

# Smart Crowd Security Surveillance

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**Abstract:** *The increasing complexity of urban security and the management of large-scale events, such as Kumbh Mela, presents significant challenges in real-time crowd monitoring and threat detection. Traditional surveillance systems often fail to process and analyze the enormous volumes of live data generated in such settings, limiting their capacity to prevent or mitigate security incidents. This paper proposes the development of an AI-powered crowd surveillance system designed to address these limitations by rapidly analyzing video feeds and providing real-time alerts. Leveraging advanced computer vision and machine learning algorithms, the system can detect unusual crowd behaviors, identify potential threats, and offer real-time situational awareness. By improving the speed and accuracy of threat detection, this AI-powered solution enhances public safety, helping authorities to manage crowds more effectively and respond proactively to potential security risks. The system's scalability and adaptability make it a robust tool for urban security and large events, ensuring a safer environment for all participants. The complexity of managing urban security and large-scale events, such as the Kumbh Mela, has grown exponentially due to increasing crowd sizes and the heightened risk of incidents. Traditional surveillance systems, while ubiquitous, face challenges in processing the immense volume of live data generated by modern surveillance networks. These systems often lack the ability to perform real-time analysis, making it difficult to detect and respond to potential threats promptly. To address these limitations, there is a need for an advanced AI-powered crowd surveillance system capable of delivering real-time monitoring, anomaly detection, and proactive threat alerts.*

**Keywords:** AI-powered surveillance, Crowd monitoring, Threat detection, Real-time analysis, Urban security, Large-scale events, Kumbh Mela, Video feed analysis, Anomaly detection, Public safety