

Hydrological Modeling of Watersheds Using the Only Corresponding Competitor Method: The Case of M'Zab Basin, South East Algeria

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Abstract : Water resources management includes several disciplines; the modeling of rainfall-runoff relationship is the most important discipline to prevent natural risks. There are several models to study rainfall-runoff relationship in watersheds. However, the majority of these models are not applicable in all basins of the world. In this study, a new stochastic method called The Only Corresponding Competitor method (OCC) was used for the hydrological modeling of M'ZAB Watershed (South East of Algeria) to adapt a few empirical models for any hydrological regime. The results obtained allow to authorize a certain number of visions, in which it would be interesting to experiment with hydrological models that improve collectively or separately the data of a catchment by the OCC method.

Keywords : modelling, optimization, rainfall-runoff relationship, empirical model, OCC

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