

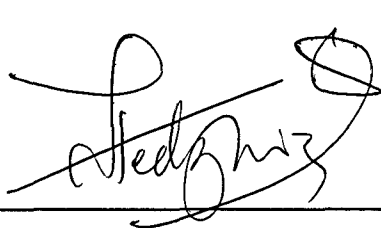
**INVESTIGATION ON INDOOR AIR QUALITY AND THERMAL COMFORT
IN NATURALLY VENTILATED UiTM'S CLASSROOMS**

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This Final Year Project Report entitled “**Investigation on Indoor Air Quality (IAQ) and Thermal Comfort in Naturally Ventilated UiTM’s Classroom**” was submitted by Fitriah Binti Hassan, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Physics, in the Faculty of Applied Sciences, and was approved by



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ABSTRACT

Investigation on indoor air quality and thermal comfort in naturally ventilated UiTM's classrooms

This paper presents the results of the indoor air quality and thermal comfort involving investigation of indoor temperature, relative humidity, air speed, carbon monoxide concentration and carbon dioxide concentration levels in the classrooms. The classroom location is at Cempaka 1, Faculty of Applied Sciences, UiTM, Shah Alam. The IAQ and thermal comfort were measured using Q-TrakTM Plus IAQ Monitor and Velocicalc[®] Air Velocity Meter. The equipments were placed on the table 1 meter from the floor in the middle of the classroom. The IAQ and thermal comfort were measured for 18 days from 8.30 a.m. to 9.30 a.m. The data were downloaded to a computer and analyzed using SPSS and Excel Software. The subjective sensation of thermal comfort or comfort vote was assessed using ASHRAE seven-point scale while preference vote was assessed using the McIntyre Preference Scale. Correlations between the environmental variables and comfort votes were calculated and regression analysis was used to predict the comfort vote. The mean carbon monoxide and carbon dioxide indoor concentration obtained in the classrooms were found to be 0.7017 ppm and 495.73 ppm respectively. The mean relative humidity, air speed and temperature were 78.83 %, 0.21 m/s and 28.92 °C respectively. The comfort temperature was found to be 29.05°C which is 0.13 °C higher than the mean indoor temperature. IAQ and thermal comfort in the classroom was found to be generally satisfactory.