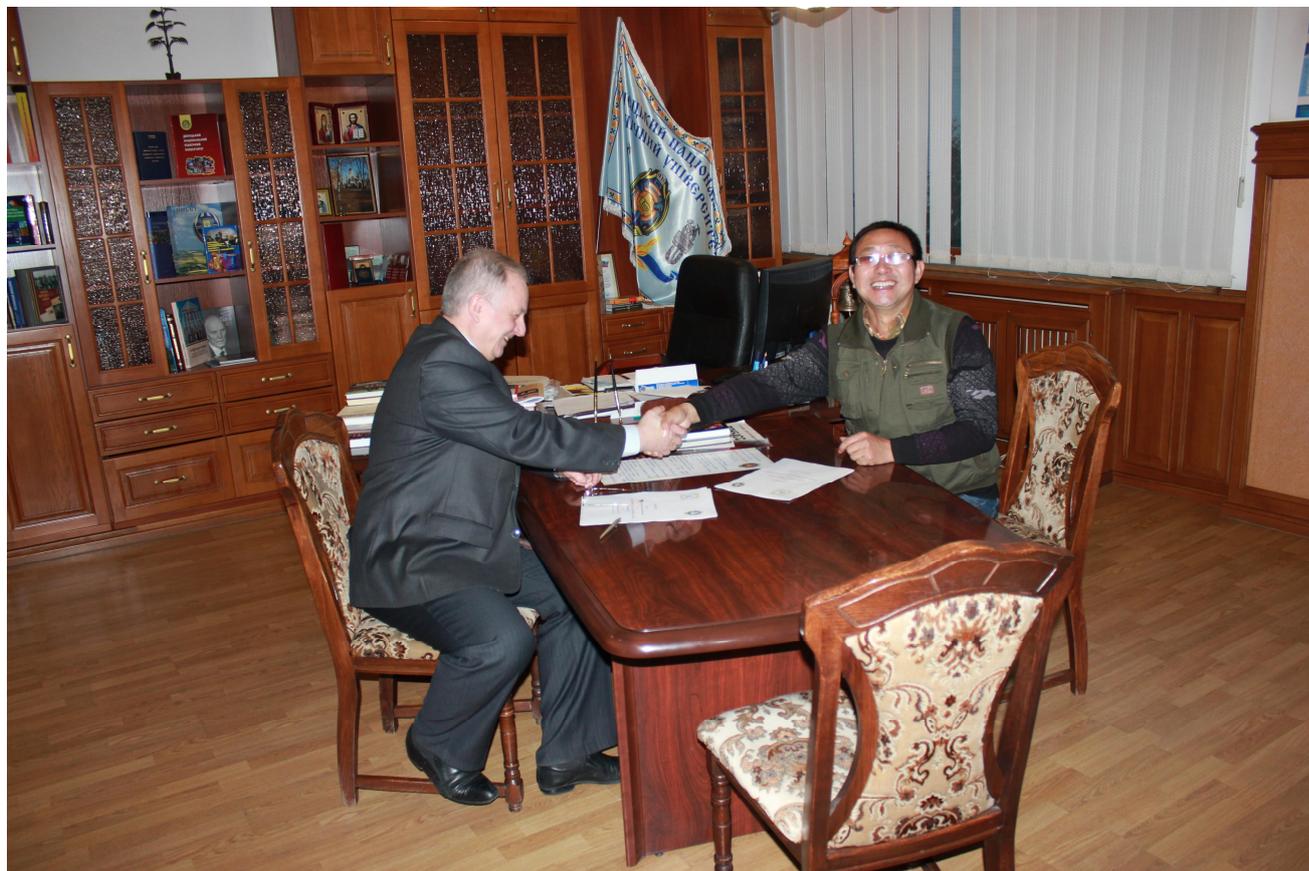




### **31 in the Latest History International Collaboration Agreement with a University of China was Signed by DonNTU**



**Photo: The Rector of DonNTU Prof. A. Anoprienko and Prof. Kring Kristall from Hubei Normal University (China) sign the collaboration agreement.**

In December the Rector of DonNTU Prof. A. Anoprienko signed the 31 in the latest history agreement between DonNTU and a foreign university. This university is Hubei Normal University (China). The Ministry of Education of China where the international fame of DonNTU is known had sent its representative Prof. Kring Kristall to sign a framework agreement on an all-round collaboration in education, science and culture. The agreement was signed after discussions supervised by the Vice-Rector in International Affairs Prof. I.P. Navka. The plans of students' exchange, incorporated study, staying of postgraduate and doctoral students from China at DonNTU and links with industries of both countries were laid down. The guest from China visited our university's subdivisions and departments with which the collaboration is preferable: the Faculties of Mechanical Engineering, Power Engineering and Computer Science. The other faculties will be involved in the course of the collaboration development. The large and promising market of China is very important to the young Republic and it is

momentous that it was the country with which the first agreement was signed in English.

### **French-Russian Party on the Wine Beaujolais Nouveau**



Introductory speech of Prof. I. Navka

Photo: E. Sidorova

On November 19<sup>th</sup> the Institute of International Collaboration of DonNTU and the French Engineering Faculty of DonNTU organized a party-sampling on the traditional wine Beaujolais Nouveau celebrated in France as the Labour and Harvest Day during many centuries.

The party was attended by the Vice-Rector in International Affairs Prof. I. Navka, the Director International Dr. S. Dzhura, and Wine-maker Emeritus V. Livchun, a French journalist L. Briar and partners of DonNTU who collaborate with France.

The party started with a silence minute in memory of terrorism victims in France, Russia, Libya and Nigeria.

In his introductory speech Prof. Navka noted successful development of the French Engineering Faculty and interesting ideas put forward by its staff. The party consisted of two parts.

There was the wine-sampling during the first one. The Wine-maker Emeritus V. Livchun was kind to supply wines and presented each of the party participants with the latest edition of his book on wine. The French journalist L. Briar spoke on his many years' practice of wine-making in France and its centuries-old traditions and technologies.

According to the tradition of the Beaujolais festivities the second part of the party was fun. Nice dancers and singers turned out to be present at the party. Erwan Castel, who has a wonderful voice, sang popular French and Breton folk songs and made the people present sing «Il y a dixmarinssurmer» and dance.

The party was not limited to French songs. Dr. S. Dzhura and a Spanish bass singer Julian sang Italian and Spanish songs «Besame Mucho», «Bella ciao». The party couldn't do without students who had just started studying French. They sang Marseillaise. To sum up we would like to mention the hearty and friendly atmosphere of the party. In short, it was a success.



The Wine-Maker Emeritus Vladimir Livchun. Beaujolais wine sampling. Photo: E. Sidorova

## **International Scientific and Technical Conference “Mining Electromechanics and Automation”**

Donetsk National Technical University held the XV International Scientific and Technical Conference “Mining Electromechanics and Automation” on November 24-26. It is a tradition of the Faculty of Engineering Mechanics to organize the conferences like this at the end of November.

The Department of Power and Mechanical Systems was the organizer of this one.

The conference started with the plenary session at which the representatives of such Russian and Ukrainian institutions as Donetsk National University, the National Mining University, the National Technical University “KPI”, St. Petersburg State University of Aerospace Instrument Making, South –Russian State Technical University, Novocherkassk Polytechnic Institute, and researchers from the Research Institute MacNII, academics, Master’s and postgraduate students of DonNTU were present.

The Dean of the Faculty Prof. S. Selivra and the Head of the Department of Power and Mechanical Systems made their introductory speeches in which they spoke on the latest scientific developments and research work of the Faculty and wished the event success.

There were five breakup groups at the conference: hydraulic and pneumatic machines, mining mechanics, lifting and transport machines and complexes, automation in mining, stope and tunnel machines and complexes at which the participants made their presentations and discussed them.

The participants noted the high scientific level of the conference and the chance to get to know the achievements of the colleagues given to them. The attitude towards the youth was friendly but exacting.

The representatives of DonNTU made 15 presentations. All the participants were presented with prizes.



**Presentation of the participants of the conference with prizes.**

**Photo: the Department of Power and Mechanical Systems of DonNTU!**

## **XIV International Scientific and Technical Students’ Conference “Fluid and Gas Mechanics” at the Faculty of Engineering Mechanics**

Donetsk National Technical University held the XIV International Scientific and Technical Students’ Conference “Fluid and Gas Mechanics”. It was hosted by the Faculty of Engineering Mechanics with the Department of Power and Mechanical Systems being its organizer.

The postgraduates, undergraduate and Master’s students and researchers from DonNTU and other institutions attended the plenary meeting.



The student A.Poddubny makes his presentation on new hydraulic machines. Photo: the Department of Power and Mechanical Systems (DonNTU)

There were four breakup groups at the conference: fluid and gas mechanics, hydraulic and hydro-impulsive machines, pneumatic machines and devices and hydraulic and pneumatic transport. The participants made their presentations and discussed them.

The Dean of the Faculty Prof. S. Selivra and the Head of the Department of Power and Mechanical Systems made their introductory speeches in which the spoke on the latest scientific developments and research work of the Faculty and wished the event success.

The students and Master's students of DonNTU made 25 presentations.

The participants noted the high scientific and practical level of the conference which is the reason to hold the conferences like this in the future.

