

Energy
Life
Quality
Education
Support
Partnership
Heritage
Entrepreneurship
Innovation
Protection
World
Health
Safety
Wellbeing
Nutrition
SDG
Justice
Sport
Desalination
Equality
Sustainability
Culture

Preservation

**SUSTAINABILITY REPORT
INDUSTRIAL UNIVERSITY
OF TYUMEN
FOR 2022**

Monitoring
Poverty
Infrastructure
Landscaping
Vaccination
Sanitation
Economy
Urbanization
Ecosystem
Recycling
Water
Hunger
Research
Consumption
Production
Liquidation
Job
Climate
Resumption
Investments
Industrialization

Employment

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About the university

1956

year the university was founded

7 institutes

>25,000 students

1 Higher Engineering School

5 levels of education

1 Higher School of Digital Technologies

> 300 educational programs

1 Multidisciplinary College

> 150 programs in the field of sustainable development

1 General education lyceum

> 110 publications in the field of sustainable development

4 branches

> 1000 scientific and pedagogical workers

58 Departments

7,9% international full-time students

10 Basic departments

33 recruiting countries

22 laboratories

16 partner countries

2 programs in English

86% of graduates work in more than **40** regions of Russia, **45** countries of the near and far abroad

1 NO POVERTY



2

publications

>14

**million rubles
– financial
assistance to
students**

>3500

**students
receiving
financial
assistance**





Height Liquidation Development

Poverty

Position
Protection

SDG

Disasters
Support
Services

Sanitation

- As part of the all-Russian campaigns #WEARETOGETHER and #Don't abandon our people, Industrial University of Tyumen (hereinafter referred to as IUT) organized a collection of humanitarian aid for citizens evacuated from the Lugansk People's Republic (LPR) and the Donetsk People's Republic.
- A teacher at the Multidisciplinary College of IUT, a member of a volunteer team, worked in the city of Krasnodon, Lugansk People's Republic as part of a humanitarian mission. The mission was organized by the Tyumen regional branch of the All-Russian public organization «Young Guard of United Russia» (DPR).



- At Industrial University of Tyumen, a time bank project «Give an Hour» is being developed, with the help of which people will be able to exchange services free of charge, as well as clothing, household items and products, everything they want to share. The «Give an Hour» platform is an electronic system that allows you to keep track of the time that a participant spends on good deeds. The time that was used to do good for others can be spent beneficially for yourself.



- The following types of scholarships are available at IUT: academic, social, scholarships of the Government of the Russian Federation, scholarships of the President of the Russian Federation, personal scholarships, scholarships awarded by legal entities and individuals. In total, more than 7,300 students received scholarships in 2022.



2 ZERO HUNGER



1

**higher
education
program**

6

publications

890

**students
receive food
benefits**



Support

Wellbeing Water Access
Liquidation Equality
Food Investments
SDG Quality
Hunger Exhaustion

- At the food supply facilities of Industrial University of Tyumen there is an opportunity to choose environmentally healthy food products. Hot meals are provided; a twelve-day menu has been developed taking into account daily calorie intake, including vegetarian dishes. The selection of suppliers of healthy food products is made in accordance with the technical regulations of the Customs Union and is based on the principles of HACCP.
- In IUT, the purchase of food products is carried out in compliance with the requirements and procedure for concluding contracts established by Federal Law No. 44-FZ of April 05, 2013 «On the contract system in the field of procurement of goods, work, services to meet state and municipal needs», Regulations on procurement.



- As part of the all-Russian campaigns #WEARETOGETHER and #Don't abandon our people, the Tyumen Industrial University organized a collection of humanitarian aid for citizens evacuated from the LPR and DPR, including food.

3 GOOD HEALTH AND WELL-BEING



1

secondary vocational education program

10

publications

>1700

students tested according to the All-Russian GTO complex

1

program of additional professional education



3 GOOD HEALTH AND WELL-BEING



SDG Health

Protection Quality Safety Life Support
Sport Urbanization Equality Sanitation

- For many years, Industrial University of Tyumen has had an effective Collective Agreement, according to which employees and their families receive additional benefits and guarantees. There is also a social program, within which each employee can take advantage of a social package of his choice. Among the set of guarantees are voluntary medical insurance, additional leave, sanatorium-resort treatment, payment for travel to a place of recreation, compensation for services in sports organizations and others.



- On a regular basis, IUT holds events (seminars, voluntary events, motivational publications, curatorial hours, etc.) aimed at preventing illness among students and teachers.



- In order to promote a Healthy Lifestyle (HLS), IUT organizes on-site events at the Olympia sports and recreation center (skiing and slides, sports competitions and many other outdoor activities).
- The student sports club «Gvardiya» of

IUT was recognized as the best student sports club in the Ural Federal District, and was also awarded diplomas and cups for the high level of organization of football competitions of the All-Russian project «Championship of the Association of Student Sports Clubs of Russia» among higher and secondary specialized educational institutions.

- IUT students were part of the national team of the Tyumen region, which took part in the festival of the All-Russian Physical Culture and Sports Complex «Ready for Labor and Defense» among students of educational institutions of higher education and won 9th place among 38 teams.



- IUT annually takes part in all-Russian and regional sports events among employees and teaching staff. IUT is a university for a healthy lifestyle, and the achievements of our colleagues are confirmation of this title. Teachers, researchers and employees of IUT (22 people in total) took part in the 58th Spartakiad «Friendship-2022» and took 4th place as a team. Victories in individual competitions: all-around GTO (3rd place), swimming (1st and 3rd place), badminton (3rd place), table tennis (2nd place).

3 GOOD HEALTH AND WELL-BEING



SDG Health

Protection Quality Safety Life Equality Sanitation Support

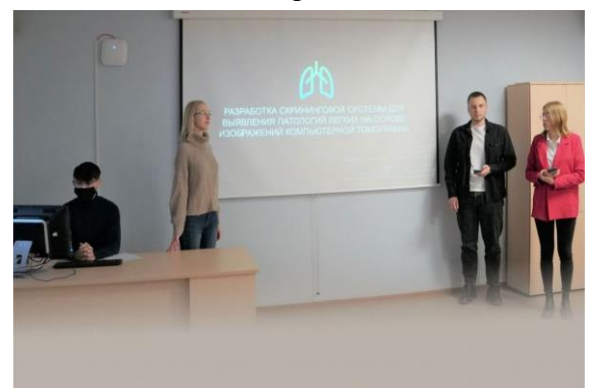
➤ Industrial University of Tyumen has resumed a project to develop and implement technology for using Western Siberian oils in medicine and pharmacology. Among the key results of the project, IUT scientists name the construction of an innovative sanatorium and health complex in the Tyumen region, the introduction of methods for the physiotherapeutic use of oils from Western Siberia and the provision of raw materials to sanatoriums of the Russian Federation, the production of medicinal and cosmetic products from petroleum products and the import substitution of naphthalan oil.

complex. Work is being carried out in the laboratory for the design of functional food products, in which vitamin and mineral complexes are created for the subsequent enrichment of food products with health-preserving properties.



➤ Young IUT engineers are developing a screening system to detect lung pathology in COVID-19 based on computed tomography images. In the future, the accuracy of lung abnormality recognition results will reach 95% or more. The project is being implemented for the State Autonomous Institution of the Tyumen Region «Medical Information and Analytical Center». The main objective of the development is to optimize the process of analyzing CT images in order to increase the throughput of radiology departments while maintaining the accuracy of disease detection and reducing the workload on radiologists.

➤ A master's student at the Construction Institute with a profile in «Heat, Gas Supply and Ventilation Systems, Energy Audit» developed a project to create a first aid station (FAP) in the Far North.



➤ Students and scientists of the Department of Commodity Science and Food Technology of IUT are engaged in the production of complete food ingredients based on local plant raw materials, including those from the Arctic regions of the Tyumen region, containing a natural vitamin and mineral

3 GOOD HEALTH AND WELL-BEING



SDG Health

Protection Quality Safety Life Support
Sport Urbanization Equality Sanitation

- A student of the Institute of Industrial Technologies and Engineering of IUT proposed a business project for the production of functional food products. The plans include designing a factory that will produce flour and confectionery products with the addition of a complex nutritional supplement aimed at preventing cardiovascular diseases. A product line has already been developed that contains products based on whole grain flour with the use of sweeteners: oatmeal cookies, biscotti, grissini, crackers, buckwheat chips.



- Several new laboratories have appeared at IUT for future biomedical engineers of the «Biotechnical Systems and Technologies» training direction of the «Biotechnical and Medical Devices and Systems» profile, in which they will be able to independently assemble electrical circuits on a breadboard, as well as model and design printed circuit boards for biomedical electronics. The laboratories are designed to introduce practical issues of digital technology,

namely the principles of construction and operation of the most common digital devices.



- The educational project «Safe Routes for Children and Teenagers» of IUT became the winner of the first competition of the Presidential Grants Fund in 2022. The project participants are about 200 children and teenagers of Tyumen aged 12-18 years. The result of the project: methodological material, safe route maps, an interactive game to identify threats and create the concept of safety islands, which will be presented to executive authorities with the prospect of further implementation in the Tyumen region.



4 QUALITY EDUCATION



3

programs of additional professional education

1

publications

37

IUT programs are the best within the framework of an independent assessment of the all-Russian project «Best educational programs in innovative Russia»

33

higher education programs have passed professional and public accreditation

15

additional education programs have passed professional and public accreditation

6

programs have certificates of compliance with international accreditation

4 QUALITY EDUCATION



Education

Scholarships
Heritage
Development
Poverty
Technologies
Literacy

Equality

Quality

SDG

Program

➤ For the sixth time, IUT became the venue for the regional stage of the All-Russian Olympiad for Schoolchildren (VOS) in Russian language, literature, physics, astronomy, economics and art. The shortlisted candidates of the VOS final stage traditionally receive benefits when entering relevant universities. Olympiad diplomas are valid for 4 years and give the right to admission to any Russian university without entrance examinations in any field of study corresponding to the profile of the Olympiad. Upon admission to IUT, all participants, prize-winners and winners of the VOS regional stage receive optional credits in addition to the Unified State Examination results in the relevant subject.



