

## **ICT\_EDUPAND Second Project Meeting** was held at Faculty of Electronic Engineering, University of Niš (UNI), Serbia, June 13-14, 2022.

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### **Purpose of the project meeting:**

- *Analyze of previous activities and results of cooperation;*
- *Identify the missing data in the annual report;*
- *Exchange views and information on difficulties in the project realization;*
- *Detail plans for further steps in the scope of ICT\_EDUPAND;*
- *Identify possible areas of cooperation in addition to ICT\_EDUPAND.*

### **Project meeting sessions**

#### **FIRST DAY**

**Date:** 13th June, 2022.

**Time:** 10:00-17:30 h

**Place:** Building of the Faculty of Electronic Engineering, Hall 1

#### **Participants:**

Jarosław Makal, main project coordinator, BUT; Bojana Gajić, project coordinator NTNU; Teodor Iliev, project coordinator, UR; Goran T. Đorđević, project coordinator, UNI; Carl Richard Steen Fosse, NTNU; Ivaylo Stoyanov, UR; Nebojsa Dončov, UNI; Dejan Milić, UNI; Nenad Milošević, UNI; Aleksandra Panajotović, UNI; Jelena Anastasov, UNI.

#### **Overview**

Goran T. Đorđević opened the project meeting and gave the word to Nebojša Dončov, Vice-Dean for research activities at Faculty of Electronic Engineering. He welcomed participants and gave a short introduction about the Faculty activities and historical development.

Jarosław Makal, the main coordinator of the Project, gave an overview of the Project activities. He asked all participants to give website addresses or links to previously developed material (**deadline is July 1, 2022**). In addition, he required from all participants to give description of activities supported by the grant for Project Management and implementation that have been carried out until that moment (**as soon as possible**).

He mentioned the times planned for realization of each IO. IO1 has been realizing from June 2021 to May 2022; IO2 has been realizing from June 2021 to Nov 2022; IO3 has been realizing from August 2021 to March 2023; IO4 has been realizing from September 2021 to March 2023. After that, he presented the tables containing the working days planned and working days reported per institution for each IO. He mentioned main activities within each IO and reminded participants to indicators for each IO.

After this presentation, representatives of each participating institutions gave talks related to activities at each institution.

Firstly, Bojana Gajic and Carl Richard Steen Fosse, NTNU, presented the work carried out at NTNU in the scope of IO1 and IO2. They include the activities related to organizing workshop series in October 2021 (preparing lectures, conducting the workshop with demonstration of some online collaboration tools, annotation of workshop recordings), and

translating and organizing selected teaching materials from problem-based courses at NTNU. They presented briefly the plan for future project activities at NTNU. Documents summarizing two courses at the university with links to translated course materials were presented, and the contents of these documents were discussed.

Secondly, Jarosław Makal, BUT, presented activities carried out in the scope of IO2. He mentioned that two workshops were organized in Polish at BUT in October 2021, as well as two webinars in February 2022. He presented several short movies recorded at BUT. These movies illustrate innovative teaching methods performed at BUT. He explained the manner how these movies had been recorded and share his experience in this field.

During the meeting, one coffee break (15 minutes) and a lunch (45 minutes) were organized.

The meeting session finished at 17.30 h.

Working dinner was organized from 19.00 h to 22.00 h.

## **SECOND DAY**

**Date: 14th June 2022.**

**Time: 09:00-16:00 h**

**Place: Building of the Faculty of Electronic Engineering, Hall 104**

### **Participants:**

Jarosław Makal, main project coordinator, BUT; Bojana Gajić, project coordinator NTNU; Teodor Iliev, project coordinator, UR; Goran T. Đorđević, project coordinator, UNI; Carl Richard Steen Fosse, NTNU; Ivaylo Stoyanov, UR; Nebojsa Dončov, UNI; Daniela Milović, UNI; Dejan Milić, UNI; Nenad Milošević, UNI; Aleksandra Panajotović, UNI.

