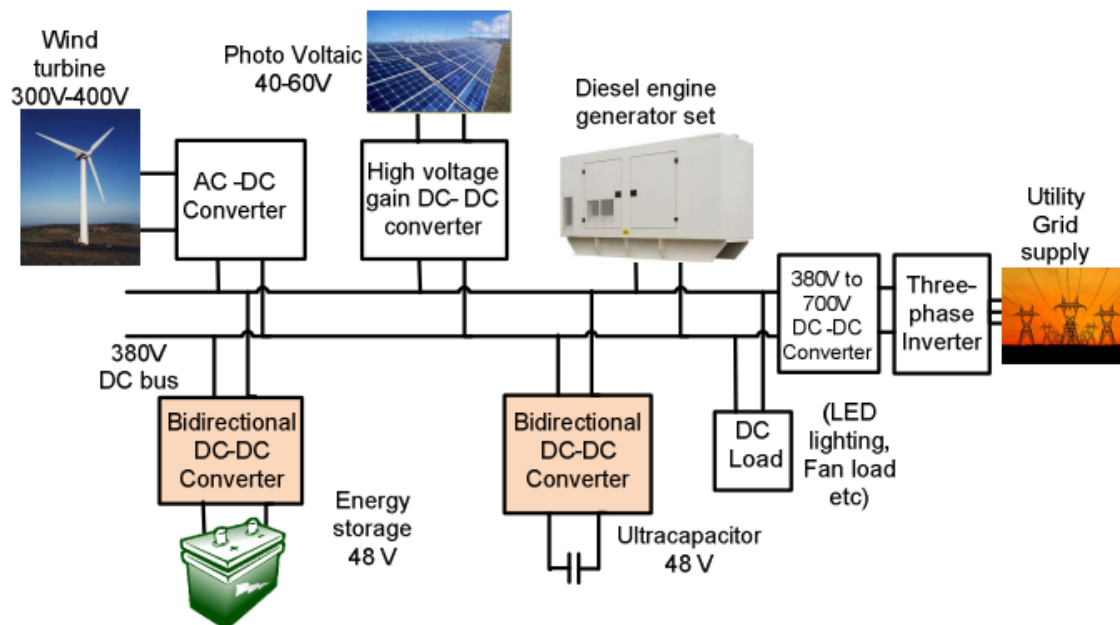
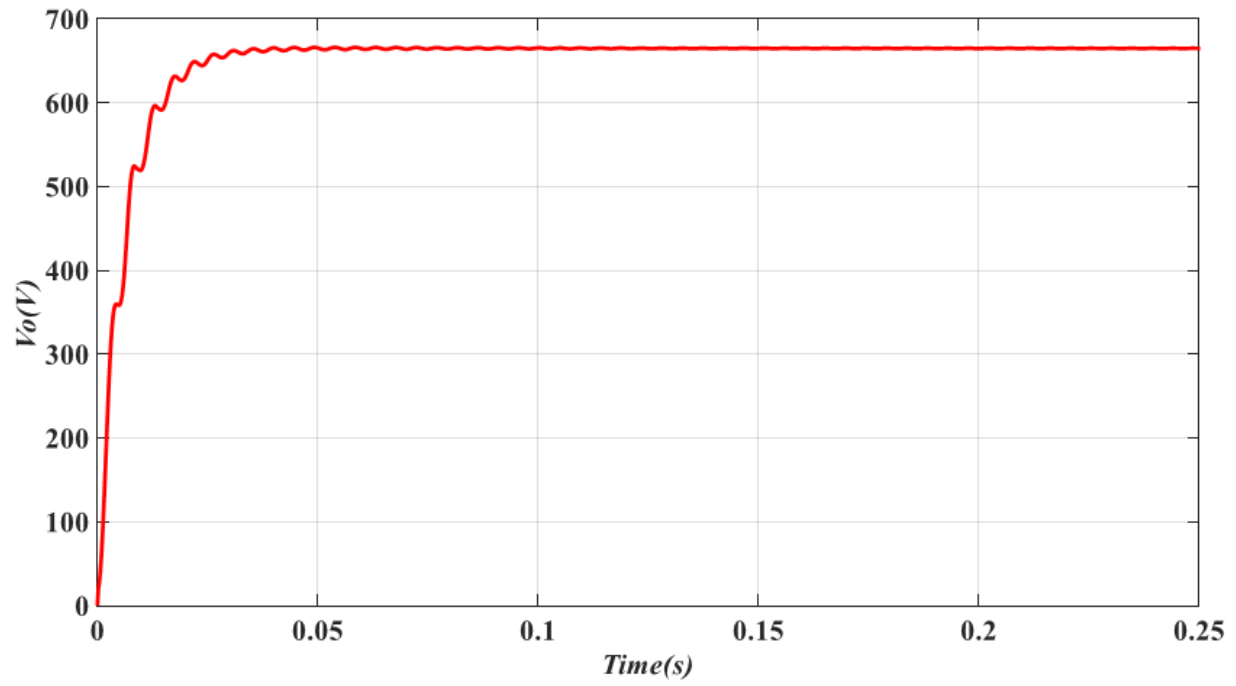


Design and simulation and fabrication of a high gain DC DC converter

Recent decades, extreme demand on electricity cause the fossil fuel consumption has been increase. So the renewable energy as fossil fuels, wind and solar gets more attention which solar and fossil energies gets more attention. These energies has low dc voltage so for transformerless grid connected systems, it needs to use high gain dc/dc converter. to reach high gain dc/dc converter. The major consideration in dc –dc conversion is often associated semiconductors, low cost, simplicity and with high efficiency, reduced stresses involving robustness of the involved topologies. In the last few years, high-step-up nonisolated dc –dc converters have become quite popular because of its wide applicability, especially considering that dc –ac converters must be typically supplied with high dc voltages. The conventional non-isolated boost converter is the most popular topology for this purpose.



In this thesis proposes the novel dc/dc converter for solar system, A novel topology for non-isolated dc/dc converter is simulated and analysed. This converter has more voltage gain compared to conventional converters. The analysis of power converter in CCM is presented and extended topology is propped. Finally, simulation result is presented using Matlab software which results verified the analytical findings.



The simulation results in confirming the mathematical relations analyzed from the proposed circuit indicate the high gain of the voltage of proposed converter.