



UNIVERSITI
TEKNOLOGI
MARA

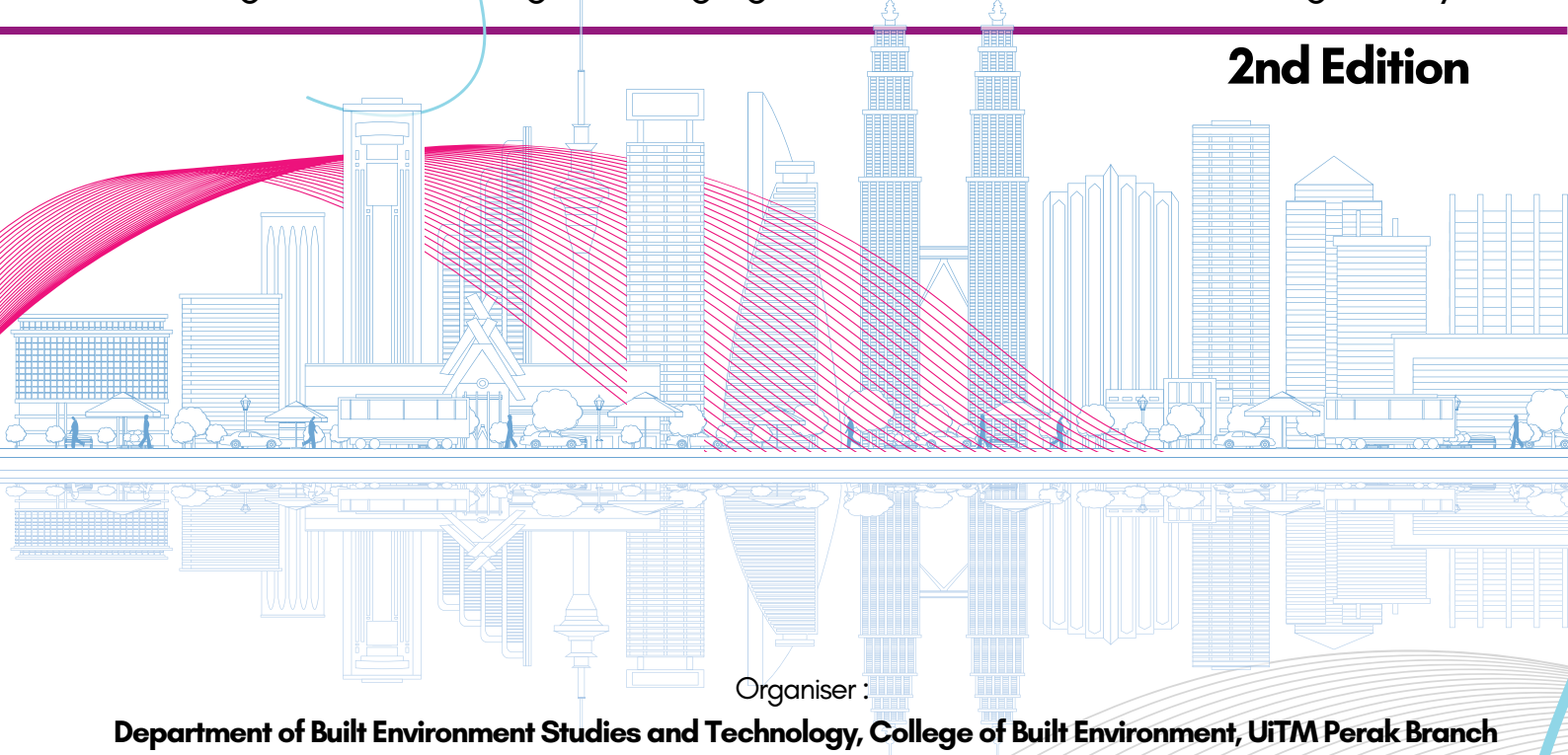
Cawangan Perak

e - Proceedings



Proceeding for International Undergraduates Get Together 2024 (IUGeT 2024)
"Undergraduates' Digital Engagement Towards Global Ingenuity"

