

# Functionality and Usage of ACeSYRI Portal

Vitaly Levashenko<sup>1</sup>,

Martin Lukac<sup>2</sup>

<sup>1</sup>Dept. of Informatics, University of Žilina, Univerzitna 8215/1, 01026, Žilina, Slovakia, e-mail: [vitaly.levashenko@fri.uniza.sk](mailto:vitaly.levashenko@fri.uniza.sk)

<sup>2</sup>Nazarbayev University, Qabanbay Batyr Ave 53, Nur-Sultan 010000, Kazakhstan, e-mail: [martin.lukac@nu.edu.kz](mailto:martin.lukac@nu.edu.kz)

**Abstract.** Created Advanced Centre for PhD students and young researchers in informatics (ACeSYRI) is provide an innovative infrastructure for international cooperation among students, researchers, and teaching staff of Partner Countries and EU universities. ACeSYRI portal is one of the essential parts of this Centre. This portal connects representatives of three target groups: (a) young researchers (Master and PhD students) from Partner Countries; (b) their scientific supervisors from national Universities; and (c) potential co-advisors of PhD thesis from foreign universities. The goal, functionality, and usage of the ACeSYRI portal are presented at the paper.

**Keywords:** internationalisation; portal; cloud; support of young researchers; foreign co-advisors, management of PhD students' education; search of a topic for PhD thesis.

## I. INTRODUCTION AND PROBLEM STATEMENT

international educational and intellectual resources. The achievement of the Strategy's goal in High Education Institutes is possible by the internationalization of education and first of all of the 3. level. PhD students' education allows the development of human resources for society on the whole and universities, in particular. Therefore, the impact for the 3. level of education is very important to increase the scientific potential in Kazakhstan. Statistics in [1,2] show that ICT is one of the priorities in science and education (first of all for PhD students) but the cumulative result of publications in computer science is less than 1% and citation impact indices of these publications are very poor. According to investigations in [2-4] the one effective way for this problem decision is internationalization that allows solving problems:

- uncertainty of R&D within universities in ICT;
- weakness and underdevelopment of interdisciplinary and international structures and units within a university;
- difficulties caused by the new and innovative character of the domain;
- differences in methodological approaches and theoretical foundations of interacting disciplines in different universities;
- general inertia of already established education systems to the introduction of structural changes caused by ICT.

Advanced Centre for PhD students and young researchers in informatics (ACeSYRI), provides innovative infrastructure for international cooperation among students, researchers, and teaching staff of Kazakhstan and EU universities. The ACeSYRI follows the logic of infrastructure development projects which produce greater and longer-term impact as compared to projects aimed at producing end products. We expect that ACeSYRI will be a platform for long-time communication and cooperation of PhD students and academic staff of PC and European universities. The ACeSYRI brings the education of graduate students closer to the generally accepted international rules and norms based on the

internationalization of postgraduate education including research, presentation, outreach, and quality control, which creates promising human resources in not only higher education, but the entire society. The essential part of ACeSYRI is the special portal.

## II. PROBLEM SOLUTION AND RESULTS

The ACeSYRI is oriented toward development and increasing the level of education based on internationalization principles with the support of modern ICT. These ICT technologies are used in the elaboration of the ACeSYRI portal. The main ACeSYRI portal goal is the background for the creation and supports international cooperation of Kazakhstan and EU universities. ACeSYRI-portal is developed as a cloud resource [5]. The portal is a barrier-free tool for professional communication representatives of PC and EU universities. ICT is instrumental in better articulating the internationalisation process and can contribute towards a qualitative change in it. To do so, ICT brings about an inevitable reformulation of the objectives of internationalisation. ICT responds to a growing internationalised higher education sector. For today's students operating in a different world and culture, ICT may offer new educational opportunities at a lower cost and with more flexibility, irrespective of their physical location. ICT enables virtual internationalisation, which can increase access and choice, as well as helping to mitigate brain drain, a critical concern for less developed countries. However, many institutions are reluctant to use ICT to its fullest. This may be because of ignorance of its potential, lack of adequate training, or, possibly, internal resistance to the adoption of ICT. All these challenges should be taken into account under the process of internationalizations.

## III. DESCRIPTION OF THE ACeSYRI PORTAL USAGE

The main idea of the portal is to create a tool to support the internationalization of the process training of PhD students and young researchers by attracting international co-advisors.

