UNESCO CHAIR Engineering for society

UNIVERSITY
POLITEHNICA
OF BUCHAREST

WHAT IS UNESCO?

United Nations
Educational, Scientific and
Cultural Organization

UNESCO Chair on Engineering for Society,
University Politehnica of Bucharest,
Romania

- UNESCO, the United Nations Educational, Scientific and Cultural Organization, is a Specialized Agency of the United Nations.
- Promotes international corporation and implementation of international agreements.

Main objectives of UNESCO Chair

United Nations
Educational, Scientific and
Cultural Organization

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1. Study programs and research for using green energy developing smart transport and solving climate changes challenge.

2. Fostering high-quality and inclusive lifelong learning for all.

3. Empowering learners to be creative and responsible global citizens.

4. Participation to international programs by contributing to advancing education for all (EFA) and shaping the future international education agenda.

FUTURE OF
TRANSPORT
www.upb.ro
UNESCO Chair
"Engineering for Society"
2017

MINISTRY OF NATIONAL EDUCATION

University POLITEHNICA of Bucharest

MASTER PROGRAMME

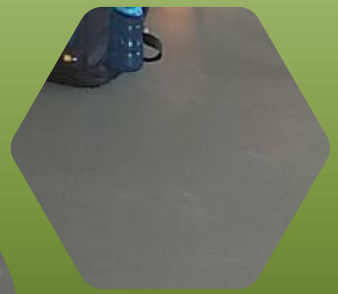
Green, Smart and Integrated Transport and Logistics

Language: English
2 years (4 semesters)
ECTS: 120

No. of allocated places:
30 without tuition fees
20 with tuition fees
2 full scholarships for African students

MASTER PROGRAMME

Green, Smart and Integrated Transport and Logistics



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MASTER PROGRAMME

Green, Smart and Integrated Transport and Logistics

CAREER PROSPECTS

- **Environmental protection** professional
- **Sustainable transport** specialist

- Smart transport planner
- Pollution engineer
- **Environmental Analyst**
- **Logistics Management**
- Logistics Development Specialist
- Transport Operations Manager
- Specialist in intelligent technologies for optimizing and reducing the impact of transport

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MASTER PROGRAMME

Green, Smart and Integrated Transport and Logistics

LEARNING OUTCOMES

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

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MASTER PROGRAMME

Green, Smart and Integrated Transport and Logistics

CHARACTERISTICS

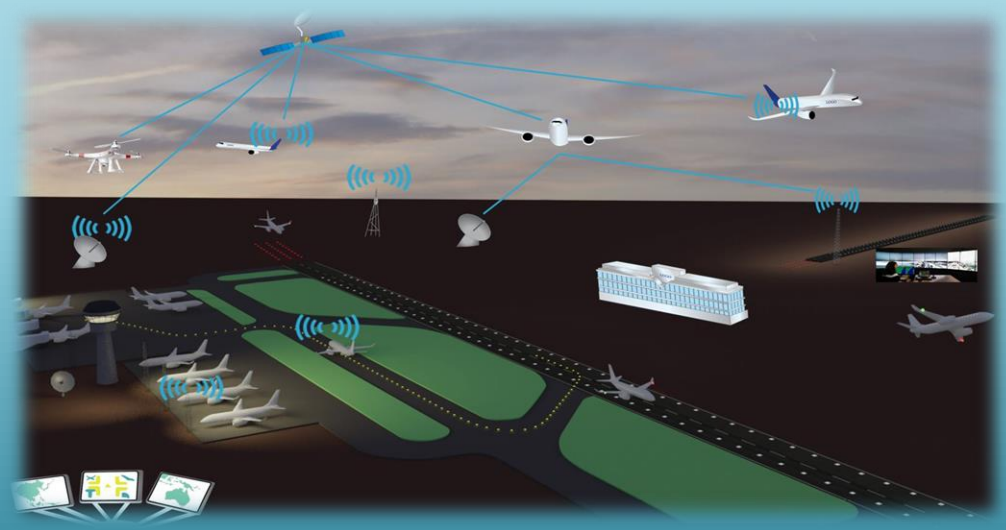
- The study program will be carried out in **partnership** with **foreign universities**, in line with **UNESCO's mission** to provide education for **sustainable development**.
- First-hand experience of different European planning and practices on sustainable transport development, delivered by an **international interdisciplinary group of professors** and **lecturers** combined with **professional practice**.

MINISTRY OF NATIONAL EDUCATION

University POLITEHNICA of Bucharest

MASTER PROGRAMME

Information Technologies applied in Aviation*



Language: English
2 years (4 semesters)
ECTS: 120

No. of allocated places:
30 without tuition fees
20 with tuition fees
Cross-sectorial master program

* The master program is in process of accreditation; expected start date: October 2019

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MASTER PROGRAMME

Information Technologies applied in Aviation*

CAREER PROSPECTS

- **Chief IoT**
- Data architect
- **Cybersecurity engineer**
- Environmental Analyst
- Virtualization engineer
- Responsible with digital data

Possible new jobs:

- Data Scientist
- Airport UX Designer
- **Growth Hacker**
- Mechatronic Engineer
- **Developer**

* The master program is in process of accreditation; expected start date: October 2019

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MASTER PROGRAMME

Information Technologies applied in Aviation*

LEARNING OUTCOMES

- **Knowledge** and **skills** in systems engineering and applications dedicated to **aircraft operations**, **air traffic control** and **air-ground interaction**;
- Integrated use of **advanced software applications** to **solve complex tasks** predominantly specific to **aviation activities**;
- Using **programming languages** and **software implementation** of data processing algorithms for **aviation processes**;
- Developing **innovative IT products** with aerospace applications in relation to the requirements of international organizations;
- **Skills** in **research**, **planning**, **technology management** and **leadership**, pre-requisite for career progression.

* The master program is in process of accreditation; expected start date: October 2019

United Nations Educational, Scientific and Cultural Organization

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MASTER PROGRAMME

Information Technologies applied in Aviation*

KAAT
Knowledge Alliance In Air Transport

CHARACTERISTICS:

- Carried out in partnership with **foreign universities**, in line with **UNESCO's mission** to **provide education for sustainable development.**
- Delivered by an **international interdisciplinary** group of universities and employers: University of Zagreb, Ecole de Mines d'Albi, University of Strasbourg, University of Zilina, University of Lisbon, ICAO, airports, air traffic providers, air companies, handling providers.

* The master program is in process of accreditation; expected start date: October 2019

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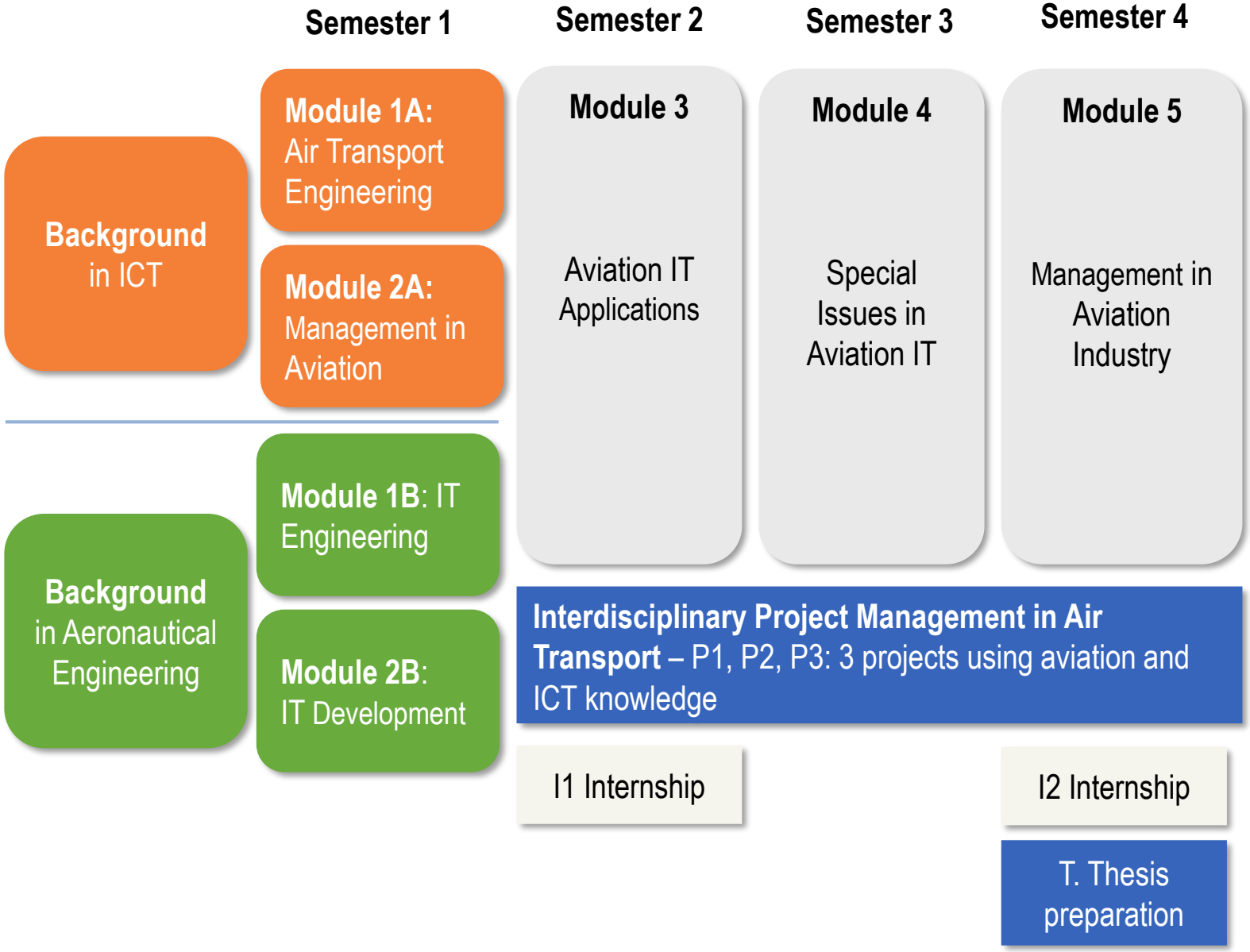
What will you learn as a student in this Master program ?

