

Solar Power Generation System Based Implementation of Single Phase Seven Level Inverter

Alagu Subathra M¹, Karpagavalli E² P.G Scholar, Department of Power Electronics and Drives, Dr.Sivanthi Aditanar College of Engineering, Tiruchendur, India¹

Assistant Professor, Department of EEE, Dr.Sivanthi Aditanar College of Engineering, Tiruchendur, India²

Abstract: -In this paper a new solar power generation system is presented which consists of dc-dc power converter and a new seven level inverter. Two independent voltage sources which multiple relationship is obtain by converting the output voltage of solar cell array by integrating dc-dc boost converter. The capacitor selection circuit and a full bridge converter is connected in cascade to configure the seven level inverter. The two output voltage sources of dc-dc converter is converted into three level dc voltage by the capacitor selection circuit. This three level dc voltage is further converted into seven level ac voltage by the full bridge power converter.

Keywords: Grid-connected, Multilevel inverter, Photovoltaic system, Maximum Power Point Tracking

