

OBJECTIVES

- Development of education systems to promote quality lifelong learning opportunities for all.
- Training students as creative and responsible global citizens.
- Promoting the interface between science, policy, and society, as well as advocating for ethical and inclusive policies for sustainable development.
- Strengthening international scientific cooperation for peace, sustainability, and social inclusion.
- Supporting inclusive social development, promoting intercultural dialogue, and bringing cultures closer together.



ABOUT US

The UNESCO Chair "Engineering for Society" at the University of Science and Technology "POLITEHNICA" Bucharest was established in 2018, with the main objective of contributing through study programs and research to green energy, smart transportation, reducing the environmental impact of air transport, and the digitalization of transportation, in line with UNESCO's mission to provide education for sustainable development.

CONTACT

Phone

+40 214 029 096

Email

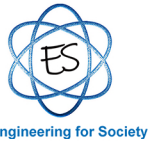
unesco.office@upb.ro

Website

www.unesco.chair.upb.ro



SCAN ME



UNESCO CHAIR

"ENGINEERING FOR SOCIETY"

**BUILDING TOGETHER A GREEN
AND SMART FUTURE**

INFORMATION TEHNOLOGIES APPLIED IN AVIATION

MASTER ADMISSION

OPEN

Description

• Information Technologies Applied in Aviation (ITAA) strongly focuses on digitalization of air transport and equips students with cross-disciplinary knowledge and abilities in aviation and ICT, with a holistic understanding of ICT options and methods applied in aviation.

Relevance to the labor market

• The master will ensure knowledge and skills for challenging current and new jobs asked by Aviation 4.0, such as: Chief Data Officer, Air Transport Data Architect, Big Data Architect, Cybersecurity Engineer, Virtualisation engineer, Data Protection Officer, Auditor, Responsible with Digital Data, Data Scientist, Airport UI & UX Designer, Growth Hacker, Mechatronic Engineer, Aviation Software Engineer.

Learning outcomes

Graduates of the master program will be able to:

- Apply and integrate knowledge to solve real digitization challenges in aviation, using computational techniques such as optimized fleet operation, intelligent airport planning, market analysis, IoT, cloud computing, big data, and cybersecurity.
- Demonstrate the ability to use interdisciplinary knowledge, critical thinking, and problem-solving skills to develop and operate efficient air transport systems, including airlines, airports, service providers, and handling operations.
- Utilize advanced computer technologies for simulation, prediction, and decision-making in aviation.



* Language of instruction: English

GREEN, SMART AND INTEGRATED TRANSPORT AND LOGISTICS

MASTER ADMISSION

OPEN

Description

• The Green, Smart and Integrated Transport and Logistics (GSITL) program equips graduates with a holistic understanding of technology, IT, project management, and transport systems. It develops key competencies for analyzing, managing, and optimizing sustainable transport and logistics. Through knowledge in transport solutions, software, financial and operations management, graduates are prepared to drive the future of sustainable mobility.

Relevance to the labor market

• The graduates of this master programme could have a professional career in sustainable transport and logistic industry, having occupations as: enviromental analyst, pollution engineer, enviromental protection professional, transport operations manager, specialist in smart transport technologies, logistics management.

Learning outcomes

- Knowledge and skills for international sustainable transport and logistics.
- Extensive knowledge of smart, green and integrated transport solutions as well as logistics.
- Skills in software technology, data science, planning methods, airport operations, assessment and transport management, logistic optimization.
- Skills in research, technology management and leadership, pre-requisite for career progression in international sustainable transport and logistic industry.



* Language of instruction: English

SMART CITIES ENGINEERING AND MANAGEMENT

MASTER ADMISSION

OPEN

Description

• This master's program provides knowledge on the technical, economic, and environmental aspects essential for developing smart and sustainable cities in the context of global urbanization.
• Students will gain skills in intelligent energy transport systems, sustainable water management, urban mobility, energy-efficient buildings, urban marketing, and integrated urban development strategies.

Relevance to the labor market

• Participants will develop skills for careers in private companies and public sector organizations engaged in smart city and sustainable urbanization projects. Potential roles include smart city manager, electrical engineer in smart technologies, intelligent transport systems specialist, database engineer, and building management system engineer.

Learning outcomes

- Ability to analyze information and identify needs within a given context.
- Ability to develop technical specifications (for goods, materials, methods, processes, services, and systems) to meet identified needs for sustainable development.
- Ability to manage engineering projects, including technical activities, material and financial resources, deadlines, and human resources for sustainable urban development.
- Ability to prepare documentation for services and products, clearly describing their functionality for a broad audience, regardless of their technological background.



* Language of instruction: Romanian