

[P07-BGKU-UKRAINE]

Annual Report on Project Activities
TEMPUS DESIRE
(1 December 2013– 30 November 2014)

Dear colleagues, as our first project year has passed, it is necessary to provide an annual report on conducted activities. All scan copies of documents should be attached as annexes.

Overall achievements

Please provide a description of the activities carried out since the start of the project and describe to what extent, the results achieved since the beginning of the project, are contributing to the project objectives.

During the reporting period in accordance with the plan of the project, were performed the following tasks:

WP1 (December 13 - May 14). Analysis of current curricula and competences in Embedded Systems:

- Analysis of curricula in BGKU;
- Analysis of competences required at the Labor Market in embedded systems;
- Analysis of the labor market on the need to train professionals in the field of embedded systems;
- Presenting the results of the study of competences required in the labor market in embedded systems.

WP2 (June 14 - March 15). Curricula modification and courses development:

- Development of video tutorials for learning how to use Moodle to create e-courses (Ukrainian and English);
- Preparing and conducting series of webinars “Creating a modern e-course” in LMS Moodle;
- Installation and explore the possibilities of software PTC Creo.

WP3 (September 14 - June 15). Implementing a (virtual) learning environment in ESD engineering. Establishing remote and ESD labs:

- Creation a Wiki portal of a project to support vocabulary terms on embedded systems (English, Ukrainian, Russian, Armenian and Georgian languages) with video tutorials;
- Setting up a platform for system implementation and management training;
- Preparing and conducting webinars in administration and use of LMS Moodle.

WP4 (June 14 - June 15). Retrain academic teachers on ESD engineering and virtual learning platforms:

- Preparing and sending letters to IT companies on cooperation and cooperation with companies that are interested in training on Embedded Systems.

WP6 (March 14 - November 16). Quality Assurance and Quality Control:

- Adaptation of European training framework for IT professionals in the field of software engineering;
- Development of criteria for assessment the results of the project based on the recommendations of Europe to the quality of higher education.

WP7 (December 13 - November 16). Dissemination and Enterprise Collaboration:

- Development of a bilingual project website at the University;
- Presentation of the project at the University;
- Seminars for IT employers of a Kiev region;
- Seminars for teachers of universities in the region;
- Writing articles.

WP8 (December 13 - November 16). Management of the project:

- Approval of the project team;
- Establishment and approval of a project plan;
- Coordination/consortium meetings with Ukrainian partners;
- Providing information materials to perform WP1 newsletter about the project;
- Project report;
- Amendments to the plan and their adjustment with the coordinator.

To perform the tasks specified in WP1 BGKU team made adaptation technique analysis of existing curricula for preparing students for the implementation of individual modules in embedded systems; developed a schedule for conducting analysis of existing plans for training students in the field of embedded systems; developed Google questionnaire to survey students and employers; conducted their survey; prepared the final document (Analytical) with analysis of existing plans for training students and the possibility of introducing individual modules in embedded systems.

Detailed description of the completed tasks is presented in the analytical report of the analysis of existing plans for training students and the possibility of introducing individual modules in embedded systems (Annex 1) and published on the BGKU project website <http://tempus.kubg.edu.ua/en/workplan/>.

The tasks specified in WP2 BGKU team carried out in stages. Currently developed video tutorials for learning how to work with Moodle to create e-courses in Ukrainian. They are publicly available on the BGKU wiki portal in the project “Educational Courses” (http://wiki.kubg.edu.ua/Навчальні_курси_Moodle). By the end of the term their planned translation in English is planned.

