UNIVERSITI TEKNOLOGI MARA
PERAK BRANCH

PRECAST LIGHTWEIGHT WALL PANELS WITH SLIDING STAINLESS-STEEL CONNECTION

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

Department of Built Environment and Technology Studies, FSPU

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AUTHOR'S DECLARATION

I in the name of NUR HANIS FITRIAH BINTI MOHD HASNI, declaring that the work that being completed in this innovation project report was carried out in accordance with the regulation of Universiti Teknologi MARA. This innovation project is the original and the results of my own work, unless otherwise indicated or acknowledge as referenced work. I can ensure that this topic has not been submitted to any other academic institution or non- academic institution for any degree or qualification.

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ABSTRACT

Green buildings are the future of the construction industry. Nowadays, more research has been conducted towards implementing greener construction and safer environment. This rapid demand in construction needs has brought attention to figure solution for more sustainable method to meet the demand. Prefabrication industry or Industrialized Building System (IBS) has shown significant values contributing to greener construction, faster rate of completion and reduction in labor and wastages. The background study of this research highlights the students' hostel of UiTM Campus Seri Iskandar which the innovation idea has been developed which is precast lightweight wall panels with sliding stainless-steel connection. The objectives of this research are to innovate the design and installation of precast wall panels to promote environment friendly, safer, and faster construction rate and to propose the marketability of the proposed installation for precast wall panels to the potential users. The data collected for this research are obtained from literature review of previous research, simulation method and data analysis imply the performance of previous innovation products. Preliminary findings from the research shown that the performance of the innovation project has been greatly improved from the existent method of wall installation. From the findings, the efficiency of the innovation product is illustrated in the simulation and has seen to contribute to significant opportunity to be a game changer in the IBS industry. Therefore, the proposed innovation idea is anticipated to be a new alternative to the conventional method of wall installation.

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