the students so as to make them emerge as responsible professionals.

PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

PEO1: To produce Electrical and Electronics Engineering graduates who have strong foundation in Mathematics, Sciences and Basic Engineering

PEO2: To provide intensive training in problem solving, laboratory skills and design skills to use modern engineering tools through higher education and research.

PEO3: Ability to pursue higher studies and to seek employment in a variety of engineering technology positions and work successfully in their chosen career aspirations and generate entrepreneurs.

PEO4: To inculcate in students professional and ethical attitude, effective communication skills, teamwork skills, multidisciplinary approach, and an ability to relate engineering issues to broader social context through life-long learning.

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1. IOT BASED COVID PATIENT HEALTH MONITORING QUARANTINE

A. PAVANI, D. PAVAN KUMAR, CH. U. NAGENDRA VARMA,
M. PURNA PRABHUDAS, J. SHYAM AVINASH

SUPERVISOR: Mr. B. SESHAGIRI, M.Tech

OBJECTIVE OF THE PROJECT:

Now days on the platform of COVID we requires special Covid 19 Doctors need to regularly monitor patient health. The doctors are at risk of infection just for monitoring purpose. To solve this issue, we here design a remote IOT based health monitor system that allows for remotely monitoring of multiple covid patients over the internet. This system monitors patient heartbeat and temperature using a heartbeat sensor and temperature sensor respectively. The system then transmits this data over the internet using WIFI transmission by connecting to WIFI internet Connection. The data is transmitted and received over IOT by IOT Gecko platform to display data of patient remotely. The entire system is run by Node-MCU. If any anomaly is detected in patient health, if the patient presses the emergency help button on IOT device, an alert is sent over IOT remotely.

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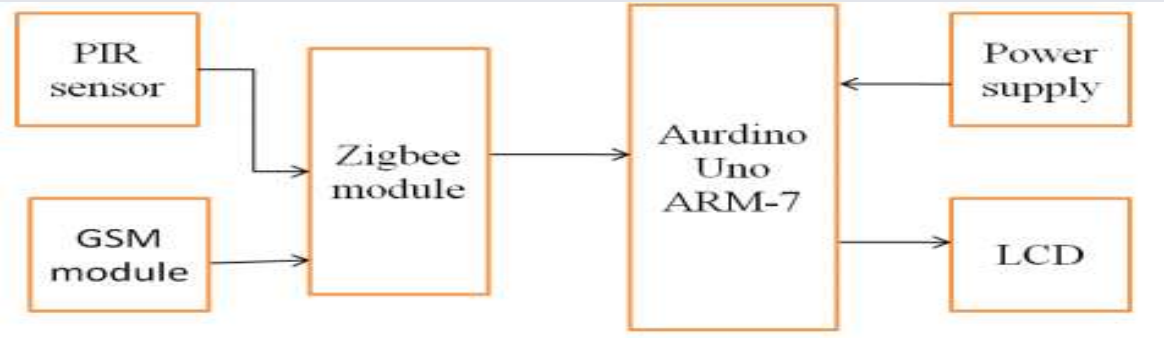

