PRELIMINARY ASSESSMENT OF AIR QUALITY USING AUTOMATED GAS ANALYSER AT ENVIRONMENTAL MONITORING STATION OF UITM SHAH ALAM

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MAY 2006

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PERLANTIKAN BAGI MENJALANKAN PENYELIDIKAN

Merujuk kepada perkara di atas, bersama-sama ini dimajukan salinan surat kelulusan menjalankan penyelidikan serta ringkasan kos perbelanjaan bagi penyelidikan yang dijalankan oleh pensyarah dari Fakulti Sains Gunaan;

Tajuk Projek	:	**Air Quality Assessment Using Automated Gas Analyzer At Environmental Monitoring Station Of UiTM Shah Alam**
Ketua Projek	:	Encik Rusdin Laiman
Kos Yang diluluskan	:	RM 15,000.00
Jenis Geran	:	Geran Dalaman

Sekian, terima kasih.

Yang benar

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Tarikh : 27 Mei 2006

No. Fail Projek :

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Puan,

LAPORAN AKHIR PENYELIDIKAN 'PRELIMINARY ASSESSMENT OF AIR QUALITY USING AUTOMATED GAS ANALYSER AT ENVIRONMENTAL MONITORING STATION OF UITM SHAH ALAM

Merujuk kepada perkara di atas, bersama-sama ini disertakan 2 (dua) naskah Laporan Akhir Penyelidikan bertajuk 'Preliminary Air quality assessment using automated gas analyser at environmental monitoring station of UiTM Shah Alam' oleh kumpulan Penyelidik dari Fakulti Sains Gunaan untuk makluman pihak puan.

Sekian, terima kasih.

Yang benar,

RUSDIN LAIMAN

Ketua

Projek Penyelidikan

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ABSTRACT

Air quality problem is result of complex interaction between natural and anthropogenic environmental condition. Most of pollutant substances are naturally present in the atmosphere in low concentration at the beginning and it is usually considered to be harmless. It is when certain atmospheric pollutants present in the air exceed certain limit, the situation is considered hazardous to health or environment. A baseline study of air quality was conducted to assess temporal changes or trends of air quality from June 2005 to September 2005. In this study, air quality data was obtained from UiTM Environmental Monitoring Station (EMS) in Shah Alam where it provides monitoring data for CO_2, CO, SO_2, and combustible gases. The results from this study show that the highest concentration of CO_2 was demonstrated in July 2005 where the concentration was 316 ppm coinciding with the large traffic volume within that period recorded at the area of study. There was no change in concentration of SO_2 within four -month period of study, which remained at 0.10 ppm, which also exceeded the Malaysian Air Quality Guidelines recommendation. This result also indicates no additional pollution of SO_2 to what is already present during this month. The percentages of lowest explosive limit (LEL) of combustible gases shows increasing up and down trend from June 2005 to September 2005 with the maximum percentage of LEL recorded was 17.2 percent at the early of June 2005. In spite of a growing industrial activities within the outskirts of the study area, the area of study's air quality level did not deteriorate during the period covered by this study. The overall result of air quality indicated by the pollutants studies is a reflection of pollution distribution from secondary activities, which include industrialization, land development and clearing and traffic movement. The presence of air pollutants in ambient air at the area of study show industrial contribution of pollution as a result of the activities and the influence of wind direction and wind velocity in transporting and directing the pollutants.