

Modelling of Current Transformers

Current Transformers (CTs) are inductive single phase transformers that are used to measure high currents within the electrical power grid. Therefore, these devices can be used to trip circuit breakers which prevents power outages and damages to the infrastructure. To ensure that CTs are working correctly and that they fulfil their specifications, they need to be tested on a regular basis. Model based testing procedures are inexpensive and easy to perform. Within this thesis, a dynamic model of a CT with the propose of controller and observer design will be developed, this includes suitable parameter identification procedures. Finally, for evaluating the model accuracy, simulation results are compared to experimental data.

This project includes the following tasks:

- Refine model by adding missing effects
- Develop a model identification strategy
- Experimental comparison of model and data

Start: yesterday ☺

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