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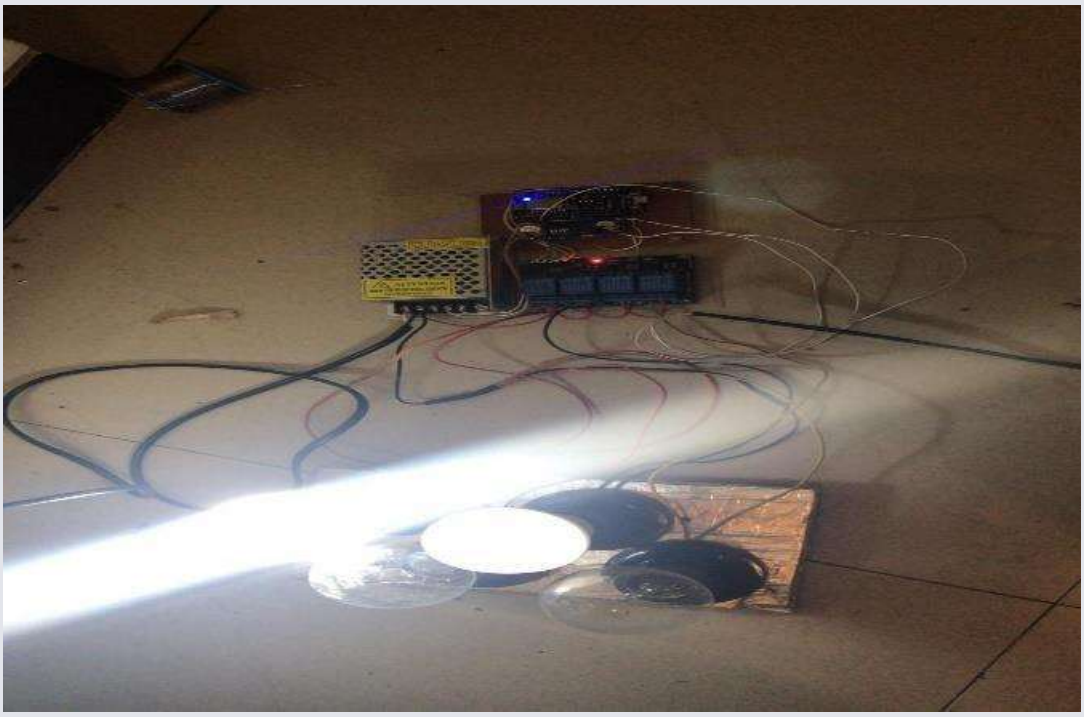

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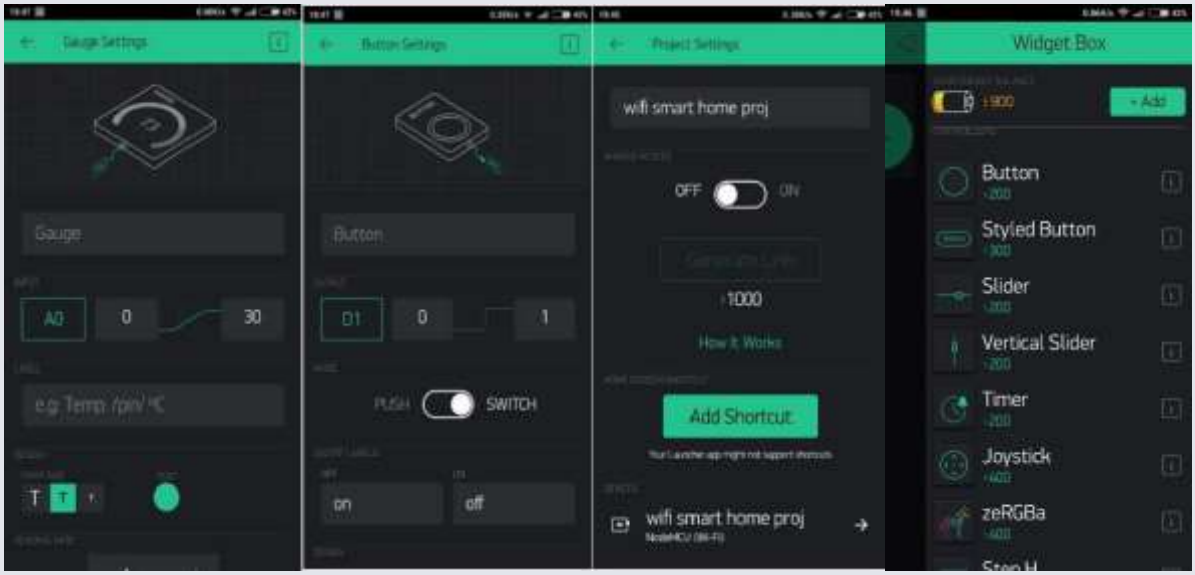

2. DESIGN AND IMPLEMENTATION OF EV CHARGING STATION BY USING PLC AND HMI

B.JANAKI, B.ANIL, B.PAVAN, B.DEEPTI SRIMAI, K.MANIKANTA
SUPERVISOR: Mr. S N NarasimhaRaju, M.Tech (PhD)

OBJECTIVES OF THE PROJECT:

Electric vehicles have a great demand these days due to their advantages. So, we have planned to design a charging station which can be used to charge electric vehicles (bikes) according to customer requirement. It is similar to a petrol filling station where the charging requirement is to be entered through the Human Machine Interface (HMI) display. In HMI display a provision has been given to enter the inputs in terms of rupees or Kwh (units) based on customers wish. This charging station is designed for two plugs and we have tested for two different electric vehicles. As this provides medium charging, we can use this station in industries, colleges for providing charging facility for faculty, employees and students.

