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# A Review on Android-Based Safety Applications for Women's Security

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**Abstract:** *The rising incidents of harassment, violence, and crimes against women have emphasized the urgent need for effective and accessible safety solutions. This review paper explores various existing Android-based mobile applications and technologies developed to enhance women's safety, analyzing their features, advantages, and limitations. Key functionalities commonly integrated into these applications include real-time GPS tracking, emergency SOS alerts, voice command activation, fake call simulations, and location sharing with pre-registered emergency contacts. Several studies have focused on improving the responsiveness, user interface simplicity, and reliability of these systems under high-stress situations. The incorporation of cloud services like Firebase enables real-time data synchronization and secure storage, while GSM and SMS features provide critical functionality in areas with weak internet connectivity. Recent advancements also highlight the potential of integrating artificial intelligence, machine learning, IoT devices, wearable technology, and law enforcement collaboration to create more predictive, adaptive, and proactive safety mechanisms. However, challenges remain in ensuring data privacy, maintaining application reliability under various network conditions, and addressing user accessibility across different demographics. This paper consolidates findings from numerous research efforts, offering a comprehensive overview of current trends, technological approaches, and future prospects in developing effective mobile-based safety solutions for women.*

**Keywords**: Women Safety, Android Application, GPS Tracking, Emergency Alert, Mobile Security



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