AUTOMATION_S7_MIN Fall Semester Graduate	Control Systems & Power Engineering	4 credits Lab: 37.5% Final exam (3h): 62.5%
Prerequisite: S5 & S6 Automation lectures		

DA_2401	Energy Conversion I	Language
Lecture: 16	Tutorials: 18	Lab work: 16

This course allows the study of the main static converters structures used in Power Engineering (chopper, switched-mode power supply) and presents the speed control in DC motors.

- Power semi-conductor devices and magnetic devices
- DC Power sources: batteries. Filtering.
- Chopper: step down, two-/four-quadrant, inductive storage, Single Ended Primary Inductor Converter (SEPIC)
- Speed variation of a DC motor powered by a four-quadrant chopper

Lab work are dedicated to Flyback and Forward power supplies, reversible chopper, inverter.