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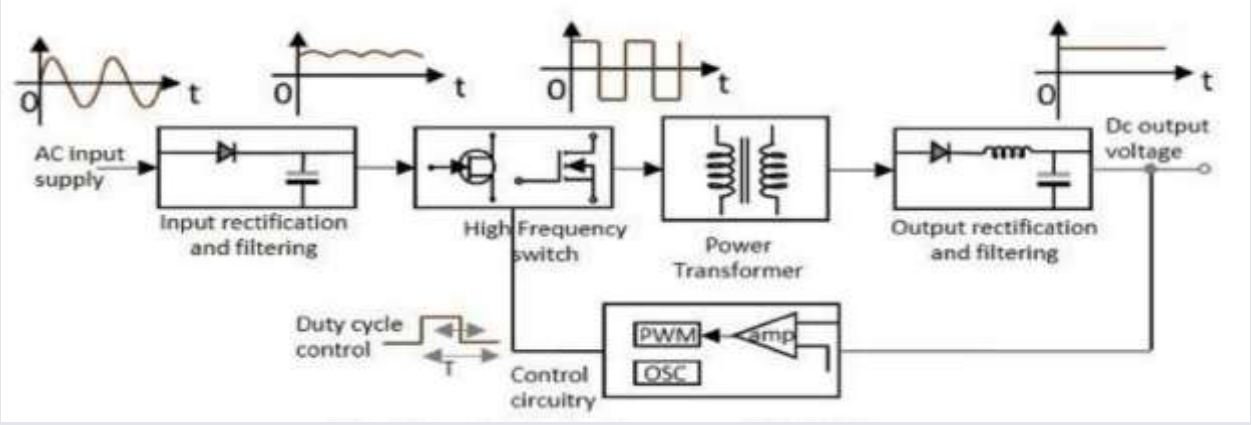

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3. AN IOT BASED SMART SWITCHING DEVICE

SUPERVISOR: Mr. P.V.Narasimha Rao, M.Tech

OBJECTIVES OF THE PROJECT:

AN IOT BASED SMART SWITCHING DEVICE generally refers to any suite of devices, appliances, or systems that connect into a common network that can be independently and remotely controlled. When your home technology works together in one system, it can also be referred more loosely as a "connected home". For example, your home's thermostat, lights, audio speakers, Television, security cameras, locks, appliances and many more are all connected into a common system, which can be controlled from your smart phone or through a mobile touch screen device.

