CHAPTER-1

INTRODUCTION

Since human evolution, mankind has exploited naturally available resources such as Wind, Water & Solar energy. The availability of resources restricts the use of Wind and Water energies as alternative power sources. But Sun is available since birth of solar system and will remain there as single infinite energy source.

There are some hopes that the sun will become a main source of energy in the 21st century. By then, sources of oil will be almost exhausted and will only play a minor part in the supplying of energy. The present interest in solar energy is therefore not surprising. Some work has already been done with solar cells and solar panels. that we get from the greatest reservoir of energy, the Sun, remains unused. The only way to store the energy from the sun is to convert it into electrical form and then using this electrical signal to charge batteries and thus store the energy in chemical form. For this we make use of solar panels consisting of solar cells. The solar cell gives an electrical output which is proportional to the intensity of light falling over it.

The other novel feature of this project or system is to check the day-light intensity and accordingly switches the appropriate loads. This decision is done by electronics means and one or two loads are switched on, which are needed to that condition.

1.1 OBJECTIVES

- To assist in energy saving process.
- Smart & efficient way to use solar energy which is abundant & inexhaustible.
- To achieve balanced management between solar energy & the domestic power supply
- To implement cost effective power generation at domestic level

1.2 MOTIVATION

The motivation behind the idea of this project is,

- Effective utilization of solar energy for home and if battery gets full charged then the solar energy will be transferred to EB.
- Helping the people living in rural and urban areas.

In this project the technique is used to utilize the power supplied by electricity suppliers and if the power is more than usage it is stored and excess amount of power is returned back to power stations.