

Project development

As part of their reports, all partners started to prepare contact databases with national bodies/authorities, universities, VET schools and centres, professional organisation/ association, other relevant educational institutions, & enterprises. The contact details of stakeholders and target groups will be used within the framework of several working packages: WP3, WP5, WP6 and WP7.

Activities have been implemented through full analysis of existing best practice in teaching/training courses on footwear computer aided design among other European projects, initiatives and learning providers.

The findings of national reports will be transformed in a complete description of the user profile in terms of skills and competencies to be acquired by VET professionals in order to perform teaching/training activities in footwear computer aided design.

Next meeting will take place in Iasi, Romania, on 6th-7th May 2014.

Upcoming Events

• The 15-th Romanian Textile and Leather Conference - CORTEP'2014

The Conference focuses on the latest advances in textiles and leather and the multidisciplinary aspect of the textiles & leather fields. It will take place at Poiana Brasov, Romania, on 4-6 September 2014. <http://www.cortep.tuiasi.ro/>



• The 5th International Conference on Advanced Materials and Systems ICAMS 2014

Will take place in Bucharest, Romania, on **October 23-25, 2014**. The attendees will discuss issues of smart and functional materials and biomaterials, systems and technologies, including new processing methods, and innovative applications. <http://www.icams.ro/>



• The ANQUE-ICCE-BIOTEC 2014 Congresses

On 1st-4th July 2014, Madrid will be holding an unprecedented Event, as ANQUE and SEBIOT join their efforts to organise The ANQUE · ICCE · BIOTEC 2014 Congresses on Chemistry, Chemical Engineering and Biotechnology, a meeting point of scientific and technological new trends in "Science, the key for a better life".



Contact:

Gheorghe Asachi Technical University of Iasi
B-dul D. Mangeron No.29, 700050, Iasi, Romania

Tel: +40 232 278 683/1267

<http://www.tex.tuiasi.ro/>
Email: amihai@tex.tuiasi.ro



This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

ISSUE
01
MARCH
2014

Creative Transfer of Competence in 3D Footwear CAD to VET Professionals



Project development

The first meeting of INGA 3D project took place in Elda, Spain, on the 4th and 5th December 2013, organized by partner INESCOP.

During these first months of the project partners have been working on the definition of peer learning scenarios for topics related to footwear computer aided design (WP3).

The main functionalities and modules of the Icad 3D+ software have been presented in Elda meeting by partner RED 21. A video is available on partner's site <http://www.red21.es/en/home/> for being further studied by all partners.

Partners INESCOP and RED 21 (donors of innovation) started to perform the analysis of the best practices that they experienced with Icad 3D+



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Introduction to INGA 3D

All over Europe, one critical problem of VET study programs is the gap between the level of technical knowledge and professional skills that the learners acquire through the process of learning in VET schools and the required competencies asked by employers.

There is lack of tangible outcomes on footwear computer aided design ready to be transformed into training tools that incorporate high quality pedagogic approach and methodology.

The process of learning is becoming very difficult if the teacher / trainer does not understand this complexity and if he/she is not able to transform this complexity into learning procedures and tools based on pedagogical and methodological approaches oriented to the learner needs for learning.

The INGA 3D project aims to transfer and extend innovative software solutions and 3D technologies for computer-aided footwear design. This will be achieved through four complementary activities:

- by transferring the innovation from Spain to other countries, namely Romania, Portugal, and UK;
- by developing skills and competencies in 3D footwear computer-aided design in VET professionals (teachers, trainers and tutors) so that they can teach ICT based technical courses that support creativity and innovation among their own VET students/trainees;
- by developing new training content and supportive e-learning tools based on units of learning outcomes and competencies. This will ensure effective assessment, evaluation and validation;
- by setting up an Online Learning Platform.

