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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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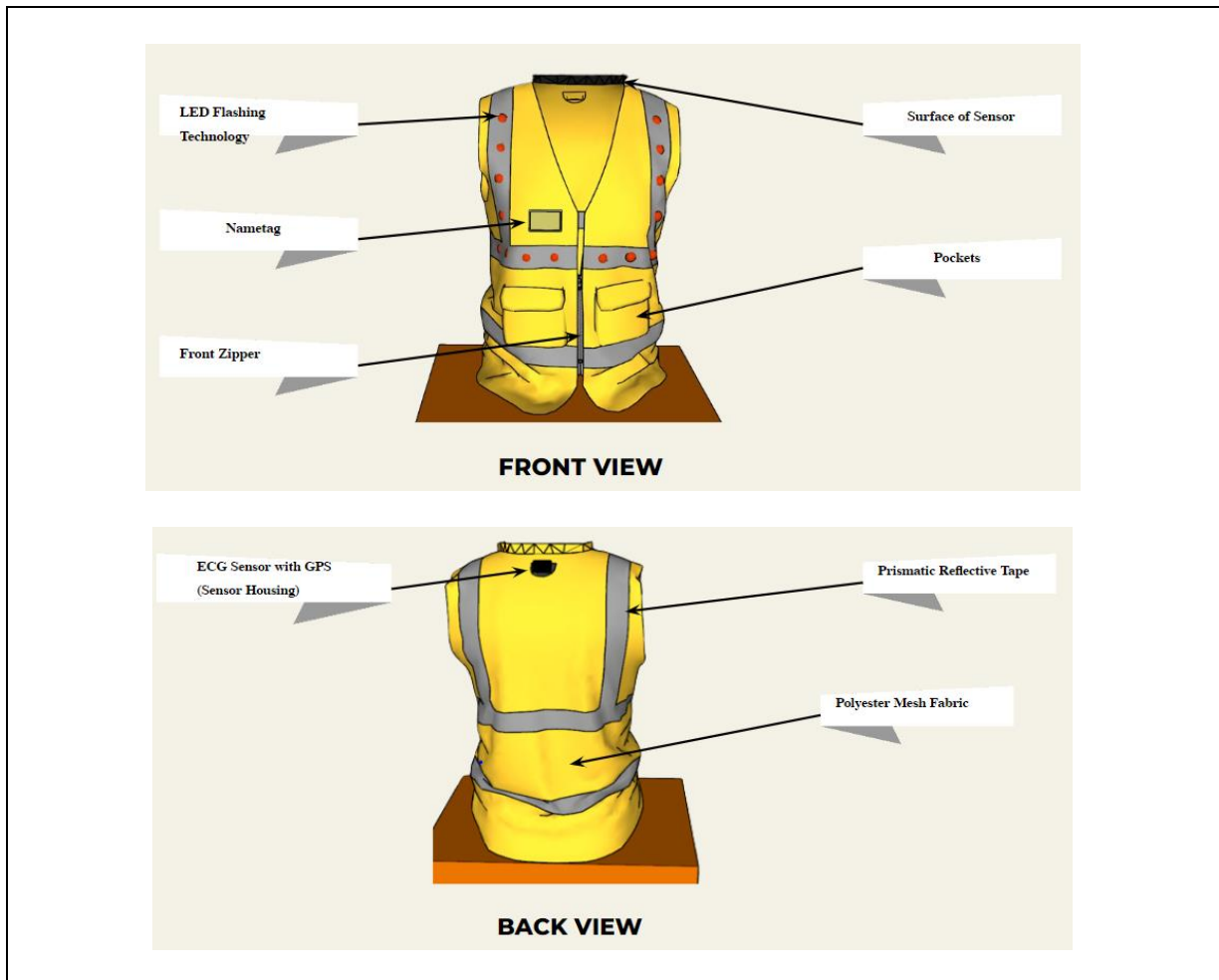
## HIGH-TECHNOLOGY SAFETY CONSTRUCTION VEST

Wan Muhammad Arif Safwan Wan Aziz<sup>1</sup> and Ida Nianti Mohd Zin<sup>2</sup>

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High-Technology Safety Construction Vest

### Innovation Idea:

Construction is one of the most dangerous economic industries in the world. Unsafe practices, involvement of people, dangerous machinery, poor job site conditions, poor management, and peculiarities of the sector are some of the major causes of accidents on construction sites. It is widely acknowledged that Personal Protective Equipment (PPE) effectiveness serves as a crucial safeguard for workers' safety and well-being. The absence of PPE is a challenge for the sector. Construction site employees are the primary group affected by safety and health concerns. Monitoring the on-site personnel's health issues is necessary. The issue with thermal comfort comes next. A safety vest needs to be cosy no matter the circumstance. Due to climate change, there is a substantial risk of heat stress among construction workers all around the world. For the convenience of construction workers, there is a need to resolve these urgent difficulties. In addition, the visibility of the vest should serve as a warning signal to alert its wearers and stop any incidents from

happening. The purpose of this study is to identify the marketability potential of the suggested new product and present an innovative approach to address the current issues with regards to construction safety vests. The material for this study was gathered using qualitative data approaches. This study examines issues relating to safety vests around the world through a review of literature. Additionally, a video format was used to show the concept and functionality of a high-tech safety construction vest. Moreover, the improvement made to the safety vests is also illustrated using SketchUp software. As a result, the goals set forth at the outset of the innovation project are successfully attained by this innovation product. A high-tech safety vest for construction workers has a market value since it can improve us

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Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim  
Rektor  
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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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