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## EXPERIMENTAL STUDY AND ANALYSIS OF SOLAR ENERGY SYSTEM WITH GRID

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### Abstract:

*In this paper, we are discuss about the solar power and grid connection, in this way we are use the various component such as PV Cells battery inverter, and grid power, after that all component are assembled. This system is optimized design of grid-connected PV system with storage, which is suitable for appliances. This system has requires less installment cost and supplies residential loads with the grid.*

### Keywords:

*Solar Energy; Storage System; Consumption.*

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## 1. INTRODUCTION

The renewable energy system is becoming more use. The energy is obtaining from photovoltaic system and use the storage system. The PV system are static and free of moving parts which are make, it easy for operation and with less maintenance. For stable operation we are use the storage system such as battery with inverter.

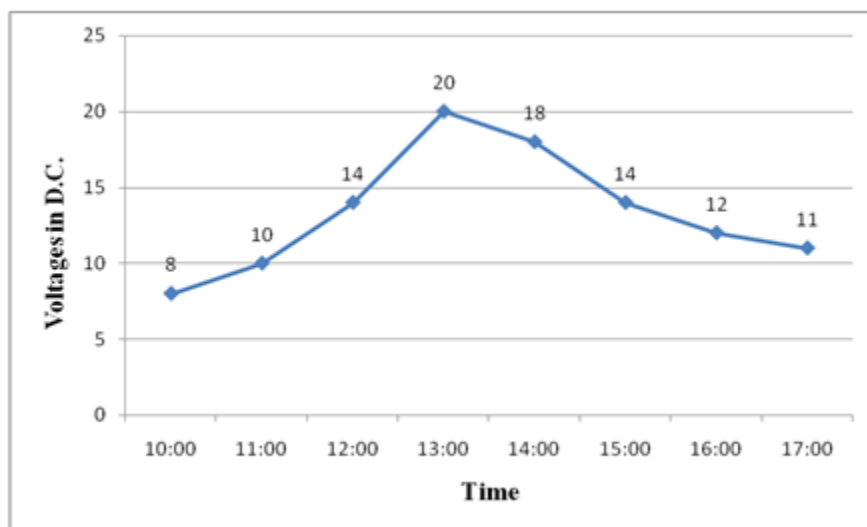
## 2. COMPOSITION

- 1) Generating the DC Voltage by using a photovoltaic system.
- 2) Storage system as battery.
- 3) Conversion of DC Voltage to AC Voltage using of inverter circuit with proper filter.

### 3. ANALYSIS

**Table 1:** Voltages without using controller

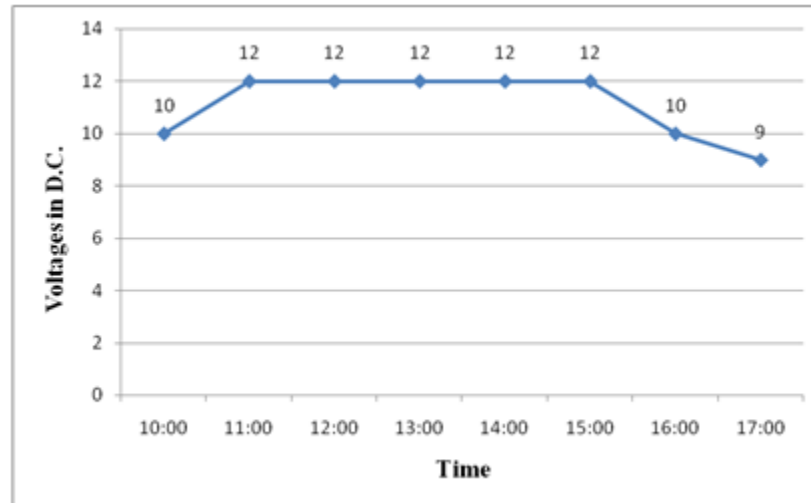
Sr. No.	Time	Voltages in D.C.
1	10:00	8
2	11:00	10
3	12:00	14
4	13:00	20
5	14:00	18
6	15:00	14
7	16:00	12
8	17:00	11



**Figure 1:** Voltages without using controller

**Table 2:** Voltage with using controller

Sr. No.	Time	Voltages in D.C.
1	10:00	10
2	11:00	12
3	12:00	12
4	13:00	12
5	14:00	12
6	15:00	12
7	16:00	10
8	17:00	9



**Figure 2:** Voltage with using controller

#### 4. CONCLUSION

We are finding out the stable 12V D.C. using of MPPT devices and these voltages are store in battery after that connected the invertor for the purpose of the finding 22V.A.C.

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