➤ In 2022, the sixth graduation of the School of Engineering Reserve (SER) took place. The division is engaged in training an engineering mentality in children, early career guidance and motivation to work in companies in the fuel and energy complex of the region and the country. IUT SER is a center for additional education of students from grade 1 to 11 in project, academic and olympiad program tracks. SER operates 20 unique program tracks: Lego Robotics, Arduino Robotics, Webdesign, 3D Animation, Mechatronics, Petroleum Engineering, Prototyping, Graphic Design, Unmanned Aircraft Systems, Design Chemistry, 3D Modeling and others. Schoolchildren are offered both year-round education and courses lasting

from several weeks to several months.

➤ IUT has opened enrollment for Green Economy and Management of Sustainable Development in the Housing and Public Utilities Sector Master's Program. The housing and communal services sector is actively developing, and there is a significant demand from employers for master's graduates.

➤ IUT and the Public Chamber of the Tyumen Region organized a Russian language as a living connection of times annual online quiz in which 5,804 people from 33 regions of Russia and 13 countries of the world took part. Participants answered questions from 4 topical units dedicated to the Russian character, cultural code, the work of the writer D.N. Mamin-Sibiryak and lingvo trends.

➤ IUT received the status of a federal innovation platform (FIP). FIP status will allow the university to unite several organizations around the leader of innovation in the region. In cooperation, it is more effective to develop informal learning, improve the skills of participants, test innovative ideas in educational institutions and disseminate best practices for the development of the education system. In addition, an increase in the number of innovation centers helps the quality education growth in the region.





Education

Scholarships
Heritage
Development
Poverty
Technologies
Literacy

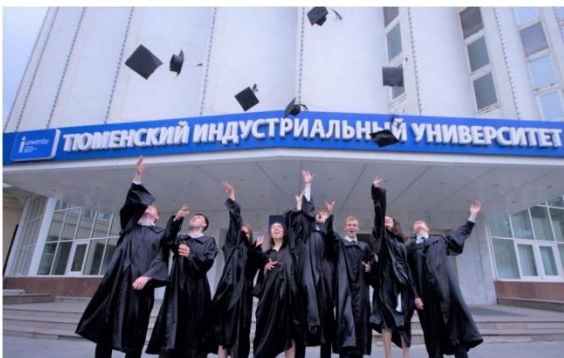
Equality

Quality

SDG

Program

- The university effectively operates 4 dissertation councils for the defense of candidate and doctoral dissertations. The scientific supervision of graduate students is carried out by 90 doctors and candidates of science. At the end of 2022, 8 faculty members defended their Candidate's dissertations.



- A team of IUT master's students received the prestigious Global Student Challenge 2022 award, becoming the best of 38 teams representing 17 countries. The Global Student Challenge is a competition organized by the Windesheim University of Applied Sciences (the Netherlands) and Inchange Company, where teams from the best business schools and universities from around the world compete in the Inchange logistics business simulation.



- With the participation of leading accrediting organizations of Russia (Center for Planning and Use of Labor Resources of Gazprom Private institution, Agency for Quality Control of Education and Career Development, Chamber of Commerce and Industry of the Volgograd Region Union, Russian Register Certification Association,

National Association of Telecommunication Companies of Regulation of the Quality of Infocommunications), at the end of 2022, the IUT has 30 certificates confirming the successful completion of professional and public accreditation (PPA) by basic educational programs, 15 certificates confirming the successful completion of PPA by additional educational programs, and 3 certificates of international accreditation of six educational programs.



- The Competence Standards Center for WorldSkills Russia of the Multidisciplinary College of IUT hosted the competitions of the IX Young Professionals Open Regional Championship in the competencies of Laboratory Chemical Analysis, CAD Engineering Design and Brickwork. 4 teachers and 10 students of Industrial University of Tyumen became winners and prize-winners of the competition (6 gold, 4 silver and 4 bronze medals).





Education

Scholarships
Heritage
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Equality

Quality

SDG

Program

➤ At the Higher School of Engineering EG IUT, an industrial partnership department of the Tyumen Petroleum Research Center (TPRC) of a corporate research design institute of PJSC NK Rosneft has been established to train masters in the Digital Technologies in Petroleum Engineering Program. To implement the educational process, the company equipped the university with a specialized computer class with the software used at the institute. The disciplines of the basic part of the program are taught by faculty members of the relevant departments of the IUT, the professional disciplines are taught by expert personnel from the TPRC. The best master's students will be able to receive a scholarship allowance on a monthly basis, and from the second semester find employment in a company in order to gain professional experience alongside with their studies.



➤ Based on the results of expert voting within the framework of the X stage of the All-Russian project “The Best Educational Programs of Innovative Russia”, 37 IUT programs were among the leaders. Bachelor's, master's and specialist's programs in the educational program tracks of architecture and construction, information technology, heat and power engineering, mechanical engineering, chemical technology, petroleum engineering, applied geology, transport process technology and others were recognized by experts.



➤ IUT received the Winner of the Open International Student Internet Olympiads 2022 Honorary Title. From February to May 2022, almost 600 university students took part in the competition, ten of them became winners and prize-winners of olympiads in descriptive geometry, chemistry, mathematics and other subjects.

➤ Industrial University of Tyumen was engaged in a new milestone of the Smart Route Educational Project of the Knowledge Russian Society dedicated to financial literacy. Smart Route is a project to educate young people, in which the best experts from market leading companies in various fields share their knowledge, experience and inspiring success stories with young people. Experts from Moscow, Sochi, Yekaterinburg, Ryazan and St. Petersburg came to Tyumen.





Education

Scholarships
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SDG

Program

- IUT is the only university in the region that has received the right to implement the Presidential program for managerial personnel. In 2022, 13 middle and senior managers underwent professional retraining with a specialization in Production Management. Training within the framework of the state plan for training management personnel for organizations of the national economy of the Russian Federation has been implemented for more than 20 years; in IUT, for more than five years, it takes place on the basis of the Institute of Additional and Distance Education.
- IUT organized “Engineering Reserve of Russia”: the All-Russian competition of scientific and technical projects. In 2022, 230 schoolchildren from 15 regions of the country took part in the live stage. At the child center "Children's Republic" intensive classes were conducted for future engineers by SER teachers.



- The Technohub program of IUT became the winner of the competitive selection among Russian universities that will receive grants to conduct acceleration programs for student entrepreneurship. The university took 8th place in the ranking among 83 universities. The development of the Technohub acceleration program, taking into account the accumulated experience of IUT in the development of technological entrepreneurship, will

allow accelerating and scaling the processes of creating and implementing student startup projects.



- The graduation theses of students of the Institute of Architecture and Design of IUT became the best at the XXXI International Review-Competition of the best final qualifying paper in architecture, design and art. To successfully train graduates, the university has created a system of continuous architectural education. The architectural training center provides training to children from 5 years old. Starting with the study of basic subjects as drawing, composition, painting, creatively gifted children gradually comprehend decorative and applied arts, prototyping, drawing, and in high school they start to study the fundamentals of architecture, an introduction to the profession.



4 QUALITY EDUCATION



Education

Scholarships
Heritage
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Literacy

Equality

Quality

SDG

Program

➤ IUT students became winners of the All-Russian Engineering Competition, which is held by the Ministry of Science and Higher Education of the Russian Federation. Over 300 graduate students from Russian universities competed for victory in the final, of which 59 became winners, 75 received diplomas and other awards of the competition. IUT winning projects are as follows: “Research and development of technology for strengthening unstable clayey-argillite rocks when drilling wells”, “Construction of a plant for the production of biodecomposed packaging”.



➤ The team of the IUT Construction Institute won the team competition of the All-Russian Student Olympiad in the field of study of Construction, the profile of Highways, Airfields and Transport Infrastructure Facilities. The team members also took prizes in the individual competition and in individual categories.

➤ IUT students received awards from the prestigious XVIII International Forum-Competition Current Problems of Subsoil Use of the St. Petersburg Mining University under the patronage of the International Competence Center in Mining and Engineering Education under the auspices of UNESCO. For eighteen years, the forum-competition has been an open discussion platform for panelling topical issues on the development of the mineral, raw materials and fuel and energy complexes of Russia and the world. The winners were awarded diplomas

allowing them to participate in the competition for a grant from the International Competence Center in Mining and Engineering Education under the auspices of UNESCO: training in a master's/postgraduate program at the St. Petersburg Mining University.

➤ The II International Summer School «Ecoengineering» was held at TIU. Participants from Industrial University of Tyumen, Samara State University of Transport, Kaliningrad State Technical University, Kokshetau University named after Shokan Ualikhanov and Karaganda Technical University named after A. Saginov (Kazakhstan), Kyrgyz State University of Construction, Transport and Architecture (Kyrgyzstan), Tajik Technical University named after an Academician M.S. Osimi (Tajikistan) during six days of work had the opportunity to develop researcher skills and form an environmentally friendly thinking, and learned to navigate scientific research trends. The school was held in a mixed in-person and distance learning format.



➤ IUT, in collaboration with partners from Kazakhstan and Kyrgyzstan, launched two new network educational programs: the field of study “Construction” (profile “Water Supply and Sanitation”) and the field of study “Architecture” (profile “Architectural Design”).

4 QUALITY EDUCATION



Education

Scholarships
Heritage
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Technologies
Literacy

Equality

Quality

SDG

Program

- 11 IUT students are prize-winners and winners in various areas of “I am a Professional”: the fifth anniversary All-Russian Olympiad.



- For the fourth time Gazprom Neft and IUT launched the INCorporation project, a unique educational product for the early integration of students into the company's business environment. The project models field development processes, including concept development and implementation strategy. Students were invited to participate in different stages of two projects: the “Implementation” stage: work on the creation of an existing project (Urengoy field); the "Definition" stage: development work for commencement (Chayandinskoye field).
- Teaching staff of Industrial University of Tyumen became winners of the All-Russian competition for the best practices in implementing updated work programs of disciplines, held at Innopolis University as part of Personnel for the Digital Economy Federal Project. The competition identified the best teachers who successfully implement advanced industry digital technologies and tools into the educational process, aimed at developing relevant digital competencies among graduates.
- The IUT team took 3rd place in the student league of the Autumn Cup of the CASE-IN Engineering Championship. More than eight (8) thousand students from 155 universities took part in the competition. The

tournament participants demonstrated their skills in implementing information technology in production. Based on the results of the competition, the finalists received the opportunity to complete an internship in large companies with subsequent employment, as well as privileges for admission to graduate and master's programs at leading universities in the country.



- Teams from the Institute of Geology and Oil and Gas Production of IUT received gold and bronze medals at the XVII All-Russian Student Olympiads in the complex of fundamental geological sciences and applied geology. More than 200 students from 23 universities and 12 cities of Russia took part at the final tests. The Olympics were held in 10 educational program tracks.
- The final session of the International Scientific and Practical Conference “Synergy” was held for the first time at Industrial University of Tyumen. Representatives of Gazprom's flagship universities, the company's subsidiaries, and the Department of Education and Science of the Tyumen Region gathered at the round table. The main topic was a discussion of modern trends in the development of engineering education in the conditions of ensuring the technological sovereignty of the country.

5

GENDER EQUALITY



4

higher
education
programs

56%

of academic
and research
staff are
women

33%

of female
graduates of
IUT

+3%
compared to the
previous
academic year





Resources Equality Technologies Wellbeing Union Life Health SDG Security Woman Development Possibilities

➤ Veronica Efremova, the Rector of IUT, served as a mentor for the Federal project 'Women: Mentoring School' and participated in an open discussion at the St. Petersburg International Economic Forum. This extensive project, initiated by the Ministry of Science and Higher Education of the Russian Federation, aims to support female students and young professionals. Its primary mission is to equip young women with relevant skills and competencies to enhance their competitiveness in the job market. Seventy-five women leaders from various fields, including Veronica Vasilievna Efremova, serve as mentors in this program.



➤ As part of the implementation of the federal project "Promotion of Employment" under the national project "Demography," Tyumen Industrial University offers training programs for citizens through supplementary education. The 2022 project includes participation from individuals aged 50 and older, those nearing retirement; women on maternity leave with children under the age of three; and women who are not currently employed.



➤ Rector of IUT, Veronika Efremova, has joined the jury of the first international architectural competition in the Tyumen region for the development of the renovation concept of the Tyumen House-Building Plant "DSC-500." The Tyumen House-Building Plant "DSC-500" is one of the most impressive industrial spaces of the Soviet era.



➤ Female students from IUT demonstrated outstanding results at the All-Russian Festival of Physical Culture and Sports Complex "Ready for Labor and Defense" among higher education institutions. Athletes from IUT represented the Tyumen region brilliantly, securing the 9th place out of 38 teams. In the final standings of 150 participants, the women claimed the 5th and 11th positions, respectively. Over 300 students from 36 regions of the Russian Federation participated in the competition. The Tyumen region team consisted of eight students: 4 females and 4 males.



Resources Equality Technologies Wellbeing Union Life Health SDG Security Woman Development Possibilities

➤ The qualifying round of the 24th Championship of the Women's Student Volleyball League of Russia's Western Conference took place at IUT. Teams from universities in Tyumen, Kaliningrad, Surgut, Yekaterinburg, IUT matches, the IUT team secured third place. The tournament's best player was a student from the Industrial University.

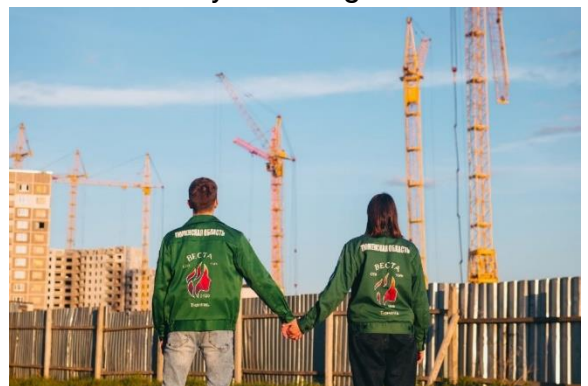


➤ A student from the Multidisciplinary College of IUT emerged victorious in the All-Russian Competition of Social Initiatives and Projects in the Field of Science and Education, titled "First Managerial," with the project "Cultural Heritage as an Integral Part of Future Generations." In addition to project presentations, participants had the opportunity to attend numerous lectures by leading managers from various fields in the country. These lectures focused on promoting civic engagement and fostering motivation among young people for managerial, socially

significant, and creative activities.



➤ The student construction team "Vesta" from Tyumen Industrial University successfully passed the selection to participate in the All-Russian Student Construction Project "Peaceful Atom" by the State Corporation Rosatom. The "Vesta" construction team consists of 12 members, including 10 females. Since 2017, "Vesta" has consistently ranked among the top three student teams in the Tyumen region.





Resources
Equality
Technologies Wellbeing
Union Life **SDG** Security
Health Possibilities
Woman Development

Women in Science - 2022 Review:



Natalia Alexandrovna Aksenova is a Ph.D. in Technical Sciences, Associate Professor, and the Director of the branch of IUT in Nizhnevartovsk. She is also an associate professor in the Department of Oil and Gas Affairs. She has authored 177 scientific publications, including 30 articles in VAK-indexed journals, 7 articles in Scopus, 5 monographs, 8 inventions, and 14 educational materials.



Maria Andreevna Gurieva is an associate professor at the Department of Economics and Production Organization at the Institute of Service and Industry Management of IUT. She holds a Ph.D. in Economics and is a professor at the Russian Academy of Natural Sciences. Her achievements include 204 scientific articles, out of which 17 are indexed in the Scopus database, 5 in Web of Science, 6 monographs, and 6 obtained patents.



Larisa Rafaelovna Epifantseva is an associate professor at the Department of Structural Engineering at IUT and holds a Ph.D. in Technical Sciences. She is the laureate of the All-Russian competition "Engineer of the Year 2022." She has authored 3 textbooks and 1 educational manual, as well as over 60 published scientific works and invention patents.



Resources
Equality
Technologies Wellbeing
Union Life **SDG** Security
Health Possibilities
Woman Development

Women in Science - 2022 Review:



Maria Yurievna Zemenkova is a Doctor of Technical Sciences, Associate Professor, and a professor at the Department of Hydrocarbon Resource Transportation. She is the laureate of the "Leader of the Year in Scientific and Innovative Activities 2022" competition. She has authored over 250 scientific works, including 7 monographs, more than 40 publications in Scopus and Web of Science databases, over 50 publications in VAK-indexed journals, and more than 20 educational materials, including 3 in English.



Alesia Anatolyevna Kolyadko is an associate professor at the Department of Oil and Gas Affairs at the branch of IUT in Surgut, holding a Ph.D. in technical sciences. Her accomplishments include 34 articles published in publications indexed in international citation databases like Web of Science and Scopus, over a dozen articles in journals listed by the Higher Attestation Commission (VAK), and more than 50 articles in publications indexed in the Russian Science Citation Index (RINC). Additionally, she is a co-author of one monograph.



Women in Science - 2022 Review:



Victoria Alexandrovna Kurushina is the head of the laboratory for vibrational and hydrodynamic modeling. She holds a Ph.D. degree in engineering, which she obtained from the University of Aberdeen in the United Kingdom. She is the author of 42 scientific publications.



Lamara Lengizovna Mehrishvili is a Doctor of Sociological Sciences, a Professor, and the Head of the Department of Humanities and Technologies at Tyumen Industrial University. She is also the Director of the Western Siberian Branch of the Federal Research Sociological Center of the Russian Academy of Sciences. She has approximately 200 scientific publications, including over 10 authored and collaborative monographs.

6

CLEAN WATER AND SANITATION



1

**higher
education
program**

4

publications

2

**program of
additional
professiona
l education**

6 CLEAN WATER AND SANITATION



SDG

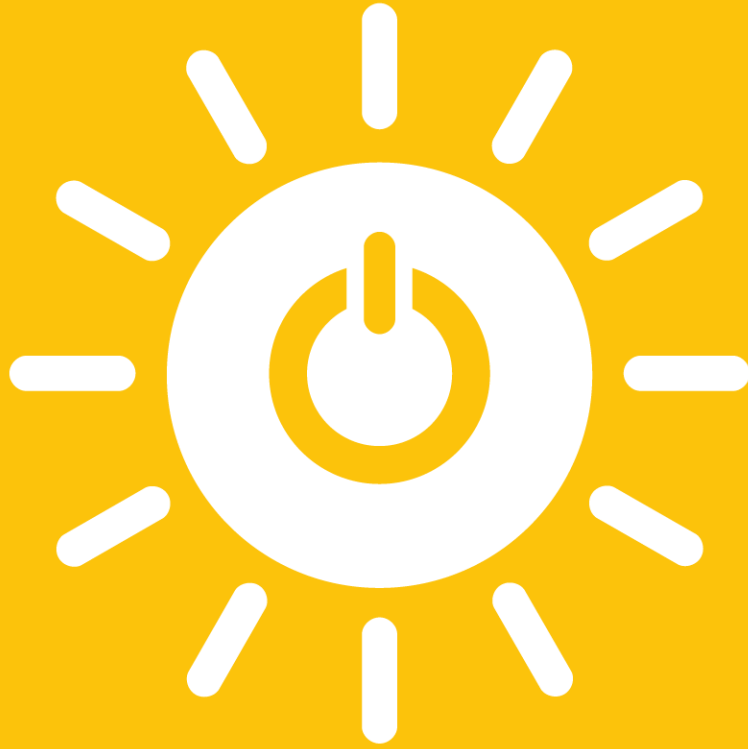
Desalination Investments
Access Hygiene Quality
Recovery Protection
Monitoring
Water

- IUT students are the best at the All-Russian competition on Arctic themes. There were a total of 128 applications from 23 member universities of the "National Arctic Scientific and Educational Consortium." As a result of the competition, an expert committee identified 40 winners, including nine from IUT. In the category of "Ecological Safety, Climate, and Biodiversity of the Arctic" (natural sciences), a master's student from the Institute of Construction took the 3rd place for developing a technology for cleaning the surface waters of hydrocarbon production and storage sites in the Arctic zone using phytosorbents.
- The development by a IUT scientist, "Integrated System for the Production and Distribution of Clean Freshwater Using Renewable Energy," was recognized as one of the best inventions at the regional stage of the competition for the All-Russian Society of Inventors and Rationalizers Award in 2022. This invention enables the purification of 250-8000 liters of water per day from salt and contaminants, as well as the efficient provision of autonomous water supply for the population and enterprises in coastal areas.
- The scientific-practical conference "Water Resources as the Basis for

Global and Regional Development Projects of Russia, Siberia, and the Arctic in the 21st Century" took place at IUT. For the 23rd time, it gathered experts, scientists, representatives of regional authorities and industry, as well as students and postgraduates. More than 170 participants from 16 regions of the country and two foreign countries presented reports. One of the key topics of the conference was "Russia, Siberia, and the Arctic in the Face of Global Water Challenges in the 21st Century: Water and the World; Freshwater Deficiency and Water Conservation; Water for Life and Human Well-being; Water and Ecology; Water and Utilities; Water and Agriculture; Water and Industry; Water and Energy."



