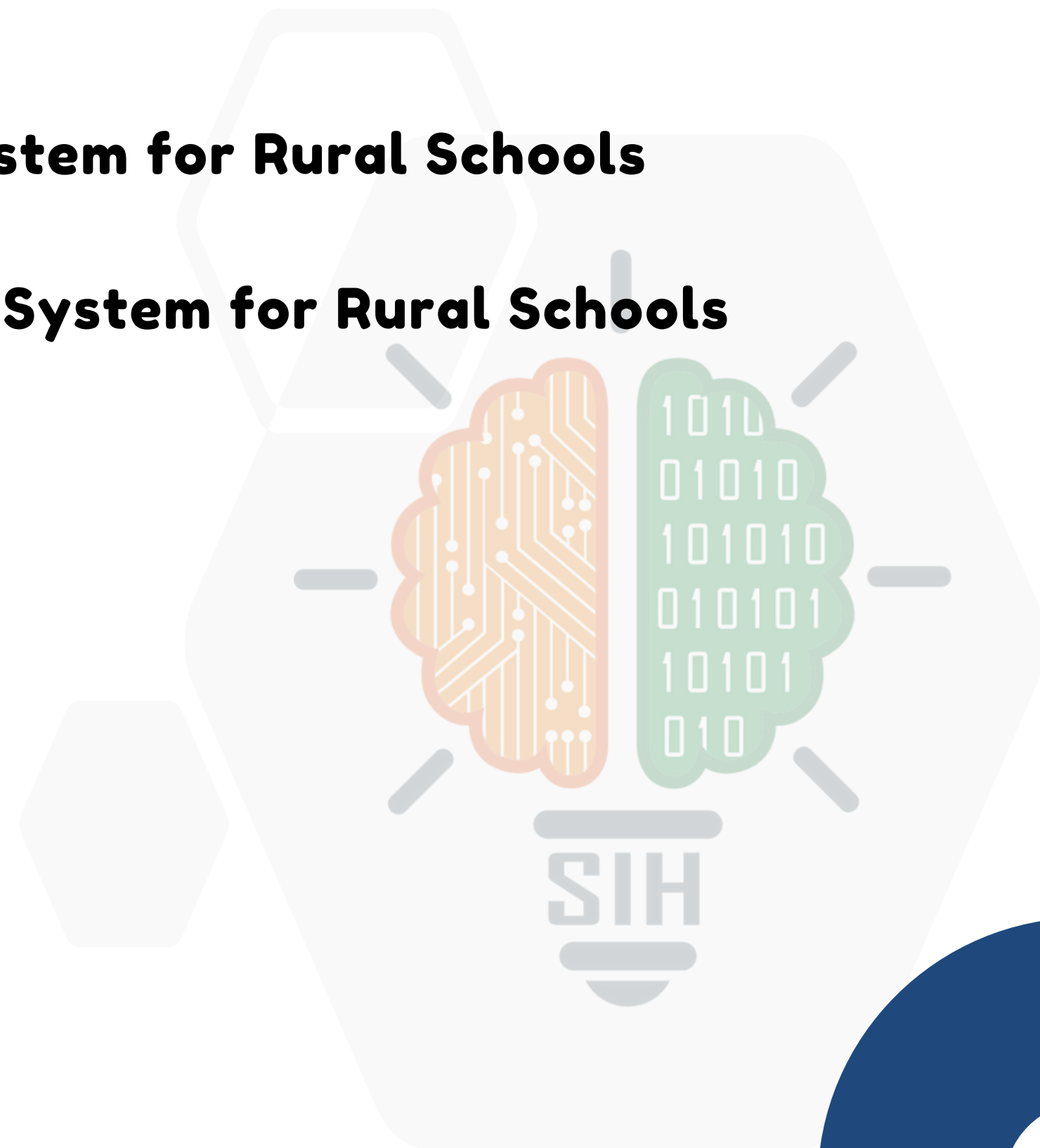# SMART INDIA HACKATHON 2025

- **Problem Statement ID** – **Automated Attendance System for Rural Schools**

- **Problem Statement Title** – **Automated Attendance System for Rural Schools**

