PROPERTIES OF CEMENT SAND BRICK CONTAINING GROUND PALM OIL FUEL ASH (POFA) AS PARTIAL SAND REPLACEMENT

MUHAMMAD AZREEN BIN IBRAHIM

B. ENG(HONS.) CIVIL ENGINEERING

UNIVERSITI MALAYSIA PAHANG

SUPERVISOR'S DECLARATION

I hereby declare that I have checked this thesis and in my opinion, this thesis is adequate in terms of scope and quality for the award of the degree of Bachelor of Engineering (Hons.) in Civil Engineering.

_____

(Supervisor's Signature)

Full Name : KHAIRUNISA BINTI MUTHUSAMY

Position : ASSOCIATE PROFESSOR

Date : 19 JUNE 2017

STUDENT'S DECLARATION

I hereby declare that the work in this thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at Universiti Malaysia Pahang or any other institutions.

_____

(Student's Signature)

Full Name : MUHAMMAD AZREEN BIN IBRAHIM

ID Number : AA 13178

Date : 19 June 2017

PROPERTIES OF CEMENT SAND BRICK CONTAINING GROUND PALM OIL FUEL ASH(POFA) AS PARTIAL SAND REPLACEMENT

MUHAMMAD AZREEN BIN IBRAHIM

Thesis submitted in fulfillment of the requirements
for the award of the
Bachelor Degree in Civil Engineering

Faculty of Civil Engineering and Earth Resources

UNIVERSITI MALAYSIA PAHANG

JUNE 2017

ACKNOWLEDGEMENTS

First and foremost, I would like to express my sincerely gratitude to my research supervisor, Assoc. Prof. Dr Khairunisa Binti Muthusamy for his guidance throughout my final year project. His effort to guide me step by step and advised me in solving all the problems facing throughout my final year project are invaluable. Without hes patience and motivation, it will be hard for me to complete my final year project either in laboratory works or writing thesis.

I am so grateful that our university, University Malaysia Pahang had provided me with a comfortable working environment and refined equipment. I would like to show my appreciation to the laboratory staffs for their guidance and instructions during the laboratory works of my research. Their instructions are clear and without fail. In addition, I also would like to give a special credit to LKKP Corporation Sdn. Bhd. for providing me my research material.

Apart from that, I also would like to thank all my beloved friends who always willing to help me during the research work especially the laboratory work. The knowledge shared provide me a constructive ideas and useful advices throughout the journey to complete this research.

Lastly, I also would like to send my deepest appreciation to my parents for their love, endless support and accompany at all the time to the completion of my task in this research. I appreciate the advices and encouragement for everyone that I met during the research.

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES