Donetsk National Technical University INSTITUTE OF INTERNATIONAL COLLABORATION Newsletter

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PARTICIPATION OF DONNTU AT THE CONGRESS OF EURO-ASIAN ASSOCIATION OF UNIVERSITIES



Prof. A.Y. Anoprienko, Rector of DonNTU. Photo: The International Office of DonNTU.

Rector of DonNTU Prof. A.Y. Anoprienko has taken part at the XIII congress of the Euro-Asian Association of Universities (EAU). The event took place at St. Petersburg State Economic University on April 15th 2015. It was attended by the representatives of 83 universities Armenia, Azerbaijan, Belarus. Russia. Ukraine, Kazakhstan, Moldova, Tajikistan, Kirgizstan, and Uzbekistan.

We wrote about the history of establishment of the EAU in May 2007. Now we would like to remind our readers on the main areas of the Association's

activity:

- organization of international collaboration of the university-members of the Association in training, research and methodological activity, development of joint programs aimed at improving university education and research;
- raising of the role of classical university education, making universities the leading academic, research, cultural and educational centres of countries and regions;
- working out of single requirements as to the university education contents and single approach to the education standards:
- saving of the single education area of the countries of Euro-Asian region, single requirement level as to the university education contents, equivalency of the diplomas of the university-members of the EAU;
- attraction of financial, material and intellectual resources to develop the specialist training system, training of pedagogues, development of the fundamental research in university regions;
 - assistance in social development of university members of the EAU;
- coordination and assistance in international collaboration of the members with associations of other countries and regions in education, research and culture.

The EAU is accredited by the Inter-Parliamentary Assembly of the CIN countries and the Council of collaboration in the field of education of the CIN countries. It also interacts with other international university associations.



Prof. Anopreinko had a talk with the Rector of the National Mineral and Raw Material University "Mining" who we wrote about in our newsletter of №2, 2015 and its deans. He also discussed the collaboration issues with St. Petersburg Polytechnic Institute and St. Petersburg State University. On April 23 2015 he reported to the Minister of Education and Science of the DPR and the university staff on the visit.



Photo: M.N. Kushakov, I.V. Kostenok, and A.Y. Anoprienko.

EURO-ASIAN SPACE BRIDGE AMONG FOUR UNIVERSITIES

On April 23 our university organized the space bridge with Ural Federal University (UrFU) named after the first president of Russia B. Yeltsin. We have collaborated with the university since 2011. The space bridge was aimed at presenting of the Master's program "International Management" and discussing participation of

university-partners in it.

Besides our two universities the participants of the event were: Business School of Lille University 1, Kazakh National University and the international

Conference hall of DonNTu. The space bridge with UrFu. Photo of the International office of DonNTU.

auditing company KPMG.

What were the results of the discussions? The agreement on implementation of Master's joint training in management and foreign economic activity management on the double degree program was signed.



INTERNATIONAL COLLABORATION IN PERSONS

MICHAEL RASH – PROMISE, ASSURANCE, APROVEMENT

We write about people that contributed greatly to the collaboration with our university and helped us in this difficult period by words of sympathy and support. Prof. Rash, the director of the Computing Centre (HLRS) and the Institute of Super Fast Computations (HIR) of the University of Stuttgart (SU), Germany was one of the first senders. He is the Honorary Doctor of DonNTU, a member of the Research Board of SU and other engineering organizations such as Padeborn Center for Parallel Computing PC2, HPC Forum der International Data Corporation.

In November 2014 he wrote our Rector and promised to visit DonNTU as soon as the situation stabilizes and assured in continuation of the collaboration. Prof. Rash also approved our university's decision to issue its own diploma. The reaction like this is worth its weight in gold.

The researcher visited DonNTU in November 2013 to celebrate the 40th anniversary of collaboration between the universities (we wrote about it in №11, 2013). Prof. Rash took part in the seminar on complex dynamic system parallel simulation in April 2012. He also delivered lectures on supercomputing and its outlooks.

