



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**

**BUILDCON 2023**  
**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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#### **Editors**

*Siti Akhtar Mahayuddin*

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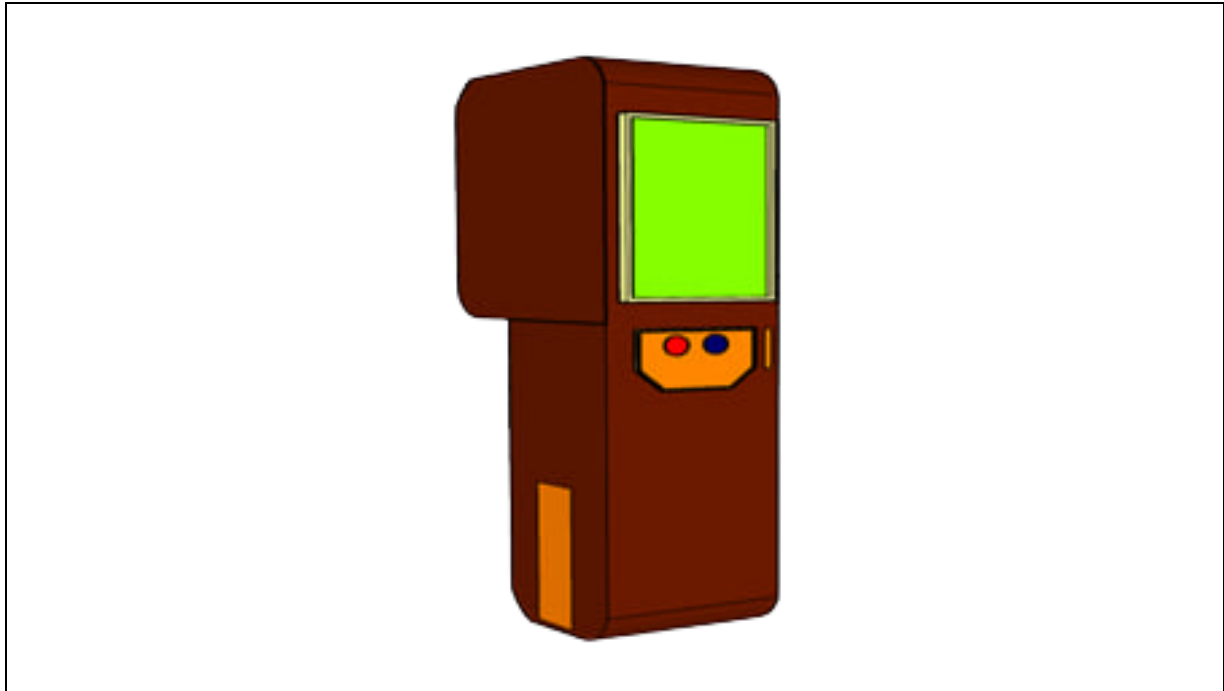


## SENSOR DETECTION OF TERMITES

Suraya Ashyikin Rashid<sup>1</sup> and Dzulkarnaen Ismail<sup>2</sup>

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Sensor Detection Of Termites

### **Innovation Idea:**

Defects, if left untreated, along with poor and ineffective building maintenance, will undoubtedly lead to more damage and costly repair work. To some, building maintenance is a difficult and costly procedure, but if done correctly, it may save money as well as potentially extend the life of the structure. Unfortunately, the building's maintenance is still lacking. The cost of repairing a building that has already been damaged due to a termite attack will be incurred by the client if the building is left untreated. The research objectives of this study are to create Sensor Detection of Termites design ideas, assemble the prototype from the improvised design of Sensor Detection of Termites, assess the performance of Sensor Detection of Termites prototype, and demonstrate entrepreneurial skills in proposing Sensor Detection of Termites prototype to be marketable. This research involves secondary data collection to learn how infrared thermography can contribute to find defects in construction industry. Then, a simulation was conducted to understand the use of the designed product. As a result, the design of the sensor detection of termites, which will be primarily utilised for building structures, was found to be significantly different from the previously established tools. The newly designed product was further improved by combining both infrared and thermal imaging cameras to increase the functionality of the innovation project and to obtain accurate results. The Sensor Detection of Termites was produced to ease contractor workers to do their job in finding termites in a building.

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.

“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  
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