

UNIVERSITI TEKNOLOGI MARA
PERAK BRANCH

**WALL PANEL FOR NOISE
PROOFING SYSTEM USING
COCO PEAT**

MUHAMMAD ZAKWAN BIN MD ZAIDI

Innovation project report submitted in partial fulfilment of the
requirements for the degree of

Bachelor of Science (Hons.) Construction Technology

Department of Built Environment & Technology Studies

July 2022

AUTHOR'S DECLARATION

I declare that the work in this innovation project report was carried out in accordance with the regulation of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic or non-academic institution for any degree or qualification.

In the event that my innovation project report, be found to violate the condition mentioned above. I voluntarily waive the right of conferment of my degree and agree to be subjected to the disciplinary rules and regulation of Universiti Teknologi MARA.

Name of Student : Muhammad Zakwan Bin Md Zaidi
Student I.D. No : 2019831602
Programme : Bachelor of Science (Hons.) Construction Technology
Faculty : Department of Built Environment Studies and Technologies
Innovation Title : Wall Panel for Noise Proofing Using Coco peat

Signature of Student :

Date : July 2022

ACKNOWLEDGEMENT

Foremost, I would like to express my sincere gratitude to my supervisor TS Muhammad Naim Mayhuddin for the continued support for my project for his patient, motivation, enthusiasm and immense knowledge. His guidance helped me in all the time of research and writing of this dissertation as well as helping out on my project. I could not have imagined having a better advisor and mentor for my project. I also would like to express my gratitude for Dr. Asmat Binti Ismail coordinator for this semester's final year project for subject BCT 654. With her support, I manage to learn a lot ranging from academic report writing, research method and also how to planning my final report for this subject. Last but not least, I would like also want to express my deepest gratitude for my beloved parent for their endless love and encourage me, their understanding regarding the importance of this assignment. Also not forgetting to those that directly and non-directly contributed for this assignment, your kindness and help means a lot for myself.

TABLE OF CONTENT

AUTHOR’S DECLARATION	i
ACKNOWLEDGEMENT	ii
TABLE OF CONTENT	iii
LIST OF TABLE	v
LIST OF FIGURE	vi
LIST OF PLATES	vii
ABSTRACT	ix
CHAPTER 1.0	1
INTRODUCTION	1
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Research Question.....	5
1.4 Research Objective	5
1.5 Significant of Study	6
1.6 Limitation of Study	8
1.7 Scope of Study	10
CHAPTER 2.0	12
LITERATURE REVIEW	12
2.1 Introduction	12
2.2 Previous Innovation Approaches on Noise Proofing System	14
2.2.1 Acoustic plasterboard.....	14
2.2.2 Acoustic Mineral Wool Cavity Insulation	16
2.2.3 Anti-Vibration Soundproof Floor Mats	18
2.2.4 Acoustic Foam	20
2.3 Overview of existing Noise Proofing System Issues	22
2.3.1 Less Effectiveness.....	22
2.3.2 Productivity and Cost Issue.....	23
2.3.3 Fragile	23
2.4 Development of Innovation Idea Using Coco Peat as Noise Proofing System.....	24
CHAPTER 3.0	27

ABSTRACT

Malaysia's building sector is growing significantly in general. Every year, the construction pace in Malaysia appears to be quite encouraging, particularly in state capitals such as Kuala Lumpur, Johor Bahru, and Penang. This construction activity can elevate a country's standing in the eyes of other nations. Indirectly, it may serve as a reminder to other countries that Malaysia is not alone in the building business.

The concept of "Green Campus" should also be emphasized in producing project innovations in this study. This is because the location dedicated to producing this project is in the hostel area inhabited by students studying at UiTM Perak Branch, Seri Iskandar Campus. With the concept of "Green Campus", it can apply the attitude of loving the hostel to students by maintaining cleanliness and saving the hostel environment from pollution in order to maintain mutual comfort.

Therefore, the material that have been selected to be use is Coco peat. Coco peat is natural fiber made out of coconut husks. The extraction of coconut fiber from husks gives us this by product called coco-peat, which is a 100% natural growing medium. Originally, Coco peat are used on plantation as a sowing medium, rooting medium, hydroponic farming and indoor plants.

In this study, there are two techniques of data gathering for methodology: experimental and secondary review. Employing these two ways, the proposal for an innovation project, which is using a coco peat, may be simply identified. Indirectly, it may improve our environment by doing a test in experiment research and providing