A program of webinars “Creating a modern e-course” in LMS Moodle (Annex 2) is published on the project website (http://tempus.kubg.edu.ua/wp-content/uploads/2014/11/program_webinars.pdf). Information on webinars is posted periodically on the project site under the heading chronology. Video recording webinars hosted on YouTube <http://youtu.be/CIcdf9TOit8>. Dates of webinars – December 2014 and February 2015 developed e-course “Creating a modern e-learning courses in LMS Moodle”, which is used by participants of the project (<http://e-learning.kubg.edu.ua/dn/course/view.php?id=465>). The course filled according to the subject of webinars and enables participants to work as a teacher and as a student. After the training, the participants who successfully complete the course will receive a certificate. The evaluation system developed in open source MindMap and reflected on the link <http://www.mindmeister.com/485771321/>.

During the reporting period, BGKU received PTC Creo software in the amount of 500 licenses and software Altium Designer in the amount of 20 licenses. The software is installed on the PC of team members to explore its capabilities and partial implementation in a learning process, as BGKU doesn't train specialists of engineering profile.

Working on assignments of WP3, BGKU team set up a platform for system implementation and management training – LMS Moodle, which accessed through the user accounts on the link <http://e-learning.kubg.edu.ua/>. On 20.11.2014 and 27.11.2014 were hold two webinars – Administration and use of LMS Moodle. Video recordings of webinars can be found here:

- Webinar 1 “General Concepts of LMS Moodle” – installing and configuring the system <https://www.youtube.com/watch?v=CIcdf9TOit8&feature=youtu.be>;
- Webinar 2 “Creating an e-course” – course in management, configuration, access levels <https://www.youtube.com/watch?v=ue9Z74eqc9E>

Detailed materials from these topics are available in electronic course “Creating a modern e-learning course in LMS Moodle”.

To maintain a dictionary of terms from embedded systems we created the Wiki project <http://wiki.kubg.edu.ua/Tempus> in Ukrainian and in English. In the nearest future, we plan to develop the Russian, Georgian and Armenian languages for all participants to fill it actively.

Perform tasks, defined in WP4, we started cooperation with IT companies interested in training in embedded systems and discussed the implementation of project’s training modules in embedded systems in the learning process in HEIs and SEIs of Kiev.

14-21 September, 2014 three representatives of BGKU team (Morze N.V., Buynytska O.P., Hrytseliak B.I.) attended the Summer School in Nitra and were trained on the subject of the project (certificates are presented in Annex 3). Reporting presentation of BGKU posted on the project website (http://tempus.kubg.edu.ua/wp-content/uploads/2014/09/report_of_travel_09_14.pdf).

As BGKU doesn’t provide training engineering perspective, because of being only teacher training institutions, the project team determined that BGKU for the tasks of quality assurance and quality control (WP6) will adapt European training framework for IT professionals in the field of software engineering and develop criteria for evaluation the results of the project based on the recommendations of Europe to the quality of higher education. Work on the task continues, the results will be presented in accordance with the plan (December 2015).

Realizing the objectives of the project with WP7 we developed bilingual (Ukr./Eng.) Project Website <http://tempus.kubg.edu.ua>, on which all activities undertaken by the project are published and scheduled tasks are performed; created page of a project in the social network Facebook (<https://www.facebook.com/DesIRE.TEMPUS>); project group in Facebook (<https://www.facebook.com/groups/880310795319581/>).

The main events to disseminate information about the project were:

- Presentation of the project at the university (03.02.2014). The information is presented at the university and BGKU project site, report is presented in Annex 1 to the analytical report (Annex 1);
- Scientific-practical seminar “Presentation of DESIRE” for 63 universities from HEIs and SEIs in Kyiv, district education departments, teaching centers (13.05.2014). The information is presented at the university and project website, report presented in Annex 2 to the analytical report (Annex 1);
- DESIRE project presentation at the First Ukrainian Conference of Young Scientists “Information Technologies – 2014” for students, graduate students, young researchers of 42 universities in Ukraine (22.05.2014). The information is presented at the university and project website, project report presented in Annex 3 to the analytical report (Annex 1).

