Identification of monthly and annual mean temperature trends of Gavkhoni catchment over the past half-century

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Abstract

This study has been investigated to identify the changes in average temperature over the past half-century in Gavkhoni catchment. IN this regard, the data of average temperature from 8 synoptic and climatology stations in the basin was used during the period 1961-2010, and the monthly and annual scale. First was performed normal and homogeneity tests data by Anderson - Darling. Then for analysis of abnormal data Mann- Kendall test was selected. The changes are minor and short- term graphics test Mann – Kendal was used. At the end, Arc Gis software processes obtained by zoning and analyzed. The results of this study make it clear that an increasing trend during the warmer months of the year more and is in more areas of the basin. This trends has been observed in all areas of East, Central part, south and West Basin to some extent. Decreasing trends have occurred only in Meimeh and shahreza Stations. This trend observed so slower during the cold months and till December, the entire area encompasses. Random variations in the results of the randomized incremental changes in station and amplitude of Frieden and Esfahan accidental cuts and changes in Meimeh stations than other stations occurred.

Key Words: Mann kendall test, Catchment Gavkhoni, Trend, Mean temperature