

INDOOR AIR QUALITY (IAQ) AT EDUCATIONAL FACILITIES IN FACULTY OF MECHANICAL ENGINEERING'S BUILDING

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"I declared that this thesis is the result of my own work except the idea and summarise which I have clarified their sources. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any degree."

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ABSTRACT

Good indoor air quality is desired for a healthy indoor environment. If the indoor air quality is poor, it can cause a variety health problem in short and long term. The purpose of this study was to determine the indoor air quality at the educational places such as lecture rooms, lecture hall room, welding workshop, computer lab and manufacturing workshop in the Mechanical Engineering Faculty at UiTM Shah Alam. Several parameters have selected in order to determine the indoor air quality (IAQ) of the places which is carbon dioxide (CO₂), carbon monoxide (CO), temperature, relative humidity (RH) and total volatile organic compound (TVOC). Measurement of IAQ was performed according to IAQ Code of Practice, Department Occupational Safety and Health, (DOSH, 2005) Malaysia. The DirectSense Monitoring Kit (IQ-610) was used to record the patterns of CO, CO₂, TVOC and whilst temperature and airflow was measured using Anemometer over an 8-hour time weight average (8-TWA). Since there are different study places, therefore it was found the effect of air quality result will be totally different. Study show that result of the IAQ at each places should not exceed the standards that have been standardized by the DOSH otherwise it will declare as POOR IAQ.

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