In order to familiarize Ukrainian teachers with the project and its tasks, it is planned to start a new rubric dedicated to the project in the professional journal “Computers and IT in education”. Currently published an article “Embedded systems software for their design in education of future students” written by the Morze N.V., Buynytska O.P., Hrytseliak B.I. (№3 (51). – 2014. – P. 68-74.). Openness of the article is provided by its placement in the institutional repository of BGKU (<http://elibrary.kubg.edu.ua/3865/>). The scanned version of the article is presented in Annex 4.

Realizing WP8 tasks in BGKU were prepared and signed an Order № 41 from 10.02.2014. “On research and development for the TEMPUS project “Development of Embedded System Courses with implementation of Innovative Virtual approaches for integration of Research, Education and Production in UA, GE, AM” realization” (Annex 5); approved project team (Annex 6); hold a meeting with Ukrainian partners of the project and approved individual plans (15.05.2014) – Order number 188 from 30.04.2014. “On an international scientific workshop “Introduction to the project plan DESIRE by Ukrainian partners” (Annex 7), an agenda (Annex 8), the agenda of regional

meetings (Annex 9) BGKU report (Annex 10); provided information materials to perform WP1 newsletter about the project; and amending individual plan of BGKU (Annex 11).

Development of programs and courses

Please provide a description of the teaching/training program(s) (undergraduate/postgraduate programs, intensive courses, training modules to academic or non-academic staff, etc.) that the beneficiaries are developing or of the introduction of the new program(s) and the state-of-play of these developments at the time of submitting the report. If unforeseen changes in the original plans occurred, please describe the type of changes and the measures taken to address them. Please also indicate the activities you plan to carry out before the end of the project. If this section is not relevant for your project, please write 'Not Applicable'.

BGKU is a pedagogical higher education institution and is not engaged in the preparation of engineering specialties. Therefore, it is planned that the implementation of new modules in BGKU will be done in the context of fragmented disciplines taught at the bachelor program “Informational Sciences” and master program “Social Informatics”.

1. Main results of curricula analysis (WP1):

1.1. Number specialties – 2. Number of disciplines – 6.

Bachelor program “Informational Sciences”								
Name of the discipline	Form of students' knowledge control	Volume of discipline		Hours balance		Distribution of hours by type of activity		The presence of the course project (work)
		Hours	Credits	Classroom work	Individual work	Lectures	Laboratory work	
Programming (1-3 courses)	exam	576	16	240	270	56	154	-
Designing software systems	exam	144	4	48	54	6	36	+
Three-dimensional computer graphics	exam	144	4	48	54	12	36	-
Specialist program “Informational Sciences”								
Name of the discipline	Form of students' knowledge control	Volume of discipline		Hours balance		Distribution of hours by type of activity		The presence of the course project (work)
		Hours	Credits	Classroom work	Individual work	Lectures	Laboratory work	
Modern software engineering	exam	144	4	42	60	18	18	-
Computer technologies in science and industry	exam	216	6	70	100	30	30	-
Master program “Informational Sciences”								
Name of the discipline	Form of students' knowledge control	Volume of discipline		Hours balance		Distribution of hours by type of activity		Name of the discipline
		Hours	Credits	Classroom work	Individual work	Lectures	Hours	

Modern software engineering	exam	144	4	42	60	18	18	-
Computer technologies in science and industry	exam	216	6	70	100	30	30	-
Master program "Social Informatics"								
Name of the discipline	Form of students' knowledge control	Volume of discipline		Hours balance		Distribution of hours by type of activity		Name of the discipline
		Hours	Credits	Classroom work	Individual work	Lectures	Hours	
Computer technologies in science and industry	exam	216	6	70	100	30	30	-
Special laboratory practice	exam	216	6	70	100	8	52	+

1.2. Poll of 24 students: list the main important disciplines from the students' point of view.

The survey involved students of the 4th year of study (11 persons, a group of INb-1-11-4.0d.), on master programs "Informational Sciences" and "Social Informatics" – (7 persons, group INm-1-14-2.0d, 6 persons, group SINm-1-14-2.0d). Total 24 students from 31. Detailed results of the survey are presented in Annex 5 to the analytical report (Annex 1).

