ALCOHOL LEVEL DETECTION DEVICE FOR CAR DRIVERS AND VIOLATION RECORDING BASED ON IOT AND TELEGRAM

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ABSTRACT

Alcohol is a chemical compound that has long been known and used by humans. Uncontrolled alcohol use can have serious impacts on public health, safety, and welfare. Although in certain amounts alcohol can provide a relaxing and entertaining effect, excessive consumption or abuse of alcohol can cause adverse health impacts, such as impaired cognitive function, organ damage, and even life-threatening dependence. This study aims to design and develop an alcohol level detector for car drivers equipped with Internet of Things (IoT)-based violation recording and the Telegram application. This tool uses an MQ-3 sensor to detect alcohol levels from the user's breath and sends the data in real-time via Telegram. Testing of the tool shows that the accuracy value of alcohol level detection varies depending on the type of drink and the container used. The highest accuracy value was recorded for Smirnoff drinks with a shot glass of 98.56% and the lowest for black wine with a shot glass of 77.28%. With these results, it is hoped that this alcohol level detector can help law enforcement in dealing with drunk car drivers and make a positive contribution to improving road safety.

Keywords*: Alcohol, Telegram, MQ-3 Sensor, IoT.*