

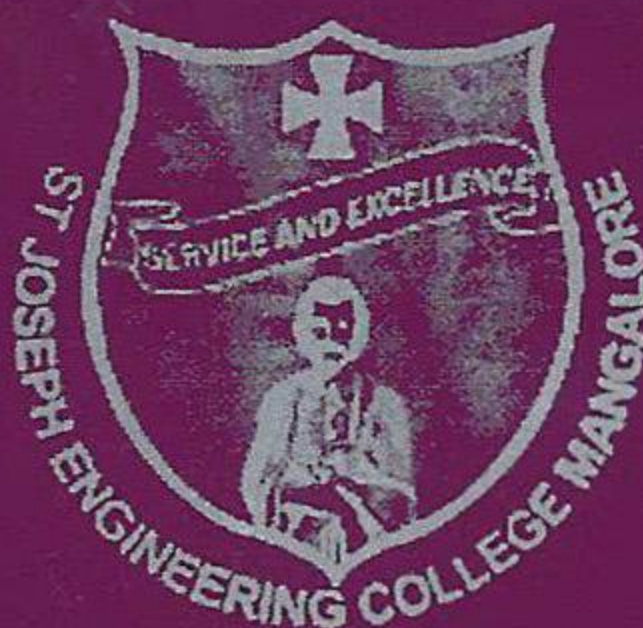
**PROJECT REPORT**  
**ON**  
**SOLAR BASED MOBILE CHARGER**

**Submitted in partial fulfillment of requirements for the degree of**  
**BACHELOR OF ENGINEERING**

**In**  
**ELECTRONICS AND COMMUNICATION ENGINEERING**

|                           |                        |
|---------------------------|------------------------|
| <b>By</b>                 |                        |
| <b>AMLIN JOSNA DSOUZA</b> | <b>USN: 4SO10EC012</b> |
| <b>AMRA FATHIMA</b>       | <b>USN: 4SO10EC013</b> |
| <b>ASHLESH KUMAR</b>      | <b>USN: 4SO11EC403</b> |
| <b>YOGISH V HEBBAR</b>    | <b>USN: 4SO11EC427</b> |

**Under the guidance of**  
**MS. SHAMA B N**  
**Assistant Professor**



**Department of Electronics and Communication Engineering**

**(Accredited by NBA, New Delhi)**

**St. Joseph Engineering College**

**Vamanjoor, Mangalore- 575028**

**May 2014**

## **ABSTRACT**

With the existing push in the direction of sustainable, clean sources of power, solar power has become one of the most popular alternative energy sources. The sun's energy is usually harvested through solar panels that are made up of photovoltaic cells. These cells convert sun's radiated energy into electricity that can be used for various purposes. In this project, a solar based mobile charger is constructed along with a battery voltage analyzer. The sun's energy harvested through solar panel is converted into electrical form and is stored in the rechargeable battery. This battery is interfaced with an ADC and the percentage of charge present in the battery is displayed on an LCD through a micro-controller. The energy stored in the rechargeable battery can be used to charge a variety of devices including mobile phones, card readers, cameras, MP3 and DVD players and even low-wattage bulbs. This system is highly reliable, compact in size with low manufacturing and maintenance cost.