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## Ignition Interlock System with Embedded Breathalyzer

R.Madhavan,

Praveen Raj

E.Pratheesh

Department of Computer Science and Engineering

RMK Engineering College

RSM Nagar

Kavaraipettai-601206.

Gummidipoondi Taluk.

Thiruvallur district.

**Abstract :** Nowadays, majority of accidents occur due to drunk driving. In real time, there is no effective mechanism developed to prevent such accidents. Hence it is proposed to develop an embedded interlocking system based on acoustic analysis to address this problem effectively in real time environment. First, alcohol content in the driver's body is detected by means of a breath analyzer placed in the vehicle. One of the main issues in this approach is that it not only identifies the ethyl alcohol but also respond to acetone like substances similar in molecular structure which leads to false Blood Alcohol Concentration (BAC) readings. Therefore in order to overcome this problem, the breathalyzer is embedded with microphone to perform acoustic analysis on speech recognition. The system reacts to the person's voice according to the variation in the frequency level. Based on statistics of BAC level and the speech recognition the proposed system is proved to be an efficient model.