**TATA INNOVENT 2025**

**Title:** AI-Based Fault Prediction and Smart OTA Scheduling for EVs.

**Problem Statement:** Modern EVs rely heavily on software to manage key functions like battery systems, infotainment, and driving assistance. However, these systems can fail unexpectedly, leading to safety risks and user inconvenience. Current OTA updates are reactive and not optimized for real-time vehicle conditions, making them inefficient and sometimes disruptive.

**Objective:** To build an AI-powered system that predicts software faults in EV modules using historical and real-time data, and schedules OTA updates proactively at optimal times—ensuring high reliability, minimal downtime, and a safer driving experience.