

MSME IDEA HACKATHON 5.0

1.* Title of proposed idea/innovation

GuardianEye

2.* Briefly explain newness/uniqueness of the innovation

This innovation combines AI facial recognition technology with a centralized police database in a way that is exclusive to this innovation, automatically identifying and tracking missing persons. Unlike current systems, it becomes operational upon reporting a missing person complaint, continually monitors surveillance feeds, and sends instant alerts to the police, boosting response time and recovery rates considerably.

3.* Concept & Objective

The idea is to create an AI-driven facial recognition system that identifies missing people automatically through scanning real-time feeds from surveillance cameras. The system, integrated with the FIR portal, automatically uploads complaint data and triggers the search without human intervention. The aim is to reduce delays and human error in tracking down people by giving instant notifications to authorities in case of a match being identified. This solution improves the effectiveness of law enforcement and is particularly useful for tracing vulnerable groups like children, the elderly, and the disabled

4.* Briefly provide the market potential of idea/innovation.

This facial recognition system based on AI has strong market prospects in the face of growing demand for real-time public safety solutions. Its scalability and automation qualify it for use in smart cities, transport hubs, hospitals, schools, and big venues. Governments and security agencies are investing more money in such technologies to guarantee public safety. The quick, automated identification capabilities of the system are of benefit both to public and private sectors. Its connection to surveillance networks makes it more commercially attractive. Increased world attention on safety and digital infrastructure aids in mass deployment and collaboration.

5.* Current Development Status of innovation

The innovation is at the prototype development phase with the main AI face recognition features developed using OpenCV and DeepFace libraries. A main database to store missing persons' information has been set up. Integration with captured video feeds is finished, and real-time camera testing is ongoing. The alert and notification system is in active development. Areas of focus now are enhancing recognition accuracy, system security, and scalability. Pilot testing with surveillance authorities is planned soon to move toward an MVP.

6.* Expected time of completion of idea

The timeline for completion of the AI Facial Recognition System is around 8 to 12 months. This includes system development, integration of real-time surveillance, and testing. A working MVP is planned within the initial 4–6 months. The last stages will emphasize feedback, optimization, and deployment.

7. Financial requirements:

7.1.* Please give activity-wise break-up as mentioned below

Particular/Item	Total idea project cost (Rs. In lakh)	Amount GOI assistance (Rs. In lakh)	Incubatee share (Rs. In lakh)
Technology related Expenditure towards machine usage charges etc., Electricity charges, Procurement of raw material , testing/Calibration charges, other charges essential for development of idea Max (10.00) lakh.	9.6 lakh	9 lakh	0.6 lakh
Charges for mentor/handholding supporting team Max (3.00) lakh.	3 lakh	2 lakh	1 lakh
Travelling Expenses or any other item not covered as above may be allowed as per need for development of the idea Max (2.00) lakh.	2 lakh	1.5 lakh	0.5 lakh

* 8. Summary of the idea.

The suggested resolution makes use of AI-based facial recognition software to identify missing people automatically through surveillance feeds. Integrating with the FIR portal, it enables real-time alerts as well as effective tracking and localization, substantially increasing the chances of recovery.

* 9. (a) Is it a new concept?

YES

* (b) Prior art on the concept, if any

Existing solutions like Clearview AI and Amazon Rekognition offer facial recognition but lack integration with FIR systems for automated missing person detection. No current system in India combines real-time surveillance, AI face matching, and FIR-linked alerting in one unified platform.

* 10. Main Problem Being Addressed in the Project

The initiative solves delay in the recovery of missing people due to manual monitoring of surveillance. It applies AI facial recognition technology to monitor live CCTV feeds, identify faces against a central database, and immediately notify authorities, enhancing speed and precision in recovery operations.

11. Background for getting the idea?

*** a. Who is it for?**

This solution is intended for law enforcement organizations, emergency services, and families of the missing. It also aids municipal authorities, schools, hospitals, and public spaces in enhancing safety and expediting recovery of missing people.

*** b. What will it do?**

The system will automate surveillance monitoring, detect and identify missing persons in real-time, and instantly alert authorities with location details to enable rapid response and reduce search time.

*** c. Any unique features? Explain?**

The system combines AI facial recognition for the first time with the FIR process, supporting automatic data sync and real-time alerts. It capitalizes on existing CCTV infrastructure, minimizes manual effort, and supports scalable, cost-effective deployment not available in existing systems.

*** 12. Execution Complexity and Risk Factors**

The installation is highly advanced with the implementation of AI, real-time tracking, secure database handling, and FIR portal interface integration. The principal threats are data privacy, facial recognition accuracy, infrastructure compatibility, and user training. These can be addressed by phased rollout and countermeasures.

*** 13. How soon could the idea be put into operation? (TRL of prototype)**

The project is currently at TRL 4–5 with early facial recognition demonstrated in laboratory trials. With further development and authority collaboration, there is the possibility of reaching TRL 6 within 8–12 months to enable pilot deployment in key areas to test and grow in live conditions.

*** 14. How much investment would you need for prototyping of the Idea?**

Around ₹14.6 lakh will be required as prototyping investment and related costs on AI model development, surveillance system integration, FIR portal integration, secure database deployment, testing, and initial pilot deployment infrastructure.

*** 15. (a) How do you intend to protect your idea (i.e. your intellectual property or IP)? Status of IPR (If any)**

We intend to protect the idea through a combination of copyright for the software and patent filings for the unique system architecture, AI integration, and FIR synchronization process. The IPR process is currently underway with preliminary evaluation in progress.

*** (b) Related Background.**

Existing facial recognition software has found application in many areas, but it being applied in police databases to locate missing people in real time is new. There has been research in the past on surveillance or database management but not on an entire system that does both efficiently.

*** 16.How is this project made and used**

The system uses AI-based facial recognition software trained on missing persons images. It takes live camera feeds through RTSP and processes frames in real-time. Recognized faces are matched with a secure, centralized database linked to the FIR portal. On cross-matching greater than the confidence level, an alert with time and location is sent through SMS, email, or dashboard to authorities. Hosted on a secure cloud, it facilitates scalability and rapid deployment.

*** Upload Block diagram/ flow chart/ Circuit Diagram/Pictures**

