

عنوان مقاله:

Assessment of Remotely Sensed Indices to Estimate Soil Salinity

محل انتشار:

فصلنامه ی سنجش از دور راداری و نوری، دوره 1، شماره 2 (سال: 1397)

تعداد صفحات اصل مقاله: 12

نویسندگان:

naser Ahmadi Sani - *Assist. Prof., Faculty of Agriculture and Natural Resources, Mahabad Branch, Islamic Azad University, Mahabad, Iran*

mohammad khanyaghma - *MSc of Agroecology, Mahabad Branch, Islamic Azad University, Mahabad, Iran*

خلاصه مقاله:

Soil Salinization is one of the oldest environmental problems and one of the mainpaths to desertification. Access to information in the shortest time and at low cost isthe major factor influencing decision making. The satellite imagery providesinformation data on salinity and also offers large amount of data that can be analyzedand processed to understand several indices based on the type of the sensor used. Inthis research, the capability of different indices derived from IRS-P6 data wasevaluated to identify saline soils in Mahabad County. The quality of the satelliteimages was first evaluated and no noticeable radiometric and geometric distortion wassetected. The Ortho-rectification of the image was performed using the satellitethephemeris data, digital elevation model, and ground control points. The RMS errorwas less than a pixel. In this study, the correlation between the bands and used indices,including Salinity1, Salinity2, Salinity3, PCA1 (B2, B3), PCA1 (B4, B5), PCA1 (B1,B2, B3, B4, B5), Fusion (Pan and B2), Fusion (Pan and B3) and Fusion (Pan and B4)with EC were investigated. The highest correlation was related to the Fusion (Pan andB2) with a coefficient 0.76 and the lowest correlation was related to B4 with acoefficient 0.2. The results showed .that the indices have a high ability for modeling,mapping and estimating the soil salinity

کلمات کلیدی:

Indices, IRS-P6, Remote Sensing, Soil salinity

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1017923>

