Institute of Electrical Power Systems

Bachelor Thesis

Investigations of different simulation models to verify fault-ride-through capability

Motivation

For the verification of the Fault-Ride-Through capability (FRT) of synchronous power generation units, both a verification by a real test and by a simulation are allowed following the current grid connection conditions. The directive in Austria ("TOR generator") only requires a simulation as proof of conformity. No simulation models are specified for the verification, thus it remains open which model is used for simulation. In this work the influences of different models on different generator sizes shall be analyzed and evaluated. Existing simulation models are available for the simulations.

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Research Topics

- How do the different simulation models affect the FRT verification results when different generator sizes are used?
- Which physical effects are relevant for different generator sizes?

Procedure/Methodology/Task definition

- Implementation of different generators and comparison of the results of different simulation methods

Organisational Issues

Beginn immediately

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