IMPLEMENTATION OF ELECTRONIC NOSE (e-NOSE)

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A project report submitted in partial fulfillment of the requirement for the award of Degree of Bachelor of Engineering in Electronic and Communication Engineering of Visvesvaraya Technological University, Belgaum

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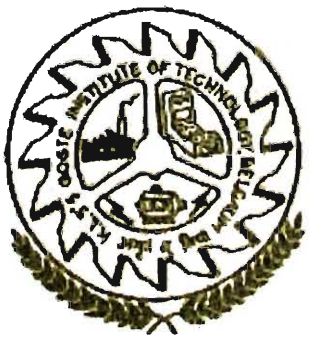

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Abstract

An electronic nose (e-Nose) is an electronic device which can mimic a human nose. This is an intelligent device which is used to detect and recognize different odors. An e-Nose consists of sensor which is made up of different types of polymers or metal oxide semiconductors. When molecules of gas is deposited on the surface of the sensor, the electrical conductivity changes, as and when the surface expands. This is the basic idea as how the e-Nose works. Initially the e-Nose must be trained for a set of sample of required gases and a database should be created for reference. The constructed e-nose can sense the samples such as LPG, petrol and kerosene.

Keyword: e-Nose, Electronic nose, gas sensor, ADC, microcontroller, LPG, petrol, kerosene.