



## **Innovative teaching: Use of Screencast in the Agronomist Engineer High School of the UPM**

Maria Angeles Mediola, Pedro Luis Aguado, and Rafael Espejo  
U Politécnica Madrid, ETSI Agrónomos, Spain

In the last academic courses, the Polytechnic University of Madrid (UPM) has supported the use of multimedia materials and methods in education and learning processes to improve the efficiency and impact obtained by faculty and students. With this aim during 2011-2012 course the multimedia method titled "Screencast" has been implemented in the subject "Plantas de Interés Agroalimentario" included in the curricula of the Agronomist Engineer High School. Next year will be apply in the subject "Soil Science" in the new degree.

The Screencast tools allow record digital videos with sound directly into a computer so lecture and class can be recorded directly. The videos can be edited after including narrations, special effects as zoom, notes, images, etc. Screencast tools are simple use tools which are easy made tutorials, manuals, presentations and shows that help to students with different processes that are very hard to understand for students (1) (2).

There are different Screencast tools in the market and after an evaluation process the most suitable for our need has been BB FlashBack Express (3) because is easy use, free and compatible with WEBCAM. This software allows export to Flash and AVI video formats. In our case the format chosen was the Flash format because the file sizes obtained were smaller than in AVI format. The use of BB FlashBack Express of the studied subject allowed make easy self-learning multimedia material and testing different methodologies and procedures for the use of this multimedia source in Internet. The BB FlashBack Express software was used during the course by teachers and students of this subject achieving a good improvement in the education and learning processes.

The evaluation of the results obtained in the application of this method had shown that ability of students to use new technologies and spread their ideas has been increased as much into as outside classrooms. The materials made in this work had been joined to different learning platforms of the UPM as UPM Educational Channel in YouTube and others video-conference applications developed by UPM. There is possible to export the recorded material to SCORM format which can be included in Moodle (Learning Virtual Environment) and be used by students when they needed it.

### **Bibliography:**

[1] Lloyd, S., Robertson, C. (2012). Screencast Tutorials Enhance Student Learning of Statistics. *Journal of Teaching and Psychology*. January 2012. vol. 39 (1). pp. 67-71.