### **International Scientific and Practical Conference “Problems and Achievements in Mineral Concentration”**

On December 3, 2015 the Department “Mineral Concentration” of DonNTU held the International Scientific and Practical Conference “Problems and Achievements in Mineral Concentration”. It is a traditional conference that was started 20 years ago by Prof. Y.L. Papushin (1994-2007). The first event covered fine-grain material processing.

DonNTU's graduates who are authorities on mineral concentration take part in this annual conference.

This time there were 27 participants including 3 from foreign companies whose presentations were made their on-line.

The Director General of the company Ukruglekachestvo Mr. Chernyavski, the Director of Mospino coal processing company Mr. G. Resnichenko, the Manufacturing Director of the Bulgarian company Eco Resource Engineering and the Manager of the enrichment plan in Montenegro B.Ostapovets were the conference honoured guests.

Students and Master's students made their presentations in the frameworks of the Students' Research Work and Master's project preliminary presentation.

The presentation of the postgraduate student of the Department of Mineral Concentration “Background of the Parameters of Complex Processing of Metallurgical Slag with Mathematical Simulation” aroused an active discussion and



The post-graduate student of the Department of Mineral Concentration A. Plastovets



Photo: Mr. Chernyavski at the book exhibition

interest.

The participants from Kharkov and Sophia also made their presentations which dealt with improvement of the ecological situation in the Donetsk Region at the expense of waste processing, utilization of different products, development and improvement of the equipment of ecologically friendly technologies and the biosphere protection, grainy slime processing technologies, research in nature management and resource-saving, metallurgy product cost reduction,

modernization of the technologies applied at enrichment plants, analysis and audit of the technologies in mineral concentration.

The special attention was paid to the analysis and improvement of ecology in the industrial region of Donetsk.

The staff of the library of DonNTU organized a book exhibition that described the issues of the conference.

## INTERNATIONAL COLLABORATION IN PERSONS

### THE HONOURED DOCTOR OF DONNTU ALEXEY TOCA

**ALEXEY TOCA** was born in 1951 in Chernovtsi Region of Ukraine. In 1972 he graduated from Kishinev Polytechnic Institute, mechanical engineering and machine tools being his major.

In 1981 he defended his candidate's dissertation at Leningrad Polytechnic Institute.



A. Toca  
Photo: Site of  
DonNTU

He has worked as an assistant, a senior lecturer and an associate professor, the Head of the Department of Mechanical Engineering Technology, the Dean and a professor of Kishinev Polytechnic Institute (now Technical University of Moldova) since then.

Since 2000 he has been the manager of research projects in the framework of the state programme "Competitiveness of Manufacturing Engineering Products Based on Innovations, New Materials and Modern Technologies" adopted up to 2008.

Dr. Toca was invited into the working groups of the Ministry of Economics and the Ministry of Industry and is one of the co-authors of the "Strategy of Development of the Industry of Moldova up to 2015" in 2000 and the "Policy of Development of Manufacturing Engineering and Instrument Engineering of the Republic of Moldova" in 2007.

In 2003 he initiated Dr. Toca initiated, gave grounds and developed the concept and the curriculum of the new speciality "Engineering of Innovations and Technological

Transfer” in which he took into account the growing role of the innovations and technological transfer in industry and economics. The first graduation was in 2008.

Dr. Toca took part in 4 TEMPUS projects aimed at improving of training quality, applying of the regulations of Bologna process, establishing of the Centre on Links between Students and Industry, and doctoral school operating in 2004-2008.

He has worked at the University for more than 40 years and delivers lectures in “Manufacturing Engineering Technology Foundations”, “Automated Manufacturing Technologies”, “Technological Process Dimensional Analysis”, “Foundations of Integrated Design of Products and Processes”, “Functional Analysis and Simulation”, “System Analysis” and “Value Engineering”.

Dr. Toca is a co-author of the state program “Modern Industrial Technologies, Innovations and Technological Transfer” adopted for 2008-2012. He has also developed the concept of technological reconstruction of Moldavian companies supported by the World Bank.

The Technical University of Moldova and DonNTU have been collaborating for a long time. They exchange research information, students, programs, text-books and curricula; established the international public organization the International Union of Mechanical Engineers and there is its representation in the Republic of Moldova. He is the honoured member of the Department of Manufacturing Engineering Technology of DonNTU and has a certificate that proves it.

There are traditions of joint problem solving, organization of international conferences, delivery of lectures at both universities, constant exchange of the necessary information.

**The Academic Board of DonNTU has awarded A. Toca with the title of the “Honoured Doctor of DonNTU” for his long term collaboration with our university and his assistance in training of the manufacturing engineering students.**

### **Development of the Collaboration between DonNTU and Kazakhstan**

Prof. A. Mikhailov, the Head of the Department of “Manufacturing Engineering Technology” has visited Kazakhski National Technical University to develop international scientific and technical collaboration, make contacts with researches from Kazakhstan and discuss the issues of joint training of students, postgraduate and doctoral students of both universities.



