UNIVERSITI TEKNOLOGI MARA
PERAK BRANCH

SEMITRUCK TRAILER SIDE LOADER WITH STEEL CAGE FOR LOADING AND UNLOADING PROCESS FOR PRECAST CONCRETE PANEL

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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 regulation of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledge as referenced work. This topic has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

In the event that my innovation project report, be found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree be subjected to the disciplinary rules and regulations of Universiti Teknologi MARA.

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ABSTRACT

Loading and unloading process for precast concrete components can influence the efficiency of the construction process. The report focuses on transportation of precast concrete mainly in loading and unloading process in order to document the different transportation system, to come out with the design of a semitruck trailer with side loaders and steel cage and to identify the market potential of the proposed innovation idea. The data and information regarding the report was obtain through interview with the collaboration with from one of the IBS manufacturers in Perak, through documents analysis and the feedback from the respondents involve in manufacturer, suppliers and contractor/installer of IBS component. From the review, it is found that the issues involve during loading and unloading process can influence the construction efficiency such as the longer duration taken for loading and unloading process cause delay in receiving the material and the cost for loading and unloading process, safety hazards occur even with a reported accident during the loading and unloading process of precast concrete panel and the release of the harmful gases during the process occur. Besides that, it is decided to proposed a semitruck trailer attachment to minimize the loading and unloading process by completing the process in one go with the steel cage design to tackle the issued found from the review. Upon finishing the propose innovation, majority of the respondents gave a positive feedback towards the proposed innovation idea and 30% of the respondents would buy the product if the product had penetrated the market. It was hope that the proposed innovation idea can be beneficial in construction industry.