Project Proposal for 6th Semester

Name : Al Nahian Mugdho

Roll : 1804021

Department : ETE

Session: 3rd Year, Even Semester

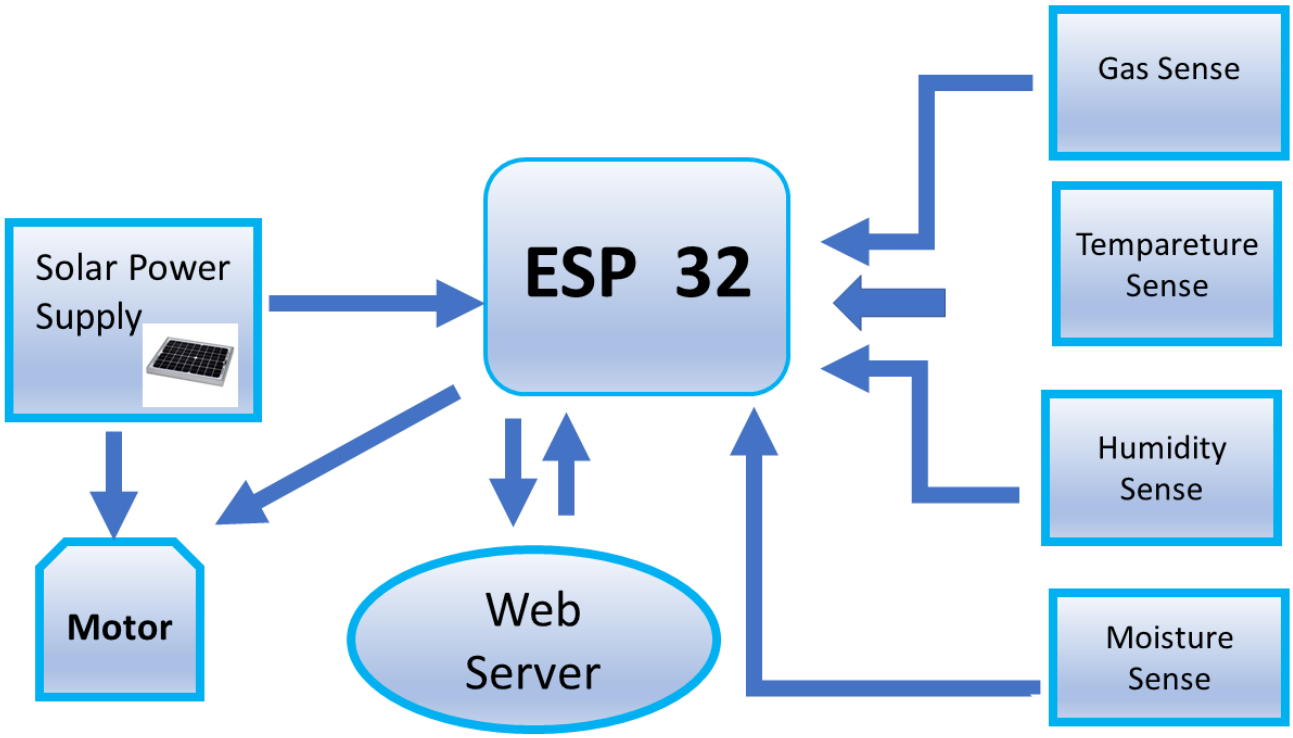
Project Proposal: 01

Name : Expedition Robot

Features:

I. Has Two Mode – Auto Pilot and Internet Control
II. Internet communication
III. Measure Air Condition, Temperature, Humidity and moisture and send data to web server
IV. Live data and graph can be seen through web server
V. Solar based power supply
VI. Offline data can be stored in excel.

