**SIMULATION OF LUO CONVERTER FOR RENEWABLE APPLICATIONS**

ABSTRACT

The present work describes the modelling, simulation and configuration of Luo converter for renewable application. Solar energy has become one of the most favourable energy due to its availability and sustainability but the conversion system which act as a barrier for its performance in energy conversion efficiency. The solar energy is boost up using a luo converter. Traditionally, boost converter is widely used to boost up the dc output voltage. The drawback of the boost converter has ripple content in the output voltage is highly reduced by luo converter, which has very high voltage transfer gain. Luo converter are evolved as a series of boost converters with greater efficiency, more power density and gives large output with insignificant ripples. Comparing to conventional converter, the luo converter boosts up to 3times of the input voltage. The designed luo converter is simulated using MATLAB/SIMULINK software and the simulation results like dc output voltage and ripple content.

**Key Words**: Luo converter, voltage gain, renewable energy, minimum ripple