

## Application of Electronic Nose Systems in Medical and Food Industries

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**Abstract :** Electronic noses are devices designed to emulate the humane sense of smell by characterizing and differentiating odor profiles. In this study, we build a low-cost e-nose using an array module containing four different types of metal oxide semiconductor gas sensors. We used this system to create a profile for a meat specimen over three days. Then using a pattern recognition software, we correlated the odor of the specimen to its age. It is a simple, fast detection method that is both non-expensive and non-destructive. The results support the usage of this technology in food control management.

**Keywords :** e-nose, low cost, odor detection, food safety

**Conference Title :** ICBEOD 2020 : International Conference on Biomedical Engineering, Optics and Devices

**Conference Location :** Dublin, Ireland

**Conference Dates :** April 24-25, 2020