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Concept Note

Smart Parking System

This system aims to ease parking in shopping malls, business centers, airports and in the central business district, by allowing drivers to select parking lots and parking spaces in advance which is timesaving and reduces traffic congestion. In this smart parking system, a driver can select a nearby parking lot and select an available parking space as well as getting directions to the specific parking space. Once a driver has parked in the selected parking space, an ultrasonic sensor which is fitted in each labelled parking space will detect whether it is occupied, and a timer will start automatically from the time they arrive at the parking space to the time they pay through the system. Once payment has been approved, they have 10 minutes to vacate the parking space. The driver can also view their history of the previous parking spaces they have selected, and the amount paid for each parking space. The amount paid is relative to the time spent at the parking space. There is a parking manager who manages the parking lot by adding and removing parking spaces, freeing occupied parking spaces, and viewing statistics of the parking lot. There is also an administrator who controls the system by adding and removing parking managers, banning users, and viewing statistics of all users and parking lots in the system.