MASTER PROGRAMME

Information Technologies applied in Aviation*



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Romania

MASTER PROGRAMMES

Green, Smart and Integrated Transport and Logistics

Information Technologies applied in Aviation*

Master admission

Registration and examination

- 01.07.2019-12.07.2019
- 26.08.2019-13.09.2019

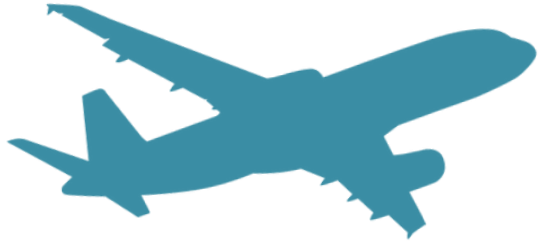
Examination

11-12 July 2019 / 12-13 Sept 2019

Information & Registration

- Web-site: www.upb.ro
  www.unesco.chair.upb.ro
- Telephone: +40 214 029 097 / +40 214 029 096
- E-mail: unesco.office@upb.ro

* The master program is in process of accreditation; expected start date: October 2019



KAAT

Knowledge Alliance In Air Transport

PARE

1. Erasmus + project “Knowledge Alliance in Air Transport (KAAT)”, January 2018 – December 2020.’

Website: www.kaat.upb.ro

2. Horizon 2020 project “Perspectives for Aeronautical Research in Europe (PARE)”, October 2017 – September 2020.

Website: www.pareproject.eu

Co-funded by the
Erasmus+ Programme
of the European Union

KAAT

Knowledge Alliance In Air Transport

United Nations Educational, Scientific and Cultural Organization

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KAAT
Knowledge Alliance In Air Transport
YOUR ATTENTION!
François MARMIER
Philippe LOURS
DIPLOMA
Blue Air
University POLITEHNICA of Bucharest
Application for
UNESCO Chair
"Engineering for Society"
2017
www.upb.ro

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Objectives of KAAT project

Knowledge Alliance In Air Transport

Co-funded by the Erasmus+ Programme of the European Union

O1. A **high-quality workforce** by **the improvement of level of learning outcomes** with relevance for the labor market.

O2. **Innovative and multidisciplinary approaches to teaching and learning** and facilitating the exchange, flow and co-creation of knowledge.

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Objectives of KAAT project

Knowledge Alliance In Air Transport

Co-funded by the Erasmus+ Programme of the European Union

O3. The improvement of transparency and of recognition tools for HE and VET for cohesive and flexible professional pathways

O4. Enhance **the international dimension of education and training** through cooperation between EU institutions, HEIs, VET providers, employers, international regulatory bodies ICAO and EASA and other stakeholders.

