

## **ABSTRACT**

*Content Based Image Retrieval is a technique for searching a collection of images with an image as an input. The search result will be more relevant because it searches the content of the image (texture,color,shape) instead of textual information(metadata). To achieve this, the image is transformed into a mathematical model, and then the system find similiarity between model. In this final project a robust hash function, known as perceptual hash, is used as modelling technique. This hash function is combined with feature detection algorithm ,MSER. By combining these algorithms, hashing will take place in each region instead of the whole image resulting in better system performance. The main focus of this paper is to observe the effect of the combined algorithm on system performance. The test result proves that this combination has 86% accuracy for image with shape similiarity and system pHash alone has 100% accuracy for image with texture similiarity.*

**Keywords:** *CBIR, MSER, Perceptual Hash, Robust Hash, Feature Detection, Information Retrieval*