

# Trend and Variability Detection of Monthly, Seasonal and Annual Precipitation and Temperature in Srinagar, J & K

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**Abstract**—*The climate is a fairly dynamic kind of thing and is ever changing. In every part of the world one year, one decade, one century differs from another. Climate variability refers to the way climate fluctuates yearly above or below a long term average value. It is an established fact that all living species thrive best under definite and limited conditions of various climatic elements. Any great deviation from the normal values means death and destruction for the species.*

*The study of variability is, therefore, necessary to make an important societal decision. The data also serve as a baseline against which to compare current weather and climate data and its assessment provides an indication of climate change. Variations in climate parameters are generally attributed to natural causes. However, because of changes in the earth's climate since the pre-industrial era, some of these changes are now considered relating to human activities.*

*In this paper, an attempt has been made to detect trend and variability of climate (temperature and rainfall) for more than 100 years in Srinagar district of Jammu and Kashmir state using advanced statistical tools and techniques. The study shows that there exists a significant increasing trend of precipitation and the average temperature for most of the cases thus representing climate change an evident fact.*

**Keywords:** *Climate, Variability, Trend, Climate Change.*