7 AFFORDABLE AND CLEAN ENERGY



2

**higher
education
program**

2

**program of
additional
professiona
l education**

22

publications

1

**secondary
vocational
education
program**

7 AFFORDABLE AND CLEAN ENERGY



Monitoring Access Investments Resumption Modernization Problem Energy Sources

SDG Sun
Research

- IUT students' projects were recognized as the best in a startup competition during the foresight session "Energy of the Future 2030," held at Tomsk Polytechnic University with the support of PJSC "Gazprom Neft." The event brought together leading universities in the field of energy education from across the country. In total, 21 projects were submitted by students from universities in Tomsk, Novosibirsk, Orenburg, St. Petersburg, Tyumen, and Yugorsk. IUT was represented by three master's students with projects: "Intra-well Reactive Power Compensation Technology," "Implementation of Stirling Engine," and "Optimizing Industrial Uninterruptible Power Supply Systems."
- Tyumen Industrial University serves as the operator of the project "Environmentally friendly and resource-saving energy generation technologies through the use of industrial and municipal waste in composite fuels," which won in the "ZIMA 21" accelerator of the Western Siberian Interregional Scientific and Educational Center of global significance. The project involves the development and creation of a technological complex for obtaining cheap thermal energy by using composite liquid materials made from waste from coal enrichment and oil processing, as well as solid municipal waste as fuel. The primary economic effect of implementing the project in practice will be associated with reducing tariffs for heating and electricity supplied to consumers. The project is being implemented in scientific collaboration with the National Research Tomsk Polytechnic University.
- Faculty members of the Institute of Geology and Oil and Gas Production at Tyumen Industrial University have become recipients of one of the most prestigious awards, named after N.K. Baybakov, for their significant achievements in addressing issues

related to the sustainable development of energy and society. The award was granted to these scientists for their scientific research and authored monographs that provide undeniable evidence of the presence of black gold (oil) in the Kurgan region. For several years, they have been engaged in the search for oil and gas deposits in the neighboring region, conducting geochemical soil and water studies.



- The Department of Electrical Power Engineering at Tyumen Industrial University has embarked on research into the stability of energy systems with renewable energy sources. The scientists' developments will contribute to enhancing the reliability of hybrid installations through the creation of digital twins based on real-time hardware. The use of hybrid energy supply systems based on renewable energy sources is a major global trend in the development of energy supply for isolated areas, aimed at reducing the carbon footprint of industrial activities. Due to the specificity of the industry in Western Siberia, the university's research in the field of energy is primarily associated with the oil and gas sector, which currently leads in the adoption of digital technologies.

8

DECENT WORK AND ECONOMIC GROWTH



8

higher
education
program

14

program of
additional
professional
education

86%

ratio of
employed
graduates of
IUT

1

secondary
vocational
education
program

2

massive
open online
courses



8 DECENT WORK AND ECONOMIC GROWTH



SDG

Equality
Preparation
Innovation
Quality
Performance

youth
Wellbeing
Economy
Work
Education
Safety

Job

➤ IUT is implementing the “Startup as a Diploma” program, aimed at involving talented students in the development of the technological entrepreneurship ecosystem, as well as supporting business at an early stage. The Youth Business Incubator is responsible for the implementation of the program at the university. Students no longer have to choose between their project and writing a thesis, since they can defend their startup project as a final qualifying thesis. A student of any field of study, specialty and level of education can become a participant in the “Startup as a Diploma” program. As part of the program, participants not only gain experience in creating their own startups, but also find business partners.



➤ 14 IUT students took part in the internship program as part of “We praise the working man!”, Professional Skills Competition in Salekhard. The organizer of the ten-day internship for future specialists was the district department of economics, core-business departments of the Yamalo-Nenets Autonomous Okrug and the Interregional Center for the Development of Local Communities “People of the Arctic”. The internship took place on the basis of the district departments of natural resources and ecology, information technology and communications, a multifunctional center and the Yamal Multidisciplinary College. An individual program was

developed for each student and a mentor was assigned. As a practical matter, students were able to improve their theoretical knowledge and gain real ideas about future work within their chosen profession, became acquainted with the IT infrastructure of institutions, and tried themselves as system administrators and apprentice teachers.



- Since 2002, the Headquarters of Student Squads has been operating at IUT. Among the universities in the Tyumen region, the IUT Headquarters is the largest; more than 350 students become its members annually. Every year, teams are formed to undergo paid practical training. IUT mainly includes construction squads that are engaged in the construction of various facilities, including those of all-Russian significance, and specialized squads that provide service
- For many years, the university has had an effective Collective Employment Agreement, according to which the university, among other things, organizes systematic work on additional professional education of employees in accordance with the legislation of the Russian Federation. support for events at the intra-university, city, regional and all-Russian levels.

8 DECENT WORK AND ECONOMIC GROWTH



➤ 35 IUT students were among the participants in the federal project “More than work” and received a unique opportunity to travel by areas of activity of industrial tourism to Magnitogorsk. Within their visit the guys got acquainted with the city and enterprises, and also had an express internship at the Magnitogorsk Iron and Steel Works, which is one of the world's largest steel producers. Most of the students who passed the competitive selection study at the Higher School of Engineering EG IUT. The “More Than Work” Project is being implemented jointly by the Federal Agency for Youth Affairs (Rosmolodezh) and the Russia - the Land of Opportunities Autonomous Non-Profit Organization. Thanks to the project, students have an internship program at enterprises with further employment opportunities and master the skills and knowledge necessary for work.



➤ As part of the implementation of Promotion of Employment Federal Project of Demography National Project, Industrial University of Tyumen provides training for citizens under additional education programs. The 2022 project involves youth citizens under the age of 35, belonging to the following categories:

- citizens who, from the date of completion of military service by conscription, are not employed for 4 months or more;
- citizens who, from the date of issue of their education and/or qualification

document, have not been employed for 4 months or more;

- citizens who do not have higher or secondary vocational education and are not enrolled in higher education and secondary vocational education programs;
 - citizens at risk of dismissal;
 - citizens completing educational programs of secondary vocational or higher education in the current calendar year, who have applied to the employment service authorities at their place of residence, for which there is no suitable job.
- In 2022, on the basis of the Institute of Continuing and Distance Education with the support of Gazprom Neft PJSC, a unique program was created to implement advanced training programs for employees and contractors of Gazprom Neft PJSC, students of IUT and other companies in order to increase labor productivity using lean production tools training and production site as “Process Factory”, Center for the development of professional competencies in the field of lean production. Instructors from among the employees of Gazprom Neft PJSC and IUT involved in the implementation of the program have been certified by the Federal Competence Center and internal certification of instructors by Gazprom Neft PJSC. Participants in the “Process Factory” gain experience in applying lean manufacturing tools in a real business process and realize how improvements affect the company’s operational and economic performance.

8 DECENT WORK AND ECONOMIC GROWTH



➤ The Russian Ministry of Science and Higher Education and the Innovation Promotion Foundation summed up the results of the “Student Startup” competition. Six students of the Industrial University of Tyumen out of a thousand young innovators received 1 million rubles each for the implementation of their business projects. IUT students’ projects won in five out of seven educational program tracks:

- New materials and chemical technologies, Chemical reagents for hydrocarbon systems Project
- New devices and intelligent production technologies, Import substitution through additive manufacturing and reverse engineering Project
- Biotechnology, Biodegradable sensors for monitoring soil conditions Project
- Resource-saving energy, Development of measures to improve the energy efficiency of a standard hydrocarbon processing plant Project
- Resource-saving energy, Autonomous power supply to the linear part of oil and gas production enterprises Project
- Creative industries, Self-service auto repair shop and #doityourself car repair school Project.

➤ IUT project received high expert assessment in the final of the first All-Russian competition for best practices in youth employment, organized by the Ministry of Labor and Social Protection of the Russian Federation. Of the presented projects, 926 were from 73 regions of the country. 113 practices were recognized as the best and will be replicated throughout the country. IUT implements many initiatives aimed at building career trajectories for students. In this vein, one of the successful

practices is the university’s partnership with the companies PJSC Gazprom and PJSC Gazprom Neft, in which the focus is shifting from traditional formats of cooperation to innovative activities. The master’s program, career guidance and educational projects are jointly implemented with the participation of experts and the use of interactive teaching methods. Such interaction allows students to receive grants for training, undergo guaranteed internships with a high chance of employment, and also develop hard and soft competencies.



➤ IUT students became winners of the “START UP” business course, conducted by the federal youth entrepreneurship program “I’m in business.” Over the course of two months, young people learned business literacy, from developing an idea to creating a business and starting sales. Experienced mentors and experts from among entrepreneurs in the region supervised the participants. Future businessmen received step-by-step instructions and practical tools for developing their projects. Participants attended a master class on public speaking, built financial models, completed team training, and learned entrepreneurship through a business game.

9

INDUSTRY, INNOVATION AND INFRASTRUCTURE



20

**higher
education
program**

2

**program of
additional
professiona
l education**

48

publications

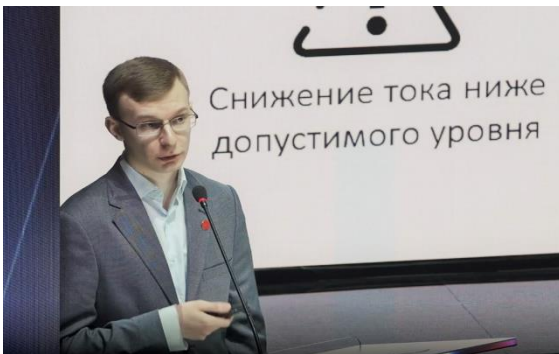
4

**massive
open online
courses**



Investments Employment
Technologies Entrepreneurship
Development
Modernization
Production
SDG Industry
Industrialization
Infrastructure
Innovation

➤ IUT master's student with the Increasing the reliability of guaranteed power supply devices Project won first place among students at the International Scientific and Technical Youth Conference of Transneft PJSC and member organizations of the International Association of Oil Transporters. The main advantage of the solution of the university project team is that if in an emergency the uninterruptible power supply fails due to a faulty battery, the system is able to identify this battery itself, instantly remove it from operation and turn on the backup one. And all this happens without disconnecting consumers.



