UNIVERSITI TEKNOLOGI MARA

TOTAL AIRBORNE FUNGAL COUNTS IN PRAYER ROOMS AT THE FACULTY OF HEALTH SCIENCES IN UiTM KAMPUS PUNCAK ALAM

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Project submitted in fulfillment of the requirements for
the degree of
Bachelor in Environmental Health and Safety
(Hons.)

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DECLARATION BY STUDENT

My original research work was entitled "Total Airborne Fungal Counts in Prayer Rooms at the Faculty of Health Sciences in UiTM Kampus Puncak Alam" and I have clearly complete each chapters in this project. The contributions from all parties have made me enthusiastic and hard work to clearly denote the importance of this project by referring to the literature review, acknowledgement of collaborative research and also discussions in this project. This project was completely done under the guidance from my Project Supervisor, Megat Azman Bin Megat Mokhtar. Final year project is one of the requirement to complete the Degree of Bachelor in Environmental Health and Safety (Hons) and the project has been submitted to the Faculty of Health Sciences in UiTM Kampus Puncak Alam.

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ABSTRACT

Assessment of indoor airborne fungal contamination is important in order to identify all prayer rooms at Health Sciences Faculty in UiTM Kampus Puncak Alam have a good indoor air quality. This assessment was determined through airborne fungal sampling using open-plate method. The physical parameters which are temperature (T^oC) and relative humidity (RH%) were measured using Wet Bulb Globe Temperature device and were known as the main factor that contributed more to the growth and multiplication of airborne fungi spores in this research study. Potato Dextrose Agar plate were exposed to the indoor air for a 15 minutes and the airborne fungi spores settled down on the plates by gravity. Fungi spores were observed to visibly appear on wall and ceiling in a few prayer rooms. However, this study proved that all prayer rooms with and without wudhu' facility were positively contaminated with the airborne fungal spores but still within the acceptable range stated in the Industrial Code of Practice on Indoor Air Quality 2010. There was no significant difference shown by the concentration of total airborne fungal counts between prayer rooms with and without wudhu' facility and both physical measurement (Temperature and Relative Humidity) have a good negative correlation with the total airborne fungal counts.

Keywords: *Indoor airborne fungal, temperature, relative humidity, prayer rooms*