DonNTU's laboratory base development was possible due to the attention Prof. Rash paid to the problem.

M. Rash was born on October 21st 1964 in the city of Graz, Austria.

Graz is considered a city of students. 55 thousand students are trained at four universities: Graz Karl-Franzens University, Technical University, Medical University and the University of Music and Actors.

Chemical, food, textile industries, machine-building and brewery are well developed here. Graz International Fair is an important commercial and economic event taking place in the South-Eastern Europe.

All our readers know the influence the surrounding has on child's development. In 1982 the little boy graduated from a grammar school where he studied English, French and Latin. In 1990 he got the degree of Engineer in technical mathematics from Graz Technical University. In 2001 he defended his dissertation in meta-computing in simulation and got the degree of Doctor-Engineer. In 2002 he had his internship at the University of Huston, the USA, and in 2003 got the position he occupies now.

Prof. Michael Rash works in three research areas:



- ♦ super-productive computations (HPC) and their integration into research; P3C component programming integration; visualization, interactive simulation and simulation in the real time;
- ♦ parallel and distributed computing systems, GRID computing, parallel programming models and data exchange models; parallel algorithms, metacomputing media;
- ♦ fluid dynamics numerical techniques simulation of blood circulation in large arteries.

The ceremony of awarding of the degree of Honorary Doctor of DonNTU. Photo: International Office of DonNTU.

The term GRID computing appeared in

1990 in the book of Y. Foster and K. Kesselmann «The Grid: Blueprint for a new computing infrastructure» as a metaphor that demonstrated the possibility of an easy access to both computing resources and electric network. The GRID computing is a form of distributed

computation in which the virtual super-computer is in the form of clusters connected by the network, heterogeneous loosely-coupled computers working together to do a great number of tasks (operations, work). The technology is used to solve scientific mathematical tasks that require significant computing resources. The computations can also be used in a commercial infrastructure to solve such problems as economic forecast, seismic analysis, and new drug development. The GRID is a geographically distributed infrastructure that unites many resources of different types (processors, long-term and main memory, database and networks), access to which can be obtained from any place irrespective of the location.

The term of meta-computing appeared in 1990 in 1990 with the development of the superfast network infrastructure and is related to the combination of different computing resources in the organization local network for one task. The main goal of the meta-computer construction was to distribute work parts among computer systems of different architecture and different capacity. Further on the research was aimed at homogeneous access to huge computing resources (up to several thousands of computers) or the global network. Simple PC and powerful massive-parallel systems can be components of the meta-computer.

The meta-computer can have an inconstant configuration – several components can be included into its configuration or be disconnected; the meta-computing technologies provide continuous functioning of the system as a whole in this case.

Modern research in the area is aimed at transparent access of the Internet users to the necessary distributed computing resources and transparent connection of idle computer systems to the meta-computers.

The professor has 150 publications among which are books, articles and journals.

We appreciate the attention Prof. Rash has paid to DonNTU for many years. He was the first to support DonNTU's idea to have its own diploma. He said: "It is a common practice in the USA and Europe to issue the own diploma. If DonNTU has its one it will be a step towards the standard approach. Anyway, it will not cause any problems for DonNTU's graduates in the EU, Japan and the USA".

THE MEETING CAN NOT BE CANCELLED



The work of one of breakup groups. Photo: StudTV of DonNTU.

The traditional IX international conference for students and postgraduates "The Environment Protection and Rational Usage of Natural Resources" took place at DonNTU and Donetsk National University on April 15-16th 9the conference was organized in different statuses 25 times).

The conference has such a long life due to two facts:

- 1) The UN conference on the environment protection taken place in 1972 made the environment preserving the priority issue in the mankind's development.
 - 2) In 1973 Donetsk Polytechnic Institute

(now Donetsk National Technical University) started training engineers in the environment protection.

