Attestation de communication

Le Président de l'AND-INH atteste que Mr / Mme **S.A. TADJER** a présenté, lors du 2ème Séminaire International sur les Energies Fossiles, Nouvelles et Renouvelables les 13 et 14 Novembre 2019 à Boumerdes, une communication poster intitulée :

"Modelling and Control of MPPT based Solar PV System and Battery Storage in Microgrids"

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Modelling and Control of MPPT based Solar PV System and Battery Storage in Microgrids

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Abstract

The different steps of the design of this controller are presented together with its simulation and the feasibility of control methods to be adopted for the operation of a Micro-Grid when it becomes isolated. A grid connected PV system consist of solar panels, batteries with back up in case of emergencies, DC-DC converters, Maximum power point tracker (MPPT) and Demand power management . This paper proposes an approach of coordinated and integrated management of solar PV generators with the most power point following (MPPT) management and battery storage management to produce voltage and frequency (V-f) support to an islanded small grid. Also, active and nonnative/reactive power (P-Q) management with star PV, MPPT and battery storage is projected for the grid connected mode. The simulation studies are carried out with the IEEE 13-bus feeder check system in grid connected and islanded Micro-Grid modes. The MPPT of a Photovoltaic System for Micro-Grid operation is successfully designed and simulated by using MATLAB/Simulink Software in this paper.

Key words: Distributed Generation, Islanded operation, MATLAB/Simulink, Micro-Grids, MPPT, PV System