

**Universiti Teknologi MARA**

**SHAPE-BASED IMAGE RETRIEVAL of  
MALAYSIA BIRDS**

**NUR HANISAH BINTI HASNI**

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## ABSTRACT

In this project, Shape-Based Image Retrieval of Malaysia Birds is proposed. An earlier development of Malaysia Birds Image Retrieval system using color layout descriptor was done. It used color as the feature representation to retrieve similar images from the user's query image of a bird. This project attempts to improve the retrieval accuracy by adding the element of shape of the birds in order to retrieve the same set of the query image. Edge histogram descriptor (EHD) is used as the shape feature to describe the birds. The project is developed using Microsoft Visual Studio 2017 with C# programming language. EHD is used to extract the feature of the birds before with retrieval process. After dividing the image into sub-images, EHD will detects the edges as there are five types of edges, namely four directional edges and one non-directional edge. The evaluation method used is functionality testing which are divided into two, user testing and retrieval efficiency. The retrieval efficiency is measured with recall and precision method. For the user testing, there are 10 people that are willing to do this testing and the result showed that out of 10 there are 7 people that are satisfied. This shows that this project has achieved the objectives.

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