

Current list of **project works** and **seminar thesis** topics:

Issued	Topic	Contact	Size	Preliminaries
2021/09	Coupling and Simulation of MATLAB controllers with SUMO traffic simulator	Gratzer 325541	SE+Lab	MATLAB, Python and programming skills, fundamentals of control
2021/10	Literature research: Methods/algorithms for motion/behavior prediction of road users (vehicles, cyclists, pedestrians, ...)	Gratzer 325541	SE	basics in mechanics
2021/11	Speed and Power Prediction in a multiple model approach	Poks 325511	PA or SE+Lab	MATLAB and at least two control engineering courses
2021/12	Simulation studies of the Single Particle Model for Lithium-ion cells*	Oliveira 325524	PA or SE+Lab	MATLAB and strongly motivated, Identifikation VO is a plus
2022-03	Data-Driven MPC: Literature Research and Case Study	Stanger 325542	PA+SE	MATLAB, opt. Adaptive and Predictive Control (VO 325.036)
2022-03	Sensor-Fault-Detection: Literature Research + Development and Implementation of fault detection algorithmus for flue gas measurements	Stanger 325542	PA+SE	MATLAB
2022/03	Literature research Rotor models for a helicopter and methods for active vibration damping	Poks 325511	PA/SE+ LU	MATLAB/Simulink, State-Space formulation, modelling
2022/03	Modeling of a rotor model for a helicopter for active vibration damping	Poks 325511	PA/SE+ LU	MATLAB/Simulink, State-Space formulation, modelling