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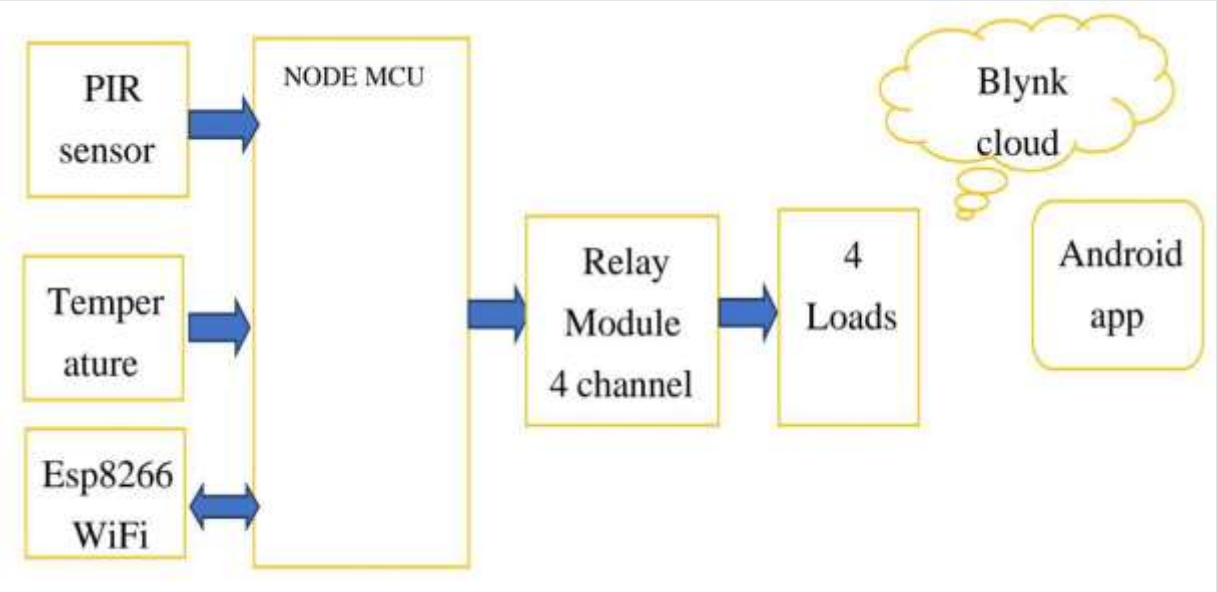

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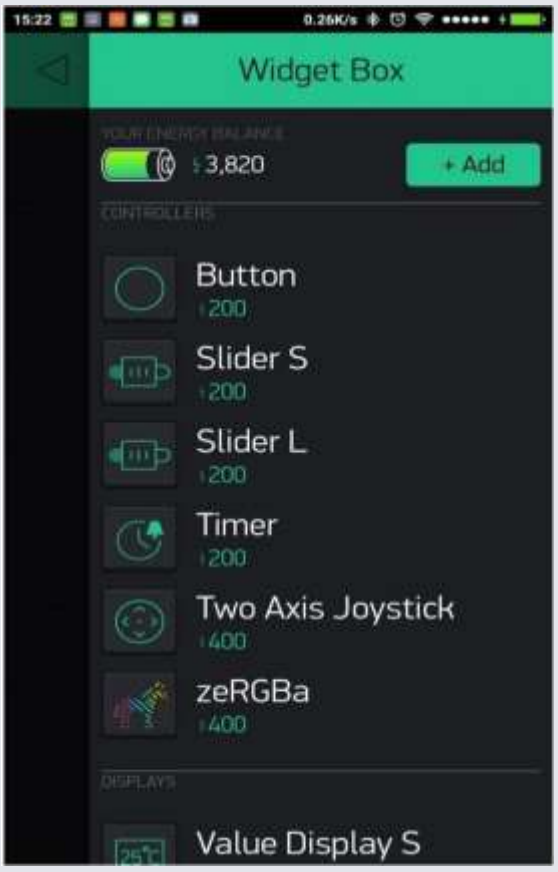

4. AUTOMATIC ROOM LIGHTS & FANS CONTROLLER USING ARDUINO & PIR SENSOR w.r.t POSITION

K. NAGESHKUMAR, A.NIKHIL, B. RAJKUMAR,
K B V M SHANKAR, CH S S S KRISHNA
SUPERVISOR: Mr. P.RAMPRASAD, M.Tech (PhD)

OBJECTIVES OF THE PROJECT:

Nowadays a lot of power is consumed by all the schools and colleges across the country. The power consumption is very high from morning to evening irrespective of students present in the room. The fans and lights are always on even when few students are present in the class. Due to this lot of power is wasted and this type of culture, saving becomes more complex. We came up with a solution which is an intelligent energy saving method using sensors and Microcontroller to control the lights and fans in an efficient way. The sensor is placed beside the benches on each column, and it detects the person pass by it or the person present on the bench and turns on the fan and light in that specific place automatically or turns off the appliances if there is no person.

