SMART PARKING AND TRANSPORT

**Hardware Components:**

* **IR Sensors:** Utilize IR sensors to detect vehicle presence in parking spots.
* **Arduino Uno:** Employ Arduino Uno for data collection from IR sensors and communication with the laptop.
* **USB Cable:** Connect the Arduino Uno to the laptop via USB for data transmission and power.

**Software Components:**

**Arduino Code:**

Develop Arduino code for real-time data collection from IR sensors.

**Software:**

* Python
* HTML
* CSS
* Java Script
* Django
* MongoDB
* SML – Supervised Machine Learning
* Keras – Neural Network Language
* Tensor Flow
* Statistical Analysis: Graph Prediction

**Laptop Interface:**

* A user-friendly interface for displaying real-time parking availability and navigation options.
* Clear instructions for users to navigate through the application.

**Key Features:**

* **Real-time Updates**
* **Efficient Data Processing**
* **User-Friendly Interface**
* **Scalability**
* **Slot Booking**
* **Availability**

**Analysis:**

* **Peek Time**
* **Car detection**
* **Vehicle Separation**
* **Parking Details**
* **Late Comers**

**Benefits:**

* **Parking Efficiency**
* **Man Power at needed time**
* **Time Efficiency**
* **Automation**
* **Traffic Reduction**
* **Reduce Mental Stress**