Block Diagram:



Approximated Equipment :

I. NodeMCU ESP -32
II. Gear Motor
III. Solar panel
IV. DHT 22
V. LM35
VI. CAPACITIVE SOIL MOISTURE SENSOR
VII. MQ-2 Gas Sensor
VIII. Resistors
IX. Capacitor
X. Connecting Wires
XI. TP4056 LITHIUM BATTERY CHARGER MODULE
XII. Lithium battery

Application:

I. Data collection from remote and inaccessible places of earth
II. Data collection from outer space like moon, Mars etc
III. Can be used in soil and agriculture , space and geology research

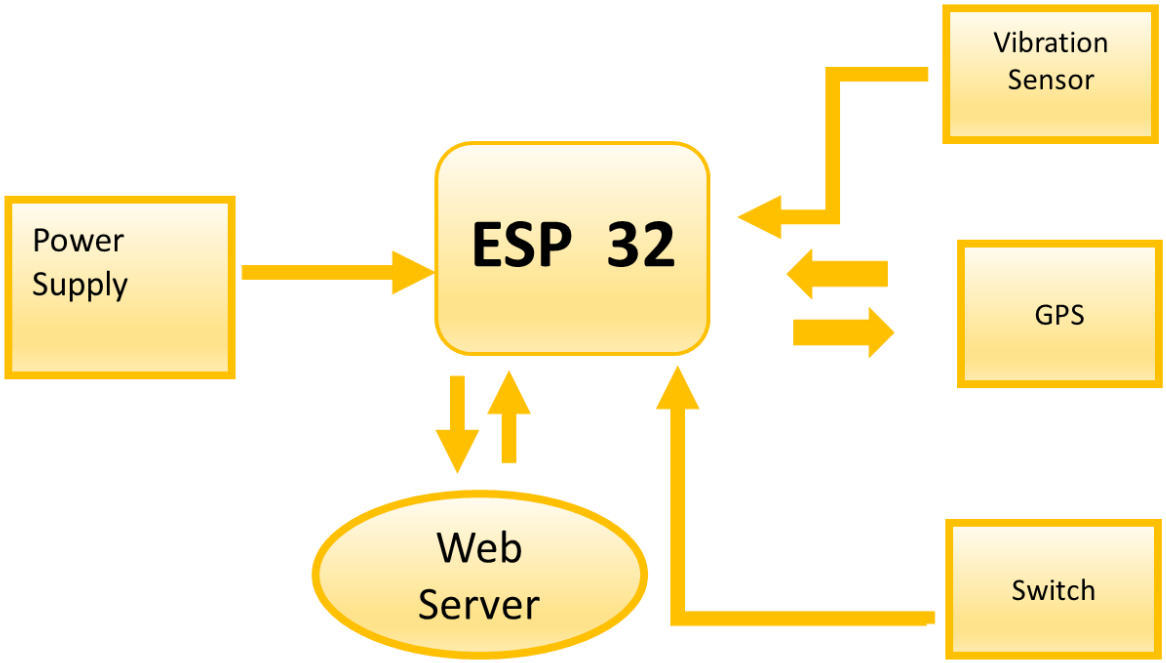
Project Proposal: 02

Name : Riders Assistant

Features:

I. Send real time location via sms to relatives when accident occurs
II. Internet communication
III. Send location to web server when accident occurs
IV. GPS Communication

Block Diagram:



Approximated Equipment :

I. NodeMCU ESP -32
II. GSM module 800L
III. Switch
IV. SW420 Vibration Sensor
V. Lithium battery

Application:

