

TITLE PAGE

- **Problem Statement ID – SIH25031**
- **Problem Statement Title - Crowdsourced Civic Issue Reporting and Resolution System**
- **Theme - Clean & Green Technology**
- **PS Category - Software**
- **Team ID -**
- **Team Name - Code Hackerz**



AI-POWERED CROWDSOURCED CIVIC ISSUE REPORTING SYSTEM

Main Problems

- ❑ Citizens face potholes, faulty streetlights, and overflowing bins daily, but manual systems take 10 days average to resolve
- ❑ Despite Jharkhand ranking 2nd nationally in grievances, only 43% of citizens feel issues are handled transparently
- ❑ 30% of reports are duplicates, wasting municipal resources and slowing response times

PROPOSED SOLUTION

- Citizens report issues via our mobile app, **FixMyCity** (camera + voice/text input + GPS auto-tag) in one tap
- **Artificial Intelligence** engine classifies issue type and severity, removes duplicates, and assigns priority scores
- Admin staff monitor live issues on a **real-time dashboard** with map, analytics, and SLA-driven alerts
- If issue has enough **priority** and is **reported by multiple citizens** in a fixed span of time, then issue is assigned **verified** status
- Automatic department routing sends the verified issue by a unified **JSON payload** to the correct **municipal API** endpoint
- Field crews receive assignments, **capture before/after photos**, **revert back** to admin **via FixMyCity** (worker's login), and admin dashboard **updates status**

OUR
UNIQUE
FEATURES

Civic Workers
send **resolved
issue's photo** to
admin dashboard
for verification

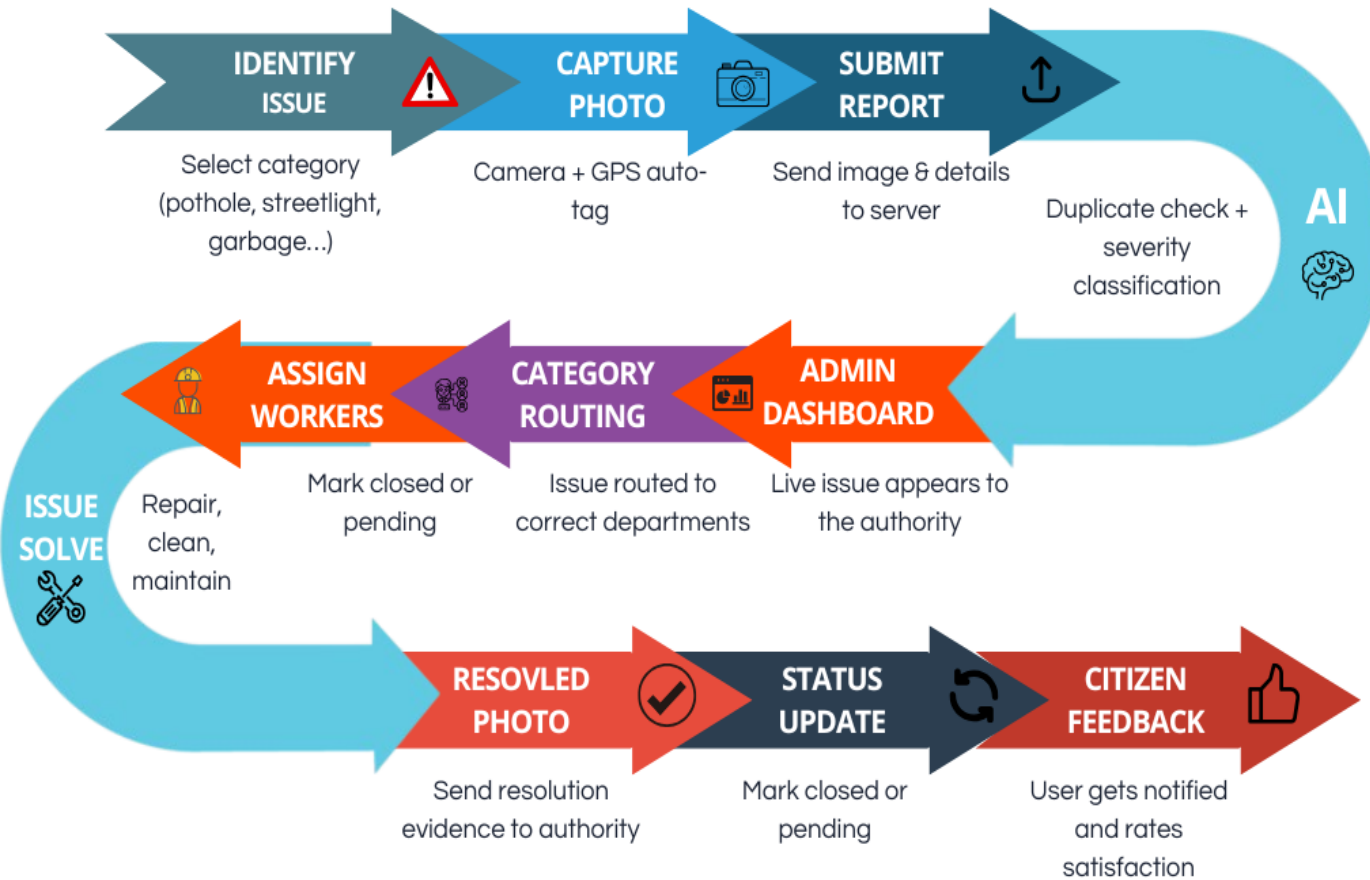
Resource
Optimization
using AI to
calculate optimal
routes

