

Implementation of Software Engineering Competence Remote Evaluation for Master Program Graduates (iSECRET) Implementation Period: 01.09.2015 – 31.08.2017



Project No. 2015-1-LV01-KA203-013439

Erasmus+

The iSECRET project has been arisen as a combination and integration of a number of the Lifelong Learning Programme (LLP) projects' achievements related to Information and Communication Technologies (ICT), to Open Educational Resources (OER) and to Recognition and Validation of Learning Outcomes.

More specifically, the project has fostered interchange and cooperation between education and training systems within the EU. The iSECRET project will reinforce and accelerate the process of innovation in Higher Education by enhancing the universities' capabilities by granting better access to the educational know-how as Open Educational Resource, setting an effective experimental framework for defining and measuring Education (Learning) Outcomes (LOs) for a specific Master Program in Software Engineering & Software Technology (SE&ST).

THE PARTNERSHIP

A Partnership consisting of 6 organizations from 6 countries implements the iSECRET project:

- TSI - Transport and Telecommunication Institute (Latvia) (LEAD PARTNER)
- WSG – University of Economy in Bydgoszcz (Poland)
- KTU – Kaunas Technological University (Lithuania)
- UM – University of Murcia (Spain)
- TEIEP – Technological Educational Institute of Epirus (Greece)
- UP – Plovdiv University (Bulgaria).

THE MAIN PROJECT IDEA

The European e-Competence Framework (e-CF) provides a reference of 40 competences as required and applied at the Information and Communication Technology (ICT) workplace, using a common language for competences, skills and proficiency levels that can be understood across Europe.

The main project idea is to map e-CF to Education Outcome (Learning Outcome - LO) for Software Engineering/Software Technology Master Programs; in other words to:

- Describe LOs in terms of e-competences for job positions;
- Develop and implement a methodic for the LOs remote evaluation.

The methodic and tests for remote LO evaluation will be implemented for pilot examples of SE/ST Master Programs' courses by creating a prototype for Open Education Resource (OER) – Portal for Master Programs LO evaluation.

MAIN ACTIVITIES

1. Research on the European experience concerning the implementation of SE&ST Master Programs and suggesting common measurable Educational Output (competence) requirements.
2. Develop and present a Methodology for the evaluation of competence in SE&ST.
3. Define measurable competence characteristics of the MSc for SE&ST Program graduates.
4. Develop testing material for the Master Program Educational Outcome evaluation.
5. Create the Software Engineering Competence Evaluation Internet Portal (SECEIP).
6. Develop an on-line training course on "How to use SECEIP".

MAIN OUTPUT

The **SECEIP – Software Engineering Competence Evaluation Internet Portal** (<http://moodle.kic.teiep.gr>)

SECEIP constitutes a modern, multifunctional web portal addressed to the European educational community. Following an authentication procedure, SECEIP allows its users (students, professors, assessors etc.) to access several functionalities designed and developed for the evaluation and certification of the competences obtained in the framework of the SE&ST Master Program. It aims to improve existing curricula so that to meet the current needs and requirements of the labour market.

Towards this, SECEIP is the front end of several components, the most important of which is the Master Programs Competences' evaluation system. This module is responsible for the realization of the remote evaluation process of academic and professional competences related to the selected study subjects. Competence Evaluation Application, a web application that implements the evaluation of the software engineering study procedure and ensures the exchange of information and data among students and professors. The whole system is emerging by the decomposition and utilization of the European e-Competence Framework and an advanced suggested Rubrics system.

BENEFICIARIES

iSECRET specifically will benefit educators and students by providing them with a research-based online tool (Open Educational Resource) that will support virtual mobility and open exchange of information on learning outcomes in terms of e-Jobs competence, referring to a graduate's knowledge, skills and competence upon completion of the Master of Science in Software Engineering Program.

THE FINAL GOAL

To provide a common service for learning outcomes information exchange support, referring to a graduate's knowledge, skills and competence upon completion of the Master of Science in Software Engineering Programs. The general aim of the project is to boost innovation and digital skills in European universities in order to deliver the high quality education and digital skills.

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