



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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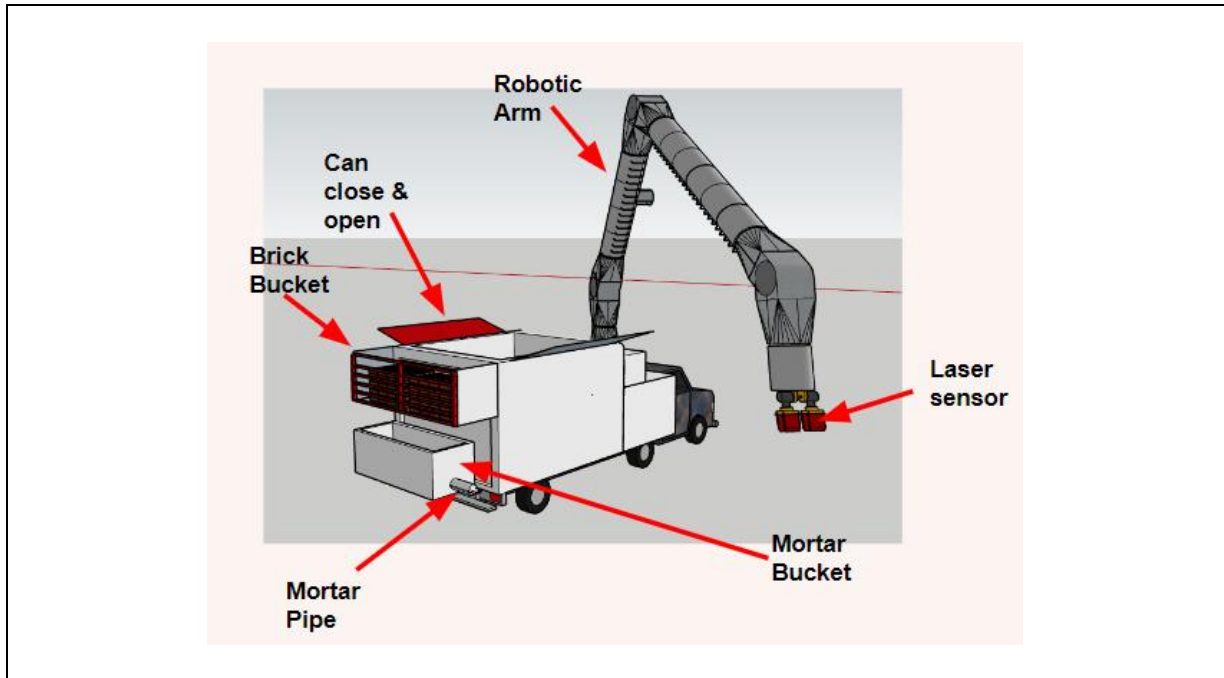
AUTOMATED BRICKLAYING ROBOT (ABR)

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Automated Bricklaying Robot (ABR)

Innovation Idea:

In Malaysia, conventional methods in the construction industry are still widely used, even though the Industrialised Building System (IBS) has been successfully adopted in the government sector. Malaysia's construction industry needs more workers as conventional methods are still widely practised. Currently, the Malaysian construction industry widely uses the conventional method, in which many skilled workers are needed to construct buildings. The shortage of skilled workers led to the innovation of the Automated Bricklaying Robot (ABR). The advancement of construction robots will significantly boost automation in the construction industry in the future. This study intends to identify the current problems related to bricklaying robot and technology, suggest and build a new machine as a solution to these problems, and assess its marketability potential. This research is based on a secondary data review and includes a SketchUp mockup of the machine. ABR-1, an automated bricklaying robot, is suggested as a solution to the problems relating to the shortage of skilled labourers, delays, and high costs.

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Prof. Madya Dr. Nur Hisham Ibrahim
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Setuju.

27.1.2023

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