

# UNIVERSITY INTERNATIONAL BATAM

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*Undergraduate thesis  
Civil Engineering Undergraduate Program  
Semester Ganjil 2018/2019*

## ***ANALYSIS OF THE INFLUENCE OF MIXED USE OF CANGKANG KEMIRI ON STRONG PRESSURE OF LIGHTWEIGHT CONCRETE***

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### ***ABSTRACT***

*As time goes on the increase in the construction of multi-storey buildings, offshore buildings, airports, stadiums, bridges and roads is increasingly high, therefore, the need for concrete mixtures increases. However, the limitations of the concrete mix materials prompted the author to try to use candlenut shells as an added ingredient because pecan shells had a hard texture which might be used as an aggregate substitute. In this final assignment, the author mixes K-250 concrete with pecan shell according to the determined level which aims to determine the change in slump value in concrete, concrete compressive strength and concrete bonding time. This study mixed concrete with pecan shells of 10%, 15%, 20% and 25% of coarse aggregates and normal concrete with a mixture of 0% candlenut shells as a control. In this study, the authors tested the compressive strength of concrete according to the determined concrete age of 7, 14, 21, and 28 days. From the results of testing the concrete mixed with pecan shells of 10%, 15%, 20% and 25% at the age of 28 days experienced a significant decrease in the compressive strength of 83,301kg / cm<sup>2</sup>, 58,929kg / cm<sup>2</sup>, 34,008kg / cm<sup>2</sup>, and 30,693kg / cm<sup>2</sup>.*

***Keywords:*** Concrete compressive strength, pecan shells, and slump values.