

ABSTRACT

This final project discusses the simulation of one cycle control in a differential buck inverter. Differential buck inverters are used in various electronic circuits to convert direct current (DC) with a higher voltage into alternating current (AC) with a lower voltage. The one cycle control system was chosen due to its ability to dampen various perturbations with a fairly simple design and good performance. Meanwhile, the differential type of buck inverter was chosen due to its good compatibility with one cycle control system, which allows the overall system design to be simpler, without compromising on circuit performance. This system will be tested with simulations that are used to analyze its performance on linear and non linear loads.

Keywords- one cycle control, differential buck inverter, simulation