



THE VISIT OF THE UNIVERSITY SCHOLARS FROM UKRAINE TO THE USA

Last December the delegations of the Ministry of Education and Science of Ukraine, Kiev National University, Dnepropetrovsk National University, Kharkov National University and Kharkov National Technical University, Odessa National Technical University and Donetsk National Technical University visited the USA.

A/Prof. D. Zukhba represented our university. Our delegation had a number of meetings with the heads of influential organizations of the USA working in the education area, visited the State Department of the USA, the national Scientific Fund, the American Council on International Education and the Meridian House.



They had a meeting with the President of the **Institute of International Education** founded in 1919. Today it is one of the US leaders in implementation of international programs of academic exchange of students, post-graduate students, teachers and researchers, in organization of international training programs such as Fulbright and Gilman.

At the meeting with the representatives of the **American Councils for International Education** the representatives of Ukraine discussed the issues of the academic exchange, starting up of the business-incubators, technology transfer development, introducing of advanced technologies and intellectual property commercializing.

The above mentioned boards and the Ukrainian universities discussed the issues of signing of agreements on sending Ukrainian students and post-graduates students to academic institutions of the USA in the frameworks of the corresponding program carried out by the government of Ukraine since April 2011. At the meeting with the representatives of the **Association of American Universities** the parties discussed collaboration in science, higher education quality provision, international financing of the long life education, and scholarships for foreign students. They also exchanged their experience in a number of topical issues related to the higher education.

The Ukrainian representatives also visited John Washington University, Massachusetts Technological University, Harvard University, the University of North Carolina, Duke University and got the information on enrolment of students, structure of the universities, Master's and Bachelor's programs and external independent testing in the USA.

They also discussed the American and Ukrainian systems of education and possibility of further collaboration as to Ukrainian students training at the leading American universities.

Our delegation visited the laboratories of micro-and-nano-engineering technologies, thermo-laboratories of **Massachusetts Technological University**, got the information on foreign students accommodation and training.

At **Harvard University** they had an excursion about the campus and visited its library that has about 5 mln. volumes. They also learnt about the procedure of defense of Master's and doctoral dissertations and discussed the issues of possible collaboration.

At **Kennan Institute of Engineering Technologies** the organization of summer campuses to earn how to hold conferences, and get legislation and methodological assistance in the research result commercialization, set up business incubators and intellectual property document preparation was discussed.

THE MEETING OF THE PARTICIPANTS OF THE EWENT PROJECT OF THE ERASMUS MUNDUS PROGRAM

The first meeting of the participants of the international education project EWENT (East-West European network on higher education) took place at Warsaw Polytechnic University (Poland) in January. Representatives of 17 universities of the European Union (France, Spain, Italy, Poland, Hungary, the Czech Republic, and Ireland), Ukraine, Belarus and Moldova took part in the event.

The project is fulfilled in the frameworks of the Erasmus Mundus program and is financed by the European Union. It is aimed at supporting the mobility of students, post-graduate students and academic during their study courses and training at foreign universities. For this 200 scholarships are allocated.



Ukraine is represented by 7 universities from Kiev, Lvov, Kharkov, Odessa, Alchevsk and DonNTU.

The participants discussed the main stages of the project which will last for 48 months (till the end of August 2015). It starts in February 2012 and will include minimum 120 visits, 60 of them are planned to be done by the Ukrainian universities. The Bachelor's students will have a chance to study at one of the foreign universities during one semester. Besides, the exchange of post-graduate students and academics is also possible.

The application forms for students can be found at the project site in March 2012. According to them the best students will be selected. The selection important criteria are going to be the knowledge of English (Spanish, French, Italian, and Polish) and good progress in studying.

THE PROJECT Large Knowledge Collider

The Assoc. Prof. Cheptsov stayed in Germany in April- December to fulfill the final part of the project **LarKC (Large Knowledge Collider)** in the frameworks of the international collaboration with the **HLRS** (super computer computational centre) of the University of Stuttgart.

The European project LarKC is aimed at building of the infrastructure which makes it possible to process a great number of semantically annotated data that consists of billions of units of digital information. 16 advanced European science and research organizations such as Semantic Technology Institute Innsbruck (координатор); AstraZeneca; Free University of Amsterdam; University of Sheffield; High Performance Computing Center Stuttgart (**HLRS**) participate in the project.

During his staying in Germany the Assoc. Prof. Cheptsov fulfilled all the tasks and presented their results in front of the representatives of the European Commission in Luxemburg in October.

He and his German colleagues wrote 8 joint papers that were published in international journals and took part in 3 international conferences in Germany, Norway and Greece.

JOINT RESEARCH WORK WITH GERMAN COLLEAGUES

DonNTU and Technical University of Hamburg-Harburg (TUHH) started their collaboration in 2009.





DonNTU and the Ministry of Education of Germany have worked on the research project Development of the Strategy of Optimization with the Model Support of the Granulation Process in Boiling Bed since September 2011.

The project supervisors Prof. Svyatny and Prof. Parfenyuk visited Germany in December. They coordinated the further plans and prepared the agreement at the Rectors level.

They also made their presentations at the seminar of the TUHH, discussed the theoretical and experimental research on the subject matter, exchange the experience that could be

applied in the Donbass Region and Ukraine to improve the ecological environment.

COLLABORATION WITH THE UNIVERSITY OF MAGDEBURG

The Ass. Prof. Fyodorov visited Otto-von-Guericke University of Magdeburg in November-December. The visit was aimed at making research on modern intellectual systems of energy supply with the usage of renewable energy sources («Smart Grid»).

He also discussed the subject-matter of his dissertation with his German supervisor. He was proposed to work with some papers related with the Microgrid concept and to model normal and transition modes of current networks and to create the network model in the MatLab package.



He created the mathematical model of the distributive network of the medium and low voltages of the Microgrid network and modeled the stationary and transition modes of work in it.

He also analyzed the network model, found some mistakes and got recommendations as to their correction.

He had attended the German Language courses at the German Engineering Faculty of DonNTU and got the certificate.

He also established his contacts with the supervisor and his assistants and is going to keep in touch with them. He is discussing the results of the model correction in January 2012 and is having the videoconference with the supervisor in February 2012.

DonNTU is working at the creation of the Smart Grid project that will raise the number of research in the area and raise the level of student training.



COLLABORATION WITH POLAND

Prof. Barkalov stayed at the University of Zielona Gora (Poland) in October 2011- January 2012. He analyzed modern publications on telecommunication systems and their mathematical basis, the method of synthesis of control devices on matrix structures ASIC and standard ones such as CPLD and FPGA.

Prof. Barkalov delivered lectures on computer system architecture and embedded systems. He finished writing a joint monograph on central processor design which is going to be published at DonNTU. He also was a member of boards on candidate tests in information science and electrical engineering.

The Newsletter is prepared by the International Office of DonNTU.

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