

Report on the project for BIP

Project Peles Castle

Introduction:

On the fifth day of the field week of the BIP Using Drones for Environmental Sciences (05.06.2026.) we went to Peles Castle (Image 1) and got the project assignment on Using Drones for Sustainable Tourism Management at Peles Castle. We got a project objective and out of them we needed to select one; and collect the images of the Peles Castle and surroundings for the purpose of our data. For the final assignment, as a group, we took images for the purposes of case objective 3. Cultural Heritage Conservation (Image 2).

On 15.06.2026, we had a workshop with the professors Carmen Hidalgo and Diego Barrado, where they gave us details of the assignment and showed us the examples. For example, we watched three videos. First video of the Japan ski resort and using drones for collecting data on the slopes and missing persons, the second video of them using drones to check the habitats of sharks in Columbian cost and third video in Spain using drones for touristic walks (flights) to volcano and back. After the videos we talked about them and about our case study, and then we went to do our raw assignment for the purposes of the presentations we had for the feedback. After the workshop, we got the due date for the final submission, which was 21.05.2026.

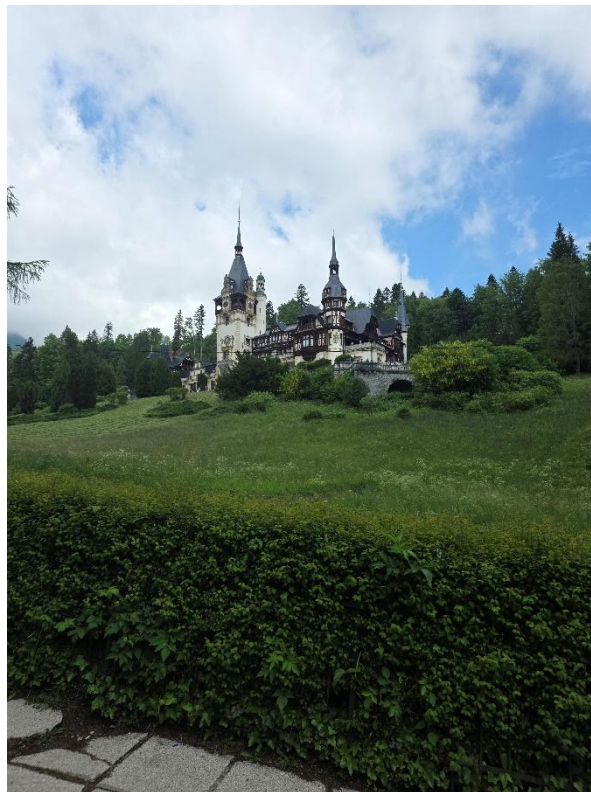


Image 1 Peles Castle

Group: Victor Ademoyero (Austria), René Strammer (Austria), Jana Stojšavljević (Austria), Megha Mariya Joseph (Austria), Amarachi Chukwu (Austria), Vasile Adrian-Florin (Romania), Noemi Pagano (Italia), Kevin Schwabauer (Germany)

Case Study:

The managers of Peleş Castle, Carmen Hidalgo and Diego Barrado, are interested in introducing drone technology to improve the sustainable management of the castle and its surroundings. They are looking for innovative and feasible solutions that can help address current management challenges while enhancing the visitor experience and supporting the long-term conservation of the site. Carmen Hidalgo and Diego Barrado have launched a call for consultancy proposals aimed at exploring the potential of drone technology for destination management. Your team has been invited to submit a project demonstrating how drones could contribute to the sustainable management, conservation and promotion of the castle and its surrounding landscape. Your objective is to design a realistic and innovative proposal that could be implemented by the castle management team.

Task:

1. Design a sustainable tourism management project for Peleş Castle and its surroundings using drones as a management tool.

2. Prepare a presentation following the template uploaded in Moodle and submit it through the corresponding Moodle assignment.

1. The project must be presented using the PowerPoint template available in Moodle.

Project Structure:

1. Project Objective

Choose ONE topic:

1. Marketing and Promotion

- Aerial videos and photographs for social media campaigns.
- Virtual tours.
- Destination branding.
- Digital storytelling.

2. Visitor Flow Management

- Visitor counting.
- Identification of overcrowded areas.
- Monitoring peak visitation periods.
- Improving visitor distribution across the site.

