Applying Artificial Neural Networks and Remote Sensing to Estimate Chlorophyll-a Concentration in Water Body

陳莉,Tai-Sheng Wang,Chih-Hung Tan,Yu-Chu Tsai
Civil Engineering & Engineering Informatics
Engineering
lichen@chu.edu.tw

Abstract

The artificial neural networks (ANNs) were adopted to improve the monitoring capability of water quality in a reservoir using remote sensing images. Simultaneous measurement of chlorophyll-a concentration along the Feitsui Reservoir, the primary water supply of Taipei City, was conducted by ferryboat. Those ground measured values were used to calibrate empirical functions with multiple spectral parameters from Landsat 7 satellite images. The predictive capability of ANNs approach was evaluated and showed satisfied results.

Keyword：