Absratct

The number of people who has a vehicle increasing continuously but the availability of parking lot is not increasing . It causes the driver to park in prohibited place, such as areas with no parking signs. This final project provide a centralized monitoring system which has the ability to detect vehicles in the forbidden area based on RFID to solve those problem. The system has three main components; RFID tags containing information about the identity of the vehicle and its owner, affixed to every vehicle registered in the sistem; Reader controller and antenna are deployed in restricted area in order to record the movement of vehicles. The data records will be displayed on the monitor screen at the base station, so that when the driver park their vehicle on prohibited area will be warned immediately. The system is simulated on mockups that illustrate the condition at Jl. Buah Batu Bandung. Each of the components and functionality runs as required and can work properly. The use of RFID sensors, can be improved by changing the frequency used by the reader modules and tags.

Keywords: **RFID, Vehicle Detection, IoT**