West Visayas State University
COLLEGE OF INFORMATION AND COMMUNICATIONS TECHNOLOGY
La Paz, Iloilo City

RICEETA: ON-DEVICE INTERFERENCE FOR RICE LEAF DISEASE DIAGNOSIS AND TREATMENT

An Undergraduate Thesis

Presented to the Faculty of the

College of Information and Communications Technology

West Visayas State University

La Paz, Iloilo City

In Partial Fulfillment

of the Requirements for the Degree of

Bachelor of Science in Information Technology

By

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June 2022

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Approval Sheet

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Abstract

Rice is the staple food in the Philippines and identifying a rice disease in the early stage will prevent a massive loss and high quality of production for the farmers. This study developed a mobile application to help farmers accurately identify and provide recommended solutions for rice leaf diseases. The application can capture rice leaf diseases in real time using object detection algorithms. The model was generated by gathering images of different rice leaf diseases, classifying them, and uploading them on the Teachable Machine, a web-based tool that creates machine learning models. With this, the model that has been generated can classify each type of rice leaf diseases from one another.

The application also contains capabilities that allow the farmer to identify the area where the image was taken and

summarizes the total rice disease captured for the month using graphs and tables.

The performance evaluation was rated Very Satisfactory in terms of the overall performance of the application and a test case for disease detection yielded a 100% accuracy rate.

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