



## COLLABORATION WITH THE UNIVERSITY OF STUTTGART

Prof. Svyatni has visited Germany. He was hosted by the efficient Computing Centre of the University of Stuttgart (HLRS).

The goal of the visit was to carry out research on Virtual Parallel Models of Network Dynamic Objects with Distributed Parameters and Di-virtual Tasks of Processing of Problem Oriented Parallel Simulators and the research part being the Construction of Parallel Equation Resolvents on the Basis of Block Methods for the Second Level of Paralleling. Prof. Svyatni and Prof. Resh prepared the report "Zur Entwicklung des Subsystems für Gleichungslösern der verteilten parallelen Simulationsumgebung" and



made its presentation at the conference on dynamic system modeling in Roitlingen on 20.02.2014. They also prepared the plenary presentation "Forschungsgebiet: parallele Simulationstechnik (ParSimTech)" for the symposium on modeling which is going to take place in Berlin in September 2014.

Prof. Svyatni prepared the program of staying of 6 scholars of DonNTU in Germany and made up the application for the program in 2014-2015 according to the new rules of the DAAD and coordinated the subject matter of the program for the next period.

Later on our scholars joined the professor. They were doing their individual work on the subject matter of their Master's projects, took a crash course on parallel

programming and modern super-computers, visited the Institutes of Automation and Programming Engineering, System Dynamics, Parallel and Distributed Systems, the Cluster SimTech, and super powerful Computing Centre. They also had an excursion to the company AdwanTest that tests hardware-in-the-loop projects. The Institutes appointed language and professional consultants for the students. Every scholar wrote a report which will be a part of the general report made by Ukrainian and German parties for the DAAD.

Prof. Svyatni and his German colleagues coordinated the plans of Master's projects beginning from June 2014.

They also exchanged experience and made presentations at the seminar on Modeling Means Development. The graduate of DonNTU P. Skvortsov is going to defend his dissertation next year. It was discussed during the visit. Prof. Svyatni is going to be the opponent.

The heads of the SimTech – cluster confirmed the intention to exchange the experience on theory and methods of modeling of bio-mechanical systems, train personnel working on parallel modeling of complex dynamic systems, and do Master's projects based on the SimTech cluster.

During the meeting with the director of Communication and Information Centre of Ulm University the agreement of organizing of study course for our post-graduate students on the DAAD program was reached.

Prof. Svyatni took part at the meeting with the representatives of the Committee of the program PRO3 Technical Cybernetics and prepared 5 applications for the scholarships for our Master's students.

Professors of both universities agreed to put into operation a new fast switchboard and processor units for the current parallel cluster. All the equipment is being tested and installed and will be a great contribution into the development of the laboratory base of the faculty and Department of DonNTU.





## **A CORRESPONDING MEMBER OF THE CRIMEAN ACADEMY OF SCIENCE**

On April 2, 2014 the Crimean Academy of Science made a decision to elect Prof. Dmitri Muza working for Donetsk National Technical University a corresponding member of the Crimean Academy of Science to appreciate his contribution into collaboration with the scientist of the region in solving topical issues of modern science in the field of liberal education.

## **STUDY COURSE IN FRANCE WITHIN THE FRAMEWORKS OF THE DOUBLE DIPLOMA PROGRAM**

The double diploma program means that a student studies at two universities at one and the same time and has a unique chance to get a Ukrainian diploma of DonNTU and that of the University of Pierre Mendès France (Grenoble, France) of the LICENCE level in economics and management.

It became possible due to a new system of distance learning introduced within the frameworks of the collaboration agreement between the two universities signed in 2007. The training is carried out by French academics-consultants and includes seminars on micro-and macro- economics, and international and industrial economics in French.

The Associate Professors D. Zukhba and E. Zukhba and students of the Institute of Economics and Management of DonNTU visited France in April.

The Faculty of Economics of the University of Pierre Mendès France hosted them. They also met representatives of some institutions in Paris, Grenoble, and Lyons.

When in Paris, our academics discussed some organizational issues with the administrators and coordinators of the LICENCE program and had a meeting with one of the graduates of DonNTU who is working for the McKinsey now. She emphasized the necessity of having a study course in business for better understanding of the specific nature of practice and qualification improving. They also clarified some chances in the structure and direction of the global financial flows.

In Grenoble the presentation of the main stages of the study course, its features and chances to use the results in the development of the professional competence was made. The students and academics got the information on the education system at the University of Pierre Mendès France and in the country as a whole. They also discussed the problem of social development in Ukraine and formation of the system of institutions of self-government. Teachers of the language centre made their presentation on studying French within the distance learning program. Our team also attended lectures on micro-and- macro-economics, and industrial economics delivered by professors from the host university.