➤ Hosted by IUT, the acceleration program "Technohub" was launched in 2022 as one of the tools of University Technological Entrepreneurship Platform Federal Project. 620 IUT students took part in the program; 102 startup projects successfully completed the program, two of which became winners of the "Student Startup" competition of the Innovation Promotion Fund (support received in the amount of 1 million rubles for each project). During the implementation of the acceleration program, IUT students and employees were involved in project and network interaction with partner companies, generated new business ideas and start-up projects in the scientific and technical field. 13 business partners were invited to participate in the program and provided expert support to

startup projects for their development.

➤ Industrial University of Tyumen won the Leader of the Year in Research and Innovation Competition. The university became the best in the category of Organization of the Year Leading Innovative Activities. Four IUT scientists became laureates of the competition in natural and technical sciences. The university's research teams annually carry out research and development work in various fields, which is financed by the Ministry of Science and Higher Education of the Russian Federation, grants from the President of the Russian Federation, funds for supporting scientific and scientific-technical activities and customers under business contracts.

➤ The Mechanauts Team of students from the Institute of Industrial Technologies and Engineering of IUT took second place in the hackathon for robotics programmers. In the process of completing the task, students designed, modeled parts on a computer, printed them out on a 3D printer, developed an electronic circuit, programmed the robot on a microcontroller, and used machine vision.





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➤ A group of IUT scientists is developing nanostructured corrosion-resistant and cold-resistant materials. The samples obtained in laboratory conditions have unique performance properties and are able to work in Arctic and Antarctic conditions. The result of the first stage of research was the production of a fundamentally new iron phase. According to scientists, it has unusual properties and is found only in fragments of iron meteorites. The resulting material has unique properties. If ordinary ferrite is a ferromagnet, then its epsilon phase is completely non-magnetic and has special electrically conductive properties and microhardness that exceeds the world level.



➤ IUT students became winners and prize-winners of the V All-Russian competition of student scientific works on Arctic topics among member organizations of the National Arctic Scientific and Educational Consortium. In total, the competition received 128 applications from 23 universities. Based on the results of the competition, the expert commission identified 40 winners, among which nine were IUT students with the following projects:

- Study of the physical and chemical properties of fluorinated ketone for its further use as a drilling fluid base (the 1st place).
- Calculation of bottomhole pressure of gas condensate wells taking into account the liquid phase using the example of Arctic gas fields in

Western Siberia (2nd place).

- Analysis of changes in the energy efficiency of gas pumping equipment at compressor stations in Arctic conditions (the 3rd place).
 - Development of technology for surface treatment of wastewater from hydrocarbon production and storage sites in the Arctic zone and the use of phytosorbing agents (3rd place).
 - Interpretation of satellite imagery of the Gydan Peninsula (3rd place).
 - Development of integrated solutions when designing a medical and obstetrical station in the Far North (the 3rd place).
 - Development of technology for the production of a functional additive with immunomodulatory properties for the migrating population of the Yamal-Nenets Autonomous Okrug (the 3rd place).
- IUT scientists offer inventive technologies for producing wax from petroleum products for thermal sensors and microactuators. The developments are in demand in a variety of industries and are already being used in the Russian aircraft industry. The Research Laboratory of Petroleum Products and Petrochemistry of IUT is currently the only one in the country engaged in the production of petroleum wax.





Investments Employment Technologies Entrepreneurship Development Modernization Production **SDG** Industry Industrialization Infrastructure **Innovation**

➤ IUT scientists have developed a digital twin of a motor transport enterprise. The innovative software product was tested, received a certificate of registration and recognition at the competition of the All-Russian Society of Inventors and Innovators. The Decision support system for managing the technical operation of motor transport project is aimed at the digitalization of motor transport enterprises and combines tools for visualizing data on the operation of transport at the enterprise, a simulation model of the operation of the enterprise, as well as a recommendation system that will allow the head of the enterprise to choose the optimal management solution based on various factors.



➤ Three projects of IUT scientists received grants from the Russian Science Foundation following a competition for conducting fundamental and exploratory research by small scientific groups. Projects:

- Theoretical and methodological support for the analysis of Earth remote sensing data in order to calculate the value of the environment-forming potential of the territory of the municipality.
- Modeling of mechanical processes in the water-saturated soil foundation of a construction site, taking into account the viscoelastic properties of soils.
- Prospects for the development of ESG strategies for the formation of environmental intelligence of

employees of Russian enterprises in the fuel and energy sector in the context of the new reality.

➤ IUT students became grant holders of regional competitions under the UMNİK program. One of them presented the development of a modular ultraviolet printing system for laser machines, the second one the development and research of a valve electric drive for an electric drill, the third one the development of a composition of a composite material for construction additive production based on the raw materials of the Tyumen region.

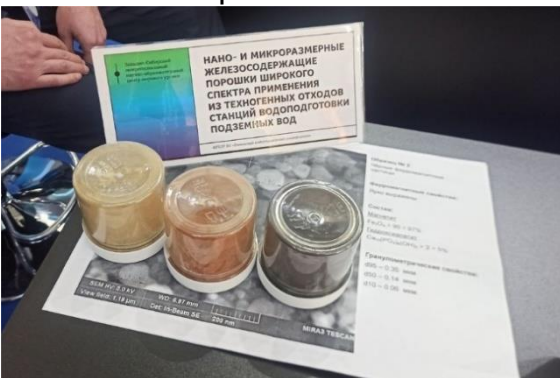
➤ IUT became the winner of the competitive selection for the pilot launch of the “How can I help?” Project. As the organizers, the Ministry of Science and Higher Education, note, 7 of the strongest and most ambitious teams were selected from 76 universities in the country. The main result of the project will be the development of a support service “How can I help?” It is intended for students and applicants as a useful assistant in solving various issues. The service will help you organize an internship, take a leave of absence or transfer to another university, tell you about the rules of the admissions campaign, and select hackathons and specialized competitions.





Investments Employment
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Innovation

➤ Within the framework of the II Congress of Young Scientists, the VII National Competition of Innovative Projects in the Aerospace Industry Sky.tech was held. An IUT engineer became its participant, presenting a unique technology for producing environmentally friendly magnetically sensitive powders, which can be used to detect even minor damage to aircraft parts. The development has already passed pilot tests, including at the sites of UTair-Engineering JSC and Tyumen Engine Builders PJSC. A commercial strategy for introducing new technology has also been developed. Congress experts highly appreciated the project of the Tyumen team and awarded an honorable third place.



➤ IUT scientists are developing a system for repairing oil and gas equipment. During oil and gas production, the tubing used to extract natural resources is subjected to severe impacts during well operation. Metal damage often occurs; corrosion and cracks appear and develop on pipe surfaces. Particularly important is the timely detection of such defects before equipment failure. The main advantage of the control system is the rational use of existing pipes through the timely removal of defective tubing from service and the extension of the number of runs of suitable equipment.

➤ Specialists from the Institute of Geology and Oil and Gas Production of IUT together with NIK INTEK Company are working on the creation of a hardware and software complex for Smartwells

Stream oilfield services. According to the authors' idea, such a system will be able to remotely monitor the process of drilling oil and gas wells using elements of artificial intelligence. This will optimize the speed of well construction, minimize the risk of accidents and comply with safety regulations. One of the main advantages of the complex is its compatibility with any software. Scientists have already received a patent for a device for receiving, converting and transmitting data from sensors and devices, and a certificate of state registration of an online monitoring and management system for a large amount of data. The complex trademark has also been registered.

➤ Young IUT engineers are developing a screening system to detect lung pathology in COVID-19 based on computed tomography (CT) images. The project is being implemented for the Medical Information and Analytical Center, State Autonomous Institution of the Tyumen Region. The main objective of the development is to optimize the process of analyzing CT images in order to increase the throughput of radiology departments while maintaining the accuracy of disease detection and reducing the workload on radiologists. To solve this problem, it was proposed to introduce an automatic screening system for lung pathology based on artificial intelligence. To develop a diagnostic system, a convolutional neural network of the AlexNet architecture was chosen, and a data set was generated for its training and testing. During testing of CNN, the proportion of correct answers of the algorithm was more than 90%.



Investments

Employment
Technologies Entrepreneurship
Development
Modernization
Production

SDG

Industry

Industrialization

Infrastructure

Innovation

- Students of the Institute of Geology and Oil and Gas Production of IUT took prizes at the XXVI International Scientific Symposium of Students and Young Scientists named after Academician M.A. Usov "Problems of geology and subsoil development". In the section "Geology of oil and gas. Modern methods of prospecting and exploration" 3rd degree diplomas were awarded to the works "Lithological and petrographic studies of the core of the Georgievskaya formation of the central part of Western Siberia", "Reconstruction of the formation conditions of the Middle Jurassic deposits (layers Yu2-4) according to the macroscopic description of the core within the Yugansko-Koltogorskaya zone (KhMAO-Yugra)", "Determination of conditions for the formation of sediments of the section of the Upper Jurassic oil and gas complex of the Yugansko-Koltogorskaya zone (KhMAO-Yugra)". The diploma of the School of Natural Resources Engineering in the section "Mineralogy, Geochemistry and Petrography" was won by the joint work of students devoted to the reconstruction of the conditions of accumulation of rocks of the Bazhenov-Abalak oil and gas complex in Western Siberia, the unconventional reservoirs that make up this complex, and the hard-to-recover reserves located in these reservoirs.