He made his presentation “Raise of Operational Characteristics of Machine Components Based on Functionally Oriented Coatings”, discussed and outlined the plans of further joint training of postgraduate and doctoral students of the universities, wrote three joint papers and worked to prepare a joint textbook for publication, reviewed some doctoral dissertations and gave some recommendations as to their improvement.

He also visited the university's institutes and faculties, its innovation centre and historical museum and the museum of geology.

He also went sightseeing about Almaty and in the mountains (MEDEO Skating Ring).

Summing up the results of his visit Prof. Mikhailov said: *“I was impressed by the university, its departments and institutes and the high level of training of its students especially at the Department of Standardization, Certification and Manufacturing Engineering Technology”*. The collaboration results are to be consolidated at the expense of re-visits of professors to the universities of both countries.”

### **Development of Collaboration between DonNTU with Belgorod State National Research University (Russia)**



The National Research University “BelSU”

Photo: the Internet resource

In October-December 2015 Dr. A. Zvyagintseva and Prof. G. Averin visited Belgorod State National Research University to study training at the Institute of Engineering Technologies and Natural Sciences, submit grant applications, prepare papers for journals and deliver lectures for Master's students.

They exchanged experience in training methodology, worked with the university's automated system,

formed proposals as to the further collaboration , delivered lectures on System Dynamics.

The staff of Belgorod University showed their interest in joint research, grant preparation and paper publishing.

### **DonNTU's Students had their Study Course at the Company Robert Bosch GmbH (Renningen, Germany)**

In July 2015 we told our readers that three students of Donetsk National Technical University (V. Lupashevski, V. Vasilyev and I. Bakun) had been invited to have their study course in Germany. Three months later two of them returned to Donetsk.

They visited Berlin, Stuttgart, and Munich and went sightseeing there. The main place of their staying was Renningen and its research campus Robert Bosch where they had the study course.

The company Robert Bosch GmbH was founded in Stuttgart in 1886 by Robert Bosch. At first he had his small workshop and in 1901 he and his colleagues moved with to bigger premises. During the World War I Robert Bosch was one of the most successful businessmen. Home electric appliances produced by the company were in demand then.

In 1933 the Bosch Company made their first refrigerator and started making professional tools. In the 50's the company Robert Bosch GmbH was one of the biggest producers of home appliances. In 1967 the companies Robert Bosch GmbH and Siemens AG merged into BSH Bosch und Siemens Hausgeraete GmbH.

The company also makes cars and telephone sets. The secret of their success is in comfort, simplicity, and style of the appliances application. Our students worked in the working group CR/APA2 that dealt with automatic optic inspection. To speed up the project development the development sprint was organized. It made all members of the group look for the solution of problems for one project only for several days. Then they passed on to the next project. They worked like that for two weeks. The method helped find possible ways of the problem solving and select the correct one during short period of time.



Students of DonNTU take their study course in Germany

Photo: V.V. Vasilyev



The company Robert Bosch GmbH

V. Vasilyev and V. Lupashevski took part in the development of the software of the concept-project for a work space. The software gets from the sensor the information on the position of the hand in the space and traces the actions of the person who fulfills some operation (for example, a unit assembly). If the actions are wrong, the program sends the information about it to the person.

The students also improved their knowledge in English and German and culture and history of the German cities, got experience of working at one of the largest companies of the world.

## International Contest and Youth Conference ENES-2015



Kostromskaya HPP

Photo: V. Pereyaslavski .

The student of DonNTU V. Pereyaslavski has taken part at the international contest and youth conference ENES-2015 in Ivanovo and Moscow. The events were hosted by Ivanovo State Power University and the fund “Nadezhnaya Smena”. The participants visited Kostromskaya Hydroelectric Power Plant and saw the power units with the capacity of 300 MW and the power unit with the unique one-shaft turbine (monoblock) with the capacity of

1200 MW.

Then they attended the IV international forum in energy efficiency and development ENES-2015. The winners of the Russian contest of developments of young researchers and educational initiatives in power engineering got their prizes; there also were the meetings with the Deputy-Mayor of Moscow and the Minister of Energy of the RF Mr. A. Novak with the participants.

The Newsletter is prepared by the International Office of DonNTU.

Should you have any questions or offers as to the published material, please contact us at: 1<sup>st</sup> building of Donetsk National Technical University, Office 220; tel.: (062) 301 – 08 – 25; (062) 337 – 32 – 66; fax: (062) 304 – 12 – 78; URL: <http://iic.dgtu.donetsk.ua/> E-mail: [ovs@pop.dgtu.donetsk.ua](mailto:ovs@pop.dgtu.donetsk.ua)