

## A review on theoretical consideration and types of models in hydrology

### Abstract

The conception of modeling in hydrology is involved with relationships of water, climate, soil and land use. Moreover, hydrological models include temporal and spatial features. Behavior of each feature controlled by its own and therefore it makes a vast variety for types of hydrological models. Hydrological models are the main tools for hydrologists with different purposes to use such as water resource management, ground water modeling, urban and rural watershed management and so on. Many hydrological models have been developed and refined during the past four decades and it is required to fully understand their characteristics to effortlessly employ them. Therefore, hydrologists need to familiarize themselves with the classification of hydrological models and understand the theoretical definition behind them. However, in regard to this issue, only a few discrete studies had been done. Classification of hydrological models is not exact and different hydrologist may give different definitions. The reason is that the nature of models is often the same but many models have overlapping characteristics. Thus, this study was aimed at showing the dominant classifications for hydrological models alongside the different views from past to present but generally, they have common meaning even though they may be classified under different categories. In addition, although there are overlapping features in different hydrological models, their nature is not that hard to understand.