ABSTRACT

Transportation sector is connected with a parking service. In this modern era, humans have been sued to get in to do something, for example how to save time in a parking lot. Nowadays, Parking lot system can only know where the empty parking position manually and driver have to drive their vehicle to the designated parking area. So, parking system is designed based on intelligent system in the process of parking the vehicle in a way to park the vehicle without the driver.

The main components in this intelligent system is an RFID (Radio Frequency Identification) as an input value to determine the identity of the vehicles and the data will be stored. After that, these data will be processed by the microcontroller to turn the empty parking lot by using servo motors as a means of propulsion. Here to perform the rotational direction of the parking lot by using searching method to carry out the search process the data, if the data is found then the search process stops, if not then the search process is continued until the final data. With this method we can find out where the place is empty and after the rotating direction of the motor rotation angle to the nearest entrance. To perform two-way on the servo motor will require a PWM regulator. After that the car was on konveryor will walk towards the parking lot empty. And the car has been parked at the appropriate places

In this final project, the method of searching has been doing precision searching the parking lot to be desired position by adjusting the direction of motor rotation, then there is brevity of time in processing.

Keywords: Radio Frequency Identification, Servo Motor, PWM, Microcontroller, Searching