The most important students consider:

- Programming – 25%;
- C for embedded systems – 29%;
- Software development for embedded systems – 46%;
- Embedded OS – 21%.

1.3. Poll of 18 representatives from 18 companies: list of the most important competences from their point of view. Detailed survey results reflected in Annex 4 to the analytical report (Annex 1).

Among 24 Kyiv institutions interested in students, who are competent in the field of embedded systems, only 18 participated in the survey, including: Sinerion, INTEL, intelligently Company "KINT" GS Osvitoriya, Intehservis-B, IT-Solutions, Intelligence Technology, Lanet Network, SteelInStyling, DataArt, Microsoft, Infoplus, Ukrainian Federation of Informatics, Ltd. "Folgat", N/A, Octava, Microsystems, Infocom.

The most important competences, according to employers are:

- Use of the local networks and the Internet – technology systems design – 53%;
- Create projects and technical re-engineering business processes; analyze the results of re-engineering to solve specific problems – 47%;
- Use modern design automation tools to meet the challenges of the company – 47%;
- Analyze theoretically and experimentally investigate methods, algorithms, software hardware and software systems and systems common kind - 41%;
- Analyze and choose computational methods for solving embedded systems design criteria for minimizing the computational cost, stability, complexity – 41%;
- Use standards and modern design processes ES –41%;
- Develop and use modern service-oriented information technology (distributed and multi-agent environment, Grid, Cloud, etc.) – 41%.

1.4. Developed plan of implementation of Project Modules (Fill in the table).

Nr.	Course/Module	Specialty	Responsible teacher (Name, Faculty, department, affiliation, e-mail)
	Module “Hardware for Embedded Systems”(150h (5 ECTS) + 120h (4 ECTS) practical exercises with new equipment):	Informational Sciences	
1	Microcontrollers 30h		
2	Digital Electronics 30h		
3	Digital System Design 30h		
4	Embedded Communication 30h		
5	Sensors, Actuators and Interfacing 30h		
	Module „CAD/CAM/CAE for Embedded Systems“ (80h (3 ECTS) + 80h (3 ECTS) practical exercises with new equipment):		
6	ECAD electronic design, ALTIUM, 40 h;		
7	MCAD structural design, Pro Engineer, 40 h.		
	Module “Software for Embedded Systems” (180h (6 ECTS) + 150h (5 ECTS) practical exercises with new equipment):		
8	C for Embedded Systems 30h		
9	Embedded Software Development 30h		
10	Embedded Operating Systems 30h		
11	Multicore Programming 30h		
	Seven additional Modules:		
12	Digital Signal Processing 60h (2 ECTS),		
13	Remote Labs and Virtualisation (60h (2 ECTS) + 45h (1,5 ECTS) practical exercises in the remote labs)		
14	Legislation on and Certification of Embedded End-Products 30h (1 ECTS),		
15	Management and Marketing of Embedded End-Products 60h (2 ECTS),		
16	Quality Engineering (36 h (1, 5 ECTS) + 18 h (1 ECTS) practical exercises): Quality management incl. ISO 9000 family, 18 h (MA); Quality Engineering, 18 h + 18 h practice,		
17	New teaching approaches in Engineering 45h (1,5 ECTS)		
18	Soft Skills for engineers 45h Nitra (1,5 ECTS)		

Restructuring: university management and governance

Please provide information on the institutional changes that the project is introducing in the Partner Country beneficiaries (institutions), the state-of-play of project activities and any changes which occurred compared with the original plans. Please also indicate the activities you plan to carry out before the end of the project. Examples: establishment of new units/faculties, establishment/upgrading of libraries, establishment/restructuring of international relation offices, introduction of reforms to university governance (i.e. decision process, autonomy, accountability). If this section is not relevant for your project, please write ‘Not Applicable’.

