



UNIVERSITI
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Cawangan Perak



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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RECYCLED CONCRETE WASTE AS AGGREGATE FOR CONCRETE

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Recycled Concrete Waste As Aggregate For Concrete

Innovation Idea:

In Malaysia, the awareness of product recycling, especially in the construction industry, is still low among people. The wastage of demolition processes is usually dumped into landfills when the demolition materials do not hold much value to be reused. This continuous effect will eventually fill the landfills with demolition wastes, particularly concrete materials. This phenomenon leads to several problems such as pest infestation, environmental damage, unpleasant sight, and health issue to the residents who live nearby the landfills. This study aims to develop an innovation to reuse demolition wastes into building materials. The research objectives are to identify the current issues relating to demolition waste materials, propose an innovation idea of recycling concrete waste from demolitions into new building materials, and explore the marketability potential of this demolition concrete waste. The study will continue to find ways to use the demolition waste materials and recycle them into useful materials to be used again in construction industries as either a main product or a substitute. Several methods were employed to achieve the objectives of this study, including desk study, experiments, and lab test. The data obtained through the mentioned method were recorded and assessed to determine its suitability for future product commercialisation in the market. The future of this innovation can further evolve to promote more efficient material utilization for environmental benefits, aligning with the principles of Industry 4.0.

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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Sekian, terima kasih.

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Saya yang menjalankan amanah,

SITI BASRIYAH SHAIK BAHARUDIN
Timbalan Ketua Pustakawan

nar

Setuju.

27.1.2023

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