PLASTIC BOTTLE AND ALUMINUM CAN (PBAC) RICE EXCHANGER MACHINE

A Thesis
Presented to the Faculty of the
College of Communication and Information Technology
President Ramon Magsaysay State University
Iba, Zambales

In Partial Fulfillment of the Requirements for the Degree
Bachelor of Science in Computer Engineering

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May 2020

CERTIFICATION

This thesis entitled **"PBAC (Plastic Bottle and Aluminum Can) Rice Exchanger Machine"**, prepared and submitted by **Allan Jay L Morillo, Rudy E. Edralin, Sam Louie E. Paglingayen** and **Stephen Carl D. Opeña** in partial fulfilment of the requirements for the degree of **Bachelor of Science in Computer Engineering**, has been examined and recommended for Oral examination.

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APPROVAL

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ABSTRACT

The Plastic Bottle and Aluminum Can (PBAC) Rice Exchanger Machine is a project design that can give cups of rice in exchange of plastic bottles and aluminum cans. The machine reduces the amount of recycled materials mainly plastic bottles and aluminum can that can affect the environment's cleanliness if being not being disposed properly. The design is composed of four (4) major parts, the rice module, conveyor system, user-interface and shredder that shreds materials and store to two (2) storages for plastic bottle and aluminum cans.

The researchers have used the descriptive and experimental research methodology wherein the study focused on the current situation, and purposive sampling in determining the respondents of the study. Also ISO/EIC 25010 was used as metrics for the evaluation in product quality and level of acceptability of the study.

The level of effectiveness of the project design in terms of handling data is excellent, and level of effectiveness of the project design in functionality is good. The PBAC (Plastic Bottle and Aluminum Cans) Rice Exchanger Machine was rated Excellent with an average mean of 4.34 in terms of its product quality and was rated Highly Acceptable with an average mean of 4.65 in terms of its level of acceptability.