

Lectures

Technische Universität München, 2023 –

Macroscopic Transport Simulation, 3 credits, Master, Project

- Realising traffic calming measures and changes in the public transport system in VISUM

Autonomous Vehicles and Transportation Systems, 2 credits, Master, Lecture

- System effect of automated vehicles, communication of automated vehicles, technology and algorithms in automated vehicles [incl. external presentations]

Urban Infrastructure Design, 3 credits, Master, Lecture

- Guidelines for the construction of road spaces and traffic light phases according to official guidelines (RASt, etc.)
- Project assignments in AutoCAD

Technische Universität München, 2021

Traffic Flow Simulation, Master, Guest lecture

- Pedestrian Simulation, Social-Force-Model
- Introduction to MPed SIMULATE pedestrian simulation software

Universität der Bundeswehr München, 2013 - 2015

Decision and optimization theory in traffic, part of a module of 5 credits, Master, Lecture

- Optimisation theory, problem formalisation
- Linear and non-linear optimization
- Cellular automats, queueing theory, routing
- Graph theory, network optimization
- Game theory
- Time-Series Analysis
- Application example: Federal Transport Infrastructure Plan