

## **56. FOOD QUALITY MONITORING FOR BACTERIAL GROWTH BY ELECTRONIC NOSE**

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This paper presents a technique for monitoring the bacterial growth by utilizing a electronic nose sensor. Spoiled food may lead to service complications if failed to detect at an early stage. It is necessary to develop an easy, reliable and an effective method to identify and monitor microbiological spoilage in food quality industries. In this study, developed a prototype of a portable E-Nose that comprises of a sensor set of commercially available sensors and a microprocessor. E-nose works based on sensor sets and pic16f877a processor. Experimental results indicate that the proposed system is able to Identify and monitor the spoiled Food by using portable electronic nose responses. Demonstrating application of the sensor for monitoring bacteria growth in fruits. This technology is used to reduce the labour requirements in food quality industries.

KEY WORDS: Microcontroller, Sensor, E-Nose.

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