

## **Investigation of PM<sub>10</sub> Based on Landsat 8 Over Urban Area and Correlated With Ground Measurement**

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### **Abstract:**

Bandung is a metropolitan city where air pollution affects human life. One of the most important air quality is PM<sub>10</sub>. This study aimed to investigate of PM<sub>10</sub> air pollutants and correlated with ground measurement. The concentration of PM<sub>10</sub> ground measurement was collected using sensor pocket PM and the calculated of PM<sub>10</sub> were using reflectance band of visible (red, green, blue) and near-infrared derived from Landsat 8. The estimated of PM<sub>10</sub> were also compared with ground measurement over an urban area in Bandung through land cover approach to find out the value of PM<sub>10</sub> in a different location, such as the area of vegetation, non-vegetation, built area, roads, etc. The data analysis indicated a linear relationship and having an average correlation coefficient of 0.8 in a different location over an urban area.

**Keywords:** PM<sub>10</sub>, Landsat, Ground Measurement, Urban Area.