Creating a center-based ESD laboratory for teaching high specialized school students running the program of multi profile.

Staff (re-)training

Please provide a description of the activities carried out in order to train the staff of the partner country participating institutions. Please also provide an outline of the selection criteria for the different groups of people who have participated in the implementation of these activities. Please describe any change in comparison with the original proposal and indicate the activities that you plan to carry out before the end of the project.

1. Number of participants in Nitra (Name, affiliation) and selection criteria – 3 (BGKU project coordinator – Morze N.V., Doctor of Pedagogical Sciences, Professor, Corresponding Member of National Academy of Pedagogical Sciences of Ukraine, Vice-Rector on Informational Technologies; Buynytska O.P., PhD, Associate Professor of Computer Science, Head of IT in Education Laboratory; Hrytseliak B.I. – Deputy Head of IT in Education Laboratory).

2. Results of WP5: Organization of courses for the teachers and researchers at the home institution by those who passed the retraining in EU countries (links, materials, number of participants, list of participants) – planned in 2015 year.

3. Participation in the webinars by PTC and others (links, materials, number of participants, list of participants) – Morze N.V., Buynytska O.P.:

Passed online course (a series of webinars) “Approaches to design and preproduction in 3D”, organized by “IRISOFT”. Details and viewing video webinars by the link <http://irisoft.ru/articles/news/onlayn-kurs-podkhody-k-proektirovaniyu-i-podgotovke-proizvodstva-v-3d/>.

- 1 webinar. Appliances downward product design – 19.02.2014
- 2 webinar: Aspects of the process of product design in an environment 3D CAD –19.03.2014
- 3 webinar. Making CD – 16.04.2014
- 4 webinar. Requirements for 3D models, designed for machining – 21.05.2014
- 5 webinar. Configuration Tools 3D models – 18.06.2014
- 6 webinar. Calculations and analysis of virtual layout – 13.08.2014

Listened webinars organized by “IRISOFT”:

– “Integrated Development Environment products radio” (10.24.2014). Details by the link http://www.irisoft.ru/articles/events/vebinar-integralnaya-sreda-razrabotki-izdeliy-radiotekhniki-/?sphrase_id=556/;

– Webinar «Creo 3.0 – What's new?» (03.12.2014). Details http://info.irisoft.ru/creo-3.0-chnovogo?utm_campaign=%D0%92%D0%B5%D0%B1-%D1%81%D0%B5%D0%BC%D0%B8%D0%BD%D0%B0%D1%80%D1%8B+%D0%BF%D0%BE+Creo&utm_source=hs_email&utm_medium=email&utm_content=15015837&hsenc=p2ANqtz--7BeJDUBIFa8hyZOVQ0OrBmYGT8tmg_aqESM9aUxCPogKiiI5iuf2GSQAQZceH_5mBc37n7vSSKixCftiaY6burQOC3w&hsmi=15015837.

Participation in the Russian-language online seminar on “How to change the traditional approach to designing products?” (The PTC company, 23.10.2014). Video recording https://www.dropbox.com/s/3a2wkvshmyyq9/CREO_30_Unite_Webinar_ALL_Parts_v2_RUS.mp4?dl=0; presentational materials can be viewed by the link https://www.dropbox.com/s/1qwordj54ma4ajj/CREO_30_OCT_23_v1.pdf?dl=0.

4. Selection criteria for the trainings in IUT and TMM.

Staff mobility

Please provide an outline of the staff mobility scheme and the selection criteria used for the different groups of people that participate in mobility. Please describe the activities carried out so far, how mobility activities have been organized by home institutions and how mobility helped and/or will help achieve the project's objectives. Information about how the home institutions recognize the mobility should also be provided. If unforeseen changes in your original plan occurred, indicate the type of

changes and the measures taken to address them. Please also indicate the activities that you plan to carry out before the end of the project.

