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Cawangan Perak



# **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**

**BUILDCON 2023**  
**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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#### **Editors**

*Siti Akhtar Mahayuddin*

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*Sallehan Ismail*

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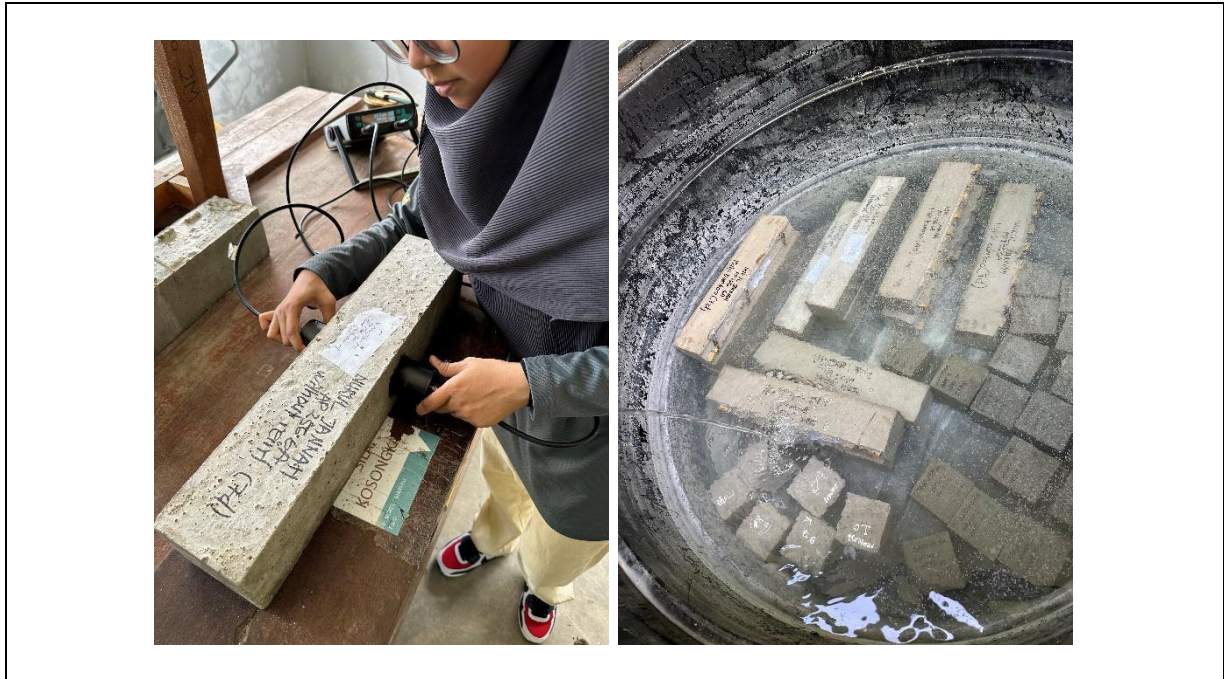
## CONCRETE WITH TREATED BAMBOO REINFORCEMENT IN BEAM

Nurul Jannah Roslan<sup>1</sup> and Sallehan Ismail<sup>2</sup>

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Concrete With Treated Bamboo Reinforcement In Beam

### Innovation Idea:

This paper focuses on concrete with treated bamboo reinforcement. It was produced due to the inflated cost of steel reinforcement bars, which use lots of energy to produce the steel reinforcement and expose lots of carbon dioxide to the atmosphere. The aim of this research is to produce concrete with treated bamboo reinforcement in beam as an innovative technology in construction with low cost and use the renewable materials. The objectives of this research are to assemble the prototype from improvised materials of concrete with treated bamboo reinforcement in beam, study its performance, and assess its marketability potential. The methodology involved in this research is data collection from the previous studies. The finding reveals that the test recorded the highest strength values on both sides of the bamboo. This concrete, reinforced with treated bamboo in the beam, is an eco-friendly material and sustainable building material.



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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Kelulusan daripada pihak tuan dalam perkara ini amat dihargai.

Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

**SITI BASRIYAH SHAIK BAHARUDIN**  
Timbalan Ketua Pustakawan

*nar*

*Setuju.*

*27.1.2023*

PROF. MADYA DR. NUR HISHAM IBRAHIM  
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