Press Release

November 2024

About FLEXI-cross

FLEXI-cross is a European initiative driving advancements in border security through cutting-edge technologies. Utilizing mobile, AI-driven systems for real-time monitoring, the project addresses the complexities of modern border control, prioritizing security and efficiency. BEIA Consult International, a leading Romanian telecommunications provider, is proud to contribute its expertise in telecommunications, IoT, and smart technology, supporting FLEXI-cross's vision for safer, more streamlined border operations across Europe.

FLEXI-cross Enhances Border Security at Romania's Galați Port with Advanced Detection Capabilities

The FLEXI-cross project has recently showcased ground-breaking advancements in border security technology through a live demonstration at Galați Port, Romania's largest river and maritime port on the Danube. This event, highlighting Use Case #1 of the project, focused on enhancing border control efficiency and security in response to increasing traffic due to ongoing geopolitical challenges in the region. Since February 24, 2022, border crossings with Ukraine and the Republic of Moldova have seen a dramatic rise in activity, necessitating innovative solutions to manage both the influx of passengers and associated security threats.

With Galați Port as a vital gateway to Europe, this demonstration provided a glimpse into how FLEXI-cross technologies can detect and respond to high-risk individuals and hazardous materials, such as weapons, drugs, and waste, with unprecedented accuracy. By seamlessly consolidating information from various systems, sensors, and devices, the FLEXI-cross project demonstrated its potential to strengthen border security protocols, ensuring faster, more effective threat assessments.

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Key Technologies Showcased

- Multimodal Pattern Detection: This system analyzes video and audio feeds in real time, detecting unusual activities and unexpected sounds. Using advanced audio classification, the system can alert operators to potential threats and map the locations of suspicious events, facilitating accurate and rapid responses.

- Entities Recognition and Tracking: Through the YOLO algorithm, the project demonstrated object and individual detection capabilities. This technology identifies specific entities, such as crew members or vehicles, even in crowded port environments, enhancing situational awareness for port operators.

- Positioning Prediction: Integrating GPS and acoustic sensors, the system accurately pinpoints incidents based on audio cues. With deep learning algorithms like Yamnet and OpenL3, it categorizes sounds to identify security risks, providing real-time visuals on a port map for quick assessment by security teams.

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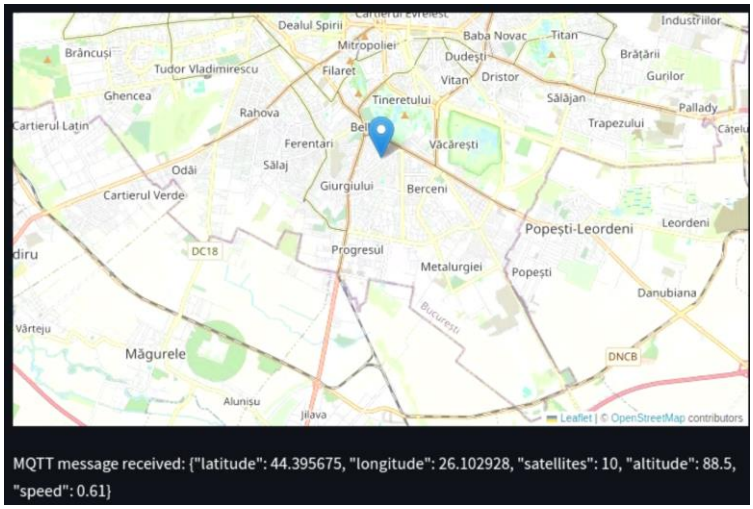

Looking Ahead

Following this successful demonstration, FLEXI-cross is set to enter the next implementation phase, focusing on integrating refined modules into existing border systems. Improvements will emphasize ease of use for frontline agents and adaptability to real-world conditions at Galați Port. Continued feedback from users and stakeholders will shape future updates, ensuring FLEXI-cross remains a robust, portable solution that elevates security standards across European borders.

For more information about the project can be obtained from the project website and social media networks.

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