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**DETERMINATION OF MONTHLY CHANGES  
IN THE AKGOL WETLAND BY INDICES**

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Wetlands are one of the most important components of the ecological cycle and has consistently decreased because of drought and human activities. Satellite images are an important tool in determining the changes that occur in wetlands. Water surfaces and land use/cover around the wetlands can analyze with image processing techniques like indices and classification. Indices are used to detect a specific terrain feature (water, vegetation, etc.) in a short period. For detecting water area, there are multiple indices which uses different coefficients or bands of satellite imageries. In this study, to determine the area of the water Normalized Difference Water Index (NDWI), Modified Normalized Difference Water Index (MNDWI), Tasseled Cap Wetness (TCW), Automated water extraction index- with shadow (AWEIsh), Automated water extraction index- with no shadow (AWEInsh) are compared with classified image in terms of accuracy. Akgol Wetland in Konya Closed Basin which located in Central Anatolia of Turkey was chosen as a pilot region. Chosen indices were applied on Sentinel 2 satellite imageries for 16 months in order to determine the changes in Akgol Wetland. It has been seen that all of the indices have greater than 90% overall accuracy in accuracy assessment. It was also determined that NDWI, which used the green and NIR band, has the best result compared with classification.

**Keywords:** Wetland, Akgol, NDWI, MNDWI, Remote Sensing.

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