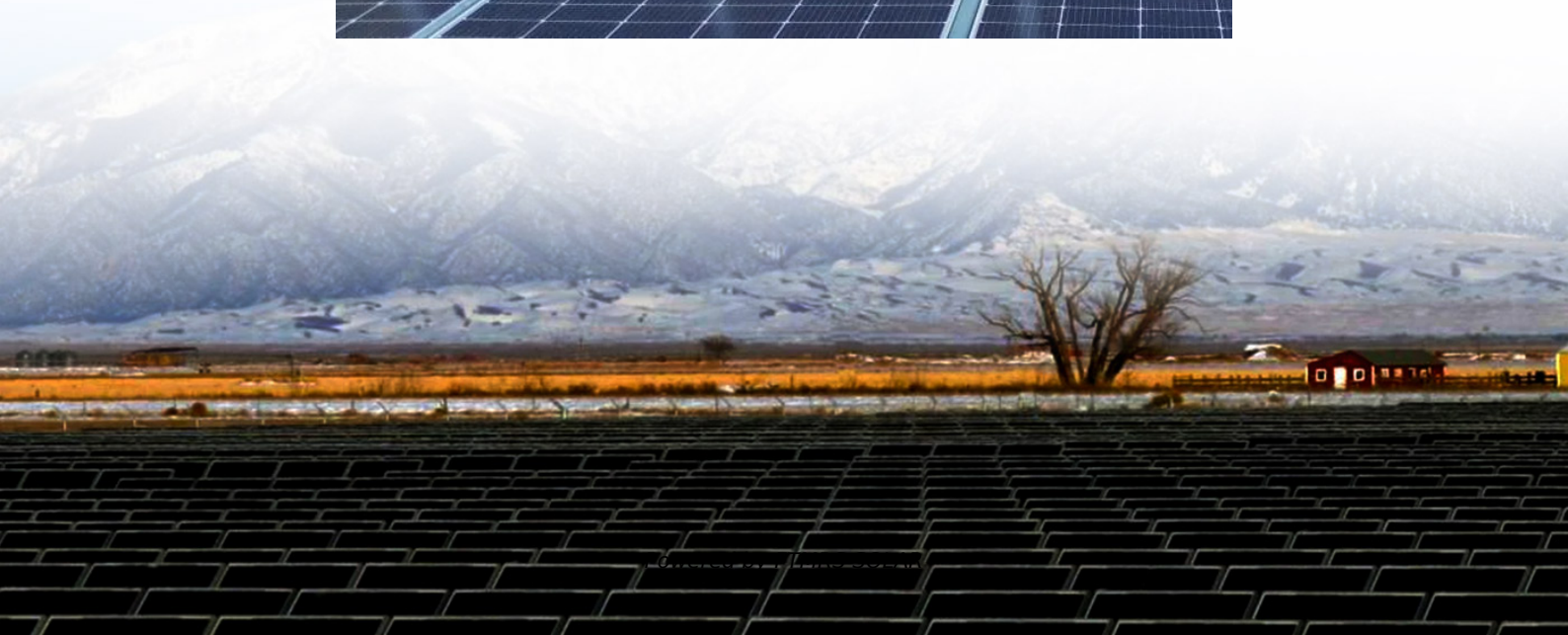**FTMRS SOLAR**

Inverter regulation plus DC

Overview

Can a single stage DC/DC converter control MPPT and DC voltage regulation?

In this paper, coordinated control of MPPT and DC voltage regulation is done in a single stage DC/DC converter. The operation of three switches with two different duty ratios enables both the control.

What is an inverting regulator?

The inverting regulator can be used to convert a (sometimes widely) varying positive input to a lower or higher negative output – providing a simpler (typically just using a single inductor) and less expensive alternative to the more established buck/boost power supply designs.

How does DC voltage regulation work?

The DC voltage regulation is done by comparing reference DC voltage with the converter output voltage. The main advantage of the proposed coordinated control is that, the DC loads are supplied from the DC bus, even though the inverter is disconnected during fault conditions.

Are synchronous inverting regulators a viable alternative to conventional buck/boost?

However, today's generation of high-voltage, synchronous inverting regulators is finding a second application as an alternative to conventional buck/boost, SEPIC, and flyback topologies for buck/boost operation.

Inverter regulation plus DC

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