

**TREATED PULVERIZED SEASHELLS AS STRENGTH ACCELERATING
ADMIXTURE FOR CONCRETE PAVEMENT**

**A Thesis Presented to the
Faculty of the College of Engineering and Technology
Romblon State University
Odiongan, Romblon**

**In Partial Fulfillment of the Requirements for the Degree of
BACHELOR OF SCIENCE IN CIVIL ENGINEERING**

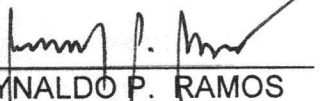
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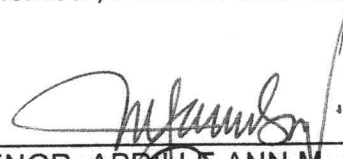
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The thesis entitled, "TREATED PULVERIZED SEASHELLS AS STRENGTH ACCELERATING ADMIXTURE FOR CONCRETE PAVEMENT", prepared and submitted by LUGATIC, J. G., MARTE, R. F., MAQUINTO, R. M., in partial fulfillment of the requirements for the degree of BACHELOR OF SCIENCE IN CIVIL ENGINEERING is hereby accepted for oral examination.

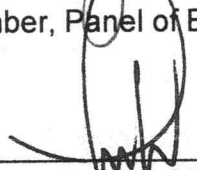

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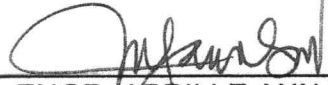

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ABSTRACT

This study was conducted to determine the flexural strength of concrete at various treated pulverized seashell (TPS) concentrations in different curing periods, and to determine what concentration percentage of treated pulverized seashell will early pass the minimum required flexural strength of concrete.

Preparation of samples for flexural strength test followed the American Association of State Highways and Transportation Officials (AASHTO) T-23-08 (Making and Curing Test Specimens in the Field), American Concrete Institute (ACI) and American Society for Testing and Materials (ASTM) ASTM C-31-06 (Standard Practice for Making and Curing Concrete Test Specimens in the Field) standards before conducting the actual experiment. ASTM C-78 (Standard Test Method for Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading)) was used in testing the flexural strength.

The study was conducted from August 2019 to February 2020 at Romblon State University College of Engineering and Technology. According to the data gathered, concrete mixtures yielded different flexural strength. Concrete samples with 3% treated pulverized seashells were determined to have the highest flexural strength of 5.081 MPa at 7 days curing period. The concentration with 1% treated pulverized seashell and only 3 days of curing period was determined to have the required flexural strength.