Development of an IoT-Based Alcohol Detector Using Blynk and NodeMCU

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Abstract: *Although the consumption of alcoholic beverages has been a part of human society for a very long time, it is also a big contributor to accidents and health problems. Driving under the influence of alcohol is a leading contributor to death and injury on the roads across the globe. Individuals continue to operate motor vehicles while under the influence of alcohol, despite the existence of stringent regulations and awareness efforts, which poses a risk to both themselves and others who are on the road. With the intention of preventing drunk driving and promoting road safety, an Internet of Things (IoT)-based alcohol detector has been developed utilising Blynk and NodeMCU. This detector was developed to address this issue. The amount of alcohol that is present in a person's blood, urine, or breath can be determined with the help of a device known as an alcohol detector. Using a gas sensor, the device is able to determine the amount of alcohol that is present in the breath of the user. A connection has been made between the sensor and the NodeMCU, which is tied to the Blynk application. The NodeMCU receives the information that is gathered by the gas sensor that is incorporated within the device. This sensor monitors the amount of alcohol that is breathed by the user. Through the use of a smartphone application, Blynk is an Internet of Things platform that gives consumers the ability to control and monitor connected devices. This alcohol detector that is based on the Internet of Things is extremely portable, which is one of its most significant features. A cost-effective solution has been developed through the utilisation of open-source technologies such as Blynk and NodeMCU. This has enabled the device to maintain its accuracy and quality without compromising its functionality.*

Keywords: IoT, Alcohol, MQ 3, Blynk, NodeMCU.