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Objectives of KAAT project

Knowledge Alliance In Air Transport

Co-funded by the Erasmus+ Programme of the European Union

O5. systematic dialog between education and business by the creation of a **European network for aviation training and education** with the participation of education and industry stakeholders - **ENATE**

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11 Associated partners from France, Romania, Austria, Bulgaria, Moldova

Knowledge Alliance In Air Transport

Co-funded by the Erasmus+ Programme of the European Union

Timisoara Traian Vuia Airport

ROMANIAN AIRPORTS ASSOCIATION

ACI EUROPE AIRPORTS COUNCIL INTERNATIONAL

SCOALA SUPERIOARA DE AVIATIE CIVILA SSAvC

SITA Create success. Together

Varna Airport

ATCR Asociația pentru Transfer de Cunoștințe din România

UNIVERSITATEA TEHNICĂ A MOLDOVEI

ICAO OACI ИКАО

CNCP Commission Nationale de la Certification Professionnelle

Iasi Airport Your way to the sky

Partnership
15 organizations from
Romania, France, Croatia, Italy, Portugal, Slovakia

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KAAT
Knowledge Alliance In Air Transport

Co-funded by the Erasmus+ Programme of the European Union

TÉCNICO LISBOA

QSR Talent driven culture.

Former QUASAR human capital

CROATIA AIRLINES

MENZIES AVIATION

Cluj Avram Iancu International Airport

CIVIL AVIATION SAFETY INVESTIGATION AND ANALYSIS AUTHORITY ROMANIA SIAA

Sveučilište u Zagrebu FAKULTET PROMETNIH ZNANOSTI

CROATIA CONTROL

INOVA+

ŽILINSKÁ UNIVERZITA V ŽILINE VYSOKÁ ŠKOLA DOPRAVY A SPOJOV UNIVERSITAS SOLNENSIS

UNIVERSITÉ DE STRASBOURG

UNIVERSITAS STUDIORUM ZAGRABIENSIS MDCLXIX

IMT Mines Albi-Carmaux
École Mines-Télécom

deepblue

Blue Air

Results

WP 1

Report on Occupational Analysis in Air Transport Industry

WP 2

Report on Qualifications Analysis in Air Transport Industry

WP 5

Methodology for Sectorial Qualification Framework (SQF)

Workshop “Smart qualification for smart air transport occupations”

10th of July 2018 Lisbon

Knowledge Alliance in Air Transport (KAAT)
PROJECT LEADER: "POLITEHNICA" UNIVERSITY OF BUCHAREST
YOUR ATTENTION!
KAAT
Knowledge Alliance In Air Transport
1 NO POVERTY
2 ZERO HUNGER
3 GOOD HEALTH AND WELL-BEING
4 QUALITY EDUCATION
5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY
8 DECENT WORK AND ECONOMIC GROWTH
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE
10 REDUCED INEQUALITIES
11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION
14 LIFE BELOW WATER
15 LIFE ON LAND
16 PEACE, JUSTICE AND STRONG INSTITUTIONS
17 PARTNERSHIPS FOR THE GOALS
SUSTAINABLE DEVELOPMENT GOALS

PARE

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Specific objectives of PARE project

1. To increase the awareness about R&D in the aviation sector.
2. To analyse and compare the relative rate of progress towards the 23 Flightpath 2050 Goals.
3. To prepare a roadmap for each of the 23 Flightpath 2050 Goals.
4. To launch a call on novel ideas to help close the remaining gap and define scenarios for 2025-2050.
5. To develop and provide recommendations for future actions for EU aviation research.

PARE

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Partnership of PARE project

UNIVERITÀ DEGLI STUDI
DI SALERNO

Talent driven culture.

Former
QUASAR human capital

VILNIUS GEDIMINAS
TECHNICAL UNIVERSITY

United Nations
Educational, Scientific and
Cultural Organization

UNESCO Chair on Engineering for Society,
University Politehnica of Bucharest,
Romania

AIR FRANCE
F-BVFF
A380 AIRBUS
A350-900 AIRBUS
PARE
BRITISH AIRWAYS

UNESCO Chair location

CAMPUS Center

Address: Splaiul Independentei no. 313, sector 6, Bucharest, Postal code: RO-060042, ROMANIA – Campus building (UPB), 7th floor

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Head of department:

Univ. Prof. **Sorin Eugen ZAHARIA**, Phd.