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BUILDCON2023

COMPILATION OF PROJECT INNOVATION IDEAS
SEMESTER MARCH – AUGUST 2023

EMBRACING SMART CONSTRUCTION TRANSFORMATION

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Department of Built Environment Studies and Technology
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Universiti Teknologi MARA Perak Branch

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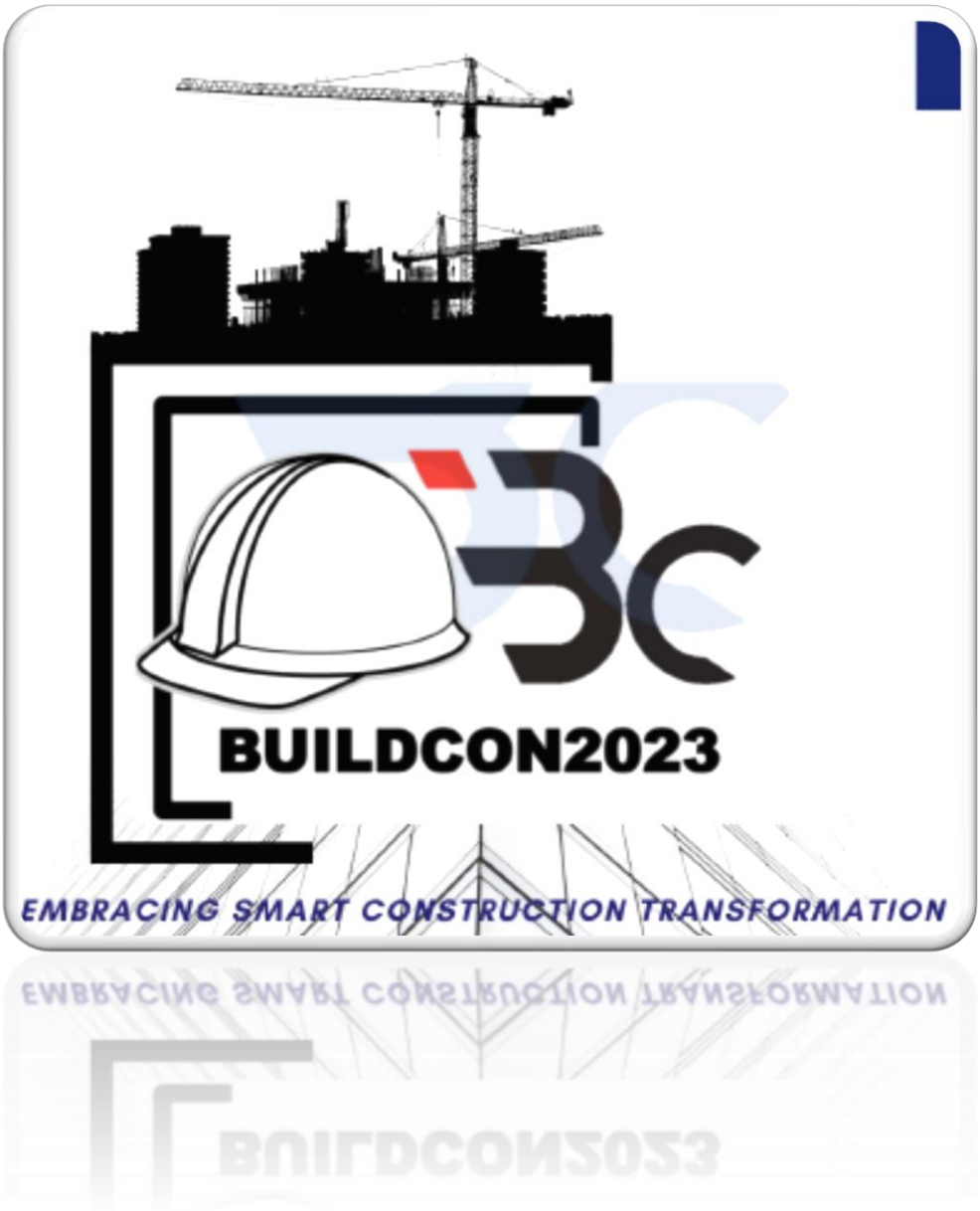

