



KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY
Indian Institute of Science campus, Bengaluru

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Website: www.kscst.iisc.ernet.in/spp.html or www.kscst.org.in/spp.html

**FORMAT FOR STUDENT PROJECT PROPOSAL FOR THE
46th SERIES OF STUDENT PROJECT PROGRAMME**

(Handwritten proposals will not be accepted, please fill all the details in this MS word file, insert images / diagrams wherever necessary. Convert to pdf file, get it approved from the project guide / head of the department and principal of your institution. Keep ready the scanned pdf file of 1) Declaration and Endorsement 2) details of processing fees made and fill-up the Google Form. Send the softcopy of the project proposal including the three scanned pages and send the proposal (All information in one pdf file) by email to spp@kscst.org.in

<https://forms.gle/pMfzw4iKL7LNAojd8>

1.	Name of the College: Vivekananda College of Engineering & Technology, Puttur
2.	Project Title: Smart Power Monitoring System Using IoT
3.	Branch: Electronics & Communication
4.	Theme (as per KSCST poster): (The project proposals shall mandatorily be from one of the broad themes / areas. Visit website www.kscst.org.in/spp.html) Bioenergy / Solar energy application at villages
5.	Name(s) of project guide(s): 1. Name: Prof. Mahabaleshwara Bhat P Email id: mahabaleshwarabhatp.ece@vcetputtur.ac.in Contact No.: +91 99649 58320
6.	Name of Team Members (Strictly not more than four students in a batch): <i>(Type names in Capital Letters as provided in your college)</i> (Please paste the latest passport size photograph adjacent to your respective names)

Name: Thanmaya H Rao
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- 7. Team Leader of the Project:**
Name: Thanmaya H Rao
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- 8. Processing Fee Details (Through Online Payment only):**
(processing fee of Rs. 1000/-)
Please furnish the payment made details provided in the last page of this proposal.

Note: (The student team shall furnish the details in the Google Form. It is informed to the students to 1) keep ready the project proposal and 2) make the payment made details for processing fees and 3) Enter the details in the Google Form on the same day of payment made to KSCST by NEFT / UPI payment).

- 9. Date of commencement of the Project: 05/12/2022**

- 10. Probable date of completion of the project: 06/06/2023**

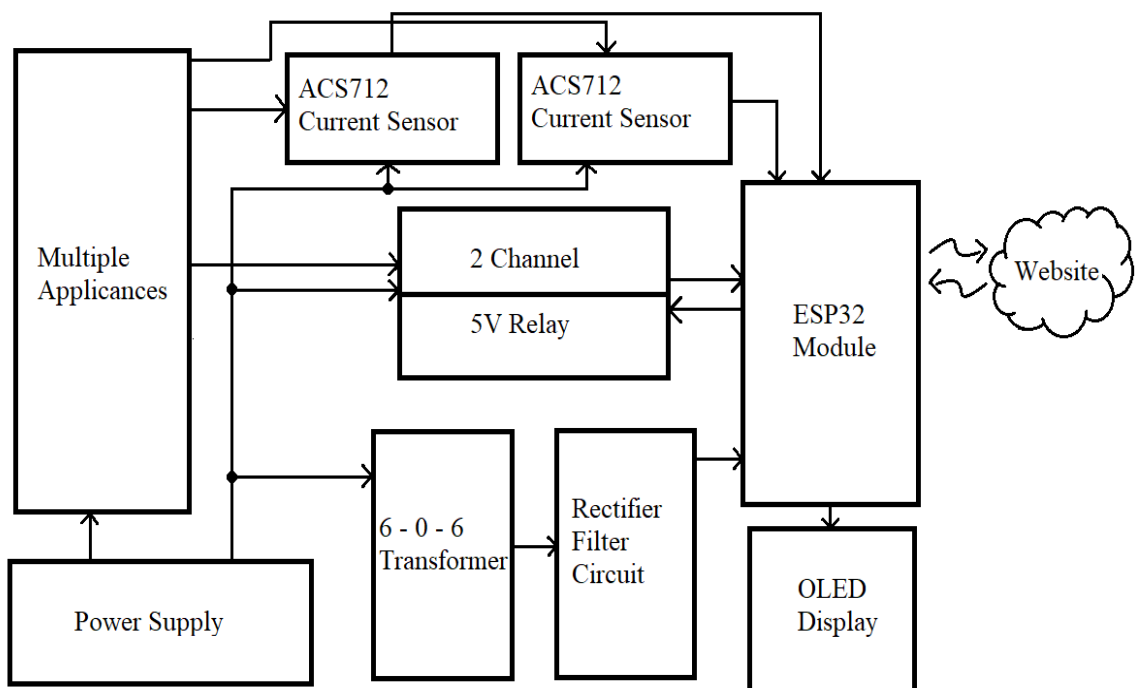
- 11. Scope / Objectives of the project:**

➤Monitoring the current, voltage, peak power and total power of home appliances.
➤To control and monitor the appliances with the help of IOT application.

12.

Methodology:

The fig shows the IOT based power monitoring system. The circuit consists of ACS712 current sensor which measures the current (within the range 0-50A) drawn by the multiple appliances and produces current equivalent voltage as its output. This output is connected to the digital pin of ESP32 WIFI module. The rectifier circuit takes step-down voltage from 6-0-6 transformer and gives 6V dc input to ESP32 module. With the measured current as input data ESP32 calculates the total power consumed, voltage along with current using user program. The ESP32 gets 3V power supply from the rectifier circuit. The central IoT control unit consists of Ubidot website which monitors, controls using smartphone. The output data of ESP32 module is displayed using OLED display.



13.

Expected Outcome of the project:

The output of this project is:

- > It helps in monitoring the current, voltage, peak power and total power of home appliances.
- > It helps to control the appliances with the help of IOT application