

## **Variation of air pollutant (particulate matter - PM10) in peninsular Malaysia: Study in the southwest coast of peninsular Malaysia**

### **Abstract**

Particulate matter (PM10) received great attention due to its potential to cause adverse health effects. In this study, the variation of the long-term PM10 concentration from monitoring records in the southwest coast of peninsular Malaysia was analysed. Higher concentration of PM10 was detected in the southwest coast of peninsular Malaysia during the southwest monsoon. This is due to the low level winds that blow southerly or southwesterly during the summer period of peninsular Malaysia that associated with the long-range transportation of aerosol particles to Asian countries. The diurnal trend shows two peaks that can be observed in the morning at 9.00 a.m. and during evening starting at 10.00 p.m. The connection between PM10 concentration and meteorological factors such as ambient temperature, UVB, wind speed and humidity were also studied. The results show positive correlation of PM10 concentration with ambient temperature and negative correlation with humidity for most of the study areas.

### **Keywords**

Correlation coefficient; Meteorological factor; Peninsular Malaysia; PM10