2nd Edition



Organiser :

Department of Built Environment Studies and Technology, College of Built Environment, UiTM Perak Branch

Co-organiser :

INSPIRED 2024. Office of Research, Industrial Linkages, Community & Alumni (PJIMA), UiTM Perak Branch

Bauchemic (Malaysia) Sdn Bhd

Universitas Sebelas Maret

Universitas Tridianti (UNANTI)

Publication date :

November 2024

e - Proceedings



Proceeding for International Undergraduates Get Together 2024 (IUGeT 2024)
“Undergraduates’ Digital Engagement Towards Global Ingenuity”

Organiser :

Department of Built Environment Studies and Technology, College of Built Environment, UiTM Perak Branch

Co-organiser :

INSPIRED 2024. Office of Research, Industrial Linkages, Community & Alumni (PJIMA), UiTM Perak Branch

Bauchemic (Malaysia) Sdn Bhd

Universitas Sebelas Maret

Universitas Tridinanti (UNANTI)

© 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: 978-967-2776-42-0

Cover Design: Muhammad Anas Othman

Typesetting : Arial

iVUTI 2024 Committee

Project Leader

Ts Muhammad Naim Mahyuddin

Assistant Project Leader 1

Dr Ezzat Fahmi Ahmad

Assistant Project Leader 2

En Mohd Fadzli Mustaffa

Secretariat 1

Syahmimi Ayuni Ramli

Secretariat 2

Nur Afiqah Anuar

Treasurer

Dr Izrahayu Che Hashim

Registration Team

Dr Asmaa' Che Kassim

Dr Fatin Syazwina Abdul Shukor

Dr Suwaibatul Islamiah Abdullah Sani

Certification Team

Ts Nurul Huda Abdul Hadi

Ir Raja Nurulhaiza Raja Nhari

Dr Siti Jamiah Tun Jamil

Graphic Team

Mohammad Fitry Md Wadzir

Jannatun Naemah Ismam,

Nor Azizah Talkis

Wan Nur Hanani Wan Abdullah

Promotion Team

Nurulanis Ahmad@Mohamed

Najma Azman

Ts Sr Dr Asmat Ismail

Evaluation Team

Dr Suzanah Abdullah

Haslina Hashim

Azlizan Adila Mohamad

Noorsazwan Ahmad Pugi

Gs Dr Munirah Radin Mohd Mohktar

Mohd Najib Husain

Publication Team

Nur'Ain Ismail (Head)

Siti Nurhayati Hussin (Chief)

Dr Nuramira Anuar (Sub-chief)

Dr Paul Gnanaselvam A/L Pakirathan

Noorlinda Alang

Norasyikin Abdul Malik

Halimatussaadia Iksan

Nurdiyana Mohamad Yusof

Syaza Kamarudin

Dr Wan Nordiana Wan Ali

Dr Ida Nianti Mohd Zin

Dr Nurul Sahida Fauzi

Dr Noor Rizallinda Mohd Ishak

Dr Lizawati Abdullah

Iza Faradiba Mohd Patel

Nurfatima Wahida Nasir

Nazirul Mubin Mohd Noor

STEALTHSEEKER : STEALTHY SURVEILLANCE TECHNOLOGY

Ainul Aisyah Izahar^{1*}, Nurul Faqihah Amran², and Hani Wardina Junaidi³

^{1,2,3} Department of Built Environment Studies and Technology, College of Built Environment,
Universiti Teknologi MARA Perak Branch, Seri Iskandar Campus, 32610 Seri Iskandar,
Perak, MALAYSIA

