Multi-Spectral Imaging and System Analysis
tools for smart water management

Sentinel-2 MSI for water quality monitoring

9th Edition | **10th February – 14th March, 2025, Beja, Portugal**

What

ERASMUS+ Blended Intensive Programme | 8 ECTS

3 weeks @ Polytechnic University of Beja, Portugal + 2 weeks online

For whom?

Students with background in ecology, environmental sciences, aquatic systems, water management, interested in using modern techniques to solve water problem issues in an international environment | last year of Bachelor or attending a master course

To do what?

To learn how use **Sentinel-2 MSI** products to create maps of relevant water quality parameters on a cloud computing platform

To identify water quality problems with remote sensing tools and plan a field trip to the hot spots for *in situ* measurements **@ Alqueva Lake**

To come up with a solution to the problem and present it to the stakeholders

How?

This is a 5 weeks full time programme with workshops, lectures from international researchers, team work, field trips, and weekly short presentations

Program summary

Week 1 **10th – 14th February**	• Visit to EDIA – Empresa de Desenvolvimento e Infra-estruturas do Alqueva, S. A. • Boat trip to the Alqueva Lake • Workshops: intercultural sensitivity, the alqueva system • Team's presentation: project plan
Week 2 **17th – 21th February**	• Guest lecture by the Portuguese Space Agency • Workshops: remote sensing, Sentinel-2 products • Team's presentations: hot spots & field trip planning • Cultural daytrip
Week 3 **24th – 28th February**	• Field trip to Alqueva: *in situ* measurements • Guest lectures: ecology and aquatic systems, cyano blooms • Team's presentation: problem description • Farewell dinner
Week 4 **3th – 7th March** (online)	• Guest lectures: water bodies rehabilitation, buffer zones • Coach meetings • Team work on solution • Team's presentations on proposed solutions
Week 5 **10th – 14th March** (online)	• Guest lectures: environmental impact analysis (EIA) • Team work on EIA • Team's presentations on EIA & Advice to EDIA • Evaluation and programme closing

Check on our previous editions of the programme at **The European Space Agency's *"Sentinel Success Stories"*:** 2020 & 2021

Use this form to apply | **Deadline: 30 September 2024**
https://forms.gle/TKAULkBc7FJ123s1A

Applicants selection results: 1st week of October

Contact your International Office for details on the participation procedures on your institution.

Need more information? nuno.pereira@ipbeja.pt