ABSTRACT

IoT Based Vehicle Access Gate System for a Residential Cluster

Raka Hamdi Perdana[1], Nur Uddin, Ph.D[2]

1) *Student of Informatics Department, Pembangunan Jaya University*
2) *Lecture of Informatics Department, Pembangunan Jaya University*

An IoT-based residential gate system was developed in this final project research. This study aims to produce a device that can help security guards' performance in housing so that vehicle data entering and leaving the gate can be recorded properly on the website and can be accessed by vehicle owners using the internet. With the Internet of Things (IOT) method with the help of a microcontroller equipment, vehicle data can be stored in a database which can then be displayed on the website, the data stored will also only be lost if it gets changes by the admin who manages the website and database. The process of sending data from the transmitter to being received by the receiver uses a microcontroller module called nRF24L01 Transceiver which is installed on the Arduino Nano on each transmitter & receiver component. The data received by the receiver is assisted by a software called Processing IDE to be forwarded to the database so that it can be displayed on a website which can then be accessed by the client. The process of closing the gate is triggered by an ultrasonic sensor that reads the movement of objects.

***Keywords**: NRF24L01 Transceiver, Transmitter & Receiver, Arduino Nano, Automatic Gate, Ultrasonic Sensor, Processing IDE*

Libraries   : 15

Publication Year   : 2008 - 2019