- IUT is working on developing a System using augmented reality technology, which will allow any resident or guest of

- Tyumen to learn about the history and future of the city's most beautiful historical buildings using a mobile device. A pilot virtual 3D model of the estate of merchant Vasily Petrovich Burkov, which is located on Dzerzhinsky Street, 30, is already ready for demonstration. By pointing the smartphone camera at the information stand in front of the building, the user, using augmented reality (AR) technology and WebAR technology, enters the System, where the owner of the estate welcomes him, who talks about himself and the building, invites you to learn more about the history of the building, study interesting facts and photographs from different years.
- The research of IUT scientists on the topic of new materials and technologies for constructing buildings using robotic additive systems received a favourable conclusion from the Russian Academy of Sciences on financing within the framework of the activities of the world-class West Siberian Interregional Scientific and Educational Center. The purpose of the research is to obtain new materials, technologies, architectural and design solutions for robotic construction 3D printers.
- A student of the Higher Engineering School EG of Industrial University of Tyumen received a grant of 3 million rubles at the Start-Neftegaz competition. The student and his team developed a technology to control the water cut level of a gas well. The project was recognized as the best in the direction of "New devices and intelligent production technologies".



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- IUT became the winner of the competitive selection for the creation of scientific laboratories under the guidance of young promising researchers. The scientific departments of the university will be supplemented by a youth laboratory of oilfield chemistry. A feature of the selection of applications for the creation of youth laboratories this year was the attraction of an industrial partner who is ready to invest in scientific research. In this case, Development of Domestic Active Bases and Ready-Made Compositions of Chemical Reagents for Special Geological and Field Conditions of Oil and Gas Production Enterprises Project developed by IUT scientists is aimed at import substitution of foreign analogues of petrochemicals. The project is designed for 3 years with a total funding volume of more than 50 million rubles and will be implemented jointly with TyumenNefteTechnologies LLC, the leading company in the petrochemical market.
- Center for Advanced Research and Innovative Development (CARID) of IUT has been successfully registered in the Information and Analytical System of the Russian Science Foundation. This opens up new opportunities for the university's research teams and third-party organizations. In particular, this will make it possible to use the scientific equipment of the IUT CARID in the implementation of research projects submitted to the competition for grants from the Russian Science Foundation under the event "Conducting research on the basis of existing world-class scientific infrastructure" of the Presidential Research Projects

Program.



- The report "Information and analytical system "Garrison" for the Ministry of Emergency Situations of the Tyumen Region" was recognized as the best in the section Regional and industry experience in the implementation of artificial intelligence and modern geopolitical conditions Section at the International Military and Technical Forum "ARMY-2022". As a result of the work of the Garrison system, a volume of data will be generated that is suitable for conducting scientific research in the field of big data and machine learning. Subsequently, it is possible to create analytical systems. When using the capabilities of algorithms based on neural networks if analyzing a database of emergency situations (ES), there is a chance to predict the recurrence and occurrence of new emergencies with similar parameters. After debugging and achieving positive results, integration into other regions of Russia is possible.

10

REDUCED INEQUALITIES



1

higher
education
program

4

program of
additional
professional
education

2

massive
open online
courses

7

publications

277

students from
among orphans

94

students with
disabilities

21

students from
the risk group





Support Quality

Integration Migration

SDG

Partnership Sustainability Countries Policy

Equality

Health Wellbeing

Safety

➤ IUT is ready to accept citizens of the Russian Federation, as well as citizens of Ukraine, Donetsk and Lugansk People's Republics who have expressed a desire to transfer from foreign educational organizations. In addition, at the Center for Youth Initiatives of Industrial University of Tyumen, a collection of humanitarian aid was organized for citizens evacuated from the LPR and DPR.



➤ As part of the implementation of the federal project "Promotion of Employment" of the national project "Demography", IUT conducts training for citizens in additional education programs. In 2022, the project will involve youth citizens under the age of 35 inclusive, belonging to the following categories:

- citizens who, from the date of completion of military service on conscription, are not employed for 4 months or more;
- citizens who, from the date of issue of their education and/or qualification document, have not been employed for 4 months or more;
- citizens who do not have higher or secondary vocational education and are not enrolled in higher education and secondary specialized education programs;
- citizens at risk of dismissal (citizens planned for dismissal in connection with the liquidation of an organization or the termination of the activities of an individual entrepreneur, a

reduction in the number or staff of employees of an organization, an individual entrepreneur and the possible termination of employment contracts with him);

- citizens completing educational programs of secondary vocational or higher education in the current calendar year, who have applied to the employment service authorities at their place of residence, for which there is no suitable job.

In addition, the program includes:

- persons aged 50 years and older, pre-retirement age;
- women on parental leave to care for a child under three years of age;
- women who are not in an employment relationship and have children of preschool age.

➤ IUT hosted the "Get your child ready for school" campaign from the "Start in Life" Foundation for children of the DPR, LPR, forced refugees, as well as children of the city of Tyumen and the Tyumen region found themselves in difficult straits.





Support Quality

Integration Migration

SDG

Partnership Sustainability Countries Policy

Equality

Health Wellbeing

Safety

- In 2022, social and pedagogical tutoring was carried out for 277 students from among orphans, 94 students with disabilities, 21 students at risk. Students are provided with financial assistance, full state support, students are actively involved in extracurricular activities. Students from socially vulnerable categories receive detailed advice on the preparation of documents for the provision of social guarantees and benefits, on the provision and reinstatement of social status and other issues related to the protection of their rights. Educational activities are supported and assistance is provided in finding employment for graduates. Particular attention is paid to the issues of accessibility of educational services to students with disabilities: an individual approach is provided in solving problems of physical accessibility of facilities, adjusting the schedule of classes, collecting documents for the psychological, medical and pedagogical commission.
- IUT is connected to the “Online University Admission” Superservice, with the help of which applicants were able to remotely submit documents for budget-funded, targeted, priority and contract places in bachelor’s and specialty programs for all forms of education. The super service is available on the State Services portal. Here you can select the desired university and field of study, send an application to the admissions committee, sign up for entrance tests, track the status of document processing and exam results, and obtain information about enrollment. Also, for the convenience of future students, a Telegram channel “IUT Applicant” has been created, where up-to-date information on specialties, passing scores and the number of places for admission on a budget and contract is published.
- Project of Industrial University of

Tyumen “Tyumen City. What Foreigners Say” is presented in an interactive kiosk on the pedestrian Dzerzhinsky Street. In the “live presence” format, IUT students from Russia, China, African and Eastern countries talk in their native language about the sights and interesting places of our city. For foreign students, participation in the project is a tremendous experience; as the guys admit, they were able to better get to know the city in which they are receiving their education and practice their Russian language.



- Water resources - the basis of global and regional projects for the development of Russia, Siberia and the Arctic in the 21st century (scientific and practical conference) was held at IUT. For the 23rd time, it brought together experts, scientists, representatives of regional authorities, industry, students and graduate students. Reports were presented by more than 170 participants from 16 regions of the country and two foreign countries. One of the key issues of the conference was the topic “Problems of managing demographic and migration processes in Russia and abroad, in the context of increasing social inequality in societies and the growing gap between rich and poor countries.

11 SUSTAINABLE CITIES AND COMMUNITIES



23

higher
education
program

4

programs of
additional
professiona
l education

24

publications

1

secondary
vocational
education
program

2

massive
open online
courses



11 SUSTAINABLE CITIES AND COMMUNITIES



Nature Heritage Development

Housing Availability

Transport Safety

SDG Landscaping

Urbanization Waste

Resources

➤ IUT architects work to preserve the cultural and historical heritage of the region. Scientists have studied more than 150 settlements and developed a number of proposals for the renovation and improvement of their architectural and historical environment. According to the architects, the creation of a regional «Golden Ring» will help increase the domestic tourist flow several times and attract foreign tourists. About 30 settlements will receive a new impetus for economic development, thanks to the created investment projects and thousands of additional jobs.



- IUT scientists have developed a digital twin of a motor transport enterprise. The innovative software product was tested, received a certificate of registration and recognition from the competition of the All-Russian Society of Inventors and Innovators. The project «Decision support system for managing the technical operation of motor transport» is aimed at the digitalization of motor transport enterprises and combines tools for visualizing data on the operation of transport at the enterprise, a simulation model of the operation of the enterprise, as well as a recommendation system that will allow the head of the enterprise to choose the optimal management solution based on various factors.
- At the International Architectural Competition «DSK-500» the «IUT-

MASTER» team presented a unique concept for the renovation of the industrial territory of the former Tyumen house-building plant. The architects proposed using renewable energy sources, which make it possible to achieve zero energy consumption during the construction of buildings, developing a landscape park, the coastal zone of Pesyanoe Lake, and improving the transport and logistics infrastructure of the entire area.



- Students of the Institute of Architecture and Design of IUT, as part of national teams, became the best at the All-Russian competition for the improvement of the city of Nyagan «City Plan» with the projects «The Path of Happiness» (1st place) and «Little mountain» for the improvement of a public garden in one of the microdistricts of Nyagan (3rd place).



11 SUSTAINABLE CITIES AND COMMUNITIES



Nature Heritage Development

Housing Availability

Transport Safety

SDG Landscaping

Urbanization

Resources

Inclusivity

Waste

➤ The scientific and practical conference «Water resources - the basis of global and regional projects for the development of Russia, Siberia and the Arctic in the 21st century» was held at IUT. For the 23rd time, it brought together experts, scientists, representatives of regional authorities, industry, students and graduate students. Reports were presented by more than 170 participants from 16 regions of the country and two foreign countries. The list of key issues of the conference included the following topics:

- Current problems of architecture, service engineering, design, construction and operation of industrial facilities, housing and water supply and sanitation systems in Siberia and the Arctic, caused by global climate changes on the planet.
 - Programs and projects for the development of the West Siberian oil and gas complex in the 21st century and their impact on the habitat of the indigenous peoples of the North, the creation of new jobs, the adaptation of the newcomer population, the safety and sustainable development of northern settlements.
 - Humanitarian projections of landscape-estate sustainable development of territories, service and quality of life in cities and settlements of Russia.
- Representatives of Industrial University of Tyumen became winners of the grant competition of Gazprom Neft PJSC, which is annually held by the company as part of the «Native Towns» social investment program. Project «Tyumen City. What Foreigners Say» won in the «Comfortable Environment» direction. The project is aimed at creating an attractive image of the Tyumen region among Russians and foreigners, as well as increasing interest in Russian culture

and Russia in general. The product of the project will be the Tyumen City mobile application, which is a map with video sketches in Russian, English, Chinese and sign language (with sign language translation). Users will be able to select the content they are interested in and get information about popular historical, cultural, gastronomic, student and other places in Tyumen.



