



UNIVERSITI
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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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LANDING AND LIFTING MECHANISED STAIR

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Landing And Lifting Mechanised Stair

Innovation Idea:

This study examines the violation of rights of persons with disabilities (PWDs) in public buildings in Malaysia, focusing on the lack of accessibility features and poor design considerations. The aim is to introduce a solution called the Landing and Lifting Mechanised Stair to improve convenience and accessibility for PWDs. The research questions address the design, assembly process, performance evaluation, and market prospects of the mechanised stair. The research objectives include exploring the design, assembling a model, evaluating its performance, and suggesting marketability potential. The scope covers physical barriers faced by PWDs in Malaysian public buildings, particularly universities and public housing. Data collection methods include document review, design thinking, experimentation, and secondary data analysis. Advantages of the mechanised stairs include safer speed, accommodation of two occupants, and affordability. The study contributes to enhancing accessibility and quality of public spaces for PWDs, addressing their specific needs, and promoting inclusivity. The study's contribution to Sustainable Development Goal number 10, which aims to reduce inequalities between disabled and non-disabled people in Malaysia, promote inclusivity, and meet the unique needs of PWDs in public spaces, is what makes it significant. The findings of the product innovation started with the researchers' idea on the creation of Landing and Lifting Mechanised Stair design and function, materials and components for product and model, method of mock-up model assembly, performance of the mock-up model by ratio to get its actual performance, and marketability potential of the product among PWD users.

Surat kami : 700-KPK (PRP.UP.1/20/1)

Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim
Rektor
Universiti Teknologi MARA
Cawangan Perak



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Kelulusan daripada pihak tuan dalam perkara ini amat dihargai.

Sekian, terima kasih.

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Saya yang menjalankan amanah,

SITI BASRIYAH SHAIK BAHARUDIN
Timbalan Ketua Pustakawan

nar

Setuju.

27.1.2023

PROF. MADYA DR. NUR HISHAM IBRAHIM
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