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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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COMPILATION OF PROJECT INNOVATION IDEAS
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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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IBS CONCRETE BLOCK ENHANCEMENT WITH ADDITIONAL OF RICE HUSK

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IBS Concrete Block Enhancement With Additional Of Rice Husk

Innovation Idea:

Paddy, a significant plantation in Malaysia's agricultural industry, has been producing a by-product known as rice husk. Historically, a large portion of the rice husk has been disposed of without proper consideration, resulting in issues related to waste disposal and health. Uncontrolled or open burning in fields causes serious environmental risks that have a negative impact on the area's air quality. Since it is not used profitably and is typically burned after harvest, rice husk has become a major issue in rice-growing areas and impacted the environment. Therefore, this study promotes the use of concrete block with rice husk as a new construction material to replace the existing blocks in the market. For this purpose, it is important to understand the properties of the material used to make a concrete block. The aim of this study is to investigate the feasibility of using rice husks to produce solid concrete blocks. Hence, a laboratory experiment needs to be conducted to investigate the effect of rice husk on concrete block characteristics, including the investigation of compressive strength and Ultrasonic Pulse Velocity (UPV) tests. The study comprises five chapters, starting with an introduction and ending with a conclusion and recommendations on how to make the innovative product better. In this study, samples will be prepared with 3% and 6% rice husk content, that will tested using concrete cube molds. The desired result of 20 MPa at 28 days is achieved with 3% of rice husk content using grade 20, meeting the specific requirement.

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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Sekian, terima kasih.

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SITI BASRIYAH SHAIK BAHARUDIN
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Setuju.

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