Project Title

SMART STREET RISK ALERT SYSTEM

Problem Statement

There is a need for a low-cost, real-time monitoring system capable of detecting unusual movement in dark or low-light conditions. Such a system can help authorities identify high-risk situations early and take preventive action, reducing the chance of accidents, thefts, or other security incidents. Current surveillance solutions are often expensive, require constant human monitoring, or fail to work effectively at night, leaving gaps in safety. A reliable system that generates instant alerts can improve responsiveness and support automated tracking and recording for evidence.

Project Team



TEAM 3 - ARTISTIC AVENGERS

Team Members

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SDG Goals

SDG 16 – Peace, Justice and Strong Institutions

SDG 11: Sustainable Cities and Communities

Solution

The solution is to design a low-cost smart monitoring system using Arduino that can detect motion in low-light or dark conditions and generate real-time alerts to indicate potential high-risk situations within a micro-area. The system integrates a motion sensor and infrared or night-vision components to reliably sense movement even in complete darkness. When unusual movement is detected, the Arduino processes the input and immediately triggers notifications via SMS, mobile app, or alarm to alert authorities or responsible personnel. The system can also include a small camera module to capture images or short video clips for verification and evidence. Powered by low-voltage and energy-efficient components, the device is cost-effective, easy to install, and scalable for multiple locations. This approach reduces reliance on constant human surveillance, improves response time, and enhances safety in residential areas, public spaces, or critical micro-locations.

