

Annual Water Level Simulation Using Support Vector Machine

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Abstract : In this paper, by application of the input yearly data of rainfall, temperature and flow to the Urmia Lake, the simulation of water level fluctuation were applied by means of three models. According to the climate change investigation the fluctuation of lakes water level are of high interest. This study investigate data-driven models, support vector machines (SVM), SVM method which is a new regression procedure in water resources are applied to the yearly level data of Lake Urmia that is the biggest and the hyper saline lake in Iran. The evaluated lake levels are found to be in good correlation with the observed values. The results of SVM simulation show better accuracy and implementation. The mean square errors, mean absolute relative errors and determination coefficient statistics are used as comparison criteria.

Keywords : simulation, water level fluctuation, urmia lake, support vector machine

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