- IUT is working on developing a System using augmented reality technology, which will allow any resident or guest of Tyumen, using a mobile device, to learn about the history and future of the city's most beautiful historical buildings. A pilot virtual 3D model of the estate of merchant Vasily Petrovich Burkov, which is located on Dzerzhinsky Street, 30, is already ready for demonstration.

12

RESPONSIBLE CONSUMPTION AND PRODUCTION



16

higher
education
program

5

programs of
additional
professiona
l education

12

publications

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secondary
vocational
education
program

3

massive
open online
courses

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Control Sustainability Ecology
Production
Resources
Development
Recycling
SDG Infrastructure
Efficiency

- IUT students are the winners of the All-Russian engineering competition with a project on the construction of a plant for the production of biodegradable packaging as part of the preparation of a comprehensive final qualifying work. The project is aimed at finding ways to minimize harm to the environment by life processes and preserve the environment in the regions of Russia. According to the project developers, the use of biodegradable materials as a raw material in the production of daily consumption products will contribute to the preservation of agricultural lands and forests in Russia by reducing landfills of solid municipal waste.



- An engineer from the Center for Advanced Research and Innovative Development at IUT spoke at the Science Slam, held as part of the global international forum on food and agriculture (GFFA 2022). The young scientist presented to the world community his own research, «Eleven Friends of the Soil: The Most Beneficial Components of Groundwater». He spoke about the developed unique technology that allows reducing the negative impact of the process of obtaining groundwater purification on the environment. The waste obtained as a result of cleaning has the prospect of being used, among other things, as mineral fertilizers.
- The scientific and practical conference «Water resources - the basis of global and regional projects for the development of Russia, Siberia and the

Arctic in the 21st century» was held at IUT. One of the key issues of the conference was the topic «The role and place of state authorities and municipalities in the implementation of land reclamation projects and the construction of hydraulic facilities and structures for the purpose of water conservation and rational use of natural resources».

- For three years, IUT took part in the annual youth festival in the field of sustainable development «VuzEcoFest». The theme for 2022 is the circular economy. As part of the festival, 6 events were organized at IUT, in which more than 1000 people took part, the most important and largest of which was a swap party (a city-wide event that united three universities in Tyumen), at which participants were able to exchange clothes and recycle garbage and learned a lot about an ecological lifestyle, as well as a scientific seminar, which included a discussion of the current environmental situation and prospects for sustainable development. The formulated theses were sent to the authorities as a youth initiative. One of the objectives of the festival was to organize an event for separate waste collection (SW). In 10 days, more than 300 kg of batteries, receipts and waste paper were collected.



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



Control
Sustainability
Ecology
Production
Resources
Development
Recycling
Infrastructure
Efficiency
SDG

➤ Industrial University of Tyumen held the International Summer School «Ecoengineering» on its site. Participants had the opportunity to develop research skills, learned to navigate scientific research trends, and formulated an environmentally-oriented position. The school program is composed of scientific, educational and project parts. The scientific and educational part includes lectures by leading scientists from Russia and abroad. School participants also took part in the master class «Ecology. Management of MSW» and excursions to the Tyumen waste sorting plant, the Tyumen arboretum, and the Tyumen oil refinery. The project part involves the development and defense of a group project in the direction of «Ecology. Green technologies».



➤ A representative of IUT became the winner of the grant competition of Gazprom Neft PJSC, which is annually held by the company as part of the «Native Towns» social investment program. The ECOLOGIC SCHOOL project is dedicated to the problem of the massive use of plastic and is aimed at organizing systematic work on its disposal, reuse and recycling. The young man, realizing the alarming level of pollution in the World Ocean, proposed organizing plastic collection sites at his university, and processing the collected waste into plastic for 3D printers, from which students can make the necessary models.



13 CLIMATE ACTION



8

**higher
education
program**



5

**programs of
additional
professiona
l education**



17

publications

2

**massive
open online
courses**





SDG

Potential Changes Assistance Responsibility

Climate

Life Emissions Sustainability

➤ An engineer from the Center for Advanced Research and Innovative Developments of IUT made a report at the VI International Forum of North-East Asian States on the United Nations Sustainable Development Goals (SDG) - 2022. The young scientist presented a systemic solution for the disposal of waste from groundwater treatment plants and the development of knowledge-intensive infrastructure production.



➤ For the third year, IUT took part in “VuzEcoFest”, the annual youth festival in the field of sustainable development. The theme for 2022 is the circular economy. As part of the festival, 6 events were organized at IUT, in which more than 1000 people took part. One of the objectives of the festival was to organize an event for separate waste collection (SWC). In 10 days, more than 300 kg of batteries, receipts and waste paper were collected.



➤ Industrial University of Tyumen held the International Summer School “EcoEngineering” on its venue. Participants had the opportunity to

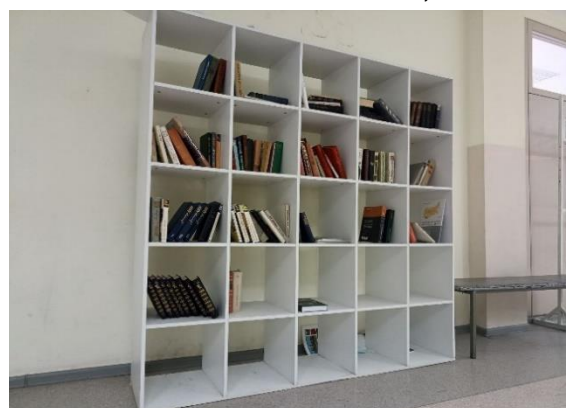
develop research skills, learned to navigate scientific research trends, and represented an environmentally oriented approach. The school program is composed of scientific, educational and project parts. The scientific and educational part includes lectures by leading scientists from Russia and abroad. School participants also took part in the master class “Ecology. Management of MSW” and tours to the Tyumen waste sorting plant, the Tyumen arboretum, and the Tyumen oil refinery. The project part involves the development and defense of a group project in “Ecology. Green technologies”.



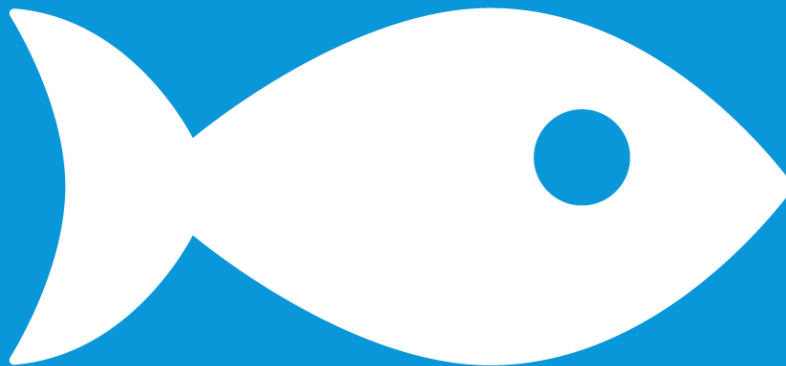
➤ Permanent bookcrossing areas are organized in the IUT buildings - designated places where each participant can take / leave a book.

Bookcrossing points:

- Building in Lunacharsky str., near the Library
- IUT building #7, 1st floor
- Center for Youth Initiatives, 3rd floor



14 LIFE BELOW WATER



4

**higher
education
program**



1

**massive
open online
courses**



11

publications





Life
Consumption
Safety
Water
Wellbeing

Desalination
Seas
Research
Preservation
SDG
Production
Investments

➤ A representative of IUT became the winner of the Gazprom Neft grant competition, which is annually held by the company as part of the “Native Towns” social investment program. The ECOLOGIC SCHOOL project is dedicated to the problem of the massive use of plastic and is aimed at organizing systematic work on its disposal, reuse and recycling.



➤ Water resources as the basis of global and regional projects for the development of Russia, Siberia and the Arctic in the 21st century, a XXIII scientific and practical conference was held at IUT. It brought together experts, scientists, representatives of regional authorities and industry, students and graduate students. The list of key issues of the conference included the following topics:

- Russia, Siberia, the Arctic in the face of global water challenges in the 21st century: water and peace; fresh water deficit and water conservation; water for human life and health; water and ecology; water and housing and communal services;

water and agriculture; water and industry; water and energy.

- Modern problems of transboundary cooperation and basin management, strengthening scientific interaction on issues of water resources and sustainable development of the territories of the Urals, Siberia and Central Asian countries in the 21st century.
- Application of data from space geoinformation monitoring of territories in order to ensure the reproduction of land fertility, water resources, flora and fauna, as well as guaranteed protection from pollution and floods of settlements, work and recreation of people.
- Progressive loss of forests and natural landscapes in river and reservoir valleys. Problems of introducing nature-like, environmentally friendly technologies, systems for purifying natural and waste water, land and air.



15 LIFE ON LAND



5
higher
education
program



5
programs of
additional
professiona
l education



28
publications

1
secondary
vocational
education
program

3

massive
open online
courses





Research
Wellbeing
Production
Safety
Life
Ecosystem
Recovery

Land

Preservation
Consumption
Earth

SDG

- IUT students annually take part in city youth volunteer community cleanups in Tyumen, Noyabrsk, Nizhnevartovsk, and Tobolsk.



