FUZZY LOGIC CONTROLLER FOR GRID-CONNECTED SINGLE PHASE INVERTER

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TÓM TẮT:

In this paper, a current controller for grid-connected inverter is proposed by using a fuzzy logic control algorithm. In PI controller to control the grid-connected inverter, the gains of PI controller are changed with the aid of the fuzzy logic algorithm in order to get the fast transient performance despite of the input variations and load disturbances. The inputs of fuzzy logic controller are the error between the measured currents and the reference values in rotating reference frame. The effectiveness of proposed controller strategy has been verified by simulation with PSIM - MATLAB software and compared with that of the conventional PI controller.