









- (3) The DN values received from shadowed regions decreases in the visible light from short to long wavelengths due to scattering.
- (4) The shadow area NIR of vegetation category also shows a strong reflection.
- (5) Vegetation index (NDVI) has the function to classify the vegetation and non-vegetation in the shadow area.

High radiometric resolution data can resolve the spectral characteristics of the shadow area. However, the study did not consider the effect of cast-shadow (umbra, penumbra) and self-shadow for the differences in the spectrum around the object, nor suggestions for further depth analysis. Future work may conduct shadow compensation by spectral characteristics of shadow, such as light scattering theory-based shadow compensation mode. Vegetation indexes have the function to classify the vegetation and non-vegetation in shadow area, which can estimate the ratio of green cover of shadow area and detect the landslide of shadow area, to improve mapping accuracy.

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