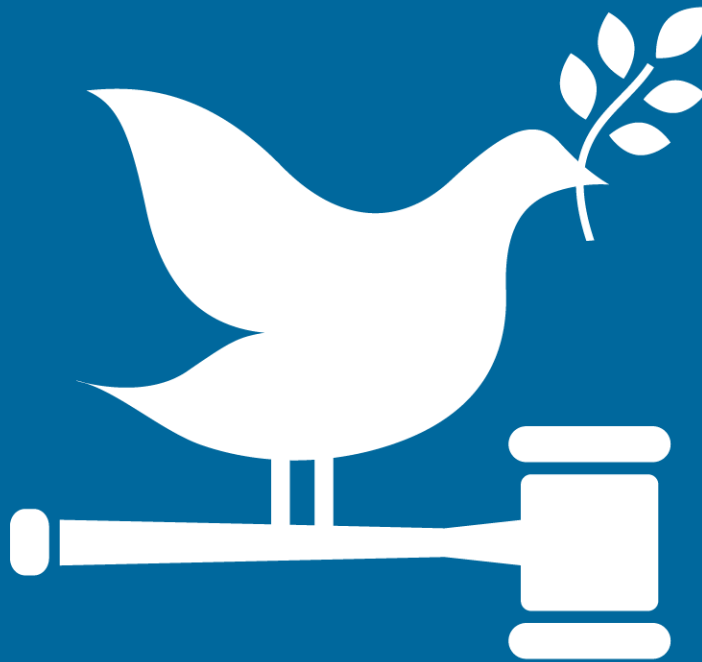
- Water resources as the basis of global and regional projects for the development of Russia, Siberia and the Arctic in the 21st century, a XXIII scientific and practical conference was held at IUT. It brought together experts, scientists, representatives of regional authorities, industry, students and graduate students. Reports were presented by more than 170 participants from 16 regions of the country and two foreign countries. The list of key issues of the conference included the following topics:
 - Application of data from space geoinformation monitoring of territories in order to ensure the reproduction of land fertility, water resources, flora and fauna, as well as guaranteed protection from

pollution and floods of settlements, work and recreation of people.

- Progressive loss of forests and natural landscapes in river and reservoir valleys. Problems of introducing nature-like, environmentally friendly technologies, systems for purifying natural and waste water, land and air.
- The report “Information and analytical system “Garrison” for the Ministry of Emergency Situations of the Tyumen Region” was recognized as the best in the section “Regional and industry experience in the implementation of artificial intelligence and modern geopolitical conditions” at the International Military-Technical Forum “ARMY-2022”. After debugging and achieving positive results, integration into other regions of the Russian Federation is possible.
- An engineer from the Center for Advanced Research and Innovative Development at IUT spoke at the Science Slam, held as part of the global international forum on food and agriculture (GFFA 2022). The young engineer presented to the world community his own research: “Eleven Friends of the Soil: The Most Useful Components of Groundwater.”



16 PEACE, JUSTICE AND STRONG INSTITUTIONS



4

higher
education
program

1

programs of
additional
professional
education

>8000

students
passed social
and
psychological
testing





SDG 16

Control
Liberty
Laws
Policy
Justice
Access
World
Equality
Help

➤ Industrial University of Tyumen unites tens of thousands of students, teachers, and administrative personnel. IUT is an established team of professionals in a variety of subject areas. To strengthen and develop corporate culture, there is a commission on ethics and corporate governance, endowed with broad functionality. On the one hand, this is the formation, encouragement and implementation of various public initiatives in ethical standards within the team and in its external relationships, on the other hand, the support of student discipline at the university, administrative power to assess various ethical situations related to compliance with moral and ethical norms and rules of social behavior. The commission consists of reputable experienced employees and representatives of leading departments of the university.



➤ Prevention of extremist and terrorist manifestations among students is one of the five chapters of the program for the prevention of antisocial manifestations in IUT for 2020-2025. Special attention is paid to this work. The university management is confident in the necessity and practical benefits of all organized events in the field of prevention. The following IUT departments participate in the organization of events: the department for methods and practice of educational work, the corporate protection department, the international cooperation department, all institutes, IUT branches, a multidisciplinary college, a general education lyceum

and a student campus.

- Traditionally, IUT holds thematic classes and curatorial hours on the prevention of extremism and terrorism among young people. Training was organized under the educational program “Countering Terrorism and Extremism.” A special section on the official website of the IUT “Countering the ideology of extremism and terrorism” is regularly updated.
- Joint events were organized in the campus dormitories in 2022 with involvement of employees of the Tyumen Region Prosecutor’s Office on the topics of preventing extremism, corruption and the legal consequences of the use, storage and distribution of narcotic drugs. Dorm staff work individually with students and conduct events aimed at introducing them to the culture and traditions of ethnic groups.
- Preventive work at the university is carried out in cooperation with the authorities of the preventive system of Tyumen and the Tyumen region. Preventive measures were carried out jointly with organizations from various departments:
 - Line Department of the Ministry of Internal Affairs of the Russian Federation for transport in Tyumen, Tobolsk, Nizhnevartovsk, Surgut and Noyabrsk;
 - State Road Safety Inspectorate;
 - Commission on Juvenile Affairs and Protection of Rights;
 - Civil Defense and Emergency Protection;
 - Prosecutor's Office of the Tyumen Region;
 - Organization of the Prevention System of the Tyumen Region and Municipalities.

17 PARTNERSHIPS FOR THE GOALS



1

**higher
education
program**

5

publications

>150

**industrial
partners**

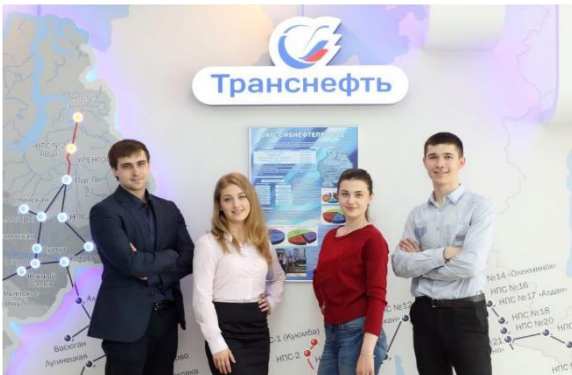
17 PARTNERSHIPS FOR THE GOALS



Partnership

Progress Investments
Export **Respect** Technologies
Stability
Development **SDG**
Help Achievement Potential

➤ As part of long-term cooperation between IUT and Transneft-Siberia, Transneft Classes, a joint intellectual project was implemented in schools in New Urengoy. Corporate classes are open at secondary school No. 1 of Novy Urengoy and secondary school named after D.I. Korotchaev. In total, 40 students from the 10th grade began studying in profession-oriented classes of Transneft PJSC. For two years, they will undergo in-depth study according to individual curricula in such field-specific subjects as mathematics, physics and computer science. Intensive courses in field-specific subjects, including in a distance format, are conducted by IUT lecturers.



➤ A meeting on the prospects for cooperation in carrying out research and thematic work in the field of geology, gas production and gas condensate fields in Western and Eastern Siberia was held at Industrial University of Tyumen. Representatives of the university and Gazprom VNIIGAZ LLC took part in it. As part of the cooperation, project teams with the involvement of students have been created to conduct research work on topics relevant to the company.

➤ Industrial University of Tyumen and Scientific and Analytical Center for Rational Subsoil Use named after V.I. Shpilman signed a cooperation agreement. The main task is the joint implementation of the “Digital Core” technological project. The project is being implemented within the

framework of the activities of the world-class West Siberian Interregional Scientific and Educational Center (SEC) and unites several educational and scientific organizations, as well as industrial partners of the university.



➤ IUT was recognized as the winner of the regional stage of the All-Russian competition of Russian organization of high social performance 2022. The competition was held in 15 nominations. IUT became the winner in the nomination “For the development of social partnership in non-production organizations.”

➤ Gazprom Dobycha Nadym LLC and IUT signed a cooperation agreement to implement career guidance projects. The main point of the agreement was the creation of a Gazprom group at the university, which included 15 students in field-specific areas of training.





Partnership

Progress Investments
Export **Respect** Technologies
Stability
Development **SDG**
Help Achievement Potential

➤ Industrial University of Tyumen at the industrial and energy forum TNF 2022 held a plenary session "Human Capital. Youth as a strategic resource for the development of Russian industry". Key speakers shared their views on the problem of training young specialists at universities and the participation of employers in the educational process.



➤ Rector of Industrial University of Tyumen and the Deputy General Director, the Chief Geologist of Gazprom Nedra LLC held a meeting at which they discussed cooperation in the field of Geologic Modelling. The partners agreed to implement a joint project to create a small-scale 3D geological model of sedimentary basins of the Russian Federation based on the Geologic Modelling software package in order to provide information support for the geological exploration activities of Gazprom PJSC and the educational process of the company's flagship universities.



➤ Industrial University of Tyumen became one of 20 universities where university

startup studios opened in 2022. The project to create startup studios in Russian universities is being implemented by the Ministry of Science and Higher Education and the Foundation for Infrastructure and Educational Programs as part of University Technological Entrepreneurship Platform, the Federal Project. The peculiarity of the IUT startup studio is the regional scale of activity, involvement in the creation and activities of development institutions of the Tyumen region.



➤ IUT and Gazpromneft-Zapolyarye signed a cooperation agreement, which provides for joint scientific and practical work and training at the university in such areas as gas infrastructure operation, oil and gas geology, geophysical methods of well exploration and others. Oil workers will participate in the educational process as lecturers, experts and supervisors of students' final qualification works, as well as study under the university's advanced training and professional retraining programs. Students of a university and a multidisciplinary college of IUT will be able to undergo practical training at the enterprise with the possibility of further employment.



Partnership

Progress Investments
Export **Respect** Technologies
Stability
Development **SDG**
Help Achievement Potential

- For the fourth time Neft PJSC and IUT launched the INCorporation project, a unique educational product for the early integration of students into the company’s business environment. The project models the processes of field development: concept development and implementation strategy. Students were invited to participate in two projects: the “Implementation” stage - work on the creation of an existing project (Urengoyenskoye field), the “Definition” stage - work on preparing the field for commissioning (Chayandinskoye field).



Center for Assessment and Development of Management Competencies of the Presidential Platform “Russia - the Land of Opportunities”, created in the Tyumen region. The main task of the Center is to determine the professional skills and competencies of university graduates, to help in their further employment and building a successful career. At the Center, students can undergo diagnostics of their social competencies (soft skills), build individual development trajectories, and improve competencies, focusing on the needs of specific employers. Future specialists also receive a digital portfolio and access to vacancies and internships in local companies, and the employer has access to a database of students and recent graduates.

- IUT in collaboration with partners from Kazakhstan and Kyrgyzstan launched two new network educational programs in the following fields of study: “Construction” (profile “Water Supply and Sanitation”) and “Architecture” (profile “Architectural Design”).
- Industrial University of Tyumen became one of the partners of the Unified



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Official
website of the
university



Section
"Sustainable
Development
Goals"



University social networks



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