

## **The performance of expectation maximization (EM) algorithm in Gaussian Mixed Models (GMM)**

### **ABSTRACT**

Expectation Maximization (EM) algorithm has experienced a significant increase in terms of usage in many fields of study. In this paper, the performance of the said algorithm in finding the Maximum Likelihood for the Gaussian Mixed Models (GMM), a probabilistic model normally used in fraud detection and recognizing a person's voice in speech recognition field, is shown and discussed. At the end of the paper, some suggestions for future research works will also be given.

**Keyword:** Expectation Maximization (EM), Gaussian Mixed Models (GMM), Box and Muller Transformation