

2021/04/06

## Student Project

(FP, Projekt angewandte Forschung, etc.)

# Four quadrant chopper (4QC) as DC-source for an electrically excited synchronous machine (EESM)

The LMRES research group investigates optimal control strategies for highly nonlinear synchronous and induction machines. These dynamic algorithms are implemented on a real time system (dSpace). In order to apply this control strategies to an EESM, a 4QC as DC-source for the excitation winding is needed.

This project covers:

- Design a 4QC as DC-source based on given modules of a modular multilevel inverter.
- PCB assembly.
- Test and validation through a real time application (dSpace).