They also visited the companies ERDF and GERM, and learnt the history of power engineering and gas engineering in France and discussed the experience of employment, the personnel training and study courses organized for students at the companies.

When in Lyons our delegation visited the business school of Ecully and discussed how its education differs from the classical education



offered by universities. They also exchange the opinions on topical scientific concepts that define innovation costs.

When the study course was over all the participants got the certificate. Both parties agreed to develop the programme of distance learning and expand it to the Master's level with increasing of the number of its participants.

Such mobility and double diploma programmes help to improve the professional level of trainees and raise the prestige of the universities.

### **BI-NATIONAL POST-GRADUATE COURSE IN GERMANY**

The post-graduate student of DonNTU D. Bazhutin visited Germany in the frameworks of the DAAD program "Bi-national Post-graduate Course" on March 3-28<sup>th</sup>. He was hosted by the Faculty of Electronics and Information Technologies.

He made his research on his dissertation subject-matter, participated in modernizing of the laboratory equipment, and coordinated his further plans as to his dissertation defense.

D. Bazhutin carried out an experiment on a tower crane. The experiment consisted of two parts: confirmation of efficiency of the proposed algorithm to provide load antihunting in the tower crane, and anithunting of the elastic metal construction of the tower crane.

The results of the experiment are planned to be included into a joint paper for one of the international journals.



### **THE TECHNOLOGICAL INSTITUTE OF GUINEA – THE COLLABORATION EXPANSION**

The Associate Professor V. Sazhin visited the Republic of Guinea on October 1<sup>st</sup>- March 31<sup>st</sup>. He was hosted by the Institut Supérieur de Technologie de Mamou and had his pedagogic study course as a teacher of electrical engineering disciplines.

The city where the Institute is situated is called Mamou and is a cross-road city as it is to be crossed when you enter the country.

The Institute was founded in 2006 and has 6 departments: engineering science, applied science, laboratory equipment, physical equipment and measurements, bio-medical equipment technology. The Institute is being developed; enrolment increases and new buildings for the Institute are being built.

As the laboratory base of the Institute is very weak the submit applications to different international organizations to win their grants.

The Ministry of Higher Education of Guinea sends students to the Institute with taking to account their preferences. The graduates get the diploma of Bac +4. All the students get scholarships and accommodation is also partially paid.

The systems of education in our countries coincide in many ways. As there is a lack of laboratory base the examples of practical application of the theoretical material are to be numerous. A great number of students at the lecture hall (about 200) make it difficult to perceive the delivered lecture.

V. Sazhin adapted the lecture course Electrical Engineering delivered at DonNTU to the training conditions at the Institut Supérieur de Technologie de Mamou.

Both institutions have prepared the text-book Electrical Engineering which is going to be published soon.



## INTEGRATED STUDY COURSE

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Some students of the German Engineering Faculty of DonNTU stayed at Magdeburg University of Otto-von-Guericke and had their integrated study course on October 1<sup>st</sup>-March 31<sup>st</sup>.

They attended lectures, practical classes, prepared their term papers and defended them in front of the academics and experts.

They also attended the German language course at the Language Centre, passed their DSH exam and got the corresponding certificate.

The visit was financed by the budget program “Training, Study Course and Professional Development of Post-graduate Students and Pedagogues Abroad”.

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The student of DonNTU I. Skrinetskaya had her integrated study course at Silesian University of Katowice, Poland.

She attended a number of lectures, got acquainted with the methods of pH of soil and tree barks measurements on the territories of hyper- anthropogenic load of mining regions that make up the agglomeration of Katowice. The measurements were made with the application of the modern pH-meter.

She also visited the science and practical centre Eko-Centrum which is a unique one due to the parallel complex application of the solar, wind power and geo-thermal energy to supply power for two office buildings. The students were acquainted with different methods of getting energy from alternative sources.



## NEW COLLABORATION AGREEMENTS

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DonNTU has entered the **Consortium of African and Mediterranean Universities - C.U.A.M**

CUAM – is a public organization aimed at popularization of higher education, development of collaboration among universities and carrying out research in Afro-Mediterranean region. The head-quarter of the association is in Benevento (Italy). There are 55 members in the consortium among which are universities of Albania, Belarus, Cyprus, Estonia, Lithuania, Macedonia, Poland, Romania, Turkey etc.



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The collaboration agreement between DonNTU and the **State Institute of Higher Engineering Education named after Simon Bolivar, Callao, Peru**, has been signed.

According to the UNESCO the higher education of Peru is the most competitive one among all the countries of Latin America. It is under the jurisdiction of the Ministry of Education of Peru that controls the quality of education and its accessibility for the population. Every citizen of the country has a right to get free elementary and secondary education. The higher education is paid but can be free for the socially exposed population.

The Newsletter is prepared by the International Office of DonNTU.

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