Academic co-ordination and administrative management

Please describe how the division of labor is managed between the various beneficiaries, for both academic co-ordination and administrative management. Particular attention should be paid to the description of how this division of labor is managed in areas such as communication and the decision-making process used. Please also describe how day-to-day project activities are managed; indicating what kind of administrative support or other support you have received from the beneficiaries (institutions). If you encountered difficulties related to the management of the project, please indicate the type of problems and the solutions found to address them.

1. University Orders concerning DESIRE Project Team establishment and those which deal with the fulfillment of project activities.

- Order number 41 from 10.02.2014. “On research and development for the TEMPUS project “Development of Embedded System Courses with implementation of Innovative Virtual approaches for integration of Research, Education and Production in UA, GE, AM” realization” Annex 5);
- Rector’s Instruction for educational and informational research and management activities “On approval of the project team” (Annex 6);
- Order number 188 from 30.04.2014. “On international scientific workshop “Introduction to the project plan DESIRE Ukrainian partners” (Annex 7).

2. List of project team meetings.

Nr.	Date	Theme	Participants

3. University meetings where the questions of project activities were discussed:

- Presentation of the project at the university at the expanded rectorate session (03.02.2014);
- Scientific-practical seminar “Presentation of DESIRE” (13.05.2014);
- DESIRE project presentation at the First Ukrainian Conference of Young Scientists “Information Technologies – 2014” (22.05.2014);
- Joint meeting of the IT in Education Laboratory and Methodological Center for Standardization and Quality Education University (22.04.2014);
- Joint meeting of the Department of Computer Science, Department of Information Technology and Mathematical Sciences in the presence of the Heads of Departments Bushma O.V., Yurtyan I.I., Head of IT in Education Laboratory Buynytska O.P., Vice-Rector on Informational Technologies Morze N.V., Vice-Rector on Academic Affairs Zhiltsov O.B. (29.04.2014);
- Meeting of the university rectorate (29.09.2014);
- Meeting of IT in Education Laboratory (06.11.2014).

Equipment

Please outline the equipment purchased, explain where the equipment has been installed, who will benefit from it and have access to it and plans for future maintenance. Please also describe the activities that you plan to carry out before the end of the project, in relation to the equipment purchased/installed. If unforeseen changes in your original plan occurred, indicate the type of changes and the measures taken to address them. If this entry is not relevant for your project, please write ‘Not Applicable’.

1. Work on installation of received software PTC Creo & Altium Designer: responsibility for administration, laboratories where it is installed, disciplines for implementation and responsibility for the relevant lectures.

Software installed on the PC of team members and on staff's working PC of IT in Education Laboratory to study its capabilities and partial implementation in a learning process, as BGKU doesn't train specialists of engineering profile. Responsible for the administration is the deputy head of IT in Education Laboratory – Hrytseliak B.I.

2. Analysis of existing facilities for Remote Laboratory and ESD Laboratory: location of the laboratory, plan of the room.

3. Work on creating e-learning environment: implementation of Moodle or other LMS.

In order to implement e-learning technology for BGKU students was created e-learning portal of BGKU running on LMS Moodle environment and investigated the possibility of introducing interactive teaching methods using the opportunities of the LMS (Learning Management System).

After analyzes in 2010 the US market of LMS for universities and colleges, where only 4 major players left (Blackboard, Sakai, Moodle and Desire2Learn), data on the share of growth LMS Moodle in the market of eLearning in USA was received.

The trend of growing popularity of Moodle is stored around the world. Today more than 45,000 educational portals are managed by LMS Moodle. Due to such high results and level of trust to LMS Moodle, BGKU gave preference to this system while creating e-learning portal.

