

Title: Microgrid equivalent modeling

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This paper presented a DNN-based dynamic equivalent model (DEM) for frequency stability analysis of high-penetration IBR microgrids. Our model advances prior work in three key areas.

Inspired by the equivalence between differential-algebraic equation and RNN, we plan to use gate recurrent unit (GRU) based RNN to build the dynamic equivalent model of microgrid which ...

Aiming at the problem of the grid-connected DC microgrid modeling, a grid-connected DC microgrid equivalent modeling method based on the optimized Broad Learning System (BLS) is ...

In summary, for the entire microgrid, simpler modeling methods are required to build the microgrid model, and fast and accurate online identification methods are required to obtain the unknown ...

In this paper, inspired by the mathematical equivalence between the recurrent neural network (RNN) and differential-algebraic equations (DAEs), a dynamic equivalent modeling method, using long short ...

Due to the complex structure of microgrids, there is currently a lack of an orderly modeling framework. This article proposes a dynamic equivalent modeling method.

In order to simplify the grid-connect model of microgrid in power system stability study, a data-driven equivalent modeling method for microgrid based on Long Short-Term Memory (LSTM) recurrent ...

Abstract--The goal of this paper is the experimental validation of a gray-box equivalent modeling approach applied to microgrids. The main objective of the equivalent modeling is to represent the ...

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