



Development of a sensitivity coefficient for the consideration of relative importance of the parameters in an evapotranspiration model

Ampas Vasilios and Baltas Evangelos

Prefecture of Florina, Soil-Water Resources, Florina, Greece (ambasv@gmail.com)

In this paper, a dimensionless sensitivity coefficient is developed, based on the partial derivative and using the standard deviation of the independent parameter.

This sensitivity coefficient is used to evaluate the influence of the meteorological variables on the estimation of the reference evapotranspiration. The values of sensitivity coefficients give the relative importance of the meteorological variables. The meteorological variables that had been examined were temperature, solar radiation, wind speed and relative humidity. The sensitivity coefficients were calculated monthly, annually and for the irrigation period. The influence of the variables to evapotranspiration varies for each parameter and each period.