E-learning course – REFRAN-CV

REFRAN-CV is a software to process time series of data from ground meteorological stations (precipitation or temperature data), in order to generate spatially-explicit products (return period maps) based on the L-moments statistics. This tool and the associated products at local and regional scale can be used in the development planning process and, concretely, to prepare investment in multi-purpose (irrigation, flood and drought prevention, environment protection) hydraulic infrastructure. L-moments statistics are used to estimate the probability distribution function of precipitation data. The L-moments have the advantage of being less susceptible to the presence of outliers and performing better with smaller sample sizes. This is of particular interest in the case of datasets where the time series lengths are heterogeneous as this is usually the case in developing countries.

REFRAN-CV is an open-source application, developed with European Union funding, and is free of charge.

Structure of the e-learning course

The e-leaning course is structure as follows:

- Doc_0 This introduction to the course
- Doc_1 A theoretical presentation on the L-moments statistics (this is optional)
- Doc_2 A presentation on how to use REFRAN-CV
- Doc_3 A detailed manual for reference
- 2 video tutorials including:
    1. How to install the software
    2. The use of the REFRAN-CV software for a case study in Venezuela