

**Team Name :REVENGERS**

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**Note:**

1. One can participate either as a part of a team or an individual basis. Switching teams is not allowed.
2. The uploaded ideas will be screened to go to the second round.
3. Judging : competition entries shall be judged, or winners selected based on the following criteria
  - Is the problem worth solving
  - How innovative or novel is the idea
  - Scientific accuracy
  - Social impact
  - Scalability
4. Decisions of IIC JSSSTU in respect of all matters to do with the competition will be final and no correspondence will be entertained.
5. In second round, the selected teams will have to present their idea in front of the jury panel.
6. Payment of INR 50 should be made to the UPI ID [anju.marina.lobo@oksbi](mailto:anju.marina.lobo@oksbi) and submit the transaction ID above.
7. Idea should be submitted in **.pdf** format.

**Abstract: (not more than 150 words)**

In this present world , energy consumption has reached its peak as well as unknown wastage . one such wastage is vampire voltage wastage. It's the dead wastage due to any battery charging or electronic gadgets. This is normally wastage in the power in standby mode or excessive charging .The best example is leaving the charger on with switch 'ON' even when mobile is connected to the plug.This contributes to about 15% of energy wastge which is massive amount of wastage of power in the whole world.Thus to eradicate this problem we have used a simple idea with IOT platform . Node MCU is major usage in this idea , which is used with blynk software .Whenever the battery is

connected to charger and charged upto certain value , any triggering app( one such used here is Macroddroid ) sends an HTTP request to the blynk server to “OFF” the respective pin of Node MCU which in turn connected to the AC power supply of the socket using relay.This is unique to each Node MCU which has separate auth token and password with blynk community.Further it can be used to ON the switch inside the Blynk app available in android .Thus this is not only for mobile whereas be used with various electronic gadgets like lkaptop ,TVs , and many more. Even a drop of energy conserved may help future which demands more out of nothing left . So doing something and saving is better than doing nothing and leaving future with dry hands.

### **Introduction ( not more than 200 words)**

Energy has been playing a vital role . Each thing we do requires energy. Electricity is the present major energy source . What not use electricity now a days.But this also has wastage in the form vampire voltage. Yes as the name suggests it is the dead voltage that is being wasted in all electronic gadgets which has AC to DC converter or battery to be charged . best example is every we live the charger in the ac socket and turn on the switch even when the charger isnt plugged or during over charging of mobiles , there will be wastage in the charger adapter due to conversion . And this accounts to 0.5 wat per hour nearly . but considering number of electronics gadgets all over world its a serious amount of wastage of energy and topic to worry about.

Home automation has made a new trend in the present century along with IOT . And what if it had considered an additional feature of eliminating this vampire voltage. The soul of this project is IOT . We will be using IOT to overcome this problem ( And we have considered only mobile here for an example which can be used for all smart gadgets ).Nodemcu is the iotplatform with esp8266 firmware which is used in this project . Blynk server is used to control the pins of nodemcu .We have also used a app called as macroddroid which is basically a triggerring app for various matters.One such is it can sense the battery percentage and charger being plugged to mobile . Whenever battery chargers to preset value , app sends an http get to blynk server based on the id and authorisation code given to us by the blynk . This trigger certain pin of nodemcu to get high or low based on http.post . the corresponding.pin is connected to the relay dc input. So every time the mobile charges to say 100% the http web request is being sent to blynk server to high the certain pin of nodemcu which inturn offs relay .In this way , we cut off ac signal from adapter connected to socket through relay ac input .And vampire wastage is being eliminated.

### **Motivation (not more than 100 words)**

In modern times people don't have time to do anything ad are always in a hurry of getting things done in a hurry. To aid this fast charging was invented , modern day smartphones gets fully charged in half an hour. Yet people put their phone to charge at night or leave the phone to get overcharged. When the phone gets over charged there is loss of energy in the form of heat or as vampire voltage. Our project is a small step to reduce this wastage.

## Methodology (block diagram, related figures etc)

Latest smartphones have developed a technology to block the incoming charges after the phone is fully charged ,but it has failed to reduce the power that is being wasted in the charger during the step down action of the transformer. Our approach completely minimises this wastage and makes the functioning of charger more efficient.

**Basically what our project does is when the phone is 100 percent charged it switches off the charger completely to save energy and stop wastage of vampire voltage.**

### The smart port

- ▶ The smart port switches off the charging port when the phone is fully charged .
- ▶ It uses the concept of IoT for its working.



## Social Impact

It can have impact... As trend as to move towards even saving a penny inside the home ... A penny saved by each makes ton around the world ..

It affects majorly all the people in and around ... as everywhere there are gadgets ... Other than that It sectors , electronic companies , hospitals most of the public sector of the country can have major benefit from this.

As the smart phones are being used by everyone in this era , this is beneficial to each and every smartphone user. So this project has benefits to all people from different walks of life.

## **Market Survey**

This product affects the following sector:

General public

When asked about how the smart port would help them or how it would make an impact in their lifes.

They were excited to hear about this new technology and they could also relate to the problem explained by us