

INSPIRING GLOBAL CHANGE SINCE 1222

SCHOOL OF ENGINEERING

INTELLIGENT CIVIL INFRASTRUCTURES ENGINEERING

This international Master's programme, taught in English and mainly online, prepares civil engineers to manage the full life cycle of civil infrastructures by integrating engineering fundamentals with economic, managerial, and data science skills. Alongside structural, hydraulic, and geotechnical competences, students develop abilities in monitoring, digital modelling, AI-supported analysis and decision tools, as well as in coordinating projects, maintenance activities, and the organizations responsible for infrastructure services.



UNIVERSITÀ
DI PADOVA

INTELLIGENT CIVIL INFRASTRUCTURES ENGINEERING

LEVEL Master

SCHOOL Engineering

DEPARTMENT Civil, Environmental and Architectural Engineering

DURATION 2 years (120 ECTS)

START DATE October

LOCATION Padua

PROGRAMME COORDINATOR

Chiara D'Alpaos

AVAILABLE PLACES: 100

Non-European candidates residing outside Italy: 50

Others: 50

WEB

www.unipd.it/en/intelligent-infrastructures-engineering

APPLY.UNIPD.IT

ENTRY REQUIREMENTS

- Bachelor's degree (or equivalent) in Civil Engineering or related subjects, with proven skills in Hydraulics; Hydraulic and Marine Constructions and Hydrology; Geotechnics; Structural mechanics; Structural Engineering; Highways, Railways and Airports; Transportation; Topography and Cartography; Building Design; Drawing; Urban and Regional Planning; Mathematical Physics; Numerical Analysis; Statistics; Thermal Engineering and Industrial Energy Systems; Building Physics and Building Energy Systems; Materials Science and Technology; Chemical Foundations of Technologies
- English language: B2 level (CEFR) or equivalent

PROGRAMME STRUCTURE

The programme is held completely in English and is structured into a set of core teachings:

1st Year: Management and Control of Water Infrastructures; Smart Transportation Systems and Infrastructures; Computational Modeling of Civil Infrastructures; Maintenance and Construction Analysis for Smart Recovery of Infrastructures; Surfaces Configuration: Remote Sensing, GIS-BIM, and Life Cycle Perspectives; Topics in Economics and Finance of Infrastructures; Infrastructure Project and Service Management.

2nd Year: Management and Smart Monitoring of Bridge Infrastructures; Infrastructure Investments and PPP; MCDA and Decision Support Systems; Data-Driven Artificial Intelligence for Smart Infrastructures

Two elective teachings, the language qualification, and the thesis complete the offering.

TUITION FEES AND SCHOLARSHIPS

Annual fees: up to €2,900 (3 instalments)

Scholarships and fee-waivers for international students available.

www.unipd.it/en/funding-and-fees

CAREER OPPORTUNITIES

Graduates work in engineering and consulting firms, public bodies, and infrastructure operators as asset managers, life-cycle or operations analysts, monitoring and digital-twin specialists, and professionals supporting planning, project coordination, maintenance, management, and data-informed decision processes for civil infrastructures.

