

衛星影像應用遺傳運算樹研究翡翠水庫之濁度

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摘要

Because the typhoon and storm results in the turbidity increasing frequently, the water demand may not be supplied normally. Feitsui Reservoir of the case study is the major water source in Taipei area. In order to prevent the serious situation mentioned above, it is necessary to monitor the turbidity in long term. Therefore, remote sensing data is used to real time monitor the water quality in this study. A genetic algorithm combined with operation tree (GAOT) is presented to construct the relationship between imagery of satellite and in-situ turbidity. The result shows that the correlation coefficient is 0.8294 which indicates that this method is efficient to estimate the turbidity in reservoir.

關鍵字：Turbidity, Remote Sensing, Genetic Algorithm of Operation Tree