Offline Mesh
Reporting System
for remote and
low-connectivity
areas

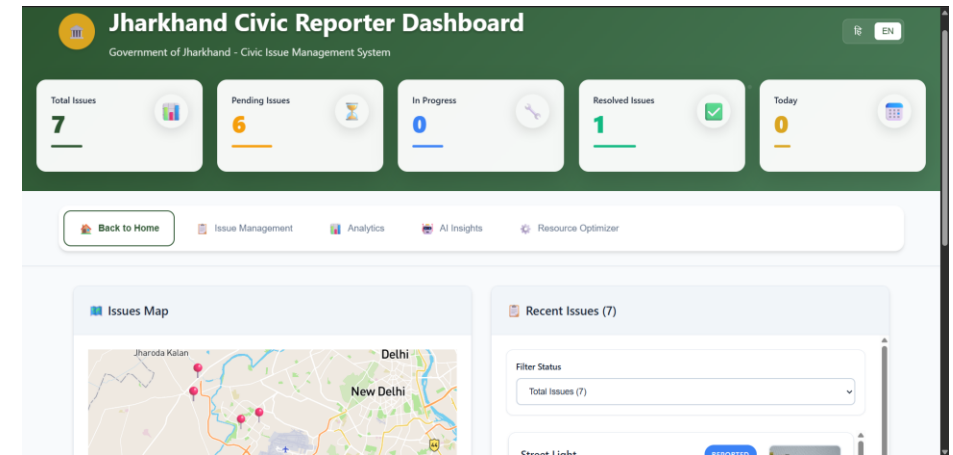
Predictive
Hotspot Engine
through on-
device machine
learning model

Blockchain
Immutable Audit
Trail for complete
citizen-authority
transparency

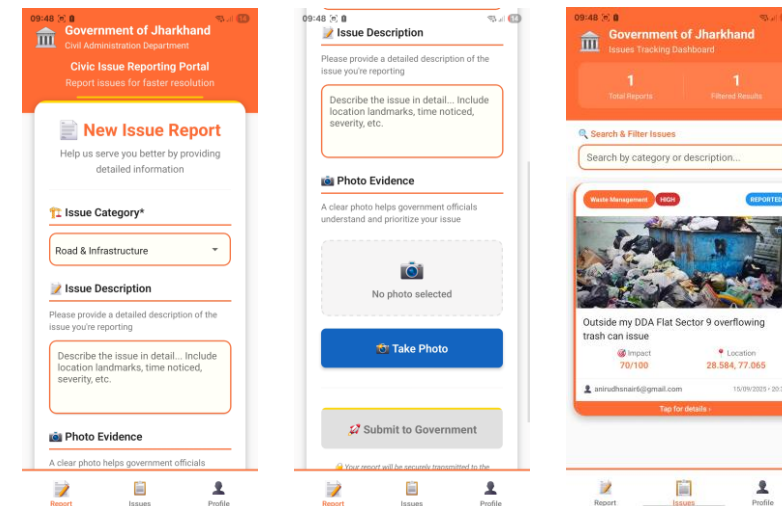
END-TO-END CIVIC ISSUE REPORTING WORKFLOW