One of the objectives of the Bologna process is to create a global international educational environment, the main advantage of which is to present educational material in didactic unified and formalized form and allowing its use in any place and at any time, regardless of the form of student learning. To this purpose, the University created a system (<http://e-learning.kubg.edu.ua>). The functionality of the system allows students to: receive personalized access to e-learning courses via the Internet, open educational materials of a course, send completed tasks to check undergo electronic testing; teacher to: create their own resources of ELC, send messages to students, distribute, collect and verify tasks, maintain electronic logbooks rating and visiting guest, customize a variety of resources, etc.

In BGKU on a server with the characteristics (Intel Xeon E5606, 16GB, HDD 2TB) based on Debian Linux OS installed LMS Moodle 2.8. we started to work with version 1.9. Compared with a new version there was a lot of changes.

The system stores electronic learning courses (ELC), created by the University teachers on the task of relevant departments in the extent approved by Syllabus of relevant disciplines and specialties.

The main characteristics of ELC are:

- structured teaching materials;
- logic study course;
- clear timetable for the implementation of the students curriculum;
- organized system of interactive teacher-student interaction, students with each other, by means of ELC resources and distance learning, during all the time to study subjects;
- quality made teaching materials that allow you to acquire competencies declared in the work program;
- control and evaluation of all the learning activities of students.

E-learning courses can be used as learning tools for full-time students, part-time, distance learning at all stages of learning activities of students while studying relevant subjects.

E-learning courses consist of electronic resources of two types: a) resources to students submitting the content of educational material, such as structured electronic lectures, multimedia presentations of lectures, audio and video materials (podcasts, video casts, webcasts, etc.) methodology recommendations, etc; b) resources to ensure the consolidation of learned material,

forming skills, self-assessment and evaluation of academic achievements of students, such as: task, testing, surveys, forums, etc.), including the use of Web 2.0 tools.

All Electronic learning courses placed on academic portal, have a structure that includes the following components:

- an overview of academic disciplines (work program, schedule, evaluation criteria, print and Internet resources, a glossary, ads);
- educational materials from each module:
 - theoretical material (multimedia presentation lectures, structured e-learning materials, electronic lecture notes, audio, video, animated educational resources, a list of print and Internet sources);
 - practical (seminars, laboratory) work (content, guidelines for implementation, a list of individual tasks, form submission results of performance evaluation criteria);
 - tasks for individual work (additional theoretical material objectives, guidelines for implementation, a list of individual tasks, form submission results of performance evaluation criteria);
 - control module (test questions, the task of evaluation criteria and the way results of the tests for self-control and control);
- materials for final testing (test questions, test for self test for final certification of student discipline);
- additional materials.

Visualization of components displayed using mind map by the link <http://www.mindmeister.com/481503070>

For all ELC requirement is to submit for certification.

To familiarize the project participants with the system of e-learning, BGKU team organized Webinars on installation and use of LMS Moodle.

On November 20th, 2014 Natalia Morze, Vice-Rector on Informational Technologies, Project Coordinator from our University, had the first webinar “General Notions of the LMS Moodle”. The webinar was dedicated to the main aspects of Moodle platform installation and administration. The questions of advantages of the usage, server requirements, variations of an installation, access, courses settings, multilingual capabilities, creation of plugins and integration of external applications to achieving specific functionalities and etc. were discussed during the webinar.

For more detailed information you can follow the link <http://youtube/C1cdf9TOit8>

On November 27th was held a second webinar “The general concept of e-learning system Moodle”. This webinar was focused on aspects of courses and categories as an administrator of distance learning system Moodle. Also were considered the general rate setting as a teacher and a variety of ways enroll users in a course. In the forum created in the course “Talk to the course requirements” were raised such questions as: “Who should assess the course”, “Do we need all the requirements for the course” and “Must a template structure of a course be approved by the Academic Council or Rectorate of the institution.”

For a recording of the webinar use the [link](#).

Reflection of participants can view by the [link](#).

