UNIVERSITY OF SARAJEVO FACULTY OF CIVIL ENGINEERING

REPORT ON THE ROUND TABLE





All4R&D

GRAĐEVINSKI FAKULTET, SALA BURENCE, UTORAK 01.10.2019. u 10:00



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PREPARATIONS FOR THE MEETING

As part of the All4R&D project, the Faculty of Civil Engineering of the University of Sarajevo was expected to prepare a round table and interview potential participants in the project on the possibilities of cooperation between academia and industry. The representatives of the Faculty of Civil Engineering officially contacted and invited 35 participants. In addition to the invitees (Fig. 1), representatives of other interested parties and students of final years were also informally invited to attend the round table.

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Fig. 1: Invitees

The list was designed to bring together renowned designers, contractors, institutions, and representatives of academia and alumni in one place. In the invitation for the meeting, participants were briefly informed on the essentials of the All4R&D project. The original call for the roundtable is shown in Figure 2.

Poštovane kolege,

Pozivamo Vas da sudjelujete na okruglom stolu u okviru projektu <u>Erasmus</u>+ "Promoviranje saveza za istraživanje i razvoj između univerziteta i privrede kroz suradnju i platformu otvorenih inovacija - All4R&D", koji ispred Univerziteta u Sarajevu vodi Građevinski fakultet. Cilj projekta je saradnja privrede i fakulteta. Projekat traje 3 godine, a u projekat su uključeni Univerziteti i kompanije iz Makedonije, Bosne i Hercegovine, Armenije, Finske, Austrije i Njemačke.

(Zvanična web stranica projekta je http://all4rd.net/ gdje se mogu naći detaljnije informacije o projektu).

Cilj je za istim stolom okupiti <u>eminente</u> stručnjake iz građevinske prakse i profesore sa fakulteta, te u otvorenoj i sadržajnoj diskusiji doci do dobrih prijedloga za saradnju privrede i visokog školstva. Biće nam izuzetno drago da sudjelujete na okruglom stolu održati 01.10.2019. u 10:00 na Građevinskom fakultetu u Sarajevu, Patriotske lige 30, sala "Burence".
Agenda sastanka je u prilogu.

Srdačan pozdrav

Fig. 2: Invitation for the meeting

In addition to the e-mail, the basic features of the discussion are given in Figure 3.

ALL4RD - poziv GAP Analysis

GAP analiza jedan je od bitnih zadataka u okviru projekta Erasmus ALL4R&D - Razvoj i provedba tečajeva i inovativnih aktivnosti koje nude profesori i stručnjaci iz industrije. Analiza će se provesti kako bi se analizirao jaz između kompetencija koji imaju studenti i alumni, odnosno bivši studenti a danas inženjeri iz prakse sa bogatim stručnim iskustvom. Rezultati sastanka i ankete koristiće se za razvijanje novih tečajeva i inovativnih aktivnosti, u saradnji profesora i eksperata iz građevinske privrede kroz novoformiranu Kooperativnu jedinicu za istraživanje i razvoj na Građevinskom fakultetu u Sarajevu.

Na sastanku – okruglom stolu će se procijeniti potrebe i izazovi s kojima se susreće građevinska privreda (građenje, proizvodnja, projektovanje, konzalting, standardizacija...) te donijeti preporuke o potrebnoj dodatnoj edukaciji.

Sljedeća pitanja trebaju biti razmotrena među akademskim osobljem i menadžerima/profesionalcima iz privrede:

- Koje su tehničke kompetencije / znanja potrebna u vašoj industriji?
- Koje važne i inovativne teme nedostaju u univerzitetskim programima?
- Koje su teme važne (inovativne i donose rast u kompanijama) i trebaju ih naučiti studenti i njihovi zaposlenici?

I druga otvorena pitanja.

Radujemo se Vašem dolasku

Fig. 3: Invitation for the meeting

After the round table, the conclusions were summarized and notes of thanks were sent to the participants of the discussion with a wish to continue cooperation (Fig.4). The participants were again asked to complete the survey.

Poštovani

prije svega želimo da Vam se zahvalimo na podršci koju kontinuirano pružate Erasmus projektu ALL4R&D.

U suradnji sa kolegama sa drugih Univerziteta, učesnika u projektu, analiziramo zaključke sa okruglog stola koji je održan 01.10.2019.godine na našem Fakultetu u Sarajevu. Odziv je bio iznad naših očeklvanja, a iskustva sa sastanka su nam od velike pomoći u kreiranju našeg izvještaja ka partnerima u projektu. Sva iskustva sa sastanka će biti prezentirana na slijedećem sastanku partnera Erasmus projekta ALL4R&D. Informiraćemo Vas o daljnjim aktivnostima i nadamo se nastavku Vaše podrške.

