View article

Binod Regmi

Edit Delete

A dynamic linear model of monthly minimum and maximum temperature changes in three physiographic regions of the Central Himalayas

Authors	B Regmi, S Lamichhane
Publication date	2019/10
Journal	Climate Research
Volume	79
Pages	1-8
Publisher	Inter Research
Description	Robust statistical techniques are required to estimate the trend in meteorological data, where data are available only for a limited period with too many missing observations. We examined the application of a dynamic linear model (DLM) for estimating changes in time series meteorological data. For this purpose, we used maximum and minimum monthly temperatures recorded over 36 yr at 6 meteorological stations representing 3 physiographic regions in the Central Himalayas. Temperature changes over time may be influenced by hidden processes, such as seasonality. To elucidate such processes, we estimated a Fourier-form seasonal model with 12 seasons with 2 harmonics. The DLM model fit was evaluated based on the distribution of standardized residuals and the p-value of Ljung-Box statistics. We reported the level of temperature change from 1980 to 2015. The DLM results were compared with more …
Total citations	Cited by 2

2021

Scholar articles
A dynamic linear model of monthly minimum and maximum temperature changes in three physiographic regions of the Central Himalayas
B Regmi, S Lamichhane - Climate Research, 2019
Cited by 2 Related articles All 2 versions