Hackathon IT - AI-based Drone Detection and Classification

Context and Event Integration

This hackathon will run alongside the drone measurement event during Aveiro Tech Week, a city-wide initiative that turns Aveiro into a hub of technology and culture with conferences, exhibitions, and hackathons.

Synergy with the Drone Measurement Exercise

This year, innovation is elevated with the co-location of an exercise focused on drone measurements. This overlap creates a unique environment: hackathon participants will work with real-world data and operational, particularly in drone detection and classification.

Main Goal of the Hackathon

The primary objective is to attract fresh minds to address a critical challenge in security and technology: detecting and classifying drones. The problem is divided into two key subtasks, dataset labelling, a time-consuming but essential process for preparing high-quality training data for AI models; and drone and communications data detection and classification, which involves developing algorithms capable of accurately identifying and classifying different types of drones.

Prizes and Recognition

- Monetary award for the 3-top teams.
- Visibility and recognition from institutional partners.
- Networking and recruitment opportunities with defense, academia, and tech stakeholders.

Target Participants

The hackathon is open to anyone registered at UA with valid passport or ID card from NATO nations, including students, professionals and enthusiasts in AI, data

science or drone communications. No advanced technical expertise is required, only **curiosity and motivation**. Teams may consist of 1 to 3 members.

Registration

Link:https://docs.google.com/forms/d/e/1FAIpQLSfHF09CX4cgUbG9f2rmJVdpcSqxC-qrvLbPCglrzjMmHwPueA/viewform?usp=dialog

Mentorship and Support

Teams will be supported by mentors from the Telecommunications Institute and experts connected to the drone exercise. In addition, datasets and Python scripts as a starting point will be provided during the kick-off meeting.

Timeline

12-18/09/2025 - Teams registration

15/09/2025 (19h) - Opening and introductory session at DETI-UA

19/09/2025 - Kick-off meeting at DETI-UA

19-30/09/2025 - Development stage

1/10/2025 - Evaluation of AI models

3/10/2025 - Selection of the top teams for on-site deployment during the drone measurements

6-8/10/2025 - On-site AI model testing

9/10/2025 - Award ceremony during the Final Session at Teatro Aveirense

Contacts

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Organization

Partners