Projects and Products Portal for Leonardo da Vinci

ProCyCo – The Production CyberCollege

LLP-LdV/TOI/2007/SE/1599

http://www.adam-europe.eu/adam/project/view.htm?prj=4077

Projektinformationen

Titel:	ProCyCo – The Production CyberCollege
Projektnummer:	LLP-LdV/TOI/2007/SE/1599
Jahr:	2007
Projekttyp:	Innovationstransfer
Status:	abgeschlossen
Land:	SE-Schweden
Marketing Text:	The main goal of the project is to improve the quality of teaching and training in production engineering through international cooperation and by innovative ICT-based e-learning methods like the CyberLab method. The main goal of the project is to improve the quality of teaching and training in production engineering through international cooperation and by innovative ICT-based e-learning methods like the CyberLab method.
Zusammenfassung:	ICT-methods open for higher education large potential for improving the quality and efficiency of learning compared to today's traditional classroom, exercise and laboratory learning. Today higher education is limited to the regional teacher and laboratory resources. The Production CyberCollege addresses undergraduate and industrial teaching in production engineering, where advanced ICT-learning methods can enable efficient sharing of teacher and equipment resources across Europe. This can cause a significant improvement of skills and in turn of industrial competitiveness in manufacturing. During the projects EuroLaser Academy and CyberLab highly promising partial solutions were developed and successfully demonstrated. ProCyCo aims at ideally combining the two approaches to a powerful and mature concept. Gradual implementation shall lead to sustainable use and further development and extension. For laser materials processing as the demonstrator core subject, a pool of resources of teachers, videos and lab-equipment along with a tailored ICT-infrastructure will be established. This is ought to enable the development of advanced course styles of highest quality, optimally tailored to the pedagogical and content needs of the students and of the respective local education system. This nucleus is thought to initiate an inherent dynamics in extending the method to production engineering education as a broader subject. The main results of the Production CyberCollege will be an ICT-based environment of pooling of resources, highly advanced ICT-based courses, and an initiation of extending the method with respect to subject and users. Such broad use can in turn lead to a strong impact on the skills of production engineers and in turn to an increase in competitiveness of the European manufacturing industry. The approach is highly suitable for transfer to other disciplines, in particular as it is a low cost approach easy to get started with. While former projects already have created well operating sustainable networks, the ProCyCo partnership aims at establishing an additional core group of highest quality as the nucleus for cluster cooperation with the other networks. The consortium is composed of the laser materials processing groups of the universities of Luleå, Cambridge and Stuttgart and of the research institute at Paris. They are all counted to the world leaders in the subject in a complementary manner and are connected to higher education in production engineering. In addition, a relevant manufacturing SME represents the industrial needs. ICT-methods open for higher education large potential for improving the quality and efficiency of learning compared to today's traditional classroom, exercise and laboratory learning. Today higher education is limited to the regional teacher and laboratory resources. The Production CyberCollege addresses undergraduate and industrial teaching in production engineering, where advanced ICT-learning methods can enable efficient sharing of teacher and equipment resources across Europe. This can cause a significant improvement of skills and in turn of industrial competitiveness in manufacturing. During the projects EuroLaser Academy and CyberLab highly promising partial solutions were developed and successfully demonstrated. ProCyCo aims at ideally combining the two approaches to a powerful

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Beschreibung:

Themen: *** Hochschulbildung
*** Fernlehre

Sektoren: *** Erbringung von Freiberuflichen, Wissenschaftlichen und Technischen Dienstleistungen

Produkt Typen: Lehrmaterial
Fernlehre
Homepage

Produktinformation:

Projektwebseite: http://www.cyberlab.se

Vertragnehmer

Name:	Luleå University of Technology
Stadt:	Luleå
Land/Region:	Övre Norrland
Land:	SE-Schweden
Organisationstyp:	Universität/Fachhochschule/Akademie
Homepage:	http://www.ltu.se

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Koordinator

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Kontaktperson

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Telefon:	++46 920 491733
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Homepage:	http://www.ltu.se/tfm/produktion

Partner

Partner 1

Name: Paris LALP
Stadt: Paris
Land/Region: Ile De France
Land: FR-Frankreich
Organisationstyp: Forschungseinrichtung
Homepage: http://www.lalp.cnrs.fr

Partner 2

Name: Laser Expertise Ltd.
Stadt: Nottingham
Land/Region: Derbyshire, Nottinghamshire
Land: UK-Vereinigtes Königreich
Organisationstyp: Universität/Fachhochschule/Akademie
Homepage: http://www.laserexp.co.uk

Partner 3

Name: University of Stuttgart
Stadt: Stuttgart
Land/Region: Stuttgart
Land: DE-Deutschland
Organisationstyp: Universität/Fachhochschule/Akademie
Homepage: http://www.ifsw.uni-stuttgart.de

Partner 4

Name: University of Cambridge
Stadt: Cambridge
Land/Region: East Anglia
Land: UK-Vereinigtes Königreich
Organisationstyp: Universität/Fachhochschule/Akademie
Homepage: http://www.cam.ac.uk/

Produkte

1 ProCyCo web page

Produkt 'ProCyCo web page'

Titel: ProCyCo web page

Produkttyp: Homepage

Marketing Text:

Beschreibung: A web page where project information is published or shared was created at www.cyberlab.se. Beside public information all documentation like minutes from meetings, agendas, partner project presentations etc. is stored in a member area and it can be accessed through a login name and password.

Zielgruppe: STD-ADL Adult learners
TCH-TCH Teachers
ISCO-122 Productions and operation managers
ISCO-23 Teaching professionals

Resultat: The partners have purchased the audiovisual equipment they require for providing distance lab training in both directions and video conference between the partners and students.

A web based resource pooling of teaching material and file labelling system have been developed. Each partner have uploaded their best video and animation clips, but also teaching videos – all freely accessible for all partners in the teaching network. The system is prepared for use outside the partner consortium and the upload of files will continue after the project ends.

The Adobe Connect pro web conference system was chosen to be the project CyberCafé solution. The program fulfils the demands of easiness and the nearly non existent problems with firewalls that were a big problem with other solutions tested. Several project meetings, lectures and presentations have been performed with the platform and it has been working exceptional well. The CyberCafé solution has also been tested with very good results during a 2 week period when Alexander Kaplan visited Universities and factories in Japan and China. During the travel that was related to manufacturing engineering Alexander had the opportunity to present the ProCyco project. There were high interest in the exchange of information between Europe and these countries in the way that was done in the ProCyCo project.

Each partner has developed a demo lecture and two of them have already been used in an undergraduate course “T0018T Laser Materials Processing” at Luleå University of Technology through the CyberCafé solution. Alexander held a lecture in “Laser Theory and Optics” with interactive tools and the lecture were also broadcasted to students in Cambridge, Stuttgart and Paris. Bill O´Neill held a lecture regarding “High Efficiency Gas-Assisted Cutting (HEGAC) using optimised next generation fibre lasers” and it was broadcasted to the lecture studio in Luleå and the other partner studios. Staff members, PhD students, undergraduate students and even people from industry were attending the presentations.

The CyberCafé has also been used to present the latest research in laser processing by an open presentation to all partners made by Peter Berger with the title “Controlling the weld seem by magnetically devices”. These activities by presenting research information that can be used in teaching between the partners have been so successful that it will continue after the project ends.

Anwendungsbereich:

Homepage: http://www.cyberlab.se/

Produktsprachen: Englisch