

St. Petersburg Mining University and DonNTU Hold On-line Seminar “Coal Processing”



DonNTU and St. Petersburg Mining University (SPMU) held an on-line seminar “Coal Processing” on June 2nd. The issues of complex usage and coal processing in the current world were discussed at the event. The video conference was held on the Cisco Webex platform.

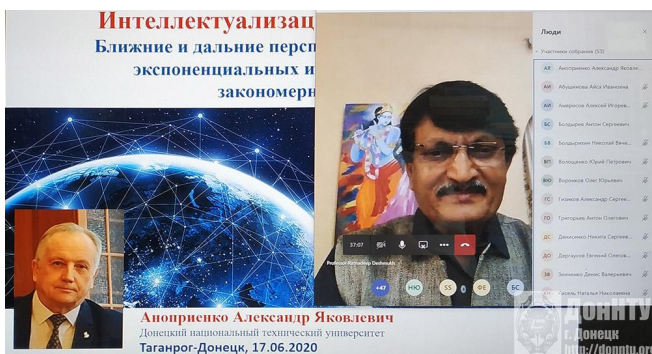
Members of the DPR government and DonNTU’s administration, the Dean of the Mining Faculty and its academics took part in the seminar.

The Rector of SPMU Prof. Litvinenko greeted the participants. He emphasized the significance of coal complex usage and processing and talked about world tendencies in coal industry and Donbass development.

Academics from SPMU and a member of the government commission on fuel and energy complex took part in discussions. The participants formed recommendations as to daunting problems related with processing and usage of hydrocarbon.

DonNTU’s Rector Takes Part in the All-Russian Scientific and Technical Conference with Foreign Participation “Computer and Information Technologies in Science, Engineering and Management” at the ETA SFU

The Engineering and Technological Academy of South Federal University held the All-Russian Scientific and Technical Conference with International Participation “Computer and Information Technologies in Science, Engineering and management”



on June 17th. The Rector of DonNTU Prof. A. Anoprienko took part in it with his presentation “The Technosphere Intellectualization: Near and Far Prospects in Context of Exponential and Periodic Patterns”.

He spoke on patterns in development of technologies, engineering and the technosphere including information and computer technologies which make accurate forecasts for the near and far future.

Why Should Every Country Protect its Riches of Culture?

The award presentation ceremony for the winners of the VII International Contest of Compositions “Why Should Every Country Protect its Riches of Culture?” took place on July 2nd. The Social and Humanitarian Institute and the Institute of Culture of DonNTU were its organizers.

The contest was aimed at helping the society to understand the true significance of culture as a unity of art, science and religion. People should be aware of the best things created in art, science and spiritual doctrines and defend them from disastrous oblivion. The contest organizers called to protect the life beauty, help our young generation understand the beauty, teach our children to think nicely and save our future.

9 winners in three age groups were selected. The Rector of DonNTU Prof. Anoprienko presented the winners who were able to be present at the ceremony with diplomas and gifts. Dr. S. Dzhura, the Head of the Institute of Culture of DonNTU, a member of the National Roerich’s Committee, made his speech on a disturbing situation with the current understanding of culture especially in the light of the latest wave of pulling down monuments which has spread all over the civilized world.

There were some attempts to organize the contest of the same name 70 years ago. E. I. Roerich wrote a letter to American workers on 21.12.1950: “The idea to organize the school contest of essays “Why should every country protect its riches of culture” is really nice and it is to be implemented. However, a lot of things might prevent this good initiative to be put into practice in the nearest future. The thought is to be cherished, and it might be realized somewhere”. Today it is the VII contest organized on the territory of Eurasia. These are children’s thoughts about culture significance:



“It is because of culture and cultural heritage that many nations were able to preserve their own originality. Destructive wars wiped off villages and cities, but traditions went on living and helped people adapt in the new reality...”

Historical monuments are connected with centuries-old events and preserve history and desires of people of that time. Awareness of cultural heritage makes people more developed and spiritually richer. It pushes their hearts to the search of the truth. It is very important to feel a connection with previous generations.”

Nikita Leonov, 15 years old, a student of lyceum # 40, Barnaul.

“We understand that it is impossible to be perfect without having a memory about our culture. We should create the “cultural memory”, preserve it and pass to a young generation. According to N. Roerich, a famous Russian artist, philosopher, writer, and public figure “where is culture, there is peace and the correct solution of the most difficult social problems”...

