عنوان مقاله:

Detection and Diagnosis of Fire Areas in Golestan Forests Using Landsat Satellite Images

محل انتشار:

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خلاصه مقاله:

Fire is a major factor in the development of some plant communities, especially those exposed to lightning. Lightning is almost the main cause of natural fires in most plant communities. Fire is effective in the evolution of various species of forests, pastures, and shrubs in arid regions of the world's Mediterranean regions. Remote sensing and geographic information systems are appropriate in assessing the severity of burns. In this study, the intensity of the fire in Gorgan forests is evaluated and examined. The period of the study area was from ۲۰۱۳ to ۲۰۱۷ and Landsat ۸ satellite imagery was used. First, the fire points were identified within an area of ۵۰۰ meters by the IDW method. Then, by using NDVI, NBR, and dNBR indicators, fire points were evaluated and fire points were marked with red pixels which is clear in the two pictures before and after the fire. Finally, it was concluded that the NBR and dNBR index are the most accurate indicators with an accuracy of more than ۷۴%.

کلمات کلیدی:

Forest, Fire, NDVI index, NBR index, dNBR index, Regression