Smart mobility design

Title elective package		
Offered by	Department of Built Environment	
Language	English	
Primarily interesting for	All students, but most relevant for students with background in urban and transport planning, automotive and innovation science	
Prerequisites	Required courses: NA	
	Recommended courses: NA	
Contact person	Prof. Soora Rasouli/ s.rasouli@tue.nl	

Content and composition

Course code	Course name	Level classification
7W9X0	Transport Engineering	
7W3X0	Mobility and forecast	
7GC20	Smart Mobility Design Project	

Course description

7W9X0, Transport Engineering

The design of transportation infrastructure is a big challenge with continuously changing demand, supply, and regulations. In this course, attention will be paid to different infrastructural elements for various transportation modes including walking, bicycles, public transport, and cars. Also new transportation modes like speed bikes and self-driving cars will be considered in relation to design principles of infrastructure. In addition, the consequences of various concepts like Sustainable safety, Smart infrastructure, Shares space, and 10-minutes city will be explored.

7W3X0, Mobility and forecast

Smart mobility requires fundamentally rethinking and taking a systematic approach for route and mode choice problems that integrates mobility demand, and transportation technology while applying modern ICT solutions. In this course you learn the values of modeling and forecasting of mobility demand for transport authorities and study the principles of modelling personal mobility and decision making for travel choices . Gained insight is necessary for the course 7GC20 Design project on smart mobility

7GC20, Smart Mobility Design Project

The idea underlying this project-based course is to apply the knowledge and skills obtained from the "Mobility and logistics" course and others (related to design, data science, and math modeling), to design, analyse and evaluate a smart mobility solution for the Eindhoven region