- **Theme** – **Education & Smart Solutions**

- **PS Category** – **Software**

- **Team ID** – **252525**

- **Team Name** – **SIH Team**

Smart Rural Attendance System
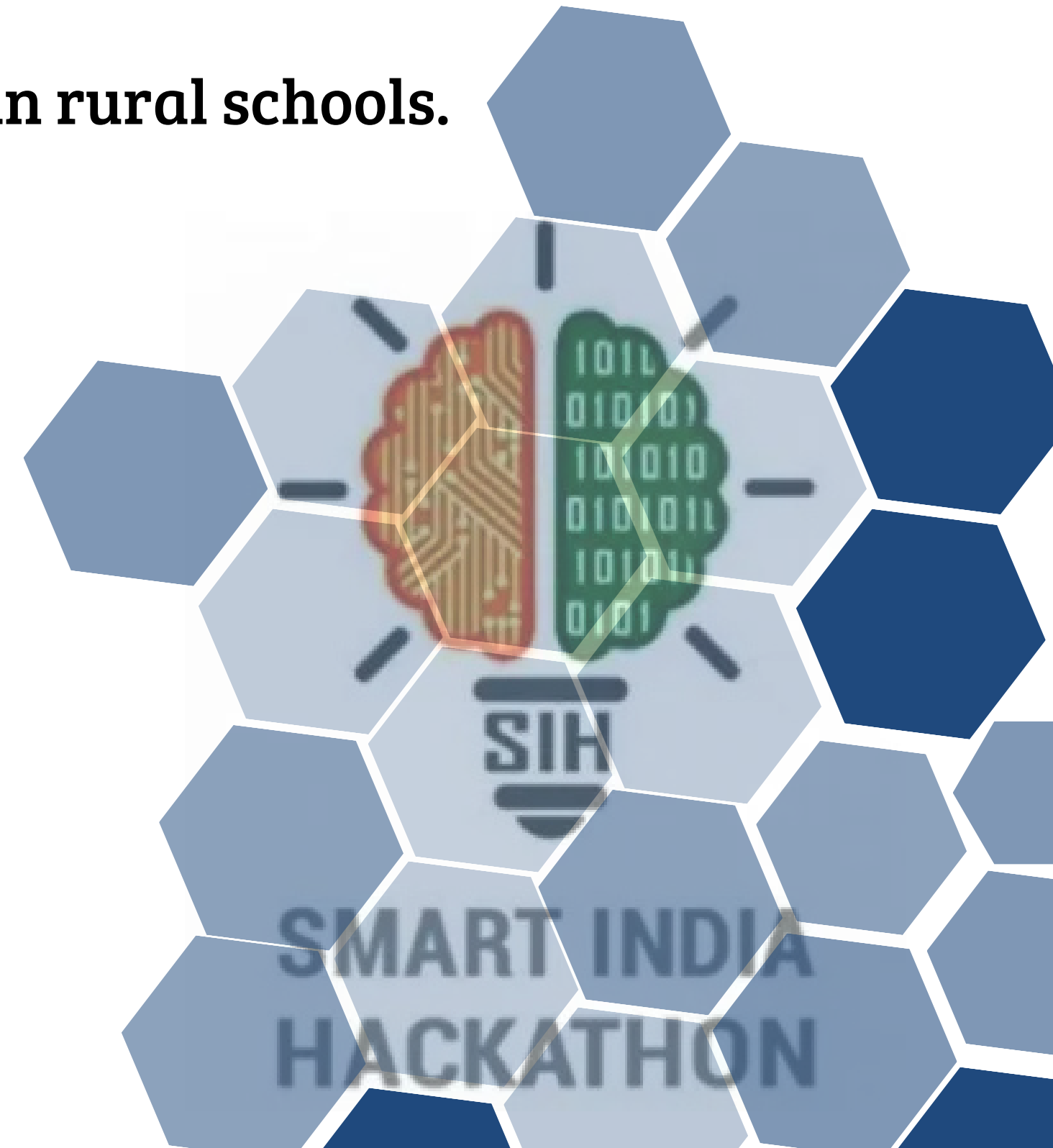
Proposed Solution:

A web + mobile-based system for automating attendance in rural schools.

Explanation:

- Uses QR codes for students to mark attendance.
- Teachers can scan via app/web dashboard.
- Attendance data stored in MySQL with analytics.

Innovation & Uniqueness:

- Simple, affordable, and offline-first design.
- Works with low internet connectivity.
- Provides insights to teachers and education boards.

Technical Approach

Technologies Used:
- Frontend: HTML, CSS, Java
- Design: Figma (UI/UX prototype)
- Backend: MySQL Database
- Integration: QR Code system

Methodology:
- Student registration with unique QR code.
- Teacher scans code to mark attendance.
- Data auto-updates in database.
- Dashboard for reports (daily/weekly/monthly).

Prototype Flow:
QR Code → Scan → Verify → Database → Report

Feasibility & Viability

Feasibility:

- Low-cost system, minimal infrastructure required.

- Can run on existing school devices.

Challenges & Risks:

- Poor internet connectivity in rural areas.

- Limited digital literacy among teachers.

Strategies to Overcome:

- Offline-first functionality (data syncs when online).

- Simple user interface with local language support.

- Training sessions for teachers.

Impact & Benefits

Impact on Target Audience:

- Accurate attendance tracking for rural schools.
- Transparency for parents and education boards.

Benefits:

- Reduces manual errors & paperwork.
- Saves time for teachers.
- Promotes digital literacy in rural areas.
- Scalable for other government schools.

Research & References

Reference Articles:

- Govt. of India reports on digital rural education.

- Existing QR attendance systems in urban schools.

- Research papers on low-cost EdTech solutions.