I. Can be used in bike for instant help in imergency
II. Can be used in bicycles in imergency

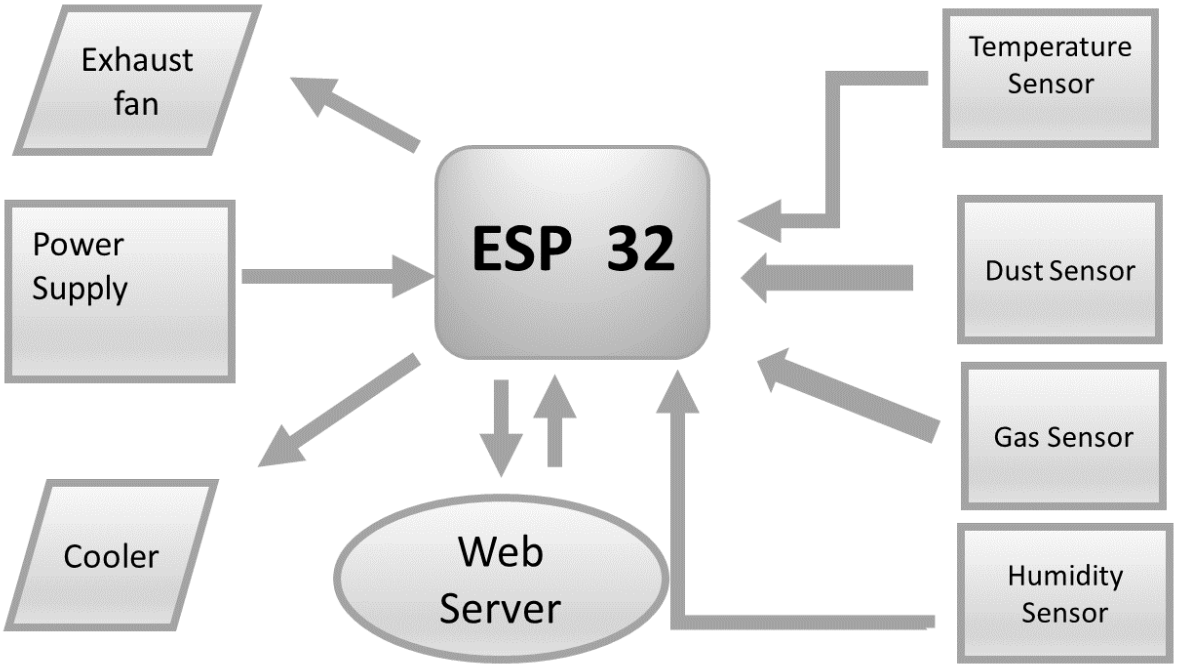
Project Proposal: 03

Name : IOT based Medical Assistant

Features:

I. Internet Communication
II. Measure Human body temperature and Humidity and send to web server
III. Measure dust and various gas density and send to web server
IV. Automated Cooling fan based on body temperature
V. Automated exhaust fan based on dust and gas density

Block Diagram:



Approximated Equipment :

I. NodeMCU ESP -32
II. MQ2 Gas Sensor
III. DHT 22
IV. Dust sensor GP2Y10
V. Cooler fan
VI. Exhaust fan
VII. Power Supply
VIII. Display

Application:

I. Can be used in home and educational institution
II. Can be used for looking after patients, babies and aged people
III. Useful in remote places where hospital is far away

