



UNIVERSITI
TEKNOLOGI
MARA

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**

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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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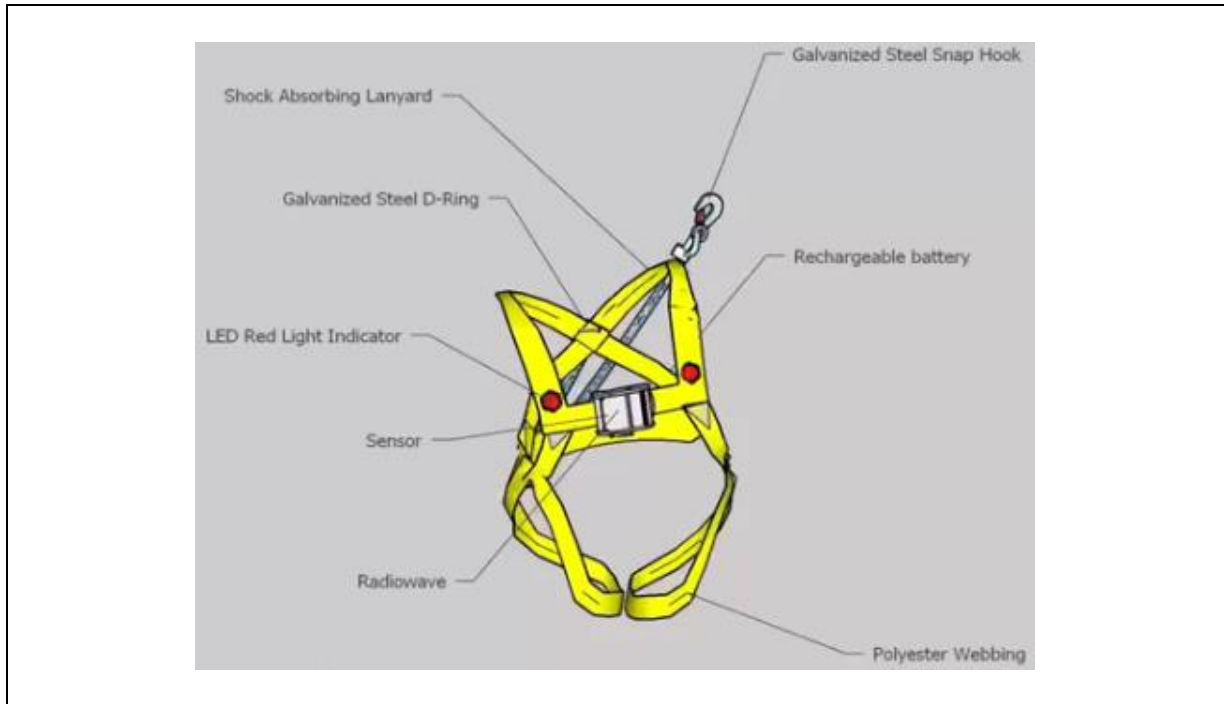
SMART SAFETY HARNESS

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Smart Safety Harness

Innovation Idea:

The construction industry in Malaysia has become one of the sectors with the highest growth rate. As a result of this growth, the demand for safety harnesses has also increased as many high-rise buildings are constructed nowadays. Personal Protective Equipment (PPE) is an important equipment that is worn by construction workers to protect themselves from risks of workspace hazards that can lead to serious injuries. In this study, safety harness was selected as one of the PPE options for innovation. It is anticipated to improve the performance of this equipment, ultimately making construction tasks both easier and safer. Based on the previous research, there are various challenges relating to the use of safety harness that might compromise the comfort and safety of the construction workers. By identifying these significant challenges, novel solutions can be proposed. In view of that, this study aims to improve the existing safety harness by applying new technological innovations that can provide enough safety to the construction workers. To accomplish the research objectives, literature reviews on safety harness-related topics were conducted as part of the methods for the development of the innovation. Comparisons were made with previous safety harness innovations in terms of their performance and functionality. The Smart Safety Harness offers enhanced comfort and durability in each of its function for daily use, thereby enhancing worker safety. This unique wearable device is set to revolutionise workplace safety, integrating sophisticated technology, efficient communication, and user-centric design to improve safety, productivity, and overall worker well-being.

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.

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Saya yang menjalankan amanah,

SITI BASRIYAH SHAIK BAHARUDIN
Timbalan Ketua Pustakawan

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Setuju.

27.1.2023

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