

School Vehicle Safety System

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Abstract: School vehicle safety system (SVSS) is a solution to ensure school transportation safety. Schools must provide safe transportation facilities for students. One of the reasons for vehicle accidents is the negligence of driving the school bus due to drunk driving, improper checking of the conditions of vehicle doors, and negligence while driving the vehicle. The proposed system enables various safety measures to avoid accidents. The system provides the real-time tracking location of the vehicle to ensure the safety of school kids. Different kinds of sensors are used for this purpose such as Alcohol sensors (MQ3), Halleffect sensors (KY024), and PIR motion sensors. If the driver consumed alcohol it senses the alcohol concentration Door open detection uses a halleffect sensor, and PIR motion sensor to detect the school kids at the ventral side of the vehicle. Before moving the vehicle. It alerts the driver and alerts the school administration using the blink server it helps the schools to check and manage the behaviour of the driver.

Keywords: IoT, MQ3 Sensor, KY024 Sensor, Pir Motion Sensor, ESP8266 Microcontroller, GPS.

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