

## Application of merging UAV and satellite imagery for landslide disaster evaluation

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One of the most critical issues around the world is natural disaster and especially, Korea is one of such countries experiencing many natural disaster events such as landslide and flooding. Typically, landslides are evaluated after the event because the sign of landslide is very difficult to be detected in any method. In this case, the landslide evaluations after events have been conducted by remote sensing such as satellite images and aerial photographs. However, satellite images cannot be available right after the events and aerial photos need high budget to take pictures for small area. As an alternative, we employed very low price UAV for aerial photos taking after-event pictures and combined them with satellite images for before-event of landslide. The result after the processes of image lens correction, image stitching, georeferencing, resolution modification, merging, etc. provided a convenient tool to evaluate the actual size and volume of landslide for our study area, the Woomyun Mountain in Seoul.