3. Cultural Heritage Conservation

- Roof inspections.
- Façade monitoring.
- Detection of structural deterioration.
- Creation of 3D models for conservation purposes.

4. Environmental and Natural Resource Management

- Vegetation monitoring.
- Trail erosion assessment.
- Wildlife monitoring.
- Land-use control.

- Forest management.

5. Economic Management and Efficiency

- Improving maintenance planning.
- Supporting event management.
- Optimising resource allocation.

6. Other Innovative Applications

- Students may propose alternative uses of drones related to tourism management, sustainability, accessibility, education, security, or visitor experience

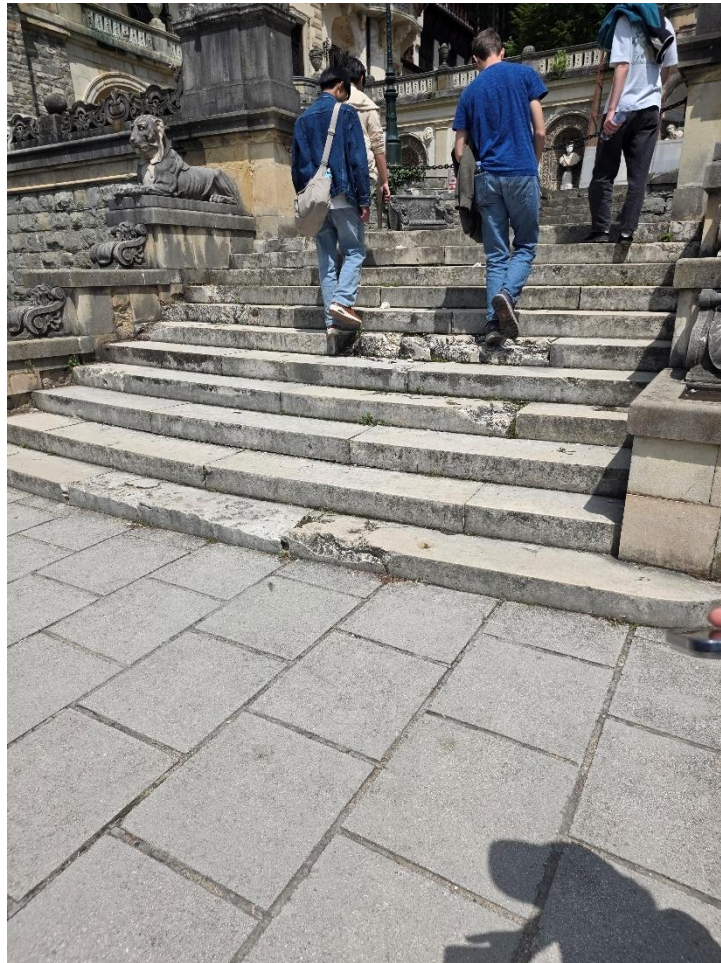


Image 2 Damages

2. Drone Flight Plan

- Flight zones.
- Estimated altitude.
- Flight frequency.
- Flight duration.
- Landing and take-off areas.
- Safety measures.
- Regulatory considerations.

3. Data Collection and Sensors

- Sensors used.
- Information collected.
- Data processing.
- Contribution to management decisions.

4. Implementation Plan

- Operators.
- Permissions and regulations.
- Operational schedule.
- Integration into destination management.
- Estimated costs.

5. Risks and Limitations

- Weather conditions.
- Wildlife disturbance.
- Privacy concerns.
- Technical failures.
- Regulatory restrictions.
- Stakeholder resistance.
- Financial limitations.

6. Expected Outcomes

- Contribution to sustainable tourism management.
- Benefits for visitors.
- Benefits for heritage conservation.
- Benefits for the environment.
- Benefits for destination managers.

Final presentation (assignment):

https://stojsavljevicjana.github.io/E-portfolio/Group%201_Project%20Peles%20Castle_Assignment_Seminar%204.pdf

More about BIP can be found on my e-portfolio: <https://stojsavljevicjana.github.io/E-portfolio/>

Conclusion:

In conclusion, we submitted our assignment on time, and we had a good time collecting and working on our topic. We made four different flight plans for the purposes of our project. We used the Litchi app for it, we described our plan, and we put what would be our final output (final presentation). In my opinion, the working group was good, we had good connections, and we delivered what was asked. I had a good time in the group and during the whole BIP, which gave me new experiences and new connections.