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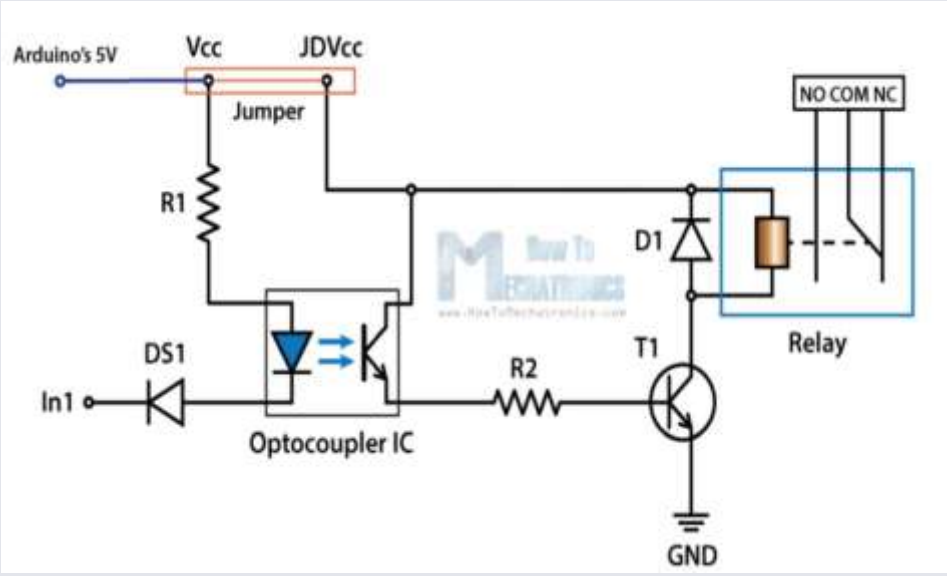

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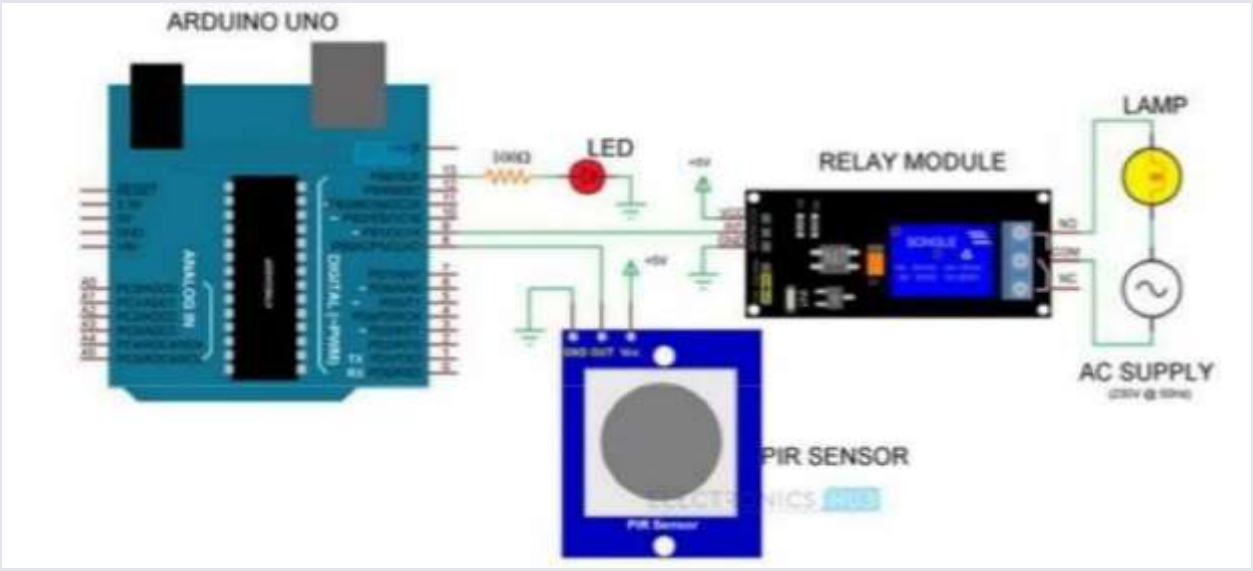

5. NEURAL NETWORKS FOR ECG SIGNAL DENOISING

Ch. RAM PRASANTH, A.SAI MANIKANTHA, D. SANDEEP
SUPERVISOR: Mr. G. SURI BABU, M.Tech.

