

Seawater Changes' Estimation at Tidal Flat in Korean Peninsula Using Drone Stereo Images

Authors : Hyoseong Lee, Duk-jin Kim, Jaehong Oh, Jungil Shin

Abstract : Tidal flat in Korean peninsula is one of the largest biodiversity tidal flats in the world. Therefore, digital elevation models (DEM) is continuously demanded to monitor of the tidal flat. In this study, DEM of tidal flat, according to different times, was produced by means of the Drone and commercial software in order to measure seawater change during high tide at water-channel in tidal flat. To correct the produced DEMs of the tidal flat where is inaccessible to collect control points, the DEM matching method was applied by using the reference DEM instead of the survey. After the ortho-image was made from the corrected DEM, the land cover classified image was produced. The changes of seawater amount according to the times were analyzed by using the classified images and DEMs. As a result, it was confirmed that the amount of water rapidly increased as the time passed during high tide.

Keywords : tidal flat, drone, DEM, seawater change

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