THE OHIO STATE UNIVERSITY

Environmental Science Graduate Program Student Seminar Series

Wetland Identification Using Remote Sensing Image and LiDAR Data

Wenxuan Zhao

October 30, 2020 | 2:00-3:00 PM

Zoom Meeting ID: 989 2470 8162

https://osu.zoom.us/j/98924708162?pwd=VFF1WWNwOGFGd2kzZWN3RXQ0Z09uQT09

Abstract

Wetlands play an integral role in the ecology of the watershed. They are known as “world’s kidney” because of their ability to store, assimilate, and transform contaminants lost from the land before they reach waterways. However, approximately 35 percent of the world's wetlands were lost between 1970-2015. With the development of technology and the availability of finer data, remote sensing has become one of the main tools for wetlands delineation. National Agriculture Imagery Program (NAIP) aerial image and the sentinel data are the most used remote sensing data in classification. The fine spatial resolution Light Detection and Ranging (LiDAR) data can be used to derive the digital elevation model (DEM). The DEMs can be used to generate the topographic wetness index (TWI), which is a good indicator of soil moisture distribution. The objectives of my research are reviewing the existing methods for wetlands delineation using remote sensing data and integrating topographic control into it to improve the accuracy of classification.