



UNIVERSITI
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BUILDCON2023

**COMPILATION OF PROJECT INNOVATION IDEAS
SEMESTER MARCH – AUGUST 2023**

EMBRACING SMART CONSTRUCTION TRANSFORMATION

BUILDERS' CONVENTION DAY 2023

**Department of Built Environment Studies and Technology
College of Built Environment
Universiti Teknologi MARA Perak Branch**

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Organised by
Department of Built Environment Studies and Technology
College of Built Environment
Universiti Teknologi MARA Perak Branch
Malaysia

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PLASTIC CONCRETE BLOCK

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Plastic Concrete Block

Innovation Idea:

The Plastic Concrete Block innovation project seeks to address two pressing global challenges which are the environmental impact of plastic waste and the need for sustainable construction materials. This study outlines the introduction, literature review, methods and materials, result and discussion, and recommendations of Plastic Concrete Blocks as a viable solution to these challenges. The innovation aims to create plastic concrete blocks for a better future with more reusable plastic waste used in construction. The study begins with the introduction to discuss the background of study, problem statement, and aim and objectives of this study to fully understand the environmental issues caused by plastic waste and its detrimental effects on ecosystems. The possibility for recycling plastic trash into sustainable building materials is highlighted, underscoring the need to act quickly to address this challenge. Then, literature review is the summary of previous research to explore in detail and gather information about Plastic Concrete Block. The methods used in the study

and materials of the product are discussed in the research design. Performance evaluation was carried out through concrete compression test to evaluate the strength of concrete. According to market research and analysis, the demand for environmentally friendly building materials is rising due to legal requirements and increased public awareness of sustainability. The study defines important target markets for the Plastic Concrete Block innovation such as construction firms, contractors, architects, engineers, and non-governmental organisations. The importances of the Plastic Concrete Block innovation in confronting plastic waste issues, developing sustainable construction methods, and supporting international environmental conservation efforts are highlighted in the conclusion. With plastic trash being turned into a valuable resource for sustainable building materials, the success of this innovation will pave the way for a greener and more sustainable future in construction.

Surat kami : 700-KPK (PRP.UP.1/20/1)

Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim
Rektor
Universiti Teknologi MARA
Cawangan Perak



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