

ABSTRACT

The development of this system is crucial due to the constant increase in the risk for individuals in conflict zones and war-torn areas, where the threat of landmines poses a significant danger. This project aims to create an efficient and safe method of detecting explosive devices using advanced thermal imaging technology and artificial intelligence.

The system will rely on the analysis of thermal images obtained from high-precision thermal imaging cameras. By leveraging artificial intelligence technology, the system will autonomously recognize patterns indicative of the presence of mines and generate rapid and accurate alerts for operators.

It is anticipated that the outcome of the project will be the creation of a highly effective system that reduces risks and enhances safety for those working or residing in high-risk areas containing explosive devices. Furthermore, the system holds potential for various applications, including rescue operations, post-war mine clearance efforts, and military purposes.

The overarching goal is to develop an innovative and highly efficient solution for mine detection to save lives and improve safety in conflict zones and crisis situations. An automated thermal imaging system utilizing artificial intelligence stands as a promising and innovative solution for mine detection, ensuring safety and efficiency in demining efforts.