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| Smart parking  Microprocessor Project Sem:4  Under the guidance of Dr. Kiran |
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## tEAM MEMBERS:

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## AIM:

To develop a smart parking system to reduce maximum time and resources spent during parking.

## Scope:

Smart Parking is a parking strategy that combines technology and human innovation in an effort to use as few resources as possible—such as fuel, time and space—to achieve faster, easier and denser parking of vehicles for the majority of time they remain idle.

This could be the future of parking: a smart system that seamlessly integrates with public and private parking spaces.

## Breif Description:

Our prototype of the smart parking system will contain 3 major portions:

* Automatic Boom Barrier:
  + - The system senses an incoming car and opens the barrier as soon as it reaches the front.
    - The system also closes it automatically after the car has passed, reducing human interaction and minimizing human errors.
* Availability of Parking Spot:
  + - With the help of ultrasonic sensors, we aim to recognize the number of empty spots in the parking lot.
    - This number will be displayed at the parking entrance.
    - The barrier will not open and will display “No spots available” when the parking lot is full.
* Light indication above each empty spot:
  + - Each parking spot will have a light above the space which will be turned green, when the space is occupied and will show a red signal when the space is empty.
    - This will save time for the public to easily identify and reach the empty spot.

## Components required:

* Arduino Board
* Ultrasonic sensors
* Server motor
* LED Lights
* Bread board
* Jumper wires (Female and Male)
* 7 segment LED Display

## Circuit diagram: