

عنوان مقاله:

Application of Remote Sensing Techniques and GIS for Estimating the Runoff of Sikhuran Watershed

محل انتشار:

هفتمین سمپوزیوم بین المللی پیشرفتهای علوم و تکنولوژی (سال: 1391)

تعداد صفحات اصل مقاله: 12

نویسندگان:

Ahmad Nohegar - *Associated professor, Department of Natural resource Engineering. Hormozgan University*

Marzie Bodaghi - *Master of Science, Remote sensing and Geographical information system. Hormozgan University*

Alireza Kamali - *Master of Science, Remote sensing and Geographical information system. Shahid beheshti University*

Nasim Ghashghaee - *Master of Science, Watershed Management. Hormozgan University*

خلاصه مقاله:

Several experimental and indirect methods have been done for estimating runoff and maximum discharge of watersheds, with the Curve Number (SCS-CN) method being one of the most well-known method among the available methods. This method is used to predict the direct runoff volume for a single rainfall event. In recent years, application of GIS (Geographic Information System) and remote sensing for estimating the curve number of runoff has been increased dramatically. In this study, GIS and remote sensing have been used to determine the curve number of the runoff of Sikhuran watershed. Therefore, after creating soil, slope, geology maps and also field study, the map of hydrologic soil group, soil vegetation, and land cover (which was obtained through satellite images) was drawn. Therefore, the CN map was prepared by integrating the mentioned maps in GIS and using SCS table, and the process of formation of surface flow or runoff was determined by using this method. Therefore, HEC-HMS software was used for validation. The CN calibration by HEC-HMS model showed an appropriate consistency with the mentioned method.

کلمات کلیدی:

Runoff, SCS-CN Method, Remote Sensing, GIS, Sikhuran Watershed

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/205168>

