



## **Two Input Buck-Buck PWM DC-DC Converter fed Separately Excited DC motor: Design, Switch Realization and Simulation**

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**Abstract :** The energy storage unit is one of the most important aspects in structure of hybrid electric vehicle and photo voltaic systems. Two input DC-DC converters used in such energy storage unit to improve efficiency, performance and also to reduce cost, component count. In this paper, proposed topologies of two input Buck-Buck dc-dc converter is designed through derivation by using H-Bridge cells as building block. Switch realization of the proposed converters were obtained with their voltage transfer ratios. This proposed converter is connected to Separately excited DC motor. The performances of the Buck-Buck converter fed separately excited DC motor is simulated using MATLAB/simulink .The output results were Compared and verified with theoretical Results.

**Keywords :** Buck-Buck dc-dc converter, Voltage transfer ratio & separately excited DC motor, MATLAB/simulink.

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