Molimo Vas da izdvojite vremena za ispunjavanje anonimne ankete(spominjali smo je i na Okruglom stolu) čija je tema saradnja privrede i univerziteta na linku:

https://www.surveymonkey.com/r/All4RD-Gap-analysis

Da bi anketa bila što objektivnija i uključila što više učesnika molimo Vas da link dostavite vašim kolegama i uposlenicima uz molbu da je popune do 19.10., te uz napomenu da se sa jednog računara može popuniti samo jedna anketa.

Srdačan pozdrav

Fig. 4: Note of thanks

REGISTRATION OF PARTICIPANTS

During the round table, participants were listed (Figure 4).

ledni broi	Firma	Prezime i ime	Kontakt telefon	Kontakt E-mail	Potpis
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7	WINNER PROJECT	SAFET MEGOVIC	061/201-160	PROJEVAT OWINGE BUGG	, The
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22	GRAGEVINSKI FAKULTER	MUSTAFA HRASNICA	OG1 222 388		Her.
23	BURN GRAPELINEN FAMULT	57 SIMONOLIE GORN	063861065	goransimonocica Yohasou	1
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25	GF Parajevo	Janir Dolarević	061/106-510	so-ir oblaraic Ogf use Le	#
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Fig. 5: Registration of participants from industry and academia

THE MEETING

The meeting was opened by the Dean of the Faculty of Civil Engineering, University of Sarajevo Prof. dr. Dolarevic (www.gf.unsa.ba). He briefly presented the current situation at the Faculty of Civil Engineering, pointed out the potential of the educated young staff of the faculty, the very good cooperation we traditionally have with industry, and pointed out that the faculty is constantly changing with the aim of closer cooperation with the economy. He particularly emphasized the possibility of adapting curricula to the needs of the industry.



Fig. 6: Conference room

Thereafter, the leader of the ALL4R&D team Prof. Hrasnica (www.gf.unsa.ba) reiterated the most important conclusions from the 1st National Meeting held on 07.03.2019 at the Faculty of Civil Engineering. He presented the attendees with conclusions from Macedonia and Finland, and briefly outlined the activities planned and the upcoming meeting in Bochum. He then asked the attendees to introduce themselves.

The noted discussion was held by Elma Kovacevic-Bajtal (www.komorabih.ba) as a representative of the BiH Foreign Trade Chamber. She said that the current market is hungry for profiles of all types of workers, the need for constant training and changing of occupation, and that education should be radically changed in primary and secondary schools. Particularly interesting part of the presentation relates to the dying off of interest due to digitization. She further endorsed regional standards of study, dual education, firm mentoring, adequate salaries and compensation for work. She pointed out that people today are looking for an occupation for themselves. Training is a daily routine, work needs to be changed (hairdresser, CNC operator, welder ...), for which simple courses are sufficient as opposed to classical school training. She pointed to the importance of LLL and the inertia of BiH companies in programs such as Horizon 2000 and the like.

Bojana Zecevic and Mario Prka (www.bas.gov.ba), as representatives of the National Institute for Standardization, pointed out the need for LLL and suggested courses for engineers on the introduction of Eurocodes. It is interesting to say that young engineers reacted by arguing that this has been overcome, indicating a gap in generations, and the willingness of young people to face new challenges beyond institutional conventional schemes.

Džoko Nedžad (<u>www.walter.ba</u>), as a representative of one of the most promising BIM companies, said that any kind of cooperation could be achieved, but that the ideas for potential fields of collaboration should be first written by various participants and then discussed.

Safet Nekovic, a partner in the ALL4R&D project (www.winnerproject.ba), pointed to the huge potential of cooperation between industry and science, but also indicated that the application of new technologies has its limitations in small markets. As an example, he cited dynamic pile testing equipment, where his firm temporarily halted the project by analyzing costs and potential profits. He further emphasized the issue of legal regulation, stating that responsible firms were not in an equal position until stricter laws were introduced on the implementation of all types of certification and quality proofs that are avoided by socially irresponsible firms.



Fig. 7: Meeting photos

Kenan Imširpašić, owner of a newly-founded infrastructure design firm, believes that a qualitative and quantitative market analysis should be made and asks what kind of engineers faculty should produce. He emphasized the issue of responsibility of engineers because he felt that graduates had no sense of responsibility. He believes that engineers should be educated in a wide range and only choose a specialization after employment.

