



UNIVERSITI  
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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**

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## WHEELS STEEL FOUNDATION SYSTEM

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Wheels Steel Foundation System

### **Innovation Idea:**

This study focuses on the impact of earthquakes on buildings in Malaysia. The findings reveal that earthquakes have adverse effects on the infrastructure, facilities, and overall safety of buildings such as cracking and breakage. Earthquakes can damage a building's infrastructure and its facilities, making it to be unusable or in need of reconstruction. Therefore, this study aims to develop a system, i.e., Wheels Steel foundation system, that can be help a building to be resistant to earthquakes. The Wheels Steel foundation system design was developed from document review and data analysis. The prototype has also been tested. This research's implications are profound, as the adoption of the Wheels Steel foundation system in buildings can significantly enhance earthquake resilience, protecting lives, and reducing reconstruction costs. Furthermore, this innovative solution has the potential to positively impact Malaysia's construction industry and serve as a benchmark for earthquake-resistant technologies in other earthquake-prone regions.

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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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