COURSE DETAIL

ICT & TRANSPORTATION IN SMART CITIES
Country Germany
Host Institution Technical University Berlin
Program(s) Technical University Summer
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Urban Studies Civil Engineering
UCEAP Course Number 103
UCEAP Course Suffix
UCEAP Official Title ICT & TRANSPORTATION IN SMART CITIES
UCEAP Transcript Title TRANSPORT SMRT CITY
UCEAP Quarter Units 4.00
UCEAP Semester Units 2.70

Course Description

Cities around the world face rapid changes in their transportation systems with the advances in ICTs. Recent trends include on-demand and shared mobility modes and automation in public and private transportation systems; these new solutions impact the transport industry, infrastructures management, as well as political agenda. Focusing on Intelligent Transportation Systems (ITS), a new “Smart Mobility” system and real-time network management have been developed as potential solutions to mitigate congestion issues and improve network efficiency.
This course brings a general overview of sustainable and smart transportation in the future smart cities in terms of i) industry trends, business models, technical, and urban design aspects. Based on different European case studies especially in Germany, this program explores innovative methods which Smart cities are currently dealing with as well as future solutions. The course combines theoretical and practical learning materials for transportation modeling and simulation techniques, with a focus on Smart Mobility and ITS solutions and real-world applications. Students review the most well-known traffic simulation models, learn about demand forecasting methods, business, social, and political issues and related analytical techniques. The course examines the concept of smart mobilities and how their business models could grow by analyzing case studies and companies. The course requires students to have basic knowledge of the fundamentals of mathematics and statistics as a prerequisite.

Language(s) of Instruction
English

Host Institution Course Number

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Host Institution Course Details
https://www.tu-berlin.de/menue/summer_university/term_1_on_campus/ict_transport...

Host Institution Campus TUBS
Host Institution Faculty
Host Institution Degree
Host Institution Department
Course Last Reviewed 2022-2023

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