### **Overview**

Teodor Iliev, UR, presented activities at UR. He gave a list of 11 participants from UR taking part in Project activities realization. After that, he presented some activities within each IO. In the scope of IO1, they analyzed software platforms for e-education and he stated those teachers' skills improved due to attending the workshops held in the scope of this IO1. He mentioned that two conference papers were presented as the result of activities in this IO1. Within IO2, they made an analysis of suitable presentation system and software platforms for e-education. As a part of IO3, UR staff performed an analysis of the needs for new knowledge and skills and students. UR staff have been working in preparing multimedia interactive presentations for three courses: Advanced Mobile Communication Networks, Electrical Safety and Power Systems and Smart Grid. He showed some movies and other materials prepared by realizing this activity. In addition, Teodor showed emphasized the collaboration with industrial partner ELSTART and presented a movie recorded at that company. In the scope of IO4, UR staff members have been working in preparing the textbook Advanced Mobile Communication Networks. At the end of the presentation, Teodor presented some promotion actions in the form of articles available at UR website, newspapers and presentations at some conferences.

Goran T. Đorđević, UNI, presented activities carried out by UNI staff members. In the scope of IO1 UNI, staff members performed following activities: 1) they presented their experience

in problem-based teaching in the presentation “Short review of a course that uses problem-based method”. 2) They made a list of required mathematical knowledge for successful attending essential courses at the specialization of Telecommunication. 3) Materials are being collecting for a paper related to the impact of Covid-19 on studies at UNI. In the scope of IO2, UNI staff members prepared a presentation “Using technology and internet resources for teaching”. Based on this presentation, a lecture was recorded in English, and a workshop on this topic was organized in Serbian for teaching staff of UNI. In addition, he told that one example of presentation adapted for utilization under COVID-19 was prepared. In the scope of IO3, he mentioned that they work in preparing digital teaching material for three courses: Lab Practicum, Networks and Protocols, and Information Theory and Applications. In this moment, they prepared the table of lessons per week, required lab exercises and mathematical background for every lesson, introduction movies and five lectures per each course. In the scope of IO4, he mentioned that UNI staff members have been preparing the textbook Measurements in Communications Lab. for this textbook, an input from Adam Nikolayev from BUT was received. The UNI staff members have been working on preparing the “Collection of students’ projects realized in laboratories of project partners”. At this moment, eight students’ contributions were finished or are in the process of preparing.

### **Further activities**

1) Jarosław Makal suggested that survey from UR, mentioned by Teodor Iliev, should be forward to other partner universities in order to perform the similar surveys. These results would be useful for ICT\_EDUPAND, but also could be utilized for further joint application in the field of Erasmus+ programme.

2) Jarosław Makal emphasized that three courses should start using PBT method on October 2022, and remaining three ones should start with using PBT method in spring 2023. He told that work on preparing materials for PBT courses needs to be intensified.

3) Jarosław Makal demonstrated the utilization of the Ring Light Professional Bivolt 18 Polegadas YQ-480B for preparing digital lecture material. He explained how he uses it in preparing lecture notes and how it can be used for developing of presentation skills of students.

4) Participants discussed details about project dissemination meetings and clarified some items related to eligible participants and what would be presented during those meetings.

5) The detailed plan was established what should be finished before the next project meeting in Ruse, Bulgaria.

### **Conclusions:**

1. At the next meeting in Ruse, teachers from BUT, UNI and UR will present the detailed program and teaching materials for the courses that start from October 2022 and which must be provided with using PBL method. These courses are Electrical Circuits 1 (BUT), Networks and Protocols (UNI). The comments and remarks concerning these materials and ways of implementation will be expected from our NTNU partners.

2. Also during this September meeting all partners must present the plan of activities for the next months. It concerns the plan of using the remain working days for IO's realization, plan for dissemination activities (papers, conferences, events, etc.).
3. The dates for multiplier events at each partner universities must be settled in September.
4. The progress in Project activities is satisfactory. Project leader concluded that all actors should agree to make situation as good as possible for realization of project tasks. He emphasized that project coordinators from all institutions should inform university authorities about this meeting and project results. The next period until the next meeting will be very important because majority of tasks should be finished in that period. The next meeting will be held in Ruse, 29-30 September 2022.

Minutes:  
Goran T. Đorđević, UNI