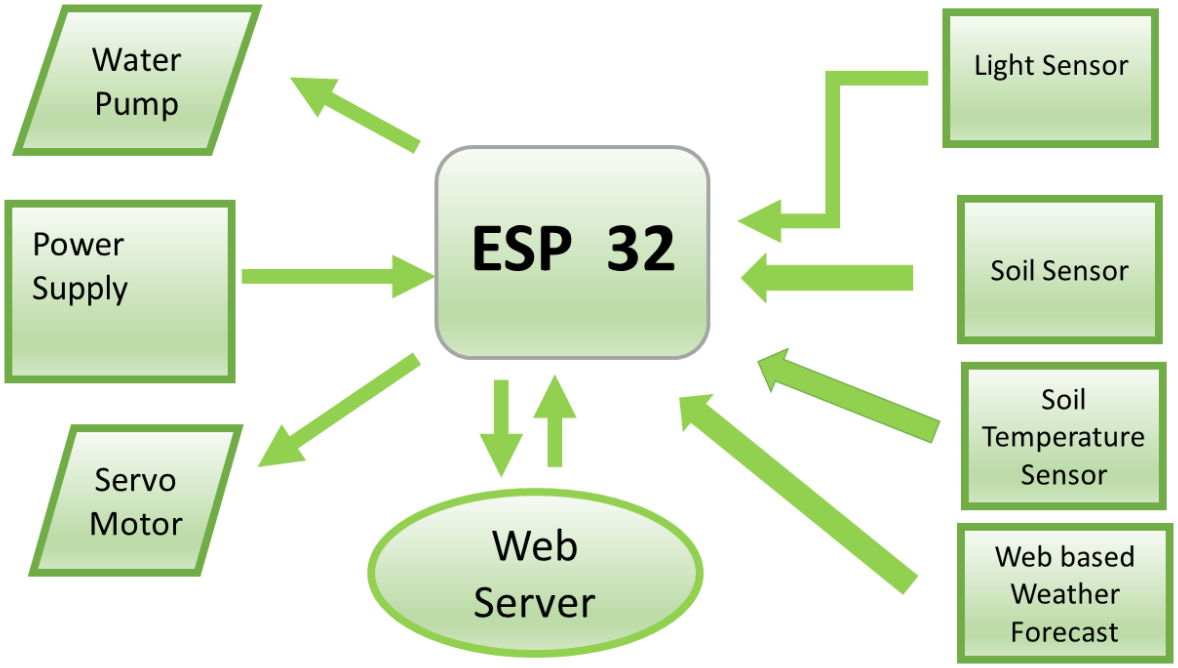
Project Proposal: 04

Name : IOT based Smart Agricultural System

Features:

I. Internet Communication
II. Measure Humidity , Soil Temperature and Moisture
III. Automated and web controlled water pump
IV. Automated and web controlled Servo for weeding out
V. Weather forecast from website

Block Diagram:



Approximated Equipment :

I. NodeMCU ESP -32
II. CAPACITIVE SOIL MOISTURE SENSOR
III. DHT 22
IV. Servo motor
V. Water Pump

VI. LDR
VII. OLED Display
VIII. LM35
IX. Power supply

Application:

I. Suitable for both garden and field
II. Implementable in greenhouse
III. Implementable in small garden or tub trees in office , school or household
IV. Useful for those who can’t give enough time to care their plants

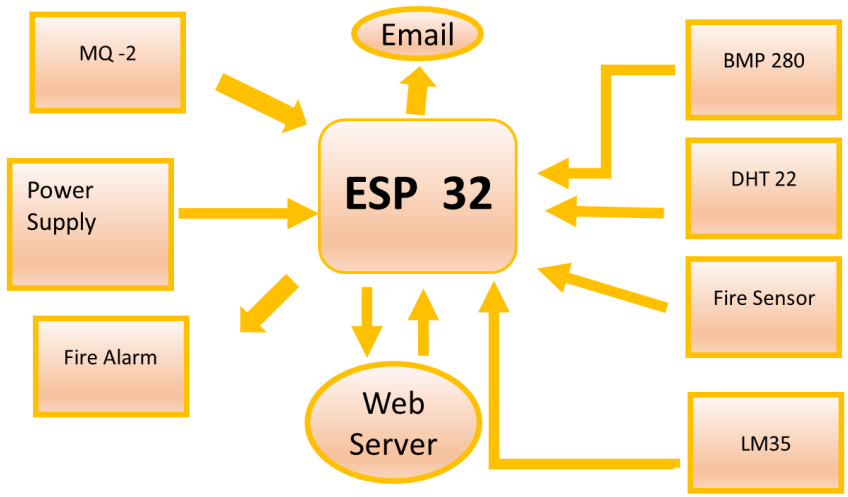
Project Proposal: 05

Name : Monitoring Industries with IOT

Features:

I. Internet Communication
II. Measure Pressure, Temperature, Gas and Humidity
III. Send Value to web server
IV. Send Email according to any mismatch
V. Fire Alarm

Block Diagram:



Approximated Equipment :

I. NodeMCU ESP -32
II. BMP 280
III. LM35
IV. MQ 2
V. DHT 22
VI. Resistors
VII. Capacitor
VIII. Connecting Wires
IX. Power Supply
X. Fire sensor
XI. Buzzer

Application:

I. Suitable for industries
II. Reduce wastage of time
III. Increase Factory Internal Environmental Security