ABSTRACT

GPS-based vehicle tracking system using GPRS communication which is a system where the position of a vehicle can be known for certain. Tracking system using GPS (Global Positioning System) to determine the position of the vehicle as well as GPRS (General Packet Radio Service) as a bridge delivery data from the microcontroller to the server. GPS module using ublox 6m and GPRS using SIM900 Simcom of IComsat. GPS systems using NMEA-0183 protocol to communicate with the microcontroller ATmega 328-P. Microcontroller is used a connector GPS system (using the NMEA-0183 protocol) and GPRS via serial TTL (UART). Microcontroller in charge to then delivered the GPS data to then be sent to the server via GPRS communication protocol using the AT + Command to instruct the GSM transmit data to server. The data transmission using HTTP protocol with $ GET method. Vehicle location coordinates stored on server will be displayed on web pages that have been equipped premises map (using google maps) and under accompanied marker position of the vehicle. Page the web will be displayed by a mini computer (RADXA Board) and will appear on the monitor screen. There are tabular information makes it possible to search the location and time estimation.

Keywords: SIMCOM SIM900, GPS, GPRS, Google Maps, Google APIs.