عنوان مقاله:

Investigation and simulation of groundwater level fluctuations in Hashtgerd plain using Bayesian network method with explicit approach

محل انتشار:

هشتمین کنفرانس بین المللی کشاورزی پایدار در محیط زیست، غذا، انرژی و صنعت (سال: 1396)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

Due to the lack of data acquisition and the complete observational data for the simulation of groundwater fluctuations compared to surface water, faced with many challenges. Accordingly, investigating the behavior of groundwater has many uncertainties. In this research, the Bayesian method was used with explicit approach to simulate the fluctuations of groundwater of Hashtgerd plain and its alluvial aquifer. After calibrating and validating, it was found that this method has a fairly suitable accuracy. The results of explicit structure showed that the relationship between input andoutput variables, as well as the relationship between temperature and evaporation and withdrawal from groundwater and rainfall at the level of 21 piezometers, were limited and the final results from the simulation indicated a coefficient of determination 0.84 in the explicit method was between observational data and simulation data. Finally, modeling was performed by entering the data in the Bayesian network and the results indicated that the Bayesian network accurately simulated the groundwater level.

کلمات کلیدی:

Underground water fluctuations, Bayesian network, explicit method, Hashtgerd plain.)