OBJECTIVES OF THE PROJECT:

Electrocardiogram (ECG) signals have been widely used in clinical studies to detect heart diseases. But the presence of noise like baseline drift, electrode motion artifacts, power-line interference, and muscle contraction along with the ECG signal leads to inaccurate feature extraction for further analysis. So, noise free ECG signal is very much required for proper diagnosis. In this project application of Artificial Neural Networks (ANN) for electrocardiogram (ECG) signal noise removal has been investigated. The entire project is simulated in MATLAB environment and simulation results are demonstrated.

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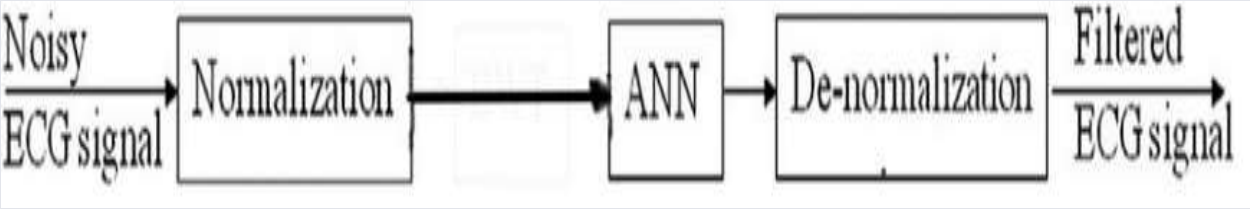

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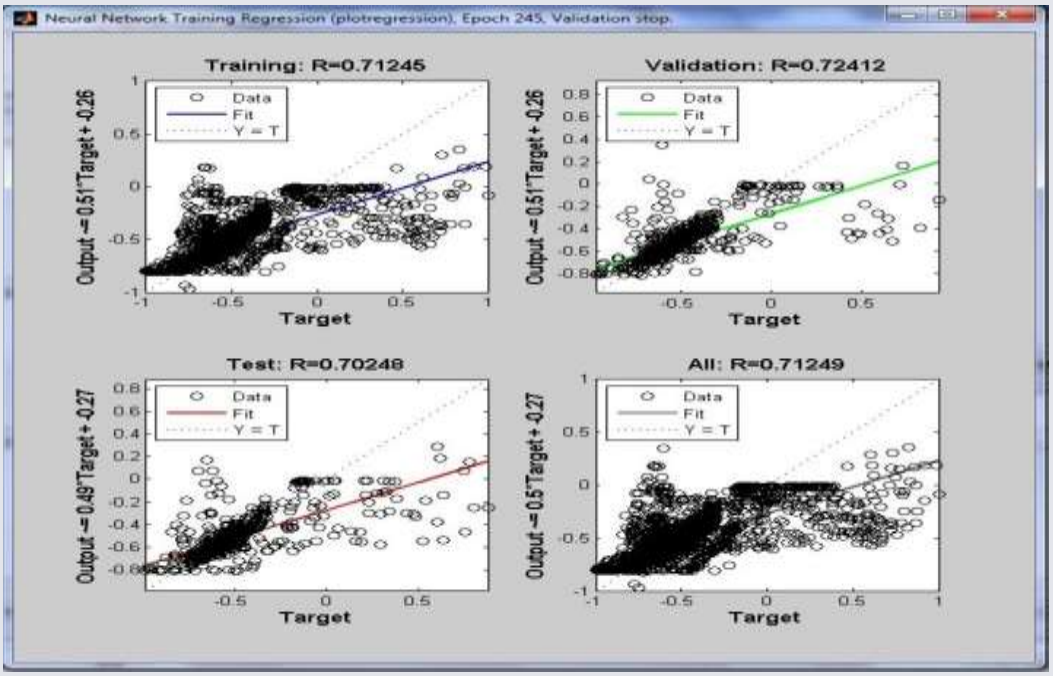

