



Stage

Proposed by Laboratoire National d'Hydraulique et d'Environnement (LNHE),
EDF R&D

Title

Hydrological Modeling of Spanish Watershed for the estimation of Hydraulic productible

Objective

EDF is one of the most important hydro-electricity producer in Europe. The prediction of the hydro-electricity potential in the entire continent is an important goal. The hydroelectricity potential of a given region is evaluated through the hydraulic productible. LNHE has been involved since several years on research activities on this task. A stage on this topic is thus proposed.

The objective of the Stage is to build hydrological models for some significant Watersheds in Spain and to use these models to simulate the Hydraulic productible of the region.

Available data on Spanish hydroelectricity production and Spanish Hydrology were previously collected. During the stage the database will be completed and organized. The most significant (in term of hydroelectricity production) watershed in Spain will be identified. Then CEQUEAU distributed hydrological model will be used, together with possible application of a lumped hydrological MORDOR, to model their hydrological behaviour. The Hydrological model will be fed with rainfall data from rain gauges and with re-analysed rainfall data from ERA40 and/or NCEP meteorological datasets. Particular attention will be paid to mountains watershed.

Candidate with knowledge in hydrology and informatics skills will be appreciated. Some knowledge of Spanish language will be also appreciated.

Contact

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Starting from: January to March 2010

Location: Laboratoire National d'Hydraulique et d'Environnement, EDF R&D, Chatou (Paris agglomeration)