UNIVERSITI TEKNOLOGI MARA

PERAK BRANCH

HIGHLY DEVELOPED SAFETY VEST FOR CONSTRUCTION HIGH-RISE BUILDING

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Innovation project report submitted in partial fulfilment of the requirements for the degree of
Bachelor of Science (Hons.) Construction Technology

Faculty of Architecture, Planning & Surveying

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AUTHOR'S DECLARATION

I declare that the work in this innovation project report was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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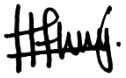
Signature of Student : 

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ABSTRACT

As the population grows, it is primarily urban and hence need high buildings. Many significant injuries and accidents are linked to height operations where work is performed at height without adequate steps. The main reasons for this harm are that employees do not avoid wearing personal protective equipment (PPE) such as safety vests. Several issues with the existing safety vest are one size does not fit everyone. Next, the problem with thermal comfort. Regardless of the situation, a safety vest needs to be comfortable. In addition, wearing a safety vest for a long hour can cause skin infections, where if skin infections are left untreated, it can result in skin damage. Furthermore, an available safety vest does not protect the wearer from falling objects in construction high-rise building sites. Thus, this study aims to propose an innovative idea to solve the existing construction safety vest problems and identify the marketability of the proposed innovation product. This study is carried out through literature review research from forthcoming publications to investigate safety vests problems worldwide. In addition, the idea and application of a highly developed safety vest are illustrated using the video format. In addition, a prototype has been produced to obtain the performance of the innovative product. As a result, this innovation product succeeds in achieving the objectives as planned at the beginning of the innovation project. An online questionnaire was created and distributed to PPE contractors and site personnel in Malaysia to assess the potential marketability. This online survey has been distributed using the Google Form platform, and the link has been shared via 'WhatsApp' and Telegram '. Overall, a highly developed safety vest for the construction of high-rise buildings has a market value as to provide increased comfort and safety to users.