I think you agree that “the cultural memory” means not only memorials or works of great composers, artists and writers. It is also nation’s soul which is immortal. Unfortunately, many people think that we will build the fair future quicker if we get rid of the past. That is why the so called “fall of Lenin” is going about Ukraine. Is it the right thing to do? Destruction of cultural monuments can be easily called vandalism. I think that killing our past, wiping it off we do harm only to ourselves. You can’t delete things which are in hearts of many people...”

Rodion Tudorovski, a student of lyceum # 6, Donetsk

“Our culture is our guiding star, our Big Dipper, our Alpha and Omega. It is our Holy Grail which we must preserve and carry through our history millenniums...”

Culture is the indissoluble connection of generations; it is the everlasting memory of our nation’s heart, our heart...Culture is the true treasure!

My mother has always told me: “When you do not know what to do, just think whether it will look nice”. What nice advice it is! Beauty is the measure of harmony, purity and truth...”

Jerome David Salinger wrote about America’s lost generation in his novel “The Catcher in the Rye”. We have lost much too, and the most awful thing is that those who didn’t event time to gain anything lost much too. These people even don’t know that they do not have enough of something...

Why should every country preserve its riches of culture? I would ask another question: Who for should they do it? For children! Adults must leave their children the better world. All of us should make the world better than it was before.”

Ekaterina Vlasova, a student of the lyceum “College”, Donetsk.

“Art is the best expression of culture: it reflects people’s life brighter, deeper and in more details. More than that, it reflects not only life’s outer, ostensible side but also its inner and secret meaning. It reveals the most cherished thoughts, feelings and

wishes of the great nation's soul. That is why art is the most desired and aromatic flower of culture. However, as any other flower, it is delicate by its nature. Thus all efforts of the mankind have been aimed at preserving it by all means and picking up even dead petals carefully...

... Every country must protect its culture riches and make its own contribution in our common cause which is preserving and increasing the world culture. It is all connected with history; every country must protect its culture. There is no past without history; there is no present without the past. Culture is the most valuable thing people have, and they must preserve it.

I would like to finish my essay with the words of N. K. Roerich: "Make the future steps out of wonderful ancient stones."

Valeria Gavrilyuk, a student of Shakhtyorsk School # 11.

DonNTU Awards its Graduates Degree Diplomas of Ural Federal University named after the First President of Russia B.N. Yeltsin (Yekaterinburg, the RF)

DonNTU held the ceremony of awarding its graduates with Master's degree



diplomas of its Russian partner Ural Federal University named after the First President of Russia B.N. Yeltsin on June 23d. It was a result of the network educational program "International Electron Business" which has been realized within last five years.

DonNTU's Rector Prof. Anoprienko presented the future professionals in digital transformation in the DPR with 6 diplomas, five of them being those of honours.

He mentioned that our students proved to have profound knowledge, showed their best features and preparedness to be employed and work.

Dr. Kolomytseva, the coordinator of the program, emphasized that the project encouraged academics of the two universities to develop students' integrated competences. The result of this joint scientific and academic network cooperation proves the necessity, timeliness, and topicality of training professionals in digital economics.

Successful Conference Held by KuzSTU and DonNTU

The first on-line scientific and practical conference of schoolchildren, students and postgraduates of KuzSU and DonNTU "Modeling of Preparatory, Main and Secondary Processes of Minerals Concentration" took place on May 28th.

It was organized by heads of departments of the two universities – Prof. Udovitski and Prof. Korchevski- in the frameworks of the cooperation agreement.

Young researchers made 14 presentations.

KuzSTU researchers shared advanced developments in modeling. Dr. Vahonina and her student G. Lelyaeva made their presentation “Definition of the Disperse Composition of Emulsion on the Laser Analyzer «ANALYSETTE 22». The presentation covers a fragment of Dr. Vahonina’s dissertation on modeling of floatation processes to study operation mechanism of reagents obtained from used oil to increase the output of floatation concentrate of required ash content.

V. Kandinski made his presentation “Information and Software for the Method of Modeling of Coal Cleaning Technology of Apsat Coalfield” which covered a part of his diploma paper. Coal cleaning process modeling in gravitation devices was examined in it. In 2015 the research got the first level award in the contest “Golden Personnel Reserve of CYӘK” in the nomination “Information Technologies” (Moscow).

The presentation made by a schoolgirl E. Shubina (school #93 from Kemorovo) “Automation of Building of Henri Washability Curve” aroused sincere interest of the conference participants. The girl offered a new method to evaluate coal washability with automation of building of Henri washability curve and probable allocation of different density fractions into the cleaning products. The research results were introduced at the dressing works EBPA3-3CMK in 2018.

