

Multi-Spectral Imaging and System Analysis

tools for smart water management

Sentinel-2 MSI for water quality monitoring

8th Edition | February - March, 2024, Beja, Portugal



What - Erasmus Blended Intensive Programme

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

For whom?

Students with background in ecology, environmental sciences, aquatic systems, water management | last year of Bachelor or attending a master course | **International teams of 4-5 students**

When and Where?

Physical Mobility in Beja, Portugal: from 12th February until 1st March 2024 (3 weeks)

On line learning activities: from 4th until 15th March (2 weeks)

To do what?

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

To identify 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 presented to stakeholders

How?

This is a 5 weeks full time programme with workshops, lectures from international researchers, team work, field trips, and weekly short presentations | **8 ECTS**

Program summary

Week 1 12 th - 16 th February	<ul style="list-style-type: none"> • Visit to EDIA - Empresa de Desenvolvimento e Infra-estruturas do Alqueva, S. A. • Boat trip to Alqueva • Workshops: intercultural sensitivity, the alqueva system • Team's presentation: project plan
Week 2 19 th - 23 th February	<ul style="list-style-type: none"> • 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 26 th Feb. - 1 st March	<ul style="list-style-type: none"> • Field trip to Alqueva: <i>in situ</i> measurements • Guest lectures: ecology and aquatic systems, cyano blooms • Team's presentation: problem description • Farewell dinner
Week 4 4 th - 8 th March (online)	<ul style="list-style-type: none"> • Guest lectures: water bodies rehabilitation, buffer zones • Coach meetings • Team work on solution • Team's presentations on proposed solutions
Week 5 11 th - 15 th March (online)	<ul style="list-style-type: none"> • Guest lectures: environmental impac analysis (EIA) • Team work on EIA • Team's presentations on EIA & Advice to EDIA • Evaluation and programme closing

Check the news on our previous editions of the programme at [The European Space Agency's "Sentinel Success Stories": 2020 & 2021](#)

APPLICATION: Use [this form](#) to apply | **Deadline: 20 November**
<https://forms.gle/k6VRZa2qEHPPkTVC8>

MOBILITY GRANT AND FINANCIAL SUPPORT: Contact the international of your home institution t get more info on how to apply for a Mobility Grant to attend this BIP

Need more information? nuno.pereira@ipbeja.pt