*2023611568@student.uitm.edu.my

Abstract

Spy cameras, also known as hidden cameras, are compact recording devices designed to discreetly capture video and audio for surveillance, security, and investigative purposes. Advancements in technology have made spy cameras more sophisticated, smaller, and widely accessible, expanding their utility across various applications. Innovatively, this spy camera now features motion-triggered photography and an audible alert system ("beep beep"), enhancing its capability to detect and deter thieves or vandalism. This study aims to address the issues of vandalism and theft on construction sites by introducing an innovative surveillance solution. The objectives are to identify safety performance issues, propose an innovative solution through investment in safety equipment, and demonstrate the effectiveness of safety surveillance. Methodologically, the research employs document analysis of safety reports and interviews with industry experts. Findings indicate frequent incidents of vandalism and theft, underscoring the need for enhanced security measures. In conclusion, the innovation of a camera equipped with intruder detection marks a significant advancement in construction site security and surveillance technology. By integrating automated photography and alert systems, this camera improves safety protocols, enhances monitoring capabilities, and reduces reliance on human labor. Instant image capture accompanied by visible flash and audible alarms ensures swift response to potential risks, effectively safeguarding assets and personnel while reducing construction costs. As technology evolves, these innovations hold promising potential to enhance security measures across various sectors.

Keywords: *spy cameras, surveillance technology, vandalism, theft prevention, safety performance, innovation*

1. INTRODUCTION

StealthSeeker represents a cutting-edge advancement in surveillance technology, specifically engineered for discreet and effective monitoring in sensitive environments. This paper aims to explore the scope, objectives, methodologies, and findings related to StealthSeeker, addressing its capabilities, applications, and implications in modern surveillance practices. The scope of this paper is to provide a comprehensive analysis of StealthSeeker, focusing on its technological innovations and operational advantages. The objective is to evaluate how StealthSeeker addresses the limitations of traditional surveillance methods, particularly in scenarios where overt surveillance is impractical or could compromise operational security.

Other than that, traditional surveillance technologies often struggle with visibility, detection, and ethical considerations. StealthSeeker aims to mitigate these challenges by offering a covert monitoring solution that enhances surveillance efficiency while maintaining discretion. However, the deployment of such technologies raises significant ethical, legal, and societal concerns that need careful examination. A brief review of the literature reveals a growing interest in stealthy surveillance technologies across various sectors, including law enforcement, military operations, and corporate security.

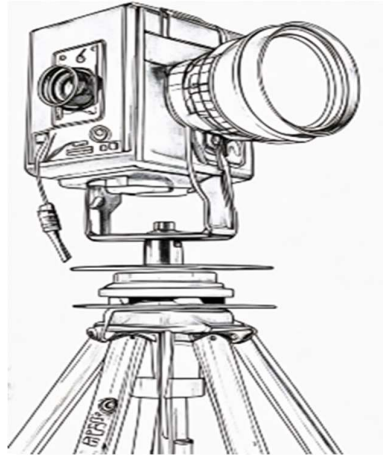
Previous studies underscore the advantages of covert surveillance in environments where overt methods may be ineffective or counterproductive. However, ethical dilemmas regarding privacy invasion and the potential misuse of data remain prevalent themes in the discourse surrounding such technologies.

This study employs a mixed-methods approach to assess the performance and implications of StealthSeeker. Data collection methods include document analysis of relevant industry reports and scholarly articles, as well as interviews with experts in surveillance technology and ethics. These methods are designed to provide a nuanced understanding of StealthSeeker's effectiveness in real-world applications and its broader impact on society. Preliminary findings indicate that StealthSeeker significantly enhances surveillance capabilities by offering discreet monitoring solutions that minimize the risk of detection. The technology demonstrates promising results in improving data collection efficiency without compromising operational security. However, the study also identifies critical ethical considerations and regulatory challenges that necessitate further investigation and responsible implementation strategies.

2. MATERIALS AND METHODS

The spy camera is designed after data collection is taken. Data was collected using the method of accumulation data of construction work documents where it was found that most of the ongoing projects have the problem of increased costs and implementation times that are different from what was originally set. The second method used is through the interview method where interviews are conducted at construction sites with permission to set foot on the construction site. The study was then carried out on the parties involved such as ordinary employees, project managers and some other members. Most of them said that some items were damaged due to vandalism and some items were stolen that caused the entire project to be delayed.

