

Donetsk National Technical University

INSTITUTE OF INTERNATIONAL COLLABORATION

Newsletter

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THE VISIT OF THE AMBASSADOR EXTRAORDINARY AND PLENIPOTENTIARY OF SWITZERLAND IN UKRAINE



The Ambassador Extraordinary and Plenipotentiary of Switzerland in Ukraine K. Shennenberg visited the Donbass Region in March. It was the first visit of the diplomat to Donetsk. He was accompanied by his wife, a counselor of the embassy and the head of the Swiss Collaboration Bureau.

He had a meeting with the administration of the Donetsk Region at which he said that the priority fields of collaboration with our region were training for the workers of local selfgovernment, training of Ukrainian students in Switzerland, health care, energy saving technologies, renewable sources of

energy, support of banks under the crisis and investment climate improvement.

Mr. Shennenberg has been the ambassador for about half a year and considers visits to universities be one of the main subject matters of his work. So his wish to visit DonnTU, which is one of the oldest universities not only in Donbass, but also in Ukraine, was quite logical.

He was welcomed by the Vice-Rector Prof. Navka (see photo 1) who told the guests about the history, structure and the main trends of development of the university. The Ambassador was pleased to learn about the English, French, German and Polish Engineering Faculties of DonNTU.

Then the guests met academics and students of the English Engineering Faculty and talked to them in different topics (photo 2).



DEVELOPMENT OF ROBOTICS AT DONNTU



A new robotics laboratory was set up at DonNTU in March.

In his greeting the Vice-Rector Prof. I. Navka emphasized the constant and fruitful collaboration of DonNTU and the Consulate of Germany in Donetsk.

The Consul General of Germany in Donetsk Mr. Tsillikens spoke on the important role of collaboration of Ukrainian and German researchers in mechatronics and handed in the hydraulic robot with parallel structure equipped by advanced sensors and control system to the

Faculty.

The DAAD lecturer Mr. Rost spoke on the significant contribution of the German party to the development of research and improvement of practical training of students of the German Engineering Faculty.

The student O. Avakimyanov that deals with robotic system modeling said he would be able to breathe new life into the research robot called RODON.

Using the equipment the students of the GEF will research dynamic processes, methods of control, regulation and safety



operation of the hydraulic drive and get high-level knowledge meeting the world's modern requirements.

The representatives of the company VIVA Ltd. and the Marketing Director Mr. Malaev, academics and students of the GEF were present at the opening ceremony.

JOINT WITH THE US UNIVERSITY RESEARCH

In 2010 DonNTU won the two years' grant of the CRDA (the USA) to develop the project UKMI-2973-DO-09 "The Search of Synoptic Templates of Climate Changes with the Help of Intellectual Analysis of Data and Highly Productive Calculations" (the supervisor being Prof. Averin and executive officer A. Rodriges).



At the beginning of the year Prof. Baskov and Prof. Averin visited the USA on the invitation of Prof. Shekhar from the University of Minnesota (see the photo) to report on the grant results which were the following: a group of programmers had been formed; the IT system to analyze the climate data and satellite footages had been created; the first in Ukraine highly-productive graphic cluster had been set up; the algorithms to find ways of hurricanes and cyclones and analyze global fields of temperatures, pressures, wind etc. had been processed. The modules to estimate the values of indices of the earth's plants and the level of the atmosphere pollution

by the nitrogen dioxide, ozone and aerosols had been developed. The American satellites Terra, NOAA, Aura, Aqua, GeoEye and the Ukrainian satellite Sich-2 get much information on the state of the planet which is a very topical for the meteorologists and environmentalists of the world. That is why the creation of the modern system of analyzing the geo-data at DonNTU will allow the university to be included into the list of the world leaders in the Internet –oriented scientific wiki-systems.

During the visit our scientists participated in 15 presentations and met the leading professors and researchers of the university. They were given the chance to learn the university from "inside" and plan their future activities.

