

**POTENTIAL OF KENAF AND COIR FIBERS AS THERMAL
INSULATORS**

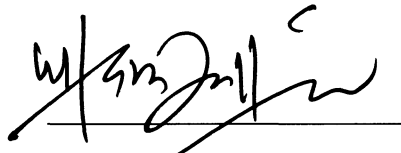
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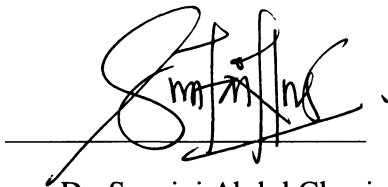
**Final Year Project Report Submitted in
Partial Fulfilment of the Requirements for the
Bachelor of Science (Hons.) Textile Technology
Faculty of Applied Sciences**

JULY 2015

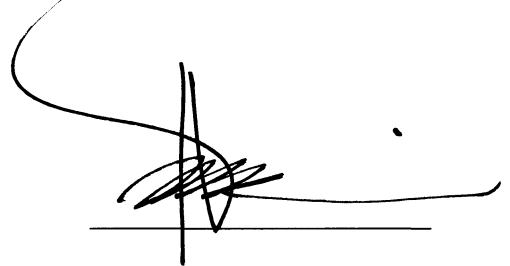
This Final Year Report entitle “**Potential of Kenaf and Coir As Thermal Insulators**” was submitted by ‘Aamirah Binti Azme and Nurul Edora Binti Abdul Rahim, in partial fulfillment of the requirements for the Degree of Bachelor Science (Hons) Textile Technology, in the Faculty of Applied Sciences, was approved by



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ACKNOWLEDGEMENT

Bismillahirrahmanirahim....

In the name of ALLAH, The Most Merciful and The Most Beneficent. First of all we would like to express our gratitude to Allah S.W.T. for blessings and giving us the opportunity to finish the project.

We would like to thanks to UiTM Shah Alam for giving the opportunities and provide adequate facilities for our project to complete our Bachelor of Science (Hons) Textile Technology.

We wish to give a special thanks to PM. Dr. Khadijah binti Omar as our supervisor for giving us encouragement, guidance, suggestion, advices and being patience while running this project. We would like to give gratitude to Dr. Suzaini binti Abdul Ghani as the project coordinator of FSG 650 for a guidance and generous assistance for completing this project.

We deeply thank the Assistant Lecturer and Lab Assistants for giving guidance, permission and also trust for us to handle the equipment in the laboratory. We really appreciate their efforts in order to help us finish this project.

Last but surely not the least, a big warm applause and special thanks dedicated to all lecturers, our loving parents and our truthfully friends for giving us support, help in motivating and inspiring us until the project was completed.

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ABSTRACT

POTENTIAL OF KENAF AND COIR FIBERS AS THERMAL INSULATORS

This study was done to investigate potential of using kenaf and coir fibers as thermal insulators. Different fiber ratio of 100% kenaf, 100% coir, 75% kenaf 25% coir and 25% kenaf 75% coir were used in creating the insulators walls. The thermal conductivity of each fiber was recorded for every 10 minutes. Thermal insulating capabilities were observed based on the change in temperature. The model buildings were exposed under the sunlight for 8 hours. From the results, it was found that denser materials have higher thermal conductivity and therefore are poor insulators, whereas the lightweight materials have lower thermal conductivity and considered as better thermal insulators. The 75% kenaf 25% coir of treated fiber was founded to be the best combination as thermal insulators. Meanwhile, 100% untreated kenaf fiber was known as the best fiber for making thermal insulator.