



## Project ALIEN 6<sup>th</sup> (Virtual) Meeting, November 12-13, 2020

# Meeting Minutes Attendees

Christina Taka		
Constantina Vlahoutsou		
Carlos Vaz de Carvalho		
Janet Read		
Tsvetelina Petrova		
Martin Sillaots		
Raja Jamilah Raja Yusof		
Aishah Abu Bakar		

Hazleen Aris

Hariklia Tsalapatas

Veasna Pich

Sam Rany

Lay Heng

Kamran Khowaja

Irum Inayat

Dhiraj Shrestha

Shree Raj Shakya

Dinh Thi Minh

Ida Susana Hussain

Zaihmah Hasan

November 12, 2020

**Project implementation updates** 

The roject coordinator, Dr. Hariklia Tsalapatas welcomed everyone on the 6<sup>th</sup> (virtual) ALIEN meeting. Currently the PBL services and the labs have been implemented and completed and the project is in the implementation phase, meaning that what is important is to use the project outcomes, including PBL services, active learning content, and labs, with students and educators in the context of real life courses and to promote the capacity of educators to deploy the ALIEN PBL learning intervention through training, community events, and other activities. Dissemination activities are also important to be updated.

- Complete ALIEN use in courses. The platform should be used in online courses (the target is 10 courses)
- Also, instructor training can be conducted online, e.g. through Webex or zoom (the target is 4-5 sessions per partner). It doesn't have to be instructors, could also be administrative staff
- Every partner should conduct 2 community events, e.g. presentations of the ALIEN project in classes involving students or presentations to external stakeholders are considered a community event
- All partners should collaborate in the community documents (PBL methodologies and tools, PBL in software engineering, PBL in gamification, PBL and AI)
- There should also be one more webinar at least, which is being planned
- A special mention should be done in the final report, on how ALIEN was disseminated in least developed countries
- Also, partners need to explain well how the project has contributed to regional integration and cooperation between different regions of the world, e.g. future collaboration in projects etc.

## Partner presentations on current and future activities

1. University of Thessaly - Dr. Hariklia Tsalapatas presented

## The use in courses in UTH

- o Technology in Education 2019 140 students
- o Technology in Education 2020 120 students
- Database Management Systems 180 students
- Circuit Analysis 180 students
- Programming I 180 students
- Data Mining 60 students
- Games Design 140 students
- Discrete Mathematics 180 students
- Serious Games 31 students
- There will be 2 more courses in the future: machine learning and logics

## Community events

- Presentation to the Hellenic Open University (25/9/2020) 5 researchers
- Presentation to the University of Crete (28/9/2020) 5 researchers from the Computer Science department
- Presentation to the Technologies in Education course (7/10/2020) 45 students
- Presentation to the Civil Engineering Department (21/10/2020) 19 researchers
- Presentation to the Department of Agricultural Engineering (23/10/2020) 42 graduate students

## **Instructor training**

- To educators at the Department of Electrical and Computer Engineering (26/11/2019) – 9 instructors
- To external individuals (8/4/2020) 20 graduate students with an interest in technology in education
- To administrators in the Research Committee (1/6/2020) 10 individuals
- To educators at the Department of Biotechnology (15/9/2020) 12 individuals
- 2. University of Malaya Dr. Raja Jamilah Raja Yusof presented

## The use in courses in UMalaya

- HCI 160 students
- Software Modeling 160 students
- Control Flow Mobility Program 80 students
- o Real Time Programming 40 students
- Agile system development 41 students
- Design and Analysis of Algorithms
- Advanced Algorithm 25 students
- Software Testing 160 students
- Project Management 8 students

#### Community events

- Sharing Session with the Universiti Malaysia Pahang Committee for the New Normal in Teaching and Learning Venue Chancellery Building, UMK, (21/10/2020)
- Teaching and Learning Innovation Festival Online Forum, University Technology Petronas, (8/10/2020)
- "Active Learning with Computational Thinking games" Workshop, Kolej Universiti Islam Zulkifli Muhammad, Gombak, (1/10/2020) – 9 participants
- Sharing Session: Tools for Online Active Learning in Software Engineering, FSKTM UM and LIVE Facebook, (30/9/2020)
- Future Ready Curriculum, Universiti Malaysia Kelantan (9/9/2020)

