**SOLAR CHARGE CONTROLLER**

**ABSTRACT:**

In this project we are using arduino uno which is the main part of project, variable battery supply, solar panel, adapter and led panel as a load. Here variable battery source is used for demonstration purpose through which we can vary the voltage with the help of pot.

When we gradually increase the voltage then the battery voltage is 10v & load gets ON. At that time MOSFET is used as a switch through which the load gets ON & solar is also ON. So to avoid deep discharge of battery & to avoid damage of battery we are set 10v as threshold level. So whenever the voltage goes below the threshold level, the load gets OFF. Again we are increasing the voltage (above 10v) at that time the load is continuously ON so to avoid this wastage of the power we are adding one switch to OFF the load.

When the voltage is above 13.8v, the solar stops charging to avoid over charging. At the time of critical condition i.e. solar is OFF & battery voltage is below 11v then the adaptor is connected automatically. & when it exceeds 11v then adapter gets OFF. When solar comes under the sun rays then the adapter gets OFF because the device gives first priority to solar.

**BLOCK DIAGRAM:**

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