European Social Fund Plus 2021/2027

FSE+

PPO 2023 S.P. 22/23

Support for higher education within the regional university

With Decree No. 17895/GRFVG of April 19, 2023, the Friuli Venezia Giulia Region published the Notice regarding the submission of operations for Specific Program No. 22/23, which aims to support higher education within the regional university system.

Line A – PhD Programmes

Specific Programme 22/23, through the funding of doctoral scholarships, contributes to the achievement of the objectives of the Sustainable Smart Specialisation Strategy (S4). It supports the development or strengthening of integration with the regional production system and/or research organisations, through coordination and collaboration mechanisms with regional enterprises or research bodies, or by leveraging the potential for technology transfer of processes, products, applications, or, more broadly, research outcomes.

- Notice **2024**
- **40th cycle**
- Unique Project Code (CUP) **J93C23001490008**
- Project **2024/1543/9**

Doctoral Programme in **Applied Data Science and Artificial Intelligence**

“AI Sentinel: Advanced Robotics for Fire Prevention”

Among the main risks to people and the environment are those associated with wildfires. The Friuli Venezia Giulia region has recently witnessed how such events can negatively impact various economic sectors. This project aims to develop a territorial monitoring system to prevent and reduce wildfire risk. It would employ fleets of robots controlled by artificial intelligence systems capable of effectively assessing and managing fire hazards.

The proposed system would consist of two main AI components: one dedicated to evaluating and preventing fire outbreaks through field measurements collected by a series of autonomous robots, and a second component responsible for planning and coordinating the robot fleet to minimize monitoring costs.

The project would not only bring indirect benefits to the local economy—such as reducing traffic disruptions, pollution, and risks to human life—but also direct positive impacts, particularly in the agricultural sector. An automated wildfire risk monitoring system could significantly reduce potential damage to vineyards and other agricultural activities.