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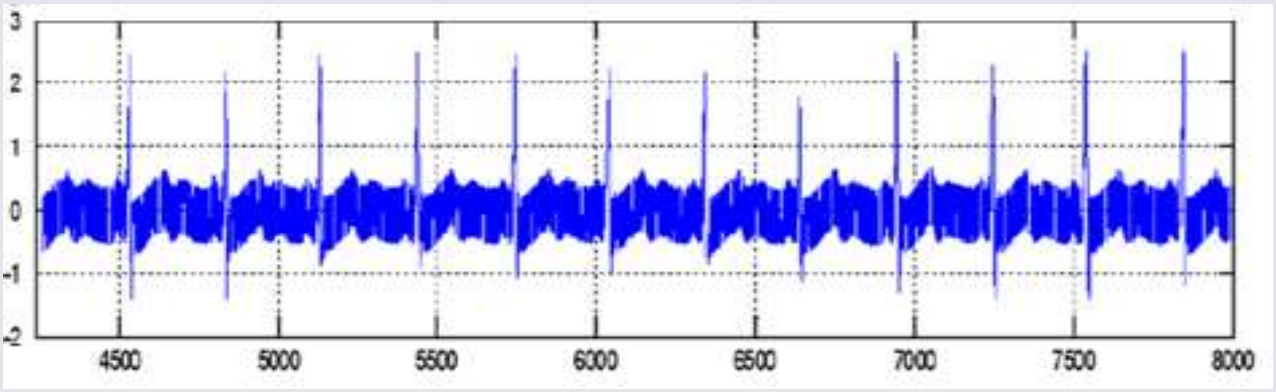

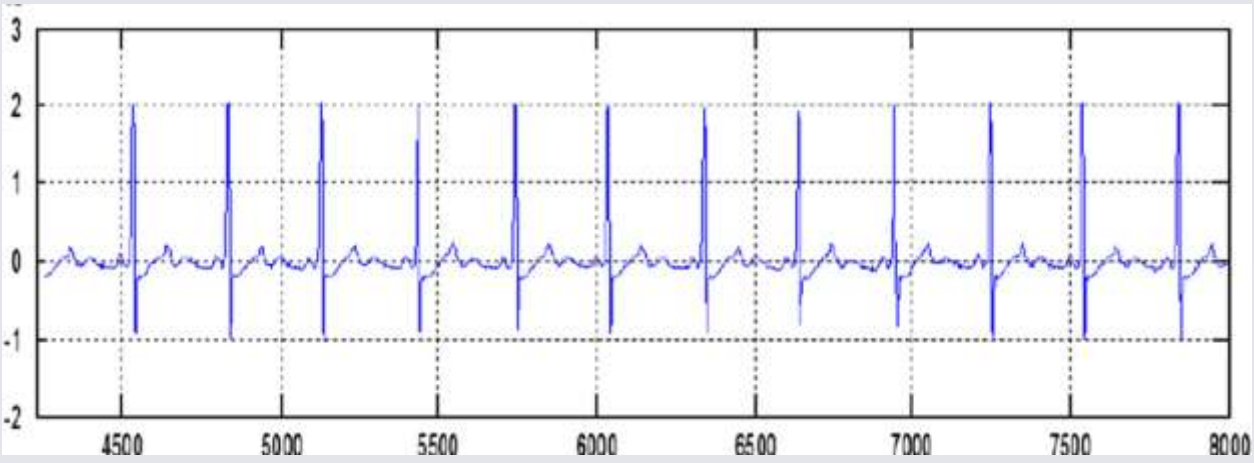

6. CLOSED LOOP SPEED CONTROL OF BLDC MOTOR TO RUN AT EXACTLY ENTERED SPEED

A.UMA DURGA MAHESH, A.SATYA SRI, B.PRANITH RAJ,
K.CHIRANJEEVI ANATH SAI
SUPERVISOR: Mr. V.SURYA MANOJ, M.E

OBJECTIVES OF PROJECT:

Closed loop control for a brushless dc motor to run at the exactly entered speed is a system that controls the BLDC (brushless dc) motor speed according to the user defined speed. In other words, this system runs the motor at 25%, 50% or 75% of the total speed when user set this percentage of speed from digital keypad. This system has designed with the help of, step down ac transformer, bridge rectifier, voltage regulator, LCD display; microcontroller pic18F452 belongs to pic family, MOSFET, speed sensors and OPTO isolator for driving the BLDC motor.The block diagram of this closed loop control for a brushless dc motor to run at the exactly entered speed system with all their essential components

