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Project: Euro-Mongolian Cooperation for Modernisation of Engineering Education

2nd meeting

Minutes of the meeting

Monday 10, September 2018

Prof. Enkhjargal. Kh, Vice-President, MUST

Welcome Remark - This project is design for the national education and now all professors' work in one team. Good opportunity and experience to discover this culture. Thank you for pushing us to Slavka.

Prof. Ochirkhuyag. B, Vice-President, NUM

Welcome Remark - Thank you for the Technical University of Sofia

This project is one of the most succfull of the European commission

This project will make very useful, data design improve.

Have a successful project!





Prof. Slavka Tzanova, Project Coordinator, Technical University of Sofia

Prof. Slavka Tzanova opens the discussion of the 2nd meeting.

Prof. Slavka Tzanova explain why the Italians are not here. They declared in an oral and written in e-mail form that they do not want to participate but they do not send a signed by the rector letter of withdrawal. The Spanish partners are still waiting to be involved in the project by the EACEA.

The question is if Politecnico di Torino does not send such a letter at all, as it is the case, why the Spanish university cannot be involved if all partners agree on the change of partner.

Prof. Slavka Tzanova recalls the tasks and deadlines and then the results and expected impact:

- At least 22 shared MSc courses
- 3 laboratories for practical training of students at each partner university with modern equipment
- 3 laboratories (one in each Mongolian university) equipped with computers and software for e-learning materials development and for delivery of e-learning.
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Tuesday 11, September 2018

Dr. Uuganbayar, Project Manager of MUST and representative from Mongolian partners

- Presentation on Needs Analysis

Review on existing situation in making curriculums in Mongolian higher education

3 important Values:

- EXPERT CENTRERED
- CDIO conserve design into engineering curriculums
- HYBRID: Combine 2 different period Soviet period and western curriculum policy

MIT: Making a market oriented curriculum is the most important for improving curriculum policy in Mongolia



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First Result: Needs for the industry (bases, Technology and practical courses)

2nd result: Survey for students using new e –learning courses

Favorite choice from students is Blended/Hybrid course, collaborative and autonomous learning.

Prof. Slavka Tzanova, Project Coordinator, Technical University of Sofia

Slavka answer: Learning by doing, face to face and laboratories.

Face to face must be combined with e-learning. Learning with a project need a lot of knowledge. E-learning is not good if there are no interactive courses.

Remarks of partners

Why Pedagogic is important?

How to evaluate, how to create the groups, increase the learners

From the results, the students want to blended learning, they want to design and manipulate and work in laboratories

South coreen: student teach, the professor observe and help them

Expert from industry

Soviet period had courses with teachers from industry

An idea is to invite expert 1 or 2 times from industry

What skills are need in the industry?

Entrepreneurial ship, project management, communication

TUB : Cooperative studies

Student are consumers

Employers don't need mathematic and physic

Our goal is to keep your students! What is the profit of the country if the good engineer live the country?

An example: Teach them how to create start up



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2 years of experience when you are student – they are very busy so e learning course

We need to change the behavior,

INES : Combine e learning course before the face to face to get the bases and to be sure the class have the same level with tests, then after get some practical movies on laboratories experiences

Wednesday 12, September 2018

Dr. Uuganbayar, Project Manager of MUST and representative from Mongolian partners

- Presentation on Needs Analysis
- Survey Period and sampling

Introduction of the school of power engineering (MUST)

Established in 1960 with now 130 professors for 2700 bachelor students

Research fields in electric and thermal engineering

Welcoming by the dean.





Presentation on Course Description (MUST)

Presentation of master degree courses - Technology process and industrial automation

Skills and competence

What will student gain?

Presentation of the curriculum - Selection of 7 courses

This master is not a new accreditation.

Slavka propose to redefine the matrix about knowledge, skills and competences.

For exchange student it needs to be 60 credits, for one semester or one year

One request for the future is to develop graduate school. The plan strategy is to professional in sustainable energy school. Two measure program research and learning. Magali explain the master energy and building from INES. Slavka proposal is to add communication courses.

New curriculum will be developed, not only new courses for the existing curricula.



Laboratory Tours at MUST



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Thursday 13, September 2018

Presentation on Course Description (NUM)

National strategy is customer nation must become a productive nation and then innovative nation.

Presentation of master degree courses

Solid state electronics - Main topics

Slavka proposes the MicroWind software program and then propose the matrix about knowledge, skills and competences.

The proposal could be a **new curriculum in two years with the help of the EU MONG** program.

Introduction of the National University of Mongolia (NUM)

Welcoming by the dean





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Laboratory Tours at NUM



Presentation on Course Description - National Technical University (Mrs. Selongo)





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Presentation of a summary of Needs Analysis

Prof. Slavka Tzanova, Project Coordinator

First of all, the generic competencies are presented.

Students, Academics and Employers are compared.

Then subject and specific competences are presented.



Friday 14, September 2018

Presentation financial issues

Prof. Slavka Tzanova, Project Coordinator

Discussion on the list of equipment to be presented and the mandatory tendering procedure for the entire amount of 70000 EUR.

The answer was given to the many questions.

Slavka insist it is very important to spend the money for the equipment, to respect the rules, i.e. the tendering procedure, 3 offers, invoices, proof of payment.

The Mobility cost and Staff cost has to be justified.



The financial issues are presented again.

- All staff agreements must be filled and signed and a scanned copy should be send to prof. Tzanova.
- It was explained to all partners that a tender procedure is needed for the equipment. It should be announced in the media and three offers should be collected. Only prof. Tzanova can contact and ask for approval the European Commission (EACEA) if something has to be changed.
- The payment agreements should be filled correctly, otherwise TU accountancy cannot send the money to the partners.
- Because there are special regulations in Mongolia about the mobility, the partners from Mongolia prefer TUS to reimburse them for their mobility.



Saturday 15, September 2018

Planning the tasks:

- Competence matrix – there is a definition from the EC about he credits. Slavka Tzanova demonstrated examples about need analysis, questionnaires for industry and competence matrixes. At the end of the project the students will



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be asked again about the level of education, how useful it was for them and what is their experience.

- All examples will be send to partners for opinion.

Visit of a solar plant

Next to UB, a 445 kW solar power station is in self consumption for the airport.





To Do list:

To send the template for the competence matrix with examples, 03/10/2018	Slavka
To define learning outcomes in the competence matrix and credits according in ECTS, 30/10/2018	All partners
Each partner to create a web page on the server of the university on local language – 09.11.2018	All partners
Need analysis reports to be sent to Slavka for completing the project need analysis report – 15/10/2018	All partners
Partners from EU to send the description of courses which curricula and e-learning courses they can provide to the Mongolian partners – 30/11/2018	All HEIs from EU
To book airplane tickets for the Mongolian partners to Lyon – 30/11/2018	Slavka
To send invitations to the Mongolian participants in the meeting at INES for the visa.	Magali

***Next meeting on syllabi evaluation and training seminar for Mongolian teachers:
Chambery, France, 1–4 Avril 2019 (depending on the flights availability)***