With consideration and the results of the research conducted, the spy camera has been designed with plastic material and some components using magnesium in the camera body part. This is to ensure the camera can be used for a long time and mass-produced with affordable material. In addition, the lower part, which is the tripod leg, uses aluminum material for durability and does not bend easily. Between the movement joints attached to the top, there was a rubber component to let the legs of the tripods move easily. The lenses are made of optical lenses that allow a controlled amount of light that enters. The sensors used are PIR (passive infrared) sensors which will be more effective in detecting body heat and placed on a breadboard inside the camera's body. Picture attached is the early sketch of the product.



3. RESULTS AND DISCUSSION

Table 3.1: Spy camera

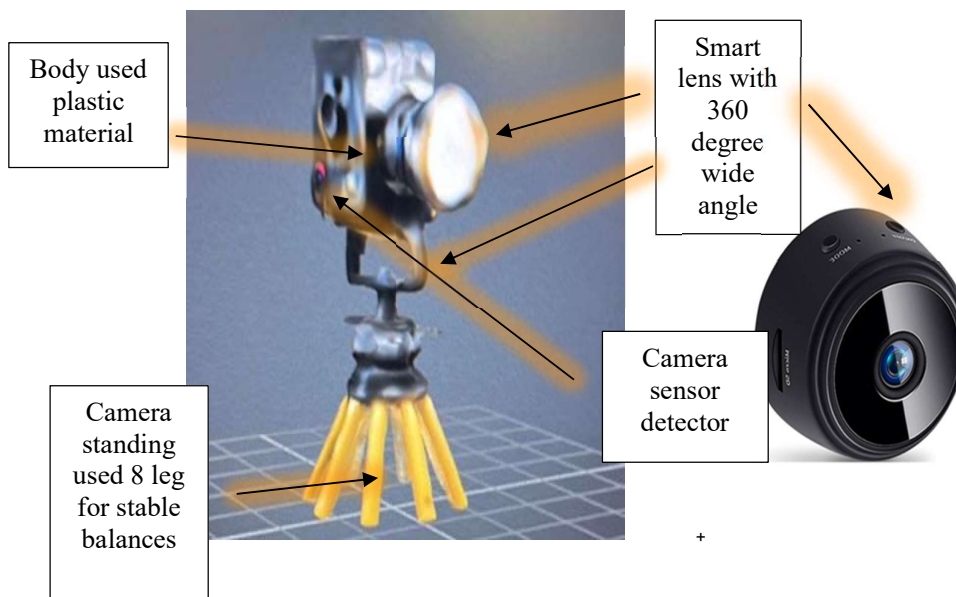


Figure 3.1. combination of spy camera

The combination of spy camera with old camera recordings produces a form of innovation that is quite interesting.

4. CONCLUSION

In conclusion, spy cameras can be a smart surveillance tool, such as in theft and vandalism situations. The camera will detect any movement around it and beep. The beep sound that is heard while taking a picture is actually good to prevent any problems from happening. Also, it can be bad if they don't care about spy cameras and break the camera. For improvement, we can also connect a beep sound with a siren system and the addition of a click flash to take pictures so that it is easy for security guards or people around to know what is happening faster. To preserve camera discretion, you can explore options such as adjusting camera settings, physically disabling the sound mechanism, using software tools to mute sound, or choosing a camera designed to operate silently. Always ensure that the use of such equipment complies with legal and ethical standards to respect privacy and avoid legal issues.

5. ACKNOWLEDGMENT

The authors would like to express their gratitude to Miss Nor Azizah Talkis, lecturer for Building Materials (DBT172) at Universiti Teknologi MARA for her invaluable support and feedback on this innovation concept.

6. REFERENCES

McKeown, M. (2014). *The Innovation Book: How To Manage Ideas And Execution For Outstanding Results*. Britania Raya: Pearson Education.

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