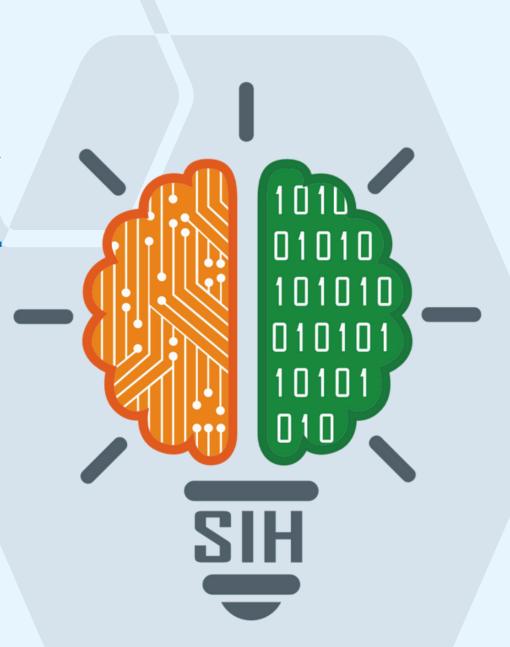
SMART INDIA HACKATHON 2025 TITLE PAGE



- Problem Statement ID 25002
- Problem Statement Title Smart Tourist Safety Monitoring & Incident Response System using Al, Geo-Fencing, and Blockchainbased Digital ID
- Theme- Travel & Tourism
- PS Category- Software
- Team ID- T121
- Team Name (Registered on portal) PIXEL TROOPS



Pixel Troops IDEA AND SOLUTION OVERVIEW

FLOW DIAGRAM

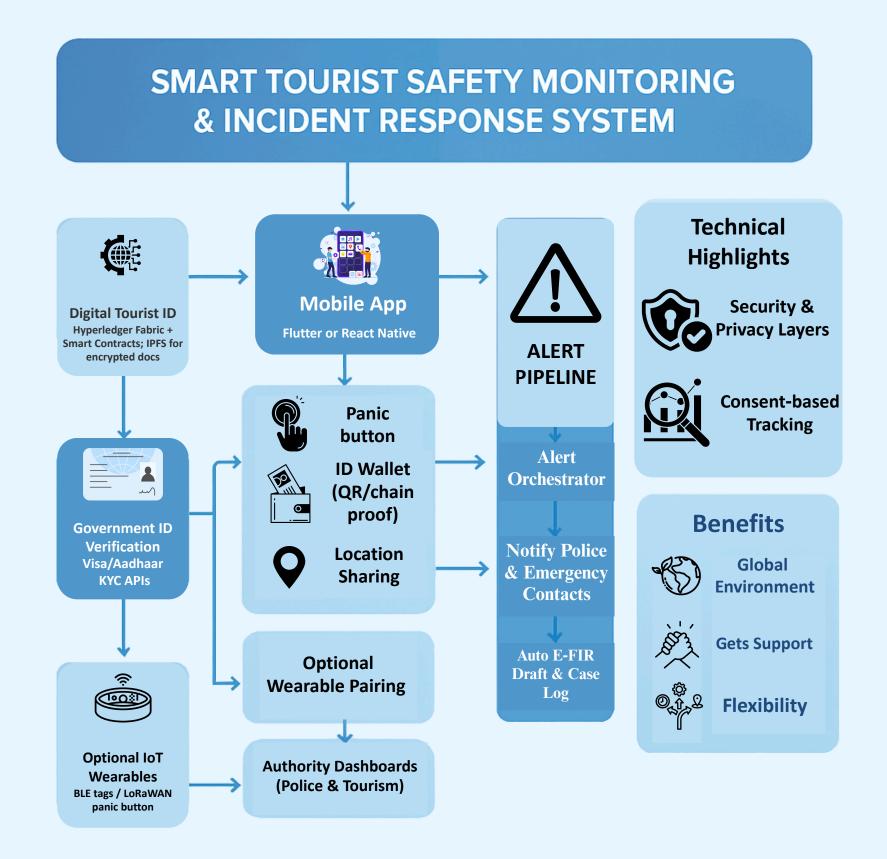


BRIEF INTRODUCTION OF OUR IDEA

An integrated Smart Tourist Safety Monitoring & Incident Response System to ensure tourist safety in remote & high-risk regions using blockchain and AI.

