

APPROXIMATE DYNAMIC PROGRAMMING ANN (ADP-ANN) VECTOR CONTROL STRATEGY FOR AN LCL-FILTER BASED SINGLE PHASE SOLAR INVERTER

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Nowadays solar photovoltaic (pv) inverters with higher efficiency is needed to feed the grid. The usage of abundant solar power is increasing nowadays and solar energy feed residential application has been increasing; it is the most important part of worlds renewable energy resource. Usually residential solar PV system is connected through single phase inverter to the distributing grid. The control of single phase inverter is important to increase overall performance. The objective is to develop an artificial neural network (ANN) vector control strategy for a LCL-filter based single-phase solar inverter and to evaluate the performance of the ADP-ANN based solar PV system.

