

Direct current (DC) microgrids (MG) constitute a research field that has gained great attention over the past few years, challenging the well-established dominance of their ...

DC microgrids can easily implement standard droop control without a communication link. ... Many electronic devices, for instance, have an AC voltage between 100 and 240 VRMS. This ...

The preliminary objective of control design in a microgrid (either AC or DC) is to maintain the system parameters (voltage and frequency for AC, voltage for DC) within acceptable limits. Lacking a strong source, like the grid, ...

This article employs a fuzzy logic controller (FLC) to investigate voltage stability in a PV-based DC microgrid. Several photovoltaic (PV) modules, a DC-DC converter, and loads make up the microgrid.

This article suggests a hybrid DC microgrid (HDCMG) with different levels of DC bus voltages to use for various types of loads. The available sources in the HDCMG are wind ...

DC microgrids according to the IEEE standard. DC voltage is the most critical parameter in DC microgrids which directly influence to the power quality. Continuous monitoring and ...

The power converters controlled with an efficient control algorithm for maintaining stable DC bus voltage in DC microgrids under various operating modes is a challenging task for researchers. With an aim to address ...

If load increases in DC microgrid, it drops the DC voltage from to and produces a new angular frequency . The droop control inside AC microgrid then determines the amount of ...

DC microgrids are expected to play an important role in maximising the benefits of distributed energy resources in future low carbon smart power systems. ... Investigation of ...

2 ???&#0183; The primary focus in multi-bus DC microgrid systems is to achieve simultaneous proportional current sharing and network average voltage regulation. Conventionally, ...

In islanded mode, there is no support from grid and the control of the microgrid becomes much more complex in grid-connected mode of operation, microgrid is coupled to the utility grid through a static transfer switch. 111 The microgrid ...

For the long-term development of DC microgrid, the idea of DC microgrid standardization will be put forward, which will be conducive to the development of DC microgrid. This paper refers to ...

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