## PREVENT

## Prevention of natural disasters using deep technology for advanced HEI curricula

PREVENT aims to harness the potential of deep tech systems for environmental applications. The project also seeks to introduce new modules and enhance existing ones engineering undergraduate in programs in higher education (HE). These modules focus on technologies related to the prevention of natural disasters and the utilization of sensor networks for real-time data collection. This data is then processed by centrally implemented artificial intelligence algorithms to optimize conditions and/or prevent or rectify disasters.



### **Project Updates**

Partners discussed the needs of the Higher Education curricula in terms of deep technologies and their use in disaster mitigation

Developed the Pedagogical Guide and translated it into all partner languages

**Upcoming Tasks** Pilot test the Pedagogical Guide with HE teachers

Create the PREVENT podcasts



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# **Project Updates**

## **Pedagogical Guide Development**

In July 2024, we reached a major milestone with the completion of the Pedagogical Guide on new deep technologies for Higher Education (HE) educators. Developed as part of our mission to enhance disaster prevention education, this guide offers a comprehensive resource to equip educators with cutting-edge knowledge and tools in fields like Artificial Intelligence (AI), Internet of Things (IoT), and Remote Sensing.

#### Key Highlights of the Guide:

- 1. The guide is designed to enrich undergraduate curricula in fields such as Engineering and Computer Science, with a strong focus on technologies relevant to disaster prevention.
- 2. Educators will find well-structured content that includes practical exercises, real-world simulations, and a deep dive into the integration of AI, IoT, and robotics for managing natural disasters.
- 3. The guide also emphasizes collaboration between academia and industry, ensuring that the content aligns with current technological advancements and market needs.
- 4. It includes recommendations for course structures, teaching methodologies, and assessment strategies to effectively communicate these advanced topics.

This guide is now available for HE institutions and serves as a cornerstone for the upcoming pilot phase!



The river Biała flooded the Kłodzko region in Poland. September 15th 2024

Storm Boris has lashed central and eastern Europe, bringing torrential rain and floods, forcing thousands to evacuate



# **Project Updates**

### Upcoming Task: Pilot Testing the Pedagogical Guide

As we transition into the next phase of the project, one of our primary tasks is the pilot testing of the Pedagogical Guide. This phase will engage Higher Education teachers across partner institutions in the real-world application of the guide's content.

#### Objective:

To evaluate the effectiveness of the pedagogical content in enhancing educators' and students' understanding of deep technologies and their role in disaster prevention.

#### Expected Outcomes:

Feedback from the pilot phase will be used to refine and enhance the guide, ensuring it meets the needs of educators and aligns with educational goals.

### What's Next: The PREVENT Podcast Series

In the coming months, we are also preparing to launch the PREVENT podcast series. Each episode will explore the core themes of the Pedagogical Guide, delving into deep technologies such as AI and IoT, and their practical applications in disaster prevention.

#### **Topics:**

The podcasts will follow the structure of the pedagogical guide chapters, with each episode focusing on a specific technology or disaster management strategy.

#### Target Audience:

These episodes are designed for educators, students, and professionals interested in the intersection of technology and disaster resilience.

Stay tuned for more information on the podcast release dates!



## Looking Ahead

As we continue to move forward with the pilot testing and podcast series, we want to thank our partners for their commitment and contributions. Your ongoing support is vital to the success of the PREVENT project, and we look forward to sharing more progress with you in the coming months.

Stay connected for more updates and exciting developments in the next edition of our newsletter!

Warm regards, The PREVENT Team