KEY SYSTEM COMPONENTS

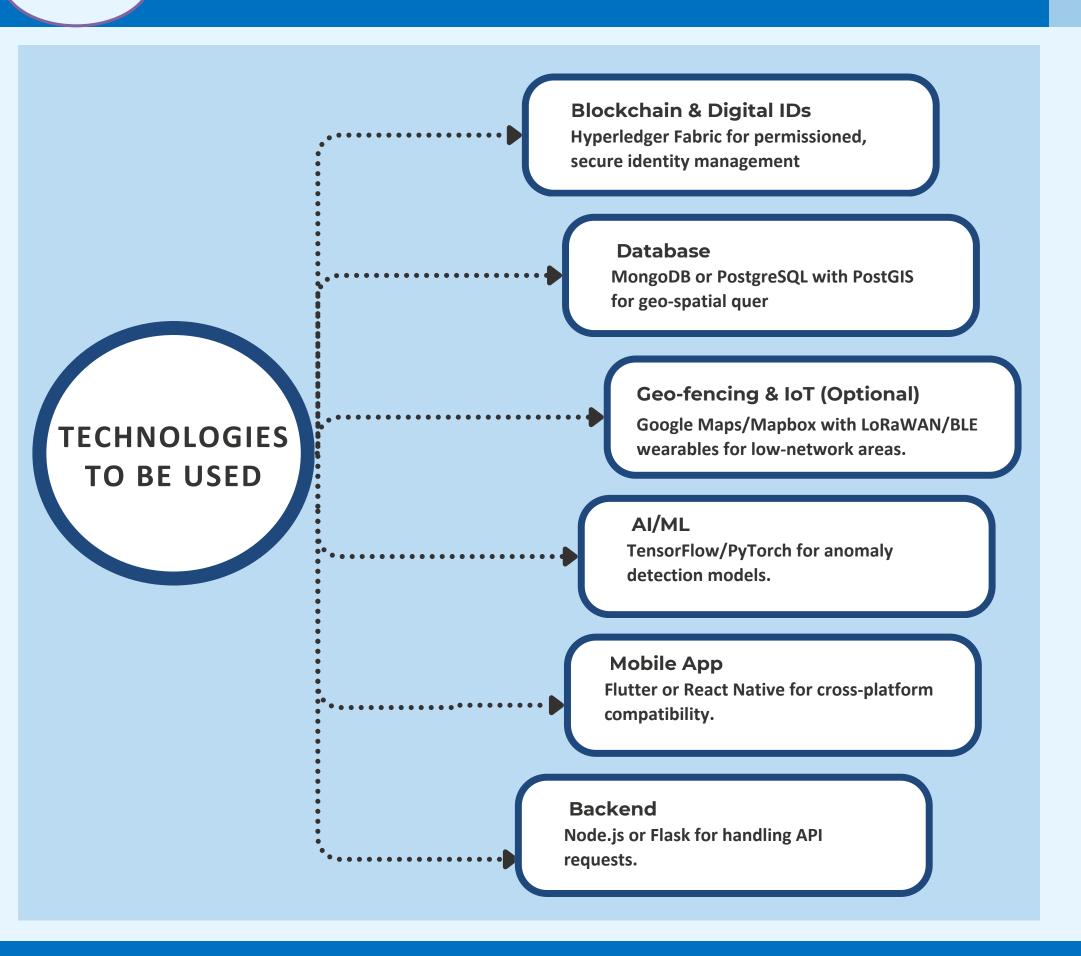
- BLOCKCHAIN-BASED DIGITAL IDENTITY: A secure, tamper-proof digital ID using VISA no is issued to each tourist after KYC verification at entry points. This ID, stored on a blockchain, serves as a trusted and unique identifier throughout their journey.
- AI-POWERED REAL-TIME MONITORING: A mobile app tracks real-time location and uses AI models to detect anomalies like route deviation, prolonged inactivity, or entry into high-risk zones.
- INTEGRATED INCIDENT RESPONSE : A unified dashboard for authorities provides a real-time map of tourist locations, displays instant alerts from the AI system or a manual panic button, and allows for the automated generation of an E-FIR to expedite response.



