

Photovoltaic systems: analysis of the production of the 1MW solar park of Université de Sherbrooke

Record number : OPR-486

Overview

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ADMINISTRATIVE UNIT(S)

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LEVEL(S)

Master's degree
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LOCATION(S)

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Project Description

Solar energy is taking an increasingly important place in the global energy mix. Each conversion technology from solar power has its own advantages and disadvantages. Determining and anticipating the performance of a photovoltaic system is therefore a crucial issue not only to determine if it is functioning properly, but also to optimize its electricity production.

Université de Sherbrooke inaugurated in 2019 a solar park unique in Canada producing 1MWp of electrical power, and dedicated to collaborative research between academia and industry. This solar park integrates several solar cell technologies and several installation modes, with in each case a statistically significant number of panels.

In this research project, we propose to set up methods for analyzing the performance of photovoltaic systems based on production data from the Université de Sherbrooke solar park. These analyzes will be applied for the different park technologies, then generalized to any type of photovoltaic system.

This work will be carried out within the framework of the international research laboratory LN2 bringing together researchers from the Université de Sherbrooke and CNRS (France).

Discipline(s) by sector

Natural Sciences and Engineering

Electrical Engineering and Electronic
Engineering, Computer Engineering and
Software Engineering

Funding offered

Yes

The last update was on 29 March 2021. The University reserves the right to modify its projects without notice.