PHASE-1

SMART PARKING USING IOT

Smart parking using IOT is a modern solution designed to enhance the efficiency and convenience of parking management. It leverages IOT technology to provide real-time information and services to both parking operators and drivers. Here's a brief introduction:

Smart Parking Overview:

Smart parking systems utilize a network of sensors, cameras, and connectivity solutions to monitor and manage parking spaces in real time. These systems aim to address mon parking challenges such as finding available spaces, reducing traffic congestion, and optimizing parking space usage.

Key Components:

Sensors: IOT sensors are deployed in individual parking spaces or lots to detect the presence of vehicles. These sensors transmit data to a central server or cloud platform.

Connectivity:

IOT technology, such as wireless networks (e.g., Wi-Fi, LORAWAN, NB-IOT), enables seamless communication between sensors and the central system .Data Processing: The collected data is processed and analysis to determine parking space availability, occupancy patterns, and other relevant information. User Interface: Users access information about available parking spaces and make reservations through mobile apps, websites, or on-site displays.

Benefits of Smart Parking:

- Reduced Congestion: Drivers can quickly locate available parking spots, reducing the

time spent searching for parking spaces and minimizing traffic congestion.

- Increased Revenue: Parking operators can optimize space usage and pricing, potentially increasing revenue.

- Environmental Impact: Fewer cars circling for parking leads to reduced emissions and environmental benefits.

- Enhanced User Experience: Drivers have access to real-time parking information, making their parking experience more convenient and efficient.

Applications:

Smart parking systems are used in various settings, including urban areas, airports, shopping malls, and smart cities. They contribute to the overall goal of creating smarter and more sustainable urban environment.