TECHNICAL APPROACH

PROTOTYPE





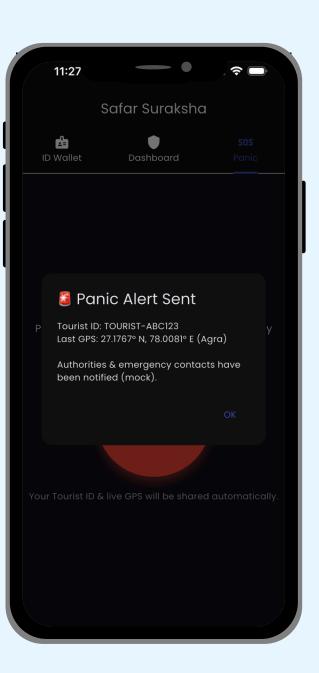


Blockchain-Verified ID

A unique QR code provides a secure, immutable identity for seamless and trusted verification.

One-Tap Panic Button:

instantly alerts the nearest authorities with precise location data for immediate assistance.







Network Gaps

Limited or no cellular connectivity in remote tourist locations.

Hybrid Tracking System

Integrates optional low-power IoT wearables (LoRaWAN) to provide reliable coverage in no-network zones.



Scalability

Secure and nationally-scalable identity system via Hyperledger Fabric.

launch before national rollout.



Ensuring robust user consent and preventing misuse of sensitive location data.

Privacy-by-Design

Employs end-to-end encryption and strict, timebound user consent for all tracking activities.



Stakeholder Integration

Unifying diverse government bodies (e.g., state police, tourism boards) onto a single, cohesive platform.

Top-Down Mandate

Partnering directly with the Minis try of Tourism to drive unified adoption and standardized protocols across all states.

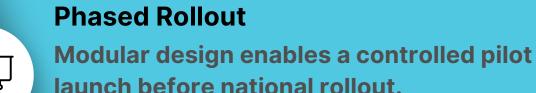


Existing Tech

GPS tech.

Low-cost launch using

existing smartphone and





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01

IMPACTS & BENEFITS

BUSINESS STRATEGY



FOR TOURISTS:

- Safe travel with real-time protection.
- Peace of mind for families via optional tracking.

02

FOR AUTHORITIES:

- Faster incident detection & response.
- Automated E-FIR filing, reducing delays.

03

FOR SOCIETY & ECONOMY:

- Builds trust in Indian tourism → more visitors.
- Reduces crime/missing cases → safer reputation.
- Encourages smart policing & digital governance.

KEY BUSINESS MODEL HIGHLIGHTS

- Model: A strategic B2G SaaS framework designed for long-term sustainability.
- Market: Capitalizes on India's massive tourism sector (>10 million foreign arrivals annually).
- Value: Enhances security, drives tourism growth, and enables data-driven governance for government partners.
- Revenue: Monetized through a blend of a recurring Annual License, a scalable ₹15 Per-Tourist Fee (projecting >₹3.75 Crores initially), and high-margin IoT hardware sales.

B2G SaaS Model

Primary Customers

- Tourism Ministry
- State Boards
- Police

Value Proposition

- Security
- Tourism Growth
- Governance

Revenue streams

- Annual License Fee.
- Per Tourist Fee.
- IoT Devices.

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RESEARCH AND REFERENCES



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- → Al-based anomaly detection in GPS tracking (IEEE papers). https://ieeexplore.ieee.org/document/10677323
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