## Dissemination

- Live Facebook for Community Event: Sharing Session for Online Learning Tools in teaching Software Engineering (30/9/2020)
- o ALIEN Webinar: TEALS for Active Learning in Software Engineering (30/6/2020)

## Future plan

- o Presentation to authorities
- Collaboration with partners
- Students using platforms
- 3. UNITEN Hazleen Aris presented

## The use in courses in UNITEN

- o Software Quality fall 2019/2020 49 students
- Software Quality extended 2019/2020 36 students
- o Software Quality fall 2020/2021 32 students
- Principles of programming extended 2019/2020 35 students
- Object oriented programming fall 2020//2021 46 students
- Manufacturing process lab extended 2019/2020 75 students

## Instructor training events

- 5<sup>th</sup> instructor training (16/4/2020) 20 lecturers
- o 6<sup>th</sup> instructor training (9 and 10/9/2020) 25 lecturers
- 2 future training events on December 2020: Workshop on the evaluation of using PBL/AL in the selected courses and Crafting problems for PBL

## Dissemination activities

- Articles published in the internet
- o Posts on social media

- Scientific articles
- Community events
- 4. Hanoi University Nguyet Dinh

## The use in courses in HUST

- o Multimedia design
- Special subject 1.
- o Information system design and implementation
- Special subject 2
- o Data structure and algorithm
- System analysis and design 121 students
- o Database design 105 students

## Instructor training events

- 2nd instructor training (22/5/2020) 19 participants
- 3rd instructor training (24/10/2020) 21 participants
- 1 future instructor training event in January 2021

#### Dissemination activities

- 2 papers were published in the proceeding of the scientific conference for teachers of FIT, Hanu in 2019
- 2 papers were published in the proceeding of the scientific conference for teachers of FIT, Hanu in 2020
- Posts on HANU social media
- o 1 future community event: Presentation of ALIEN and PBL to the first-year students in other faculties
- Use the lab in the current courses and 2 more courses in the next semester
- o Post articles about ALIEN on a popular online newspaper in Vietnam
- 5. University of Kathmandu Dhiraj Shrestha presented

## The use in courses in KU

- o Computer architecture 15 students
- o Computer graphics 59 students
- System analysis and design 49 students
- o Cloud computing 11 students
- Software dependability 41 students
- Computer programming 60 students
- Object oriented programming 60 students

## **Instructor training events**

- o 1<sup>st</sup> instructor training (21/6/2020) 48 participants
- o 2<sup>nd</sup> instructor training (10/9/2020) 35 participants
- o Future teacher training program in Purbanchal University

## Dissemination

 Online based ICT training to Basic level Science and Mathematics teachers 2020, conducted by KU and LUPIC (11/10/2020) – 25 participants

## Community events

- Planning to visit Nepal Engineering Association for disseminating the usefulness of ALIEN
- Planning to visit University Grant Commission, Nepal
- 6. University of Gabrovo Irene Rashkova presented

## The use in courses in TUG

- Resistance of materials 120 students
- o Mechanics of fluids 150 students
- Control theory II 90 students
- Mechanics II 120 students

- CNC tools, machines and technologies 120 students
- o Computer-aided measurement 120 students
- Environmental chemistry 35 students
- Reliability of electronic systems 60 students
- Basics of Automation 30 students
- Computational Mathematics 20 students

## Instructor training events

- 1<sup>st</sup> instructor training (24/2/2019) 12 teachers
- o 2<sup>nd</sup> instructor training (10/7/2019) 10 teachers
- 3<sup>rd</sup> instructor training (13/9/2019) 15 teachers
- 4<sup>th</sup> instructor training (8/9/2020) 7 PhD students

## <u>Dissemination activities (May – October 2020) - Articles</u>

- PBL Platform in the Area of Engineering Sciences. Information published on the website of Gabrovo Chamber of Commerce and Industry
- PBL Platform in the Area of Engineering Sciences. Article published in the Infobusiness newspaper, which is the newspaper of Bulgarian Chamber of Commerce and Industry
- Webinar Design Thinking. Info on the webinar published on the website of TU of Gabrovo so that as many as possible interested people could be reached
- E-PBL Platform in the Area of Engineering Sciences. Information published in the Euro Direct e-newsletter written by Gabrovo Chamber of Commerce and Industry on a regular basis and send to companies, authorities at local / regional and national level and policy and decision makers via their mailing list
- E-PBL Platform in the Area of Engineering Sciences. Information published on the website of Trakia Economic Zone, Plovdiv, the largest industrial and commercial area in South East Europe. More than 180 companies and local and state government, educational institutions, associations and business communities are members or partners of TEZ.
- E-PBL Platform in the Area of Engineering Sciences. Information published in Izvestnik newspaper published by TU of Gabrovo

## Community events

- EDUCATIONAL FAIR "MODELLING YOUR FUTURE" (26/6/2019), organized by the Ministry of Education and Science and Gabrovo Municipality - Deputy mayor of Gabrovo municipality, Deputy minister of education, Director of Regional Educational Inspectorate, Director of Gabrovo Chamber of Commerce and Industry, Secondary schools, Companies, Technical University of Gabrovo
- VET Institutions' Exhibition (7 and 9/10/2020) More than 1000 VET providers, professional high schools, universities, Ministry of Education and Science, Gabrovo Municipality, decision makers, general public
- 7. Tribhuvan University Dr. Aman Shakya presented

## The use in courses in IOE\_TU

- MSc in Computer system and knowledge engineering I/I 20 students
- MSc in Computer system and knowledge engineering I/II 20 students
- MSc in energy systems planning and management I/I 20 students
- o MSc in renewable energy engineering II/I − 20 students

## **Future activities**

- Instructor training sessions
- Conduct capacity building activities for faculty and staff
- Local community events

## **Regional collaboration**

In case of multi-country-regional projects, explain how the project has contributed to regional integration and cooperation between different regions of the world. Partners should provide information and quantify the interinstitutional agreements or bilateral agreements signed/to be signed by partner country institutions, in order to promote cooperation in the field of education and/or research, as a result of cooperation in Erasmus+. This could be between partners in Asia and/or between partners in Asia and Europe.

The consortium will plan for such agreements to be signed in the coming months.

#### **Governance reform**

Were there changes at institutional level introduced (e.g. establishment of units, new faculties, international relations, offices, etc.)? If so, what is the statute of the new unit(s) within the institution(s) concerned? What kind of financial support and staffing arrangements will be provided in the future? Partners should explain the place of these new units/offices/centers in the HEI's organigram and provide a link to the business plan.

The partners will agree on a template for the business plans for the labs. Each partner located in Asia will use the template to develop a business plan for their lab and provide a link to it on the organizational portal.

## Impact and sustainability

Partners should present other universities, authorities, professional associations and multiplier activities.

At the end of the project there will be a report on all PBL activities that took place in courses at all partner sites. It is important to demonstrate that project results were used in many courses and ideally by several people, not only by people in the consortium, but also from other colleagues. They can also join the platform, post problems and use ALIEN PBL platform in their course.

- 1. EACEA wants to see that the project is being used in Asia, because the focus of the project is Asia, that's why we should show that the project has been used in different courses and from different people
- 2. The implementation teams should not be isolated. The results should be used by other people/colleagues. You can ask from new problems by your colleagues and post them under their name

## November 13, 2020

Project coordinator, Dr. Hariklia Tsalapatas welcomed the consortium partners on the second day of the online meeting. Partners continued with their presentations.

8. Tallinn University – Martin Sillaots presented

## The use in courses in TLU

- Learning in disciplinary focused environment 25 students
- o Computer games 19 students
- Basics of game theory and design 36 students
- o Design of game logic 36 students
- Level design 41 students
- Design of learning game 41 students
- Design of game assets 41 students

#### Instructor training events

- o 1<sup>st</sup> instructor training (19/9/2020) 6 participants
- o 2<sup>nd</sup> instructor training (22/10/2020) 5 participants
- o 2 future instructor training events in 19/11/2020 and 17/12/2020

## Dissemination

- Presentation of Tallinn University Erasmus+ projects (26/11/2018)
- News in Tallinn University weekly news (14/1/2019)
- Tallinn University blog post (7/2/2019)
- 9. FAST Irum Inayat presented

## The use in courses in FAST NUCES

- Software engineering spring 2018 254 students
- Advanced requirements engineering spring 2018 30 students
- Human computer interaction spring 2018 250 students
- Software engineering for industrial automation systems fall 2018 22 students
- Human computer interaction fall 2018 230 students
- Software engineering spring 2019 245 students
- Advanced requirements engineering spring 2019 32 students
- Software engineering for industrial automation systems fall 2019 12 students
- O Human computer interaction fall 2019 247 students
- Intro to software engineering spring 2020 239 students

