

IDF curves development in Soumaa and Mouzaia downtown area

This study aims to model intensity-duration-frequency curves in the stations of Soumâa and Mouzaia located in the Mitidja Plain where the terrain is almost flat, and the station of Oued Zeboudj where the altitudes are not very high.

The presence of short rainfall series "for each time step" in Mouzaia and Soumâa pushes us to apply the frequency analysis on the basis of the series of partial durations "or higher threshold" which has an advantage in relation to the series of annual maxima if the latter have several missing data.

Four models will be used for the development of IDF curves for these three stations, namely the model of Talbo "two-and three-parameter", the model of Montana, and the model of Kheifer Chu.

A comparative study is needed to choose the best model which has the minimum errors compared to the actual intensities.

In the end, we will present the generalized formulas of IDF curves for these three stations.