Abstract

The sub basins of a river are not hydrologically homogeneous, because of their location, drainage pattern, precipitation and other characteristics. The present study is a new approach for developing relationships between different hydrological parameters such as cloud cover, potential evapotranspiration (PET), Reference Crop Evapotranspiration (RCET), vapor
pressure, temperature, precipitation and discharge of different sub basins. The study considers
the application of association rules of data mining for 8 sub basins of a river in south India. An
attempt is also made to check whether the developed association rules in the data hyperspace
have any physical meaning or not. The generated association rules indicate there is
hydrological homogeneity between some sub basins while others are hydrologically
heterogeneous.

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Index Terms

Computer Science

Data Mining

Key words

Cloud cover

Potential Evapotranspiration (PET)
Reference Crop Evapotranspiration (RCET)

Vapor Pressure

Temperature

Precipitation

Discharge