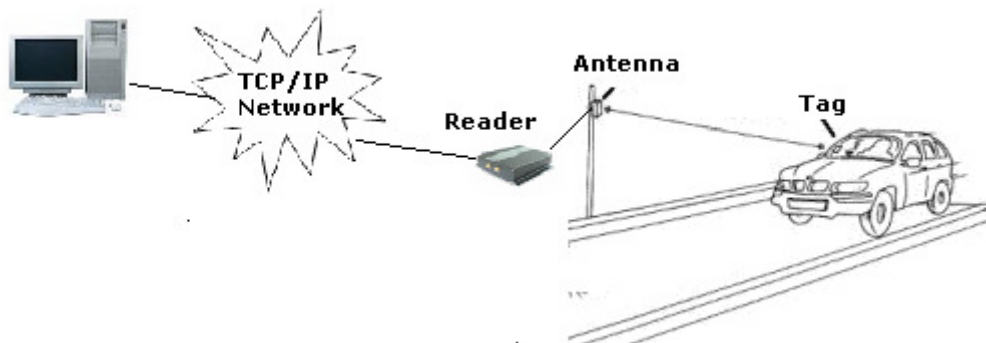


Vehicle Parking using RFID Technology

Introduction

Radio frequency identification (RFID) is a generic term that is used to describe a system that transmits the identity (in the form of a unique serial number) of an object or person wirelessly in a tag, using radio waves. Tags or Transponders are micro chips with an antenna which have a unique Identifier Number and memory which can be programmable according to the customer requirement. Tags are then affixed to the Items.

Proposed Solution



Vehicle Registration & Tagging

Every vehicle need to be registered in the RFID based vehicle tracking software. A RFID tag with a unique serial number will be programmed in the software and will be attached to the windshield of each vehicle.

Installing RFID Antenna at the Entrance/Exit Gate



A long range RFID reader connected with an external antenna will be installed at the Entrance/Exit gate of the parking ground. This reader will be connected to the server PC using the TCP/IP cable

Automatic Identification during Entrance/Exit

When a vehicle fixed with RFID card moves through the gate, the reader will automatically read the serial number of the tag. This number will be send to the server by the reader and the software running in the server will verify the serial number and the entrance/exit time will be recorded in the database.

Software can also send command to a Boom barrier to automatically open the gate. As per the command received from the software, reader will send a relay output to boom barrier for opening.

Suggested Item

Item	Image	Description	Application
Confidex Windshield Label		Non-transferable, tamper-evident windshield label for automatic vehicle identification. Size : 92 x 26 x 0.2 mm Frequency : 865-869 MHz - ETSI (EU) Protocol : ISO18000-6B, EPC G2 Memory : 496 bit EPC + 128 bit Read range(2W ERP) : up to 8 m / 26 ft	For pasting on windshield of vehicles
STA IR0507E Middle distance reader with Relay output		UHF middle-distance integrative reader Frequency: 860MHz-868MHz(CE) Protocol : ISO18000-6B EPC G2 Reading Range: 5 m Power Consumed: DC+9V/12V Interface: TCP/IP, RS232 Relay output for connecting to Alarm or Boom barrier	1 reader for 4 to 5 meter coverage, 2 readers for 5 to 10 meter coverage
Vehicle Tracking Software		Vehicle/Owner management RFID vehicle tag management Vehicle permissions Vehicle movement reports	Software