Microgrid harmonic detection

This paper proposes an algorithm based on the Total Harmonic Distortion (THD) of the grid voltages to detect the events of faults in MGs. The algorithm uses the THD together with the ...

By capturing harmonic components alongside fundamental frequencies, they provide a comprehensive view of microgrid dynamics, enabling accurate diagnosis of power quality issues and ...

Accordingly the detection of faulty conditions of DC microgrid is itself a challenging task. The present work provides an approach where the faulty condition can be detected on nearly real ...

Here, a harmonic detector based on the decoupled double synchronous frame (HD-DDSRF) was employed to detect and separate the harmonic components and control the current of ...

Here, a harmonic detector based on the decoupled double ...

The paper discusses a new approach for harmonic detection. a new harmonic detector based on decoupled double synchronous reference frame within the current control loop is proposed ...

To validate the proposed HHT-LSTM fault detection, an end-to-end fault detection solution tested on a practically modeled marine DC microgrid with high resistance faults through MATLAB.

This paper proposes an accurate harmonic identification strategy for microgrids and distributed power systems. The harmonic identification strategy is one of the complex tasks in ...

In other words, harmonic characteristics such as amplitude and phase must be identified using a reliable and accurate method from the main current or voltage signal, and then harmonic components are ...

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