

# Smart Car Parking System using PLC

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**Abstract:** This project involves the development of a system tailored for multilevel parking facilities. The system aims to streamline the parking process by providing real-time information to drivers upon entry. Outside the parking area, a LED indicator is used which displays the available parking spots along with their corresponding numbers. Additionally, the system keeps track of the total number of parking spots available, updating the LED indicator accordingly. By presenting drivers with specific vacant spot numbers upon arrival, the system minimizes the time spent searching for a parking space, ultimately enhancing efficiency and convenience for drivers.

**Keywords:** PLC, Arduino, IR sensor, Servo Motor, Ladder Diagram.

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