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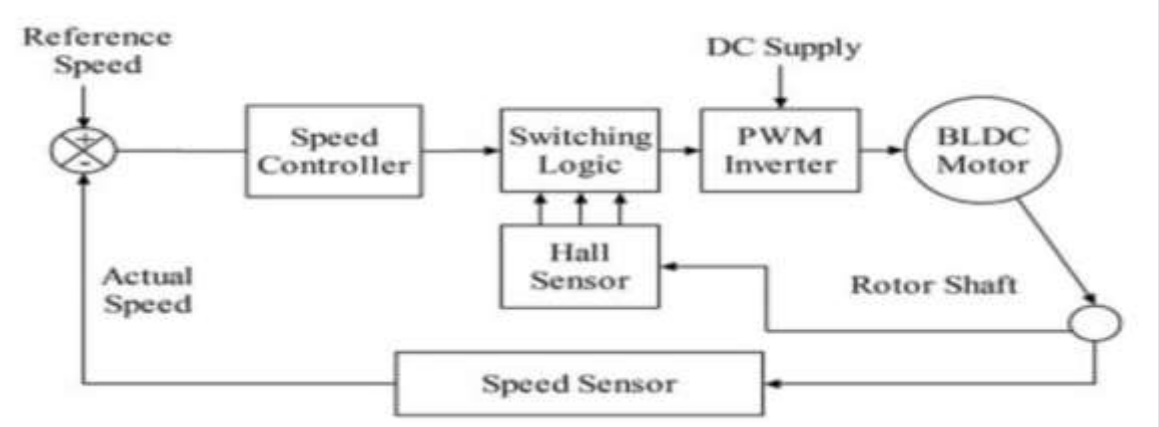

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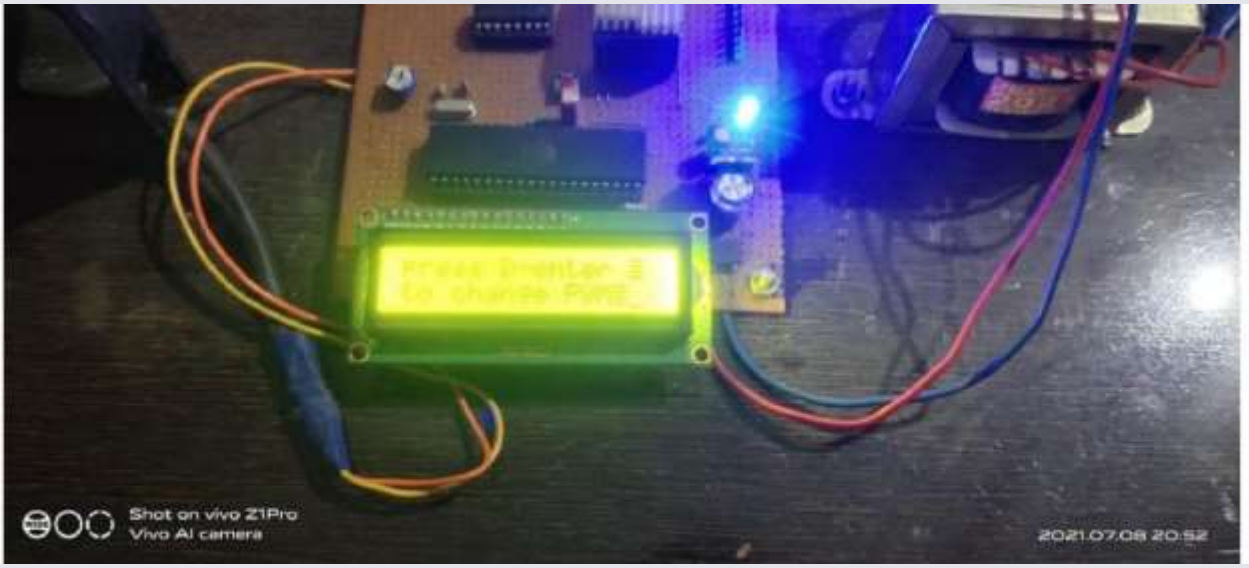
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