Hajrudin Hadžiabdić, (www.dzekos.ba), believes that one should work on general education of the nation as a whole, and then go into vocational projects. As an example, he stated that individuals even employ people because their quality is ignorance. He further pointed out that in the education of students, there should be more focused on site organization, execution, regulation, reading of projects from A to Z, and, most importantly, to teach students how to make money.

Mirza Potogija (www.butmir.ba), from one of the largest contracting companies, believes that the market is saturated with designers, and that universities produce cadres that cannot manage a construction site. He generally believes that young people lack readiness for teamwork and that there is no interest in working at a construction site. He emphasizes the importance of economics in construction and the problem of human resource management.



Fig. 8: Meeting photos

Tarik Turkovic, owner of one of the newly established companies, which mainly employs younger staff, (www.te-ing.com), wondered what we could do to make the profession more interesting. What can change at construction sites is that engineers recognize themselves as the people who create and who will be challenged by structures. He cited examples of introducing training projects, where they work together in a team to solve practical problems, indicating that education is not completed by the act of graduation. He pointed to the need for work meetings and courses where engineers would jointly analyze the problems they have. He particularly emphasized the problem of motivating young engineers.

Mehmed Mesihovic, (www.arkus.ba), another young engineer who took the initiative himself and founded his own company, emphasized paperless design and BIM modeling and execution. He offered every kind of help, including financial, to help things get better. He believes that young people are inert and that if there is no need they have no initiative. As an example, he stated that the company had a library and no one even opened a book. He believes that there is generally a lack of sense of responsibility.

Mirza Bajraktarevic, (<u>www.sirbegovic.com</u>), as a responsible for development and research in the company Sirbegovic again offered internships for students, cooperation in the preparation of master

theses, and called for cooperation and closer connection of academia and industry. He said that giants, such as Sirbegovic, have problems when it comes to doing work that is not an engineering routine. He emphasized the problem of branding, certification of equipment, prices, markets, and other. He pointed out that today's particular interest in design is only one small link in the construction profession chain. He believes that firms and individuals themselves have a position in the market. He pointed to the extensive use of precast concrete products and the successful use of high strength concrete and steel, thereby building the image of his company. He further indicated that engineers need other skills than those acquired during education such as the ability to contract, present themselves, sell, spend and make money, as well as the lack of project management knowledge, weak interpretation of contracts, proper construction logs and job records, etc.

Rasim Sehagic, from Calypso doo, believes that students should master tools such as ALLPLAN and others, and that during their education they should complete projects from understand architectural projects to contracting. He also believes that a combination of students and experienced engineers as participants in future courses can cause a counter-effect.

Turbo Ahmed, (www.termo-beton.com), engineer with many years of work experience, thinks that only innovative ideas can be lucrative today, and that without the cooperation of academia and industry, firms are not competitive. He also pointed to the major problems of the lack of general knowledge in the country, and the problems of wider education of engineers, which in his opinion should still be narrower and more specialized.



Fig. 9: Meeting photos

After two hours of discussion, Prof. Hrasnica emphasized the problems of founding alumni associations of engineers, the need for LLL, emphasized that new technologies are an obligation, but

also stressed the weak response of students to, for example, IT courses, foreign language courses, professional practice, and the problem of not enough construction sites around Sarajevo that could be visited by final year students.

The roundtable was organized prior to the start of school year at the faculty. During the month of October, the final year students were introduced to the activities in the ALL4R & D project.

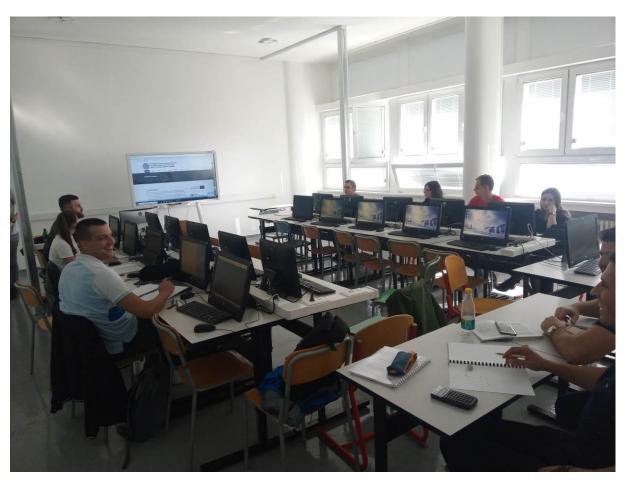


Fig. 10: Introducing students to ALL4R & D