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FLOOD BARRIER SAFETY DOOR

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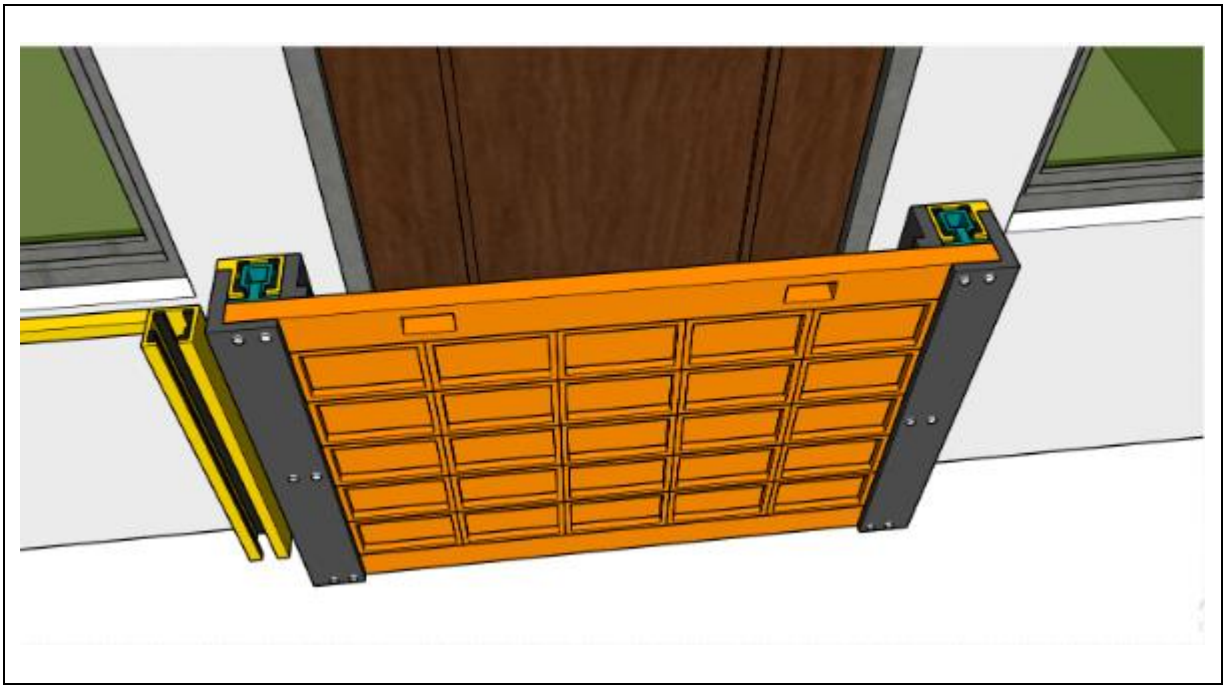

Flood Barrier Safety Door

Innovation Idea:

This study aims to investigate and evaluate the effectiveness of an innovative flood barrier safety door as a solution to enhance flood resilience in Malaysia. The frequent occurrence of floods in Malaysia, exacerbated by monsoon seasons and human-induced factors, has posed significant challenges to public safety, infrastructure, and the economy. This study presents a comprehensive examination of the flood situation in Malaysia, explores innovative approaches to mitigate flood damage, and focuses on the development and assessment of a flood barrier safety door. The methodology employed in this study is a mixed-methods approach, combining qualitative and quantitative data collection techniques. A thorough literature review was conducted to establish the context and identify the key challenges faced in flood-prone areas. The Flood Barrier Safety Door demonstrates promising advantages over traditional flood barrier systems. Its customable design feature allows for customised flood protection, catering to the specific needs and flood risk assessments of various settings, including schools and offices. The door's affordability makes it accessible to a wide range of users, promoting its widespread implementation. The study found that the Flood Barrier Safety Door effectively resists water pressure and can withstand the force exerted by floodwaters, preventing water infiltration. Its durable construction ensures long-term usage and provides a reliable barrier against flood damage. Furthermore, the space-saving design eliminates the need for additional storage space, and the straightforward installation process saves time and effort during setup. Flood Barrier Safety Door contributes to enhancing flood resilience and mitigating the adverse effects of flooding in

Malaysia. The research findings support the practicality, reliability, and cost- effectiveness of this innovative flood protection solution. The study concludes by recommending the adoption of the Flood Barrier Safety Door as part of comprehensive flood management strategies, emphasising the importance of proactive measures to safeguard lives and properties from the impact of floods.

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