

## Control of Photovoltaic System Interfacing Grid

**Authors :** Zerzouri Nora

**Abstract :** In this paper, author presented the generalities of a photovoltaic system study and simulation. Author inserted the DC-DC converter to raise the voltage level and improve the operation of the PV panel by continuing the operating point at maximum power by using the Perturb and Observe technique (P&O). The connection to the network is made by inserting a three-phase voltage inverter allowing synchronization with the network the inverter is controlled by a PWM control. The simulation results allow the author to visualize the operation of the different components of the system, as well as the behavior of the system during the variation of meteorological values.

**Keywords :** photovoltaic generator PV, boost converter, P&O MPPT, PWM inverter, three phase grid

**Conference Title :** ICEPE 2023 : International Conference on Electrical and Power Engineering

**Conference Location :** Istanbul, Türkiye

**Conference Dates :** September 25-26, 2023