<http://inga3d.eu/>

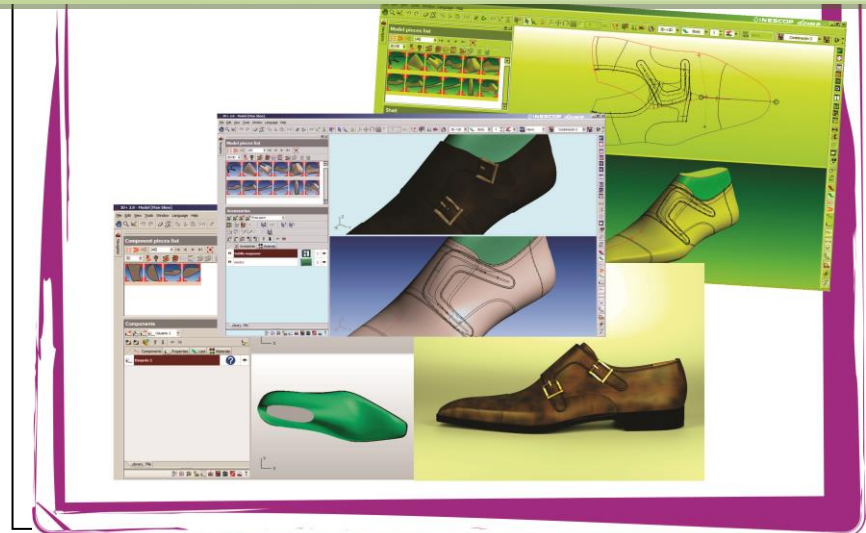
The new Erasmus+ programme aims to support actions in the fields of Education, Training, Youth and Sport for the period 2014-2020.

Erasmus+ replaces seven programmes bringing together

- the Lifelong Learning Programme (Erasmus, Leonardo da Vinci, Comenius and Grundtvig)
- the Youth in Action programme
- five international cooperation programmes (Erasmus Mundus, Tempus, Alfa, Edulink, the programme for cooperation with industrialised countries)
- the new sport action.



Source:
http://eacea.ec.europa.eu/erasmus-plus_en
http://ec.europa.eu/programmes/erasmus-plus/index_en.htm



The rationale...

Icad 3D+ software - basis for INGA 3D project

The Icad 3D+ system is based on INESCOP's own Technologies which has been developed over the years, partially with the support of European and national funding, in particular:

- CEC-MADE-SHOE project (FP VI): it permitted to develop all the elements related to accurate flattening from 3D last to 2D pieces, in order to guarantee a perfect fitting.
- SSHOES project (FP VII): it has permitted to develop specific modules for customized products, in particular for the last sector, providing an engineering framework which makes possible to get data from patients and to run a digital procedure from data to the final shoe, including its components.
- FIT4U project -FP VII: it has focused efforts in developing 3D design solutions for insole design in an integrated way with other footwear elements and its manufacturing.
- FOOTMORPHING project - national R&D program: it has concentrated efforts in the field of getting measuring solutions to compare digital foot with digital last and obtaining criteria for its modification in order to ensure good fitting.

The latest 3 D technologies and the newest commercial version of the software to be transferred have been developed by P1 - INESCOP and P5- RED 21, within the framework of another FP 7 research project, titled

IDEAfoot - Innovative design and manufacturing systems for small series production for European footwear companies.

Apart from the research projects which support the 3D technologies included in Icad 3D+ software product which are going to be transferred in the framework of this proposal, INESCOP dedicates own resources to the development and transfer of the 3D Technologies to the footwear and components sectors as well as to educational schemes for the benefit of future professionals which need to be trained in the 3D design of footwear. Thus INESCOP will share good practices for straightening the link between the project target group - VET professionals- and the real working life from footwear companies.

This footwear CAD method gives an immediate feedback both to teacher/trainer and to student/trainee, mainly because of the 3D technology for visualizing the footwear prototypes in a virtual space which is incorporated into the transferred product.

Based on the hereby-transferred 3D technology and software solution, the knowledge and the skills for developing patterns and footwear prototypes will be transmitted by VET teachers and trainers to their students and trainees in a dynamic and effective way.

