Arduino Based Intelligent Parking Assistance System

S.Baskaran[1]*, D.Lakshmi[2], S.Benisha[3], R.Zahira[4]

[1]Department of EEE, S A Engineering College, India
[2, 3]Department of EEE, Sree Sastha Institute of Engineering and Tech, India
[4]Department of EEE, Tagore engineering college, India

Abstract : Parking has become an major problem in metro cities like Chennai, Mumbai, and other big cities, especially for the parking spaces for hotels, restaurants, and movie theatres. So the aim of the project is to design an intelligent system that keeps a track of vacant parking spaces and shows the route to those specific parking space locations to avoid wastage of time and fuel to find an empty spot in a parking lot. The car will enter the parking entrance. Once car arrives, sensors will be activated to represent arrival of new vehicle. Then the microcontroller checks for availability of parking space. If there is no vacant parking space, then the gate doesn't open and displays no vacant space message on the LCD board. If parking space is available, then the system allots the parking space nearer to the exit. Once the parking space is allotted, led sign boards will show direction to the driver as of where to park. Once the car is parked, the system updates the number of vacant spaces as reduced by one. Similarly, when a car leaves the parking space, the system detects which space is now empty and increases the vacant space by one.

Keywords : Arduino Technology, Intelligent Parking, Microcontrollers, Infrared sensor, obstacle sensing.

*****