



UNIVERSITI
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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 HELMET

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Smart Safety Helmet

Innovation Idea:

In the construction industry, safety helmets are essential Personal Protective Equipment (PPE) that all workers must wear to ensure adequate safety and protection, particularly for the head. However, there is a need for continuous improvement in existing helmets to offer more advantages and better accommodate specific job scopes. This study is dedicated to enhancing the quality and performance of current safety helmets, with a specific focus on the construction sector. The primary objectives of this research are to identify prevailing issues and challenges within the Construction Industry, propose innovative solutions to address these problems, and assess the market potential of the suggested innovative product for potential commercialisation. The study adopts diverse data collection methods, including thorough literature reviews, desk research, simulations, and prototyping. A critical evaluation of four key aspects, namely installation methods, system functionality, practicality, and product comfort, has yielded promising results and findings that are in line with the research objectives. The proposed innovative product, known as the “Smart Safety Helmet,” not only tackles current challenges but also demonstrates improved installation processes, enhanced product performance, and immense market potential. In conclusion, this innovative product is poised to deliver significant benefits to users by streamlining inspection and monitoring tasks, and providing crucial evidence in the event of accidents, making it especially invaluable for construction workers.

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Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim
Rektor
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Cawangan Perak



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Sekian, terima kasih.

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SITI BASRIYAH SHAIK BAHARUDIN
Timbalan Ketua Pustakawan

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Setuju.

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