

Monitoring of indoor air quality parameters in the day-care centres in tropical country

ABSTRACT

Indoor air quality monitoring in various public premises such as school, day-care centre, office and industrial factory buildings has attracting many scientist, researchers as well as academicians. Since most people spends their daily activity outside their house, poor indoor air quality in all sort of location of public places can be related with their health and life comfort as human beings. This paper involved in monitoring the indoor air quality in two location of day-care centre. First location is Federal Territory of Kuala Lumpur, being the capital city of Malaysia. Second location is Selangor, which could be categories as suburban area. Temperature, humidity, air velocity, particulate matter (PM10), carbon monoxide (CO) and carbon dioxide (CO₂) were measured as the parameters of indoor air quality in this study. Total 30 day-care centres in Kuala Lumpur and Selangor were selected for this study. The monitoring was conducted during the day-care centre operating hours from 9am to 5pm (8hours) using IAQ meter TSI 8762 for measurement of temperature, humidity, CO and CO₂, Dust Trak TSI 8520 for the measurement of PM10 and VeloCalc TSI 9555 for the measurement of air velocity. The CO, CO₂ and PM10 levels indicated that the city of Kuala Lumpur has higher pollutant levels than suburban area or Selangor.

Keyword: Air pollutants; Day-care centre; Indoor air quality; Particulate matter