

Group: Open Group

Sub-theme: I&T for Nature (Yama)

Project Code: O-001284

Smart AI based Safety and Monitoring System for Nature

Explorers (內容只提供英文版)



User Pain Points

The target beneficiaries are hikers, trekkers, climbers, campers, families, park management, and emergency response teams. Our solution solves these problems by providing real-time monitoring with DJI drones equipped with thermal imaging and AI for danger detection, using smartwatches and a mobile app for GPS tracking and health monitoring, implementing UWB tags for precise location tracking, and facilitating rapid search and rescue operations with drones to improve emergency response times.

Solution Benefits

Our solution enhances safety with quick emergency responses, improves park management through better monitoring, and collects valuable data to enhance visitor experiences. It raises public safety standards and improves disaster management capabilities, with immediate safety improvements and easy adoption of familiar technologies. Our solution offers comprehensive, dynamic monitoring with drones, uniquely integrates health and GPS tracking, and utilizes advanced AI for real-time analysis, surpassing traditional systems.

Technologies Applied

Our solution is innovative because it integrates drones, AI, GPS, and health monitoring into one system and uses UWB tags for precise tracking, an approach not commonly found in existing systems. The technologies adopted include DJI drones with thermal imaging and AI capabilities, smartwatches for health monitoring

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and GPS tracking, UWB tags for precise location tracking, and a mobile app for user registration, GPS tracking, and real-time alerts.

Target Users

User Profile / Persona:

Our target users are nature explorers, primarily young adults (18-35) and middle-aged adults (36-55) who engage in activities like hiking, beach, camping, and nature exploration. These users are typically adventurous, tech-savvy, and environmentally conscious. They seek real-time safety and monitoring solutions to enhance their outdoor experiences while ensuring their safety and minimizing their impact on nature.

User Scenario and Goals:

Users engage in various outdoor activities such as hiking, beach, and camping in remote and natural settings. Their primary goals are to explore nature safely, receive timely alerts and assistance during emergencies, and monitor their health and environmental impact. Our solution aims to provide a seamless and secure experience for these explorers, ensuring their safety and promoting sustainable practices.

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