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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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COMPILATION OF PROJECT INNOVATION IDEAS
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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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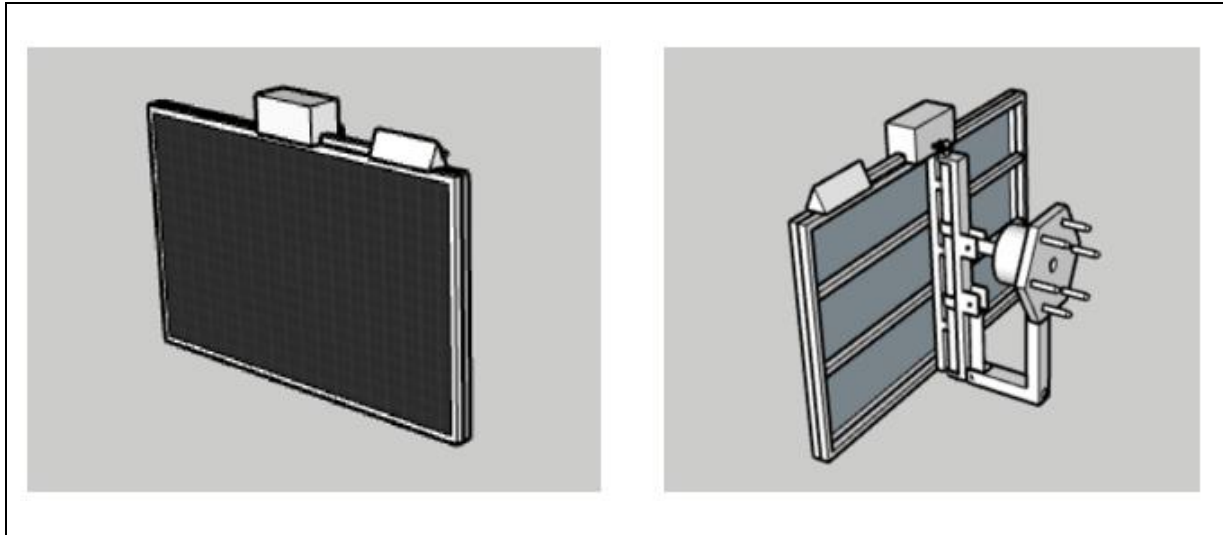
EASY-MOVEMENT WALL MOUNTED SOLAR PANELS

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Easy-Movement Wall Mounted Solar Panels

Innovation Idea:

At the beginning of the twenty-first century, the world is experiencing an energy crisis as highly populous, developed nations become wealthier and continue to increase their energy consumption to levels that are unsustainable for the foreseeable future. Since solar energy is one of the most abundant renewable energy sources and helps mitigate environmental degradation, this study has chosen to concentrate on solar energy technologies. In Malaysia, a country with a hot climate, solar panel systems have been employed in homes and buildings as a source of backup electricity. Despite this, there are a number of technological barriers to the rapid growth of solar technology, including limited space and roof area for solar panel installation, and poor efficiency difficulties caused by static position and soiling losses. Hence, this study aims to develop easy- movement wall mounted solar panels to solve these issues and explore marketability potential of this innovation product. In this innovation project, the methodology employed was based on an innovation framework which steps begin with Ideation, Selection, Development, and Commercialisation. The data was collected from document analysis, design thinking, and video simulation using SketchUp software. The innovative product was meant to be wall-mounted with a solar tracking system, and its tilt angle could be adjusted. The product is proven to improve efficiency, save space for installation, and is equipped with a self-cleaning system. As the demand for solar energy is increasing and the government is offering incentives to install solar panels, coupled with high demand in high-rise and mid-rise residential buildings, the innovation became possible to introduce to the market. It offers more benefits than the existing solar panel products.

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Tarikh : 20 Januari 2023

Prof. Madya Dr. Nur Hisham Ibrahim
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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
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Setuju.

27.1.2023

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