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Characteristics Verification of DC- DC Buck Converter Using Nonlinear Controller with the PI Controllers

Arti Sachin Bindu
Assistant Professor, Department of Electrical Engineering
Nutan Maharashtra Institute of Engineering and Technology. Talegaon, Pune, Maharashtra, India
artibindu1978@gmail.com

Abstract: *In this project buck converter is simulated with variety of existing linear controllers like PI and PID. After analyzing the performance of buck converter from many papers it was found that nonlinear control sliding mode control can be used with buck converter. The performance of buck converter has been studied and is undertaken for their theoretical verification, graphical representation and Matlab simulation. From the linear controller PI, non linear controller sliding mode control (SMC) is taken as control method. As the concepts of linear controllers PI and PID are known to us, the concept of sliding mode control (SMC) is explained in detailed.*

Keywords: SMC (Sliding Mode Control), PI and PID Control

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