The conference participants paid their special attention to the ecological research.

International conference hosting is the index of a successful education institution. The event like this improves the image of the university in the world and raises its competitiveness in the market of education services.

This year there were 164 presentations made by students and postgraduates from 37 universities of the Donbass region, Russia, Belarus and Ukraine.

The conference was devoted to the 70th anniversary of the Victory in the Great Patriotic War.

The Ministry of the Main Board of Ecology and Natural Resources of the Ministry of Agro-Industrial Policy and Food of the DPR supported the event and helped in its organization.

There were the following breakup groups at the conference: the environment protection technologies; facilities for ecologically pure technologies and the biosphere protection; balanced nature usage; phyto-optimization of the environment technologies and flora protection; fauna, the ecology and the animal world protection; ecological safety.

THE TEAM FROM ELECTRICAL ENGINEERING FACULTY



Four students from DonNTU participated in the International Olympiad on electrical engineering fundamentals at State Power Engineering University of Ivanovo on April 14-15th 2015. We would like to mention that the Faculty's administration was interested in participation of the students in the event.

The participants of the International Olympiad on Electrical Engineering Fundamentals. Photo: the EEF.

«At first it was planned to have the absentee participation with the help of t he Skype program. But the hosts proposed refunding the transport and accommodation expenses, and the students decided to risk it. The route was developed thoroughly, the tickets to Moscow were bought and our team left for Ivanovo", says the Deputy Dean.

"The trip was not an easy one: the bus started later than it had been planned, the students had to wait for a long time at the border. But the students were not upset. The only thing that worried them was not sufficient time for the preparation they had had.

We were not impressed by the results of the participation in the Olympiad. The best of our participants had 43 points out of 100 and occupied the 16th position out of 127.



The rest of the participants were not so successful and in the long run the team occupied the 13^{th} position out of 18. But you know the saying, starting is half the battle. We know how to get to Ivanovo and next year our team might achieve better results. The teams will be definitely stronger and we have to work hard to be ready for the new battles".

There were students not only from Russia, but from Germany and Belarus. They also had a tour to the Kostromskaya Hydropower Plant and the town of Plyos on the Volga bank.

Our students have nice memories and the Faculty a good and friendly partner. And, of course, we should thank the sponsor of the team – the company "System Operator of the Single Power System".

A NEW STAGE OF COLLABORATION WITH BULGARIA

Dr. Korchevsky had his business trip to Sophia to the company EcoResource Engineering (ERE) (Bulgaria) and signed a collaboration framework agreement in April.



Emblem of Sophia, Bulgaria. Source: https://ru.wikipedia.org/wiki/

Sophia (Bulg. -Coφuя [□s□fija], and Greek- σοφία — wisdom) is the capital of Bulgaria. Its population is 1.34 mln. people. It is also the most important railway unit in the country; the trains go in 5 directions. There are 8 railway stations and an airport on the territory of the city. In 1998 the first line of the Sophia Underground and 5 stations were put into operation. Now the length of the metropolitan makes up 39 km (2 lines and 34 stations). 1/6 of the country's industrial production (machine-building, metallurgy, chemical, rubber and pulp and paper, food and light industries) are accumulated in the city. It has 17 universities (Technical University, Architecture, and Construction and Geodesy University, Ore and Geological University etc.), more than 10 museums, theatres and culture monuments.

In the newsletter №10 in 2010 we informed our readers on collaboration with Sophia Institute of Chemical Technology and Metallurgy. That time we received Prof.

Chavdarova that delivered lectures in French to the students of our French Engineering Faculty. Two master's students visited Bulgaria the same year to have their internship at the



Economy Academy in Swishtov. The company EcoResource Engineering (ERE) deals with processing of industrial plant wastes (the complex of ferrous and non-ferrous metallurgy in the main) within the geographic zone of Sophia. Dr. Korchevsky and the company's administration

discussed the issues of further collaboration in

Совещание в конференц-холле. Фото: из личного архива А.Н. Корчевского.

complex processing and utilization of mining, metallurgy and power wastes. Besides, Dr.

