



UNIVERSITI
TEKNOLOGI
MARA

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**

BUILDCON 2023
COMPILATION OF PROJECT INNOVATION IDEAS
SEMESTER MARCH – AUGUST 2023



Organised by
Department of Built Environment Studies and Technology
College of Built Environment
Universiti Teknologi MARA Perak Branch
Malaysia

BUILDCON 2023

COMPILATION OF PROJECT INNOVATION IDEAS

SEMESTER MARCH – AUGUST 2023

Editors

Siti Akhtar Mahayuddin

Noor Rizallinda Ishak

Nor Asma Hafizah Hadzaman

Sallehan Ismail

© Unit Penerbitan UiTM Perak, 2024

All rights reserved. No part of this publication may be reproduced, copied, stored in any retrieval system or transmitted in any form or by any means; electronic, mechanical, photocopying, recording or otherwise; without permission on writing from the director of Unit Penerbitan UiTM Perak, Universiti Teknologi MARA, Perak Branch, 32610 Seri Iskandar Perak, Malaysia.

Perpustakaan Negara Malaysia

Cataloguing in Publication Data

No e- ISBN: 978-967-2776-24-6

Cover Design: Muhammad Naim Mahyuddin

Typesetting : Siti Akhtar Mahayuddin

e ISBN 978-967-2776-24-6



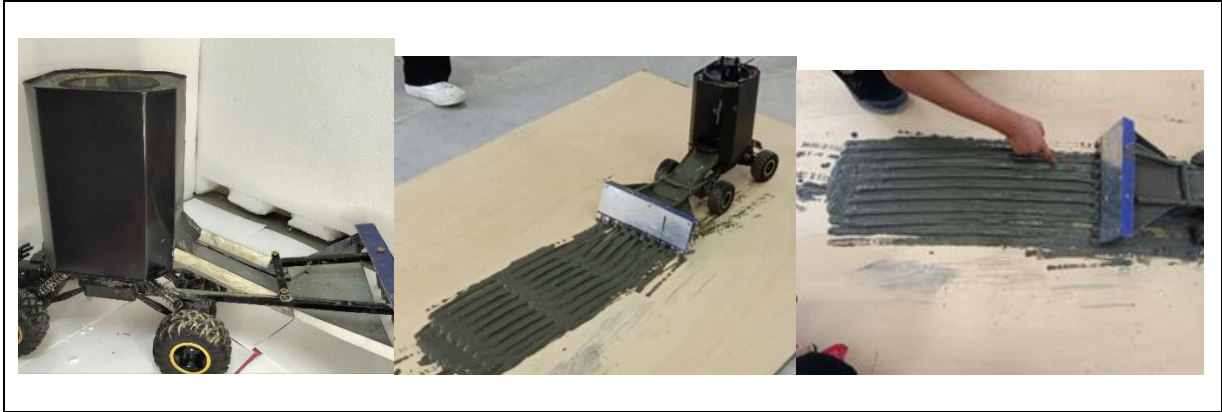
CONTROLLABLE MORTAR SPREADER FOR FLOOR TILING INSTALLATION

Nur Arish Amanda Arbidin¹ and Nor Azizah Talkis²

^{1,2}Department of Built Environment Studies and Technology, College of Built Environment, Universiti Teknologi MARA Perak Branch,

32610 Seri Iskandar, Perak

Email: 2021483024@student.uitm.edu.my¹, norazizah@uitm.edu.my²



Controllable Mortar Spreader For Floor Tiling Installation

Innovation Idea:

Floor tiling is a prevalent and essential aspect of construction and interior design. The aim of the study is to develop a controllable mortar spreader robotic technology that can facilitate contract workers in achieving smoother the tiling installations, thereby preventing defects and promoting better health. The objectives of this study are to develop a prototype for floor tiling installation and assemble the prototype of the controllable mortar spreader for floor tiling installation, demonstrate its performance, and demonstrates its marketability potential for the people in the construction industry. Initial prototype tests were conducted to evaluate the system's performance. The results indicated that the prototype can be improved by allowing for a considerably quicker installation process and allowing a less direct worker exposure to chemical products. The results inspire further research into the potential application of the controlled mortar spreader for floor tiling installations in the construction industry. The aim is to streamline tiling procedures and potentially enhance the ecosystem encircling the tiling business.

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



Tuan,

**PERMOHONAN KELULUSAN MEMUAT NAIK PENERBITAN UiTM CAWANGAN PERAK
MELALUI REPOSITORI INSTITUSI UiTM (IR)**

Perkara di atas adalah dirujuk.

2. Adalah dimaklumkan bahawa pihak kami ingin memohon kelulusan tuan untuk mengimbas (*digitize*) dan memuat naik semua jenis penerbitan di bawah UiTM Cawangan Perak melalui Repositori Institusi UiTM, PTAR.

3. Tujuan permohonan ini adalah bagi membolehkan akses yang lebih meluas oleh pengguna perpustakaan terhadap semua maklumat yang terkandung di dalam penerbitan melalui laman Web PTAR UiTM Cawangan Perak.

Kelulusan daripada pihak tuan dalam perkara ini amat dihargai.

Sekian, terima kasih.

“BERKHIDMAT UNTUK NEGARA”

Saya yang menjalankan amanah,

SITI BASRIYAH SHAIK BAHARUDIN
Timbalan Ketua Pustakawan

nar

Setuju.

27.1.2023

PROF. MADYA DR. NUR HISHAM IBRAHIM
REKTOR
UNIVERSITI TEKNOLOGI MARA
CAWANGAN PERAK
KAMPUS SERI ISKANDAR