An Improved Fuzzy Slide Mode Control Applied to PV Systems

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Abstract—**The aim of this work is to present a novel fuzzy slide mode control (FSMC) to extract a maximum power point (MPP) of the photovoltaic (PV) generator. This technique allows tracking the MPP consequently for the different operating condition of radiation and temperature. The FSMC is simulated with Matlab/Simulink environment and compared with the perturb and observe (P&O) method. The tests results confirm that the FSMC develops the performance of the PV system (PVS).**

Index Terms—**PVS; MPPT; Slide Mode Control; P&O; Boost Converter.**

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