Development of a virtual tool for learning in Rural Engineering Projects

E.V. Taguas (1), C. Aguilar (2), C. Castillo (1), M.J. Polo (2), and R. Pérez (1)

(1) University of Cordoba, Rural Engineering Department, Campus Rabanales, Córdoba (Spain). Phone: +34 957 21 22 22. E-mail: evtaguas@uco.es. (2) University of Cordoba, Hydraulic Engineering Department, Campus Rabanales, Córdoba (Spain). Phone: +34 957 21 26 62. E-mail: caguilar@uco.es

Abstract.

It is difficult for students to acquire training and experience in Engineering Project Management through the conventional teaching systems. This work presents telematic training in the steps to follow in a typical engineering project: designing an agro-industrial building. The aims of these tools are 1) to identify the most important contents of a project document (calculates, norms, views and economic budgets); 2) to decide which activities will make up the project as well as their relationships and schedule. These aspects are essential knowledge for students in Engineering Project Management in order for them to become acquainted with the equipment, its temporal configuration, principal parts and limitations.

In the first stage, the student can study a virtual, interactive example, where the views of building, its measurements, the cost of its components and the steps of the building process are all presented. In the second stage, a practical case is presented with different calculations and a questionnaire so that the students can acquire knowledge and evaluate it.

This is the beginning of a set of presentations on virtual engineering which provide practical knowledge about the equipment and steps to take in the most realistic conditions as possible, thus greatly encouraging learning and the student’s contact with the engineering labour market.