Blended Intensive Programmes

Physical mobility : 18-23.06.2026

Virtual Component : 27.06.2026

ECTS : 3

June 18, 2026
11.30 – 12.30 **What are drones (UAVs)** **Types of drones and their main components** **12.30-13.30** ***Lunch*** ***13.30-15.00*** **Where drones are used in real life**
June 19, 2026
9.30 – 13.00 Learning about components: • motors • flight controller • Li-Po batteries • GPS and sensors **13.00 – 14.00** ***Lunch*** **14.00-18.00** **Introduction to programming (e.g., Arduino / drone firmware)**
June 20, 21, 2026
“International Team-Based Drone Challenge” Participants will work in multinational teams to design, assemble, and operate drones in a practical competition focused on performance, accuracy, and innovation.
June 22, 2026
9,30-17,00 ***Industry Visit Day – Drone Manufacturing and Testing***

Participants will visit companies specialized in drone design, manufacturing, and testing to gain direct insight into real-world UAV development processes.

During the visit, students will:

- explore production facilities and observe how drone components are assembled
- learn about quality control, safety standards, and testing procedures
- attend presentations from industry experts on current technologies and innovations
- observe live demonstrations of drone testing and flight validation

The activity will also include interactive sessions where participants can ask questions, discuss career opportunities, and understand the challenges of the drone industry.

This experience connects academic knowledge with practical industrial applications, offering students a deeper understanding of how drones are developed and used in professional environments.

June 23, 2025

9.30-17.00

Course Conclusions and Future Perspectives

The final day is dedicated to summarizing the knowledge gained throughout the programme and reflecting on the learning experience.

Participants will:

- review key concepts related to drone design, operation, and applications
- present their project results and share team experiences
- discuss new methods of testing and innovative approaches to learning in UAV technologies
- exchange feedback and ideas for future collaboration

The session will conclude with final remarks, evaluation of the programme, and the awarding of participation certificates.

The course **"Smart Drones for Real-World Applications"** provides an intensive introduction to the design, construction, and operation of unmanned aerial vehicles (UAVs). It combines theoretical knowledge with hands-on activities, allowing participants to understand both the technical and practical aspects of drone technology.

Throughout the programme, students will explore the main components of drones, basic principles of flight, and fundamental programming concepts used in UAV control systems. The course includes practical sessions where participants assemble, configure, and test drones, as well as demonstrations of real-life applications in fields such as industry, agriculture, mapping, and emergency services.

In addition, the course promotes international collaboration by engaging students in team-based activities and practical challenges. Industry visits and expert presentations provide insight into current developments and professional practices in the drone sector.

By the end of the course, participants will have gained essential technical skills, practical experience, and a broader understanding of the role of drones in modern society.

Participants will develop the following competencies:

- Basic knowledge of UAV (drone) systems and technologies
- Practical skills in drone assembly and configuration
- Understanding of flight control and basic programming (e.g., Arduino / firmware)
- Ability to operate and test drones safely
- Problem-solving and technical troubleshooting skills
- Teamwork in an international and interdisciplinary environment
- Communication and presentation skills
- Awareness of real-world applications of drone technologies

BIP title : SMART DRONES FOR REAL WORD APPLICATION

BIP CODE : 2024-1-RO01-KA131-HED-000209164-3

ECTS : 3

Physical mobility : 18-23.06.2026

Virtual Component : 27.06.2026

Description of virtual component: During the online session the participants will present their projects related to drone design, operation and applications. Date 27.06.2026

Receiving institution : Universitatea Petrol-Gaze Ploiesti

Country : Romania

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