

A Solar Powered System For Displaying Information

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ABSTRACT

The present invention discloses a method and system for displaying information in more economical and sustainable way using electroluminescent display power by solar energy. The system comprises a solar PV, a charge controller, a battery, a DC-DC boost converter, a H-bridge inverter and an electroluminescent display unit. The method comprises converting solar radiation into electricity through solar PV and storing that electricity into the battery. Further the method includes converting low voltage direct current into high voltage direct current through DC-DC boost converter. The high voltage direct current is then converted into alternating current through H-bridge inverter. Finally, the electroluminescent display screen gets the required electricity and display the information in visual form. The display system includes a proximity sensor which keeps the record of number of viewers watching the display screen.

KEY APPLICATION AREAS

1. Public information and announcement boards.
2. Transportation displays (bus stops, railway stations, airports).
3. Outdoor advertising and digital signage.
4. Educational institution notice boards.
5. Industrial safety and information displays.
6. Rural communication and awareness systems.
7. Smart city infrastructure.
8. Tourism and wayfinding displays.

POTENTIAL USE CASES

1. Solar-powered digital notice boards.
2. Smart bus stop and transit information displays.
3. Government scheme and public awareness boards.
4. Outdoor advertising with viewer analytics.
5. Campus and corporate communication systems.
6. Emergency and disaster alert displays.
7. Tourist information kiosks.
8. Industrial safety instruction boards.