The portal supports youth recruitment support researchers (graduate and PhD students), working under the guidance of the faculty of national universities, to address relevant practical theme set by international co-advisors. So, the ACeSYRI portal links 3 groups:

- representatives of foreign universities (tutors or co-advisors), who form an actual Topic for its subsequent solution;
- employees of national universities (scientific supervisors), in the competence of which to lead the solution to this Topic. They separate the proposed Topic into somewhat logical completed individual Tasks. These tasks act as names of PhD or Master thesis, term or research papers, etc.;
- young researchers (Master or PhD students) who choose these tasks for solutions and solve them.

The purpose of the portal is to initially introduce and connect representatives of these groups between yourself. The portal acts only as an information bulletin board, which contains contact information for users of these 3 groups, names, and short descriptions of formulated topics and tasks.

Finally, each PhD student or young researcher will select their task for solving.

So, we form a connection between foreign researcher (co-advisor), national advisor (teacher), and PhD student or young researcher.

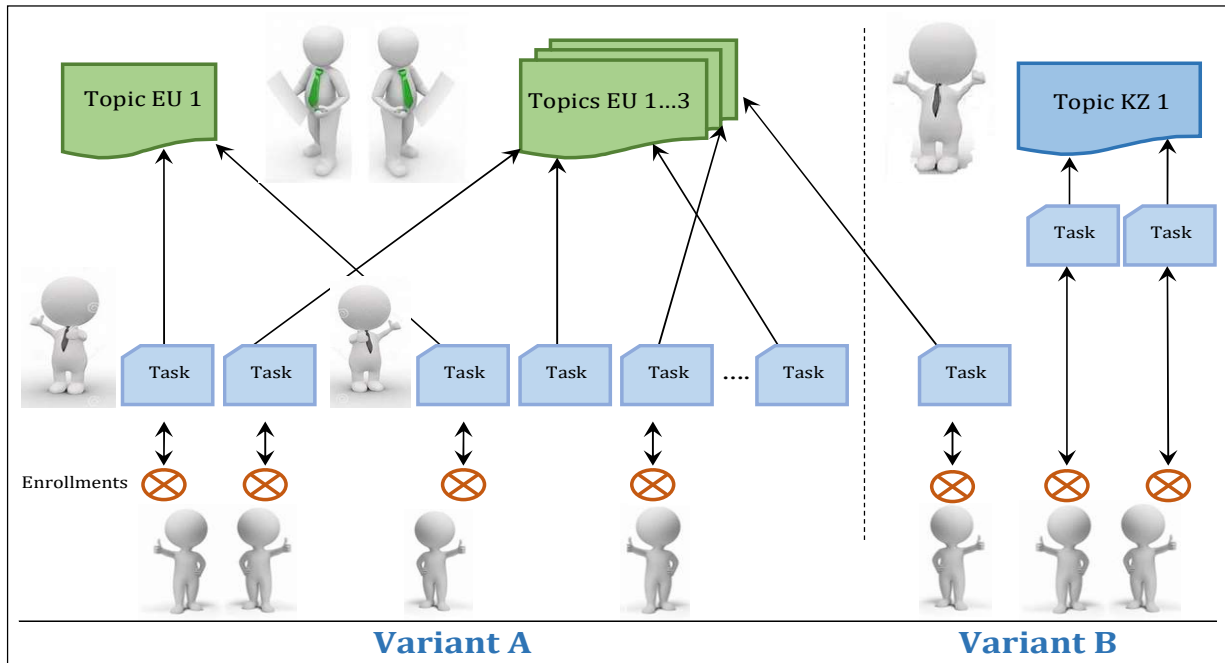


Figure. 1. Description of the ACeSYRI portal usage

ACeSYRI Portal allows increasing the internationalization, networking, and research development in Kazakhstan. In particular, the portal allows to (a) search for external foreign advisers; (b) select national research supervisors; and (c) find research topics for PhD students.

There are two variants of ACeSYRI portal usage (Fig.1).

**Variant A – The full and expected portal usage.**

There are foreign teachers which have an interest in cooperating with researchers and young researchers from Kazakhstan.

These foreign teachers are proposing their Topics for co-supervising (short description of own research areas).

There are scientific advisors (teachers) from Kazakhstan who have an interest in cooperation with these foreign researchers in the frame of this Topic’s development. These advisors separate this Topic into several own Tasks. These Tasks are local works that will be realized by PhD students, young researchers, and students under their advising.

Each young researcher selects or obtains of Task for implementation. The Task is appointed to him as Enrolment. After the Task is solved, the young researchers can upload at the portal some documents (results) as open-access or private publications.

**Variant B – The initial portal’s usage when a database of foreign researchers is not huge.**

In this case, the Topic will be proposed by national scientific advisors. This advisor will separate this Topic into its local tasks for each PhD student and young researcher too.

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