## Use of active learning in projects

- Measuring the impact of serious game design factors and problem-based pedagogy on learning outcome – master thesis publication in process
- Skill assessment of CS students using serious games master thesis publication in process

## Instructor training events

- o 1<sup>st</sup> instructor training (March 2020) 75 participants
- o 2<sup>nd</sup> instructor training (June 2020) 13 participants
- o 3<sup>rd</sup> instructor training (October 2020) 8 participants
- 4<sup>th</sup> instructor training (November 2020) 63 participants

## Dissemination

- o Lab setup in Bahria University newsletter
- PBL lab in newspaper
- PBL lab in a radio show conducted on technology and education by a local FM channel
- Publications on facebook
- 10. University of Central Lancashire Janet Read presented
- 11. Institute of Technology Cambodia Movsur Kuy presented

## Instructor training events

- o 3<sup>rd</sup> instructor training (24/2/2020) 28 participants
- 12. ISRA University Kamran Khowaja presented

## The use in courses in ISRA

- o Introduction to algorithms 50 students
- Advanced computer networks 5 students
- Final year project 34 students
- Object oriented software engineering 30 students
- o Basic electronics 13 students
- o Programming fundamentals 15 students
- Human-computer interaction 53 students
- Software quality assurance 11 students
- Object oriented programming 35 students

## Instructor training events

- o 1<sup>st</sup> instructor training (24/8/2018) 20 participants
- o 2<sup>nd</sup> instructor training (31/8/2018) 20 participants
- o 3<sup>rd</sup> instructor training (21/8/2020) 10 participants
- o 4<sup>th</sup> participants (21/8/2020) 10 participants
- o 2 future instructor training events in December 2020 and January 2021

## Community events

- Innovative project ideas and commercialization (20/2/2020)
- ALIEN @ ISRA job and trade fair 2019
- 13. Porto Polytechnic Carlos Vaz de Carvalho presented
- 14. Meanchey University and the University of Battambang Veasna Pich presented

## The use in courses in MCU

- Computer network 10 students
- Data based system 12 students
- Data structure and algorithms 12 students
- Data communication 11 students
- Mathematics for business 47 students

#### **Community events**

MCU has conducted events supported by Bacamp (25/5/2019)

#### **Evaluation**

Partners have to make a detailed report on the use of ALIEN in courses in their university. In the end there should also include a summary of how the implementation of ALIEN went.

The ALIEN project aims to build problem-solving skills for engineering education through physical laboratories, a digital platform of collaboration and educational content, and training. Partners should share the following questionnaire that aims to establish the relevance, acceptance, and effectiveness of the platform.

https://docs.google.com/forms/d/e/1FAIpQLSfJuOSRpum3DJHDd8kunhbMDa3ia9eJKSiaxzte NfvUXt -nw/viewform

## **Financials**

After the partners' presentations, Dr. Tsalapatas discussed financials with the ALIEN partners:

- Timesheets and joint declaration forms
- A list of staff involved in the project and their positions
- Travel reporting documents, including boarding passes and travel report forms
- For equipment, in addition to invoices, partners need to present proof of payment
- Accounting summaries listing all expenses on the project. The accounting summaries must be generated by the formal digital accounting system of the organization. If an organization does not have a double entry system then the organization must submit a formal letter documenting that and stating the law under which this is not a requirement
- If a partner declares VAT to the project, then the partner needs to submit a formal document from authorities (not written by the organization) stating that they cannot retrieve the VAT

Partners are declaring financials regularly, every 3 months. For the partners that have absorbed the first 3 instalments, the coordinator has forwarded the 4th instalment. The partners that have not yet absorbed the first 3 instalments will continue to submit financial reports; the 4th instalment will be forwarded as soon as absorption is achieved. The final instalment of 10% will be forwarded to the

partners, pending approval of the final report, once the coordinator receives it from the administrative agency.

## Next project meeting

Next project meeting dates and details will be discussed in the future by the partners. A final conference will also be organized during the last consortium meeting. If the meeting takes place online, then the conference will also be on-line. In this case, the conference will last two hours. The focus will be on the impact of the project in Asia. A keynote speaker will also make a presentation at the opening of the conference.