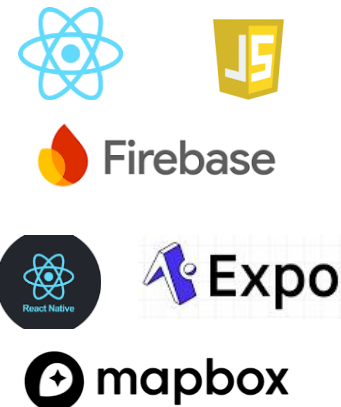
Prototype Dashboard



Prototype Mobile App



Tech Stack



Feasibility →



Proven technologies : mobile app, GPS, AI image classification, geotagging, etc.



Ease in adoption: just click a photo & submit
Department can easily access issues via dashboard



Scalability: start at small scale → scale up gradually.
APIs allow smooth integration with existing govt. apps



Cost efficiency : automation, optimized resource allocation, fewer emergency repairs, etc. → less capital



Prototype Features →

- **Firebase storage** → Stores images and metadata
- **GPS location tagging** → Automation & interactive maps
- **Real-time Firestore sync** → real time synchronization for instant updates
- **Duplication detection** → Detects and assesses severity
- **AI repair cost estimation**
- **Priority Calculation** → Calculates based on category, duplicates, urgency
- **Auto-assign department**



Scalability and Future Features

- **Citizen voting system** of issues near their locations to find out priority and verification
- Multiple images per report, video captures, voice notes explanation and use of cloud storage
- Implement **Machine Learning** for similarity detection, image comparison
- Integrate machine learning **APIs**, **image recognition**, **natural language processing** & continuous learning from user feedback
- **AI** (using ML models) scans for severity keywords (like urgent, minor, etc.) and real time severity escalation based on duplicate reports
- Connect to **actual municipal systems**, by sending **unified JSON payloads** to correct municipal API's containing information of issue

IMPACTS



AI-automated categorization reduces 65% manual routing errors and cuts administrative workload by 40-50%



AI routing reduces average complaint resolution to 3 days, improving citizen satisfaction from current 43% to 75%



Predictive analytics identify issue patterns across 52 Urban Local Bodies in Jharkhand, enabling proactive maintenance schedules



Cost optimization through data insights can reduce municipal operational expenses by 25%



Scalability to Other Civic Problems

Same system can expand to water leakage, electricity issues, public transport delays.

Benefits

For citizens

- **Easy Reporting** – Just click a photo and submit
- **Transparency** – Can track progress of their complaint in real-time.
- **75% faster resolution** vs current 10-day average
- **Community voting** on budget priorities
- **Empowerment** – Citizens feel their voice is heard and acted upon.
- **Time-Saving** – No need to visit offices.

For Govt. /authorities

- **Centralized Dashboard** – One platform for all 44 civic bodies
- **Data Insights** – AI analytics show hotspots and recurring issues for better planning.
- **Cost Efficiency** – 30% cost savings through optimal resource allocation
- **Faster Response** – Automated routing reduces manual categorization by 65%
- **Public Engagement** – Citizen satisfaction boost from 43% to 75%



Scan for sources

All Documents, references, conversation have been listed properly In the attached document with the QR. Kindly scan to know more about the Methodology

Deployed link of Dashboard: <https://fixmycity-dashboard.netlify.app>
Deployed link of Mobile App Apk file: [FixMyCity](#)

Market Research

Features	FixMyCity	Delhi's Green App	Civic Alerts
Report Tracking	✓	✗	✗
User Friendly	✓	✗	✗
Issue reporting	✓	✓	✓
Multi-lingual support	✓	✗	✗
AI integration	✓	✗	✗
Task Assignment	✓	✗	✗
Rating and Feedback	✓	✓	✗

FixMyCity

Our Fully Deployed Prototype

