

Volcanic activity monitoring using MODIS data

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There are many reports in natural disasters such as volcanic activity and earthquakes. To mitigate these disasters, monitoring of the crustal activity is very important. But it is difficult to monitor all volcanoes on the ground. On the other hand, satellite remote sensing on temperature anomaly is one of the most effective methods to monitor volcanic activity.

We use the MODIS sensor on board AQUA satellite. MODIS has 36 different bands. The band20 is able to measure surface temperature. Band31 and Band32 can use to remove the influence of clouds as a reference.

In this paper, we examine to extract possible temperature anomalies associated with volcanic activities at Mt. Merapi, Indonesia and Mt. Asama, Japan. Algorithm and result will be present in the presentation.