ABSTRACT

Speed bump is one of the safety devices used for roads. We can find many speed bump around us, but the use of speed bump as a means of road safety is still very rare, especially in Indonesia.

From this problem, came an idea to design a tool, which in its application can take advantage of speed bump, then created a power plant with a generator driving source of the speed bump and equipped with wireless information delivery capabilities. By using a microcontroller and relay as the control center of the resulting output, and the use of GSM module A7 as the sender of information to the tool manager.

The output results in the form of power generation and wireless information delivery. The system works with a DC generator as a power plant, a 1000mAh capacity battery as a power storage medium, and Arduino Uno and Relay as system controls, and the A7 GSM module will send a short message to the (owner) manager on. So the owner can replace the full storage battery with the empty. From the test results, the amount of electrical output generated between 0.6-0.99 VDC, and short message delivery is done when the voltage on the storage battery reads 4.0 V.

Keywords: microcontroller, generator, GSM module, relay