Junior Science Communications
Faculty of Applied Sciences, UiTM Shah Alam
https://journal.uitm.edu.my/ojs/index.php/JSC

E-ISSN 2637-0689
Vol 45 2025

Colloquium on Applied Sciences 2 2024
8-14 July 2024, Faculty of Applied Sciences, UiTM Shah Alam, Malaysia

INDOOR AIR QUALITY AND SICK BUILDING SYNDROME AT LEVEL 5, PERPUSTAKAAN KEJURUTERAAN (PTAR 4), UiTM SHAH ALAM

Muhammad Aqil Norddin[a], Tay Chia Chay

Structured Abstract

Background: The Indoor Air Quality, which is known as IAQ refers to the environmental conditions related to air quality both inside and in the surrounding area of buildings and structures. The research will be conducted at Level 5 of Perpustakaan Kejuruteraan within the premises of the College of Engineering. This location has been selected due to its significance as a focal point for students, particularly those engaged in engineering studies, who utilize PTAR extensively for academic purposes, accessing informative materials such as journals and articles in the field of informatics.

Methods: The study was conducted to investigate indoor air contamination and sick building syndrome at Level 5, Perpustakaan Kejuruteraan, UiTM Shah Alam. The location selected for this study was in the Level 5, Perpustakaan Kejuruteraan, UiTM Shah Alam. The research methodology is complied with the Indoor Air Quality Industry Code of Practice 2010 (ICOP 2010) regulations, encompassing IAQ monitoring across physical, biological parameters and ventilation at Level 5, Perpustakaan Kejuruteraan, UiTM Shah Alam.

Results: The result for the humidity has shown that the humidity has exceeded at every sampling point from sampling point at every cycle except for Cycle 3 for each sampling point. The result for temperature shown that the lowest temperature recorded was 22.0°C and highest one was 27.1°C. For the biological parameter, both total fungi count, and total bacteria count are still under the limit.

Conclusion: Maintaining optimal indoor air quality (IAQ) is essential for occupant health and well-being. This study revealed that as the contaminants such temperature and relative humidity has exceed the limit, contributing to Sick Building Syndrome (SBS). SBS symptoms among the occupants has arisen such as fatigue and respiratory issues which are discovered from survey. The outcome of this assessment shown that a medium risk associated with IAQ parameters and symptoms of SBS.

Keywords: indoor air quality; risk assessment; sick building syndrome; library; ventilation

*Correspondence: taychiay@uitm.edu.my

[a] School of Chemistry & Environment, Faculty of Applied Sciences, Universiti Teknologi MARA, Shah Alam, Malaysia