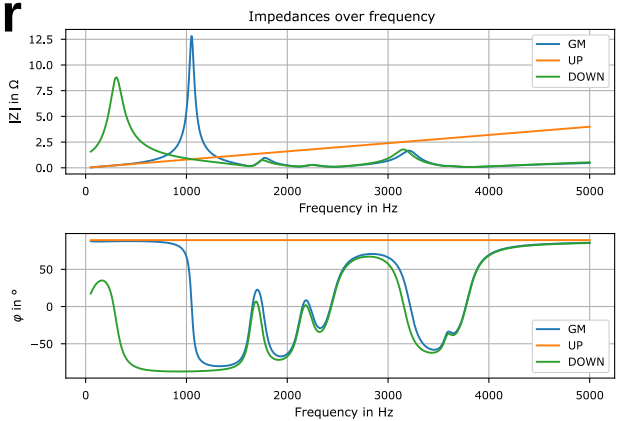
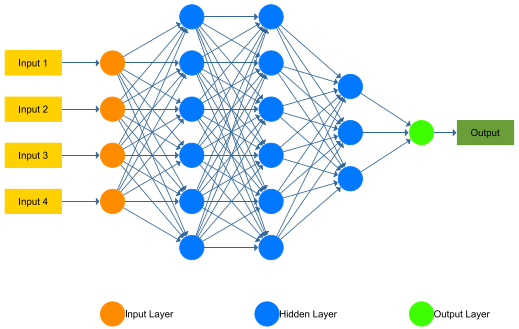
Simulation and validation of an admittance-based measurement system for dynamic transformer load detection

The increasing distributed energy production in low voltage distribution grids requires more online monitoring of transformer loads. The aim of this thesis was, to validate and simulate a new measurement device, which calculates the transformer load with high frequency impedance measurements. For that, low voltage distribution grids have been analyzed and simulated. After that, a artificial neural network was built, which calculates the load impedance out of the measured quantities.





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