

ABSTRACT

Nehemiah Austen Pison, Prototype of Fish Genus Classification System Using Viola-Jones Feature Extraction and Decision Tree Based Boosting, Computer Science Program, Faculty of Mathematics and Natural Sciences, State University of Jakarta. January 2024.

The fisheries cultivation sector in Indonesia is an economically significant sector for the Indonesian people. However, this sector still faces considerable challenges in fish classification. In this study, the author employs the Viola-Jones Feature Extraction method and Boosting Based Decision Tree for fish classification. The first step in this method involves training weak classifiers to classify various features of multiple fish classes, followed by Boosting and the creation of a cascade to expedite the classification process. The outcome of this process is a program capable of classifying and annotating fish based on input images.

Keywords: Classification, Viola-Jones, Boosting, Decision Tree, Fish.