The return visit of Prof. Shekhar is planned to take place in August. Before it the Ukrainian scientists are to make a report on the project and publish it in the USA. The possibility to connect the cluster of DonNTU to the data base on the forests of the planet that has been created by the Faculty of CS&I of Minnesota University is being discussed.

The open access information system (Climate&Ecology wikience) will be installed in 2012 to visualize and analyze climatic and ecological data and satellite footages. The system has no analogs in the world.





The Inter-Regional conference AUF (Agence universitaire de la Francophonie) "The Information Computer Technologies and Distance Learning in European-Mediterranean Space" was hosted by the Technical University of Sophia and Sophia University named after St. Clement of Ohrid in March.

50 people representing the AUF and academics and researchers from France, Bulgaria, Ukraine, Romania, Lithuania, Albania, Turkey, Croatia, Moldova, Morocco, Tunisia, Egypt, Lebanon, Jordan, Algeria and Palestine were among the participants.

Our university was represented by the Associate Professor N. Datsun that made her presentation "Technical Universities of Ukraine and Distant Learning".

Besides, she made her business contacts with foreign partners from all regional bureaus and institutions of the AUF, the University of Bordeaux, Sophia Technical University and the University named after Clement of Orhid (Bulgaria), the University of Mykolas Romeris (Lithuania), the Technical University of Jasi and the University of



Craiova (Romania), the Highest Marine School (Algeria), the University of Galatasaray (Turkey).

She learnt about the organizational structures of distant learning in three regions: Maghreb, Central and Eastern Europe and Middle East, studied the possibilities of joint work and partnership, got new information on pedagogic research in distant learning, studied the results of the university complex computerizing and creation of the MOODLE society to support the distant training.

SCIENTIFIC AND PEDAGOGIC COLLABORATION WITH GERMANY

The Associate Professor of the Department of Computer Engineering V. Lapko visited the University of Stuttgart (Germany) in March. The visit was organized in the frameworks of the collaboration agreement and on the invitation of the Director of the Institute of Automation and Software (IAS).

The aim of the visit was to preparation of the plan of joint research on the program of LeonardEuler – Stipendienprogramm and organization of the one month's study course for Master's students.

Prof. Lapko participated in the scientific seminar where he spoke on the research results. The master's students were told about the research done at the University of Stuttgart and shown the laboratories of the IAS and ISYS.

He also coordinated the technical and organizational aspects of the usage of the resources of the computer centre by our Master's students as the users with remote access.

The plans of work were coordinated with every student and each of them was given computer equipment to do the research.

UKRAINE-FRANCE: THE MASTER'S DOUBLE DIPLOMA



The program MASTER has been in force at DonNTU since September 2011.

The first group of 6 students having student cards of both DonNTU and the University of Cergy Pontoise started working on the coordinated program. The first difficulties were related to the understanding of the on-line courses delivered by the French scientists. At the day of the exam the French party sent the block of examination questions on the lecture material and on the problems that require extra work and broad mind. The results of the exam showed that our students were adapting to the French training system that gives us hope.

The forthcoming spring exams is the stage in evaluation of the work done by the students and selecting of new candidates.

This and other problems were discussed during the visit of Prof. Borisenko to the University of Cergy Pontoise.

He delivered his lecture on electrical and mechanical systems of automation of lifting mechanism and showed videos on the operation of cranes, mine lift, rolling mills of Donets Metallurgical Plant, Zaporozhie and Krivoy Rog that were watched with great interest.

The materials of the lecture in French were passed to the faculty of Genie Electrique to be used in the training process.

Prof. Borisenko also met the postgraduate student A. Melnik who was taking his study course at the French University.

The French party gave a positive mark to the joint work of the two universities and thinks of expanding and continuation of the collaboration.



NEW COLLABORATION AGREEMENTS

Gomel State University named after Francysk Skaryna and Donetsk National Technical University made long term link in the frameworks of the research, academic, methodological and cultural collaboration based on scientific, professional and intellectual opportunities of each other.

The Newsletter is prepared by the International Office of DonNTU.

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