Korchevski visited the metallurgical plant in Kremikowtsi.



Kremikowski metallurgical plant is the largest metallurgical company in Bulgaria. It is in the suburbs of Sophia in the area of the largest ore deposit that was discovered in 1953. The construction of the plant began in 1959 and the first line was put into operation in 1963.

Pig iron, steel, rolled ferrous metal, seamless pipes, ferromanganese and other

Ash-heap of Kremikowski Plant. Photo:

chemical

Dr. Korchevski.

products are They were

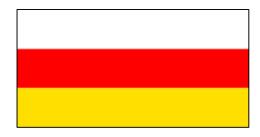
produced at Kremikowski Plant. They were exported to many countries. In 1990 the plant was privatized and since 2009 it has gone through the bankruptcy procedure.

Both parties stated the fields of mutual interest and mentioned them in the agreement. Dr. Korchevski gave some recommendations as to the object research, sample selection, studying of waste characteristics.

The framework agreement does not differ from those previously signed by DonNTU's Rector and his colleagues from other universities. This one is aimed at practice. For example, there is a clause determining implementation of joint research projects, development of joint ecological programs based on complex usage of natural resources and waste management. We will watch the news in the area and inform, you, our respected reader.

NEW AGREEMENT WITH SOUTH OSSETIC STATE UNIVERSITY

A new framework collaboration agreement between DonNTU and South Ossetic State University named after Tibilov has been signed.



According to the official site the Central Committee of the Communist Party of October 11th 1931 the Pedagogic Institute in Stalinir was established in January 1032. It had two departments- agro-biological and physical and mathematical. The first academic year started in October 1932. Next year two faculties – Physical and Mathematical and of Language and

The flag of South Ossetia. Photo: Internet -resource.

Literature (with two departments: of Russian and Ossetic languages) were established. In 1937 Stalinir Pedagogic Institute was reorganized and proposed two-year courses of studying. A new faculty –Natural Science and Geography- was established. In two years it was reorganized again and in 20 years the faculty of Pedagogic and Elementary Education Methodic was established.

On the 30th of December 1961 Stalinir State Pedagogic Institute was renamed into South-Ossetic State Pedagogic Institute named after Tibilov (the remarkable educator who has made invaluable contribution into the development of the Ossetic language).

In 2003 a methodological and biological laboratory with the latest equipment was opened at the Institute.

At present Dr. V.B. Tedeev is the head of the University who was elected in 2013.

On the 21st of February 2014 South Ossetic University got the status of autonomous institution (the order of the President of South Ossetia L. Tibilov who is the University's founder).

V.B. Tedeev, the Rector of South-Ossetic State University named after Tibilov. Photo: the official site of the university.

The agreement is a standard one and implies implementation of joint research projects, organization of scientific events, students' exchange, information exchange, joint supervision of master's programs for getting a degree.

NEW AGREEMENT WITH MOSCOW STATE UNIVERSITY OF ECONOMICS, STATISTICS AND INFORMATION SCIENCE

A new collaboration agreement with Moscow State University of Economics, Statistics, and Information Science (MESI, established in August 1932) has been signed. MESI is one of the leading education institutions of Russia that has great experience and traditions in training specialists in economics, statistics, information technologies, management and marketing.

It is the first Russian University who passed the procedure of correspondence to the European standards of

education quality management (ESG-ENQA).

Prof. Fedyaev (DonNTU) made his presentation at the conference Engineering of Companies and Knowledge Control in Moscow. Then the decision of signing the collaboration agreement was taken.



Rector: Prof. N.V. Tikhomirova, Doctor of Economics, Honoured Worker of professional education of Russia.

The Newsletter is prepared by the International Office of DonNTU.

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