The series of webinars “Creating a modern e-learning course” will be held in December 2014, February 2015.

Dissemination

Please describe what has been done to disseminate the results of the activities carried out to date, both within the framework of the project and outside the project. In particular, you should refer to the definition of tasks and the dissemination channels used to make the project results available to larger

beneficiary groups. If a web site for the project has been created, please provide the address. If there have been any unexpected positive secondary effects from project activities, please describe them in this section. Please indicate any change which occurred in comparison with the original plans for dissemination and the activities you plan to carry out before the end of the project, to disseminate the project results.

1. Activities and dissemination materials: e-newsletters, information on organization web pages, Desire info on local radio/TV programs, project info to potential users/policymakers, information brochure, workshops, publications, dissemination plan, executive board meetings, presentations, round tables

Realizing the objectives of the project with WP7 we developed bilingual (Ukr./Eng.) Project Website <http://tempus.kubg.edu.ua>, on which all activities undertaken by the project are published and scheduled tasks are performed; created page of a project in the social network Facebook (<https://www.facebook.com/DesIRE.TEMPUS>); project group in Facebook (<https://www.facebook.com/groups/880310795319581/>).

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In order to familiarize Ukrainian teachers with the project and its tasks, it is planned to start a new rubric dedicated to the project in the professional journal “Computers and IT in education”.

2. List of published articles and thesis’s in conference proceedings (scan-copies obligatory).
Morze N.V., Buynytska O.P., Hrytseliak B.I. Embedded systems software for their design in education of future students. / N.Morze, O.Buynytska, B.Hrytseliak. // Computers and IT in education – (№3 (51). – 2014. – P.68-74. (Annex 4).

Sustainability

A project is 'sustainable' when it continues to deliver benefits to the project beneficiaries and/or other target groups for an extended period after the EU's financial assistance has ended. Sustainability may not be relevant for all aspects of a project; in each project some activities or results may be continued, while it may not be necessary to continue others. Sustainability is relevant for issues such as: academic/socio-economic/institutional support (describe the measures undertaken to formalize or institutionalize any links with local non-university partners, to obtain official accreditation of new curricula, etc.), involvement of members from the beneficiaries (institutions)(ownership/motivation), effective management and leadership, active participation of the target group, forecast of needs, availability of resources to continue, making the most of results achieved and a measurable medium/long term impact (long-lasting effects of project cooperation, as well as impact on the beneficiaries (institutions) and target groups). Please explain which of your planned activities and results must be maintained to make your project sustainable. Describe which measures have been taken so far to realistically ensure the continuity of those activities and results beyond the original life-cycle of the project (even when the project is no longer financed by Tempus). Please indicate any changes which occurred in comparison with the original plans and the activities you plan to carry out before the end of the project in order to ensure sustainability.

Quality control and monitoring

Please describe what monitoring activities the beneficiaries carry out, in order to assess whether the project proceeds according to the work plan. Please describe the strategy for internal and external evaluation of project results and include measurable quality indicators for progress. In addition to the project results (courses, publications, new institutional structures, etc.), you should also pay attention to the project management strategy. In particular, explain what instruments you use to ensure effective quality control (i.e. the Logframe approach, feedback questionnaires for evaluations or surveys, SWOT analysis, etc.) and who is involved in evaluation (i.e. committee(s), validation commission(s), accreditation board(s), etc.). For external evaluation, please mention the role of independent experts or peer reviewers providing a summary of their evaluation plan and report(s). Please indicate the activities carried out to date, any change which occurred in comparison with the original plans and the activities you plan to carry out before the end of the project.

Gender balance

Please explain to what extent the principle of equal opportunities has been taken into account in the project implementation (i.e. gender analysis carried out, presence of women in decision-making bodies, balanced percentage share of women among the teachers or the enrolled students, etc.). Describe how the project helped to promote gender balance and to identify and address factors influencing gender discrimination.

Coordinator from [University]

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