DonNTU’s researchers who are traditionally good at coal briquetting and modeling of kinematics of the concentration desk also shared the results of their research. Prof. Korchevski presented the kinematics scheme of the systems of devices of fan separation: the vibratory pneumatic separator and the concentration desk which are widely used for particulate material separation. The student A. Volkova and the postgraduate student K. Kholodov demonstrated the projection of the concentration desk mechanism to the vertical plane in its arbitrary position during motions and deck plane motion. The task solving with mathematical modeling methods will help implement the principle of maximum efficient set of the law of the work member motion to control the material separation technological process. The student V. Onishchenko made her presentation “Choice of Briquetting Mode of 0-6 mm Size Coal” in which she spoke on briquette fortification under the two-stage briquette thermal treatment with the binder different concentration.

Prof. Udovitski mentioned the first practice of the joint conference of the two universities to be successful.



DonNTU Takes Part in the International Scientific Forum “Subsoil Use Topical Issues” at SPMU

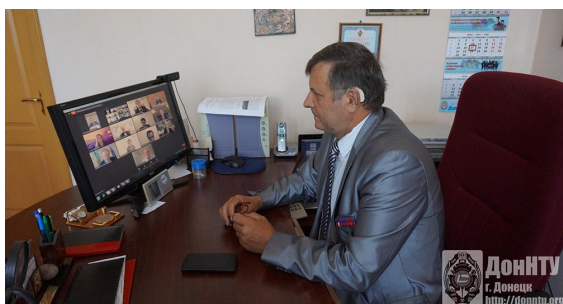
The international scientific forum “Subsoil Use Topical Issues” have started at St. Petersburg Mining University. Despite the pandemic it was record breaking as to the number of its participants- 180 universities from all over the world including DonNTU.

About one thousand of young researchers demonstrated their developments able to start a big discussion in scientific circles online. DonNTU was represented by A. Kolomoets, A. Gritsaenko, R. Troitskaya, I. Zhovtobryukh, Z. Arakelova, and P. Priymachev. The best research results will be published in the world’s most prestigious journals and implemented later on.

According to SPMU’s researchers new ways of getting energy haven’t proved its value so far. There are less and less world experts who work with energy traditional sources – oil, gas, and coal.

The UNESCO has recognized the problem. “There is an acute lack of qualified engineers and researchers in the world now. We need to get the “critical mass” of the professionals who will be able to solve our world’s global problems”, said Peggy Oti-Boateng, the Director of the Department of Scientific Policy and Competence Improvement of the organization.

Russian and Donetsk professionals are one of the best in the world in the branch. They are ready to share their experience. “Our event is aimed at combining efforts of



universities, laboratories, and large companies to finance large advanced technologies which will really lead to progress instead of the promises which we often hear from the TV”, stated the Rector of SPMU Prof. V. Litvinenko.

The UNESCO and SPMU are preparing to open ten joint scientific centers which will combine efforts of scientists all over the world and help do qualitative leap in mining operations.

DonNTU Holds VI International Conference “Metallurgy of the XXI Century as Young People See it”

DonNTU held an online VI International Scientific and Practical Conference of young researchers and students “Metallurgy of the XXI Century as Young People See

it” on many 26-27th. The event was organized to celebrate the 75th anniversary of the Victory in great Patriotic War.

Representatives of 8 universities from the DPR, the LPR, Belarus and Russia made 90 presentations. There were seven breakup groups at the conference:

- Ferrous materials metallurgy.
- Nonferrous metallurgy, foundry and welding.
- Metal forming.
- Applied material science, metal thermal treatment, and metal science.
- Industrial heat engineering.
- Heat and power engineering.
- Ecology and job safety in metallurgy.

Special attention was paid to innovative metallurgical technologies, energy and resources conservation, and metallurgy ecological improvement.



Young researchers and students’ presentations were made with the usage of modern research methods, the developments were topical, and the problems were given a profound studying.

The conference proceedings can be found at the conference website: <http://fmt.donntu.org/konferencii>.

DonNTU Holds XI International Scientific and Practical Conference “Information Science, Control Systems, Mathematical and Computer Simulation -2020”

DonNTU hosted an online XI International Scientific and Practical Conference “Information Science, Control Systems, Mathematical and Computer Simulation - 2020” on May 27-28th. It was aimed at exchanging of scientific and technical information, stating innovative prospects of spreading computer technologies in all spheres of the current society, developing joint research programs, cooperation developing, establishing of business contacts and commercial links in information technologies.



The event organizers were the Ministry of Education and Science of the DPR, Moscow Institute of Electronics, Moscow Physical and Technical Institute (the National Research University), Taganrog Institute named after A. Chekhov.

