

ICNIRS now has a skeleton structure in Moodle for an International Virtual Platform for Teaching and Learning Near Infrared Spectroscopy

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The International Virtual Platform for Teaching and Learning Near Infrared Spectroscopy (IVPTL-NIRS) is a cooperative online educational project launched by the International Council of Near Infrared Spectroscopy (ICNIRS) and the University of Córdoba (UCO), Spain. Last January, the MSc Student Jose M^a Vacas (Figure 1), from the University of Córdoba submitted his MSc Thesis entitled *Design and Implementation in Moodle of an International Virtual Platform for Teaching and Learning Near Infrared Spectroscopy*. We would like to thank Jose M^a for his contribution to the launching of the ICNIRS educational project.

The NIR community has demonstrated that social co-operative learning is possible and has benefits for all the participants (instrument sellers, industry, academia...). The principles of "learning by doing and learning from each other" have been a common practice among NIR practitioners from the early stages of NIR development. The IVPTL-NIRS project is based in the concept of constructive learning using a classroom without walls, in which students and educators have the flexibility to connect with their classes 24 hours a day, 7 days a week. Hundreds of NIR scientists and professionals, from all over the world, are willing to contribute to this on-line educational project. A distinctive feature of the project will be that the educational materials for courses will be elaborated jointly by "senior" and "junior" NIR experts ensuring that teaching methods are adapted to a highly interactive and virtual learning environment.

NIR technology is a multidisciplinary science which has not been, for the most part, taught in universities or in research institutes. We now have some skeleton structure in Moodle (Figure 2) that we can begin to flesh-out with some material content. The recent huge increases in student university tuition fees make our VLE activities even more important and perhaps even

more attractive as a way of providing student education at a reasonable cost to all concerned. The opportunities now exist for web-based tuition to take off in a manner that will transform the "virtual" into a "reality". Many aspects will need to be decided and guidance from everyone will be welcome. The University of Córdoba through the Agrifood Campus of International Excellence (ceiA3) is supporting the ICNIRS project and an agreement was reached last week, with the Campus coordinators, to include the ICNIRS project as one of the specific actions of the 2011 ceiA3 activities programme which will be submitted to the next call for funding of the Spanish Ministry of Education and the Ministry of Science and Innovation. We hope that other Universities, Research Centres and companies find their own ways of collaborating with this ICNIRS Educational Project.

A meeting of members of the Education Group (Ian Murray, Pierre Dardenne, Gerry



Figure 1. Jose M^a Vacas.

Downey, Ana Garrido-Varo and Dolores Pérez-Marín) will be held in Córdoba, next April, before NIR-2011 to discuss the status of the project and options for its full realisation. Professor Ana Garrido-Varo and Eduardo Zamora (PhD student from the University of Córdoba) will provide further information about the International Virtual Platform for Teaching and Learning Near Infrared Spectroscopy during NIR-2011.

Figure 2. The IVPTL-NIRS Moodle application.