



<https://sentinel.esa.int/web/sentinel/missions/sentinel-2>

Erasmus+ BIP – Blended Intensive Programme

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

Sentinel-2 MSI for water quality assessment

7th Edition | Portugal | February/March 2023 | 8 ECTS

Online and **face-to-face** programme organized by [IPBeja, Portugal](#) and [AeresUAS, The Netherlands](#), hosted by IPBeja. The programme will take place in the beautiful region of **Alentejo, Portugal** during **3 weeks (13Feb-3Mar)**, followed by **2 weeks (6Mar-17Mar)** of **online sessions**. During this five weeks you will learn to use Multi-spectral remote sensing images from the [Sentinel-2 Satellites \(EU Copernicus Programme\)](#) to map the distribution of water quality parameters on large water bodies, such as the [Alqueva reservoir, in Portugal](#), and find solutions to the problems identified by your team.

Team work, Workshops, seminars, field trips....and **Cultural Activities!** on a **Multicultural environment**.

Check these links from previous editions ([2020](#), [2021](#)) and this posters ([2021](#), [2022](#)) for more information on the programme.

Application deadline: 1st December

Application form: <https://forms.gle/hrecjnnExDfFYk5U6>

General information

- The **working language** is English.
- **Learning objectives:** Students will learn to use of **Multi-Spectral Images (MSI)** from **Sentinel-2 satellites (Copernicus Program, EU)** to produce maps of the distribution of relevant water quality parameters on a cloud computing platform, the *Sentinel-Hub*. Using a system based approach, they will be able to define an early warning system for harmful algae blooms, or to identify temporal patterns in the values of the quality parameters. By combining this with other data on ecology or water quality they have to come up with a plan/measure to improve the water quality.
- **Grants and Financial Support:** the BIP also provides a daily allowance (please, contact the International Office of your home University to get more information about the mobility grant to participate in a BIP as “outgoing student”).
- The programme requires **full-time** dedication. After successfully completing the programme, students will be awarded **8 ECTS**.
- **Student’s profile:** Eco-Engineering, Ecology, Water management, Water technology, Engineering; Chemistry; Biology, and so on) and preferably (almost) finished their Bachelor or attending a masters course.
- **Participants:** The Erasmus BIP is open to the participation of students that are coming from partner institutions located in an Erasmus Programme Country and are eligible to receive a daily allowance supported by the Erasmus and granted by the sending institution (short term mobility grant). Participating interested students should previously contact their home university international office to get more information about the Erasmus BIP grant.

- **Accommodation:** Selected students may request accommodation in IPBeja's student residences.

Important dates:

- Submission opened until **1st December 2022**.
- Preferred date of arrival in Beja: **8th Feb. 2023**.
- Programme start: **13th Feb. 2023**