There were nine breakup groups at the conference:

- Theoretical and applied mathematics.
- Programming engineering.

- Automated design systems.
- Information technologies and control automated systems.
- Mathematical and computer simulation.
- Artificial intelligence system software.
- Computer engineering.
- Computer graphics and design.
- System analysis and control. Applied information science.

210 participants had been registered and 128 papers accepted. 15 of them will be published in the journal “Information Science and Cybernetics”. The others were published on the conference website.

The participants were from 9 Russian university partners: Moscow State University, Volgograd State Social and Pedagogic University, Saratov State Technical University, Tyumen State University, South Federal University, and Donskoi State Technical University.

There also were representatives from universities of the DPR. The conference proceedings can be found on the conference website.

Road Institute (RI) Student is a prize Winner of the International Contest

The international contest of students’ research “Road Transport -2020” has been summarized. This year university students from the DPR, Russia and Transdnistria became its participants. Their work had been studied and reviewed by key researchers of universities and branch professionals.



A student from the RI V. Orekhov was the contest prize winner. Students from Orenburg State University, Donetsk National Academy of Construction and Architecture, St. Petersburg State Architecture and Construction University ranked second, third and fourth correspondingly.

They got diplomas and certificates, and their supervisors- notes of thanks.

DonNTU’s Student is the Winner of “Digital Breakthrough”

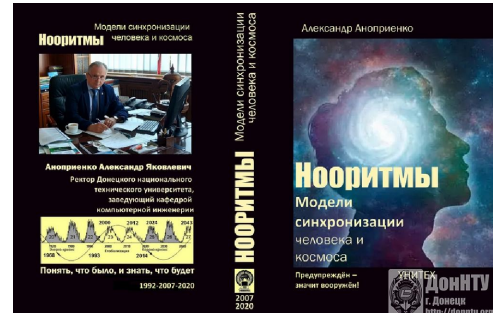


K. Boretskaya, DonNTU’s student, has taken part in the All-Russian contest “Digital Breakthrough” which is a free online marathon for girls who would like to make their careers in IT. There

were 2000 participants in the event. She was among 15 finalists-winners and represented our university with dignity.

New Books on the RSS Site

The book was published at Donetsk publishing house UNITECH in 2020. It covers the issues of cyclicity in human's activity and civilization development caused by mainly space factors. The noorythms complex model based on cycle synthesis of Chizhevski, Condratiev and 500-year-cyclicity were covered in the book.



The noorythms being an empirical model are the most efficient, well-grounded and simple version of the world history dynamics explanation and structuring. The noorythms make it possible to understand the reasons of sharp changes in the fates of its main figures, ordinary participants and innocent victims. It also helps forecast historic dynamics in its nearest and further prospects. The material is proved by a lot of examples and actual information.

Innovative Video Course from Donbass on the RSS Site

The course demonstrates the artificial intelligence state and development prospects and its place on the way of mankind's entering the space.

It has 10 sections:

- What human's intellect and computer one have in common and how they differ.



- How does our brain function?
- Knowledge structure. Knowledge historic and ontological aspect.
- Artificial intelligence classification.
- Laboratory works in neural networks.
- Artificial intelligence state and

development prospects.

- Artificial intelligence cycles.
- Artificial intelligence lock-ups and military applications.
- Scientific revolutions and the artificial intelligence place in the evolution process.
- From digital immortality to the commanded.

Electrical Engineering Students Defend their Master's Papers in the Russian Federation



Despite all the circumstances 17 Master's students of Electrical Engineering Faculty defended their papers in June-July. This year it has been online. The State Attestation Board listened to the presentations, asked interesting questions and evaluate the level of training of students at DonNTU. This time, as it always has been, our students didn't let anybody down. Nine students will get the honours degree of Belgorod State Technological University named after V. G. Shukhov. Because of the defense distant format the students used different ways to present their research results including videos.

The Russian professionals mentioned different subject-matters of the papers which meet the current level of electrical and mechanical systems and thanked the Master's students' supervisors.

We congratulate our students on this significant event.

Newsletter is prepared by the International Office of DonNTU.

Should you have any questions or offers as to the publication material, please address us at: 1st building of Donetsk National Technical University, office 220; tel.: (062) 301 – 08 – 25; (062) 337 – 32 – 66; fax: (062) 304 – 12 – 78; URL: <http://donntu.org/international-cooperation/otdely-instituta-mezhdunorodnogo-sotrudnichestva> E-mail: ovs@donntu.org