

DIGITAL SIMULATION OF CLOSED LOOP CONTROLLED TWO INDUCTOR BOOST CONVERTER SYSTEM

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Abstract

The aim of this work is to simulate Two- inductor Two- switch Boost Converter System. This system combines two Boost converters to give better voltage regulation. An auxiliary Transformer is added in series with the inductor to improve the performance. Two inductor Boost converters is designed and simulated using MATLAB Simulink. The circuit model is developed for closed loop system and it is used successfully to reduce the steady state error.

Keywords : Auxiliary transformer, boost converter, pulse width modulation, two inductor, PI controller