**SMART CAR PARKING SYSTEM**

**ABSTRACT:**

Population of the world is increasing at a very high rate and so is the number of vehicles on the road. It becomes very difficult to find places where you can park your vehicle and keep it safely. In recent times the concept of smart cities have gained great popularity. Thanks to the evolution of Internet of things the idea of smart city now seems to be achievable. Problems such as, traffic congestion, limited car parking facilities and road safety are being addressed by IoT. Here through this project we present a smart car parking system. This system consists of an on-site deployment module that is used to monitor and signalize the state of availability of each single parking space. In this module we have used a arduino, 4 Ultrasonic sensors for checking the availability of slots, 2 IR sensor with 2 servo motor for controlling the barricades and all the related data are send to the sever using Nodemcu i.e 8266 module. We have made a website which allows the end user to check the availability of parking space anywhere he wants to go and book a parking slot accordingly. The report also describes a view of the system architecture. Towards the end, the paper discusses the working of the system in form of a use case that proves the correctness of the proposed model.

