

Visualising point source pollutant concentration level dispersion using the gaussian model

ABSTRACT

In this study, we examined the usage of the Gaussian air dispersion model to visualise point source pollutant concentration levels and implemented it in MASPLUME, a newly developed computer software which functioned as an estimation tool application for measuring the concentration level (at ground zero) of a selected pollutant dispersed from a single point source. The identified pollutants were carbon monoxide, nitrogen dioxide, and sulphur dioxide. MASPLUME was able to show a two-dimensional static air pollution dispersion and concentration level, as well as graphical data for different scenario analysis. Although MASPLUME is in its initial development stage as a comprehensive software, it would still be sufficient as a current teaching and learning aid.