Basic Details of the Team and Problem Statement

Ministry/Organization Name/Student Innovation:

PS Code: SIH 1382(Ministry of Himachal Pradesh)

Problem Statement Title: Real-Time Vehicle Tracking system.

Team Name: Path 4o5

Team Leader Name: Kartikeya Dhasmana

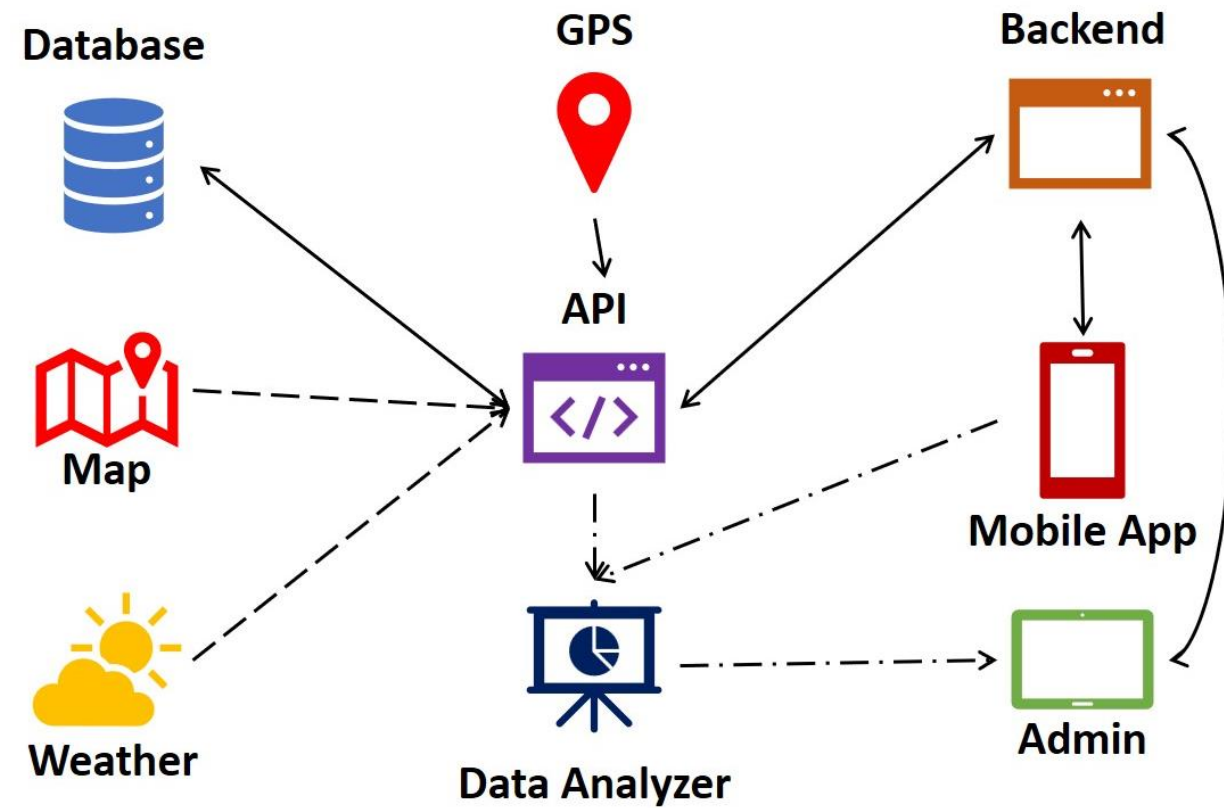**Institute Code (AISHE): C-21323**

Institute Name: Govind Ballabh Pant Institute of Engineering and Technology

Theme Name: Smart vehicle

Idea/Approach Details

Describe your idea/Solution/Prototype here:

➢ The proposed smart transportation system for Himachal Pradesh aims to provide real-time information to users regarding bus availability and upcoming timings.

Real-Time Bus Tracking: GPS devices on buses transmit location and speed data to a centralized database.

Mobile App: A user-friendly app for Android which provides real-time bus information.

User Registration: Users register with their mobile numbers for personalized services.

Bus Stop Information: App displays a map with bus stop locations and real-time bus arrivals.

Estimated Arrival Time: App calculates and shows estimated bus arrival times.

Describe your Technology stack here:

➢ GPS

➢ Data Analytics

➢ Emission tracking system

➢ Mobile app to access real time information

➢ Google Maps and Google Weather

Idea/Approach Details

Describe your Use Cases here

- ➢ **Real-Time Bus Tracking:** Users can track the real-time location of buses on a map.

- ➢ **Bus Arrival Time Prediction:** The system provides estimated arrival times of buses at specific bus stops.

- ➢ **Traffic Updates:** Users receive real-time traffic updates.

- ➢ **Bus Stop Information:** Passengers can access information about nearby bus stops, routes etc.

- ➢ **Notifications:** Users receive notifications about bus arrivals, delays, or changes in schedules via mobile apps or SMS.

GPS Infrastructure:
Ensure reliable GPS devices are installed on all buses for real-time tracking.

Data Connectivity:
Rely on a robust, continuous data network for transmitting real-time bus location data.

Data Analytics:
Implement data analytics tools to process and analyze collected data for accurate bus arrival predictions.

Notification System:
Create a notification system to inform passengers of bus arrivals, delays, or schedule changes in real-time.

- ▪ **SHOW STOPPERS:**

Lack of GPS Coverage:
Potential accuracy issues in areas with poor or no GPS coverage.

Data Connectivity Issues:
Frequent network outages or weak connectivity can disrupt real-time data transmission, impacting system reliability.

Team Member Details

Team Leader Name: Kartikeya Dhasmana

Branch :Btech   Stream: ECE   Year: 3rd

Team Member 1 Name: Guarav Bhatt

Branch :Btech   Stream : CSE(AI/ML)   Year : 3rd

Team Member 2 Name: Akhil Kothari

Branch :Btech   Stream : ECE   Year : 3rd

Team Member 3 Name: Animesh Naithani

Branch :Btech   Stream :ECE   Year : 3rd

Team Member 4 Name: PrabhSimran Singh

Branch :Btech   Stream :CSE(AI/ML)   Year : 4th

Team Member 5 Name: Ankita Kotnala

Branch :Btech   Stream: CSE(AI/ML)   Year : 3rd

Team Mentor 1 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc.):   Domain Experience (in years):

Team Mentor 2 Name: Type Your Name Here

Category (Academic/Industry):   Expertise (AI/ML/Blockchain etc.):   Domain Experience (in years):

Important Pointers

Please ensure below pointers are met while

➢ Kindly keep the maximum slides limit to 4 pages

➢ All the topics should be utilized for description of your idea

➢ Try to avoid paragraphs and post your idea in points

➢ Keep your explanation precisely and easy to understand

➢ Idea should be unique and novel. If it has a business potential more weightage will be given.

➢ Apart from this PPT abstract of your idea will be asked separately while submitting

➢ You need to save the file in PDF and upload the same on portal. No PPT, Word Doc or any other format will be supported

➢ You can delete this slide (Important Pointers) when you upload the details of your idea on SIH portal.