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## 1 Application of ANN for reservoir inflow forecasting using snowmelt equivalent in the Karaj River watershed

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Three different methods were used to predict the spring inflow into the Amir Kabir reservoir, which is located near Tehran, Iran. The spring inflow accounts for almost 60 percent of annual inflow to the reservoir. Utilizing the results of an artificial neural network (ANN) model, the inflow to Amir Kabir reservoir is predicted. It will be compared with two other methods: ARIMA time series and regression analysis between some hydroclimatological data and inflow. Using the thirty years of observed data proved that the ANN has a better performance than that the other methods have.