It will stimulate creative thinking among VET students and trainees, and it will increase attractiveness of VET study/training programs.

The Icad 3D+ software has a user manual but this is not user friendly for VET professionals in terms of units' structure, pedagogy and didactic methodologies. Also, demonstrations and multimedia supportive material is missing.

The Icad 3D+ software will be installed on computers in the receiver partners' training facilities; initial training sessions will be supported by partners P1 and P5 to partners' staff.

The entire partnership will work to produce, test and evaluate new results:

- 3D Footwear Computer Aided Design - Handbook: the new training content will be designed in an effective educational approach to modules/units of learning and competence.
- 3D Footwear Computer Aided Design - Guide for VET teachers, trainers and tutors: multimedia supportive tool.
- Online Learning Platform

Find out more about ICAD 3D+ at: <http://www.red21.es/en/home/>



The "Gheorghe Asachi" Technical University of Iasi has been recently classified as university of advanced research and education according with the Ministry Order MECTS no.5262/2011, and it is accredited by the National Agency for Scientific Research as being a component institution of the national research and development system (ANCS decision no.9708/ 29.07.2009). In 2009 TUIASI has been awarded with the highly trusted level certificate by the Romanian Agency for Quality Assurance in Higher Education (ARACIS).

The "Gheorghe Asachi" Technical University of Iasi has undergraduate, graduate, doctoral and postdoctoral study programs, as well as scientific research units within 14 domains of research, 10 of them being classified as A category, according with the Education Law no. 1/2011 and with the governmental decision HG.789/2011.

The Faculty of Textiles, Leather and Industrial Management Engineering within university is known at European and national level for its high quality study programs in textile, knitting, chemical finishing, clothing, leather, footwear and management.

The faculty's study programs are bringing together all Bologna levels – undergraduate, master and doctoral. The faculty has the only one certified doctoral study program (included into industrial engineering domain) for textile, clothing and footwear from Romania. Also, the faculty is offering technological transfer, research, consultancy, and training support to Romanian companies. The faculty has strong connection with the industry, and over the years it has created an effective networking between university and business community. Also, the faculty is offering national assessment exams and courses for teachers/tutors from footwear and textile industry.

Find out more at:

<http://www.tex.tuiasi.ro/>



Virtual Campus is a consulting and development company in the areas of Information Systems and Technology Enhanced Learning.

Virtual Campus staff form a multidisciplinary team with academic background in areas such as: Education, Psychology, Engineering, Management and Information Systems.

Staff experience includes participation and coordination of projects financed by National and European programmes like ESF, LEONARDO, SOCRATES, IST, EQUAL. Virtual Campus also has close links with external consultants for other specific areas of expertise. Located in Porto, North Portugal, Virtual Campus has strong relations with various Universities and Companies in the region and has successfully partnered with Local and Regional Authorities, enterprise associations and specialized companies.

Our vision is to actively promote the development of the Knowledge Society by supporting public and private entities in the process of designing and developing strategies and projects that lead to increased societal benefits.

Find out more at:

<http://virtual-campus.eu/>



Project Partners

Universitatea Tehnica Gheorghe Asachi Iasi
 B-dul Prof.D. Mangeron, 67
 70050 Iasi
 ROMANIA

INESCOP-Instituto Tecnológico del Calzado, Polígono Industrial Campo Alto. C/Alemania, 102, 03600, ELDA SPAIN

Virtual Campus, Lda.
 Av. Fernão Magalhães, 716, 1º
 4200-072 Porto
 PORTUGAL

RED 21 SL, Spain
 Avenida General Marvá, 32
 Entlo, 03004, ALICANTE, SPAIN

IED- Istituto Europeo di Design,
 14 LARRA STR, 28004, MADRID, SPAIN

University of Salford, UK
 43 The Crescent, M5 4WT, Salford, UNITED KINGDOM