Sustainability Report

ACADEMIC YEAR 2022/2023

GDAŃSK UNIVERSITY OF TECHNOLOGY

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VICE RECTOR FOR ORGANIZATION AND DEVELOMPENT
OF GDAŃSK UNIVERSITY OF TECHNOLOGY

For the third time, we are presenting to you a Report summarizing the activities of Gdańsk University of Technology on implementation of the Sustainable Development Goals set out in the Resolution adopted by the General Assembly of the United Nations (UN).
In order to face the challenges of our times related to climate change and to be able to have a real impact on reducing global greenhouse gas emissions, we need entities committed to implementing sustainable development, as well as responsible institutions and communities around the world.

Our University strives to reduce greenhouse gas emissions by participating in the global "Race to Zero" campaign that unites entities around a common goal of aiming at climate neutrality.

Care for the climate, the natural environment, social well-being and the quality of life of future generations are the values that guide our University in implementing the Climate Plan of Gdańsk Tech for 2022-2030.

Gdańsk Tech also faces the challenges of energy transformation in the economy, creating unique courses in the field of low-emission energy sources and circular economy. Scientific research conducted at the University can contribute to creation of a modern economic model.

Eco-Innovation Center, which opening is planned for 2024, will be one of the most important scientific facilities in Central and Eastern Europe, dealing with the development of eco-friendly solutions and environmental technologies. This ambitious investment at Gdańsk Tech will be an extremely strong impulse for European science and development of cooperation with local governments and business in Poland and abroad.

The activity of Gdańsk University of Technology in the area of 17 UN Sustainable Development Goals is also greatly appreciated in the global rankings.
In the UI GreenMetric World University Ranking 2022, Gdańsk University of Technology took 1st place among Polish universities and a high position on a global scale - out of 1,050 universities from 85 countries, it was ranked 137th.
In the Times Higher Education Impact Ranking 2023, Gdańsk Tech was classified in the general ranking and in as many as eleven Sustainable Development Goals. In general classification, last year's position was maintained in the range of 601-800. The Times Higher Education Impact Ranking is the only global ranking based on the Sustainable Development Goals created by the United Nations.

It is crucial that the activities of Gdańsk University of Technology described in the Report for the academic year 2022/2023 do not exhaust the list of all activities contributing to the implementation of the 17 Sustainable Development Goals undertaken at our University by researchers, students and employees, but they allow us to show the multidimensionality, scale and direction of Gdańsk Tech activities in this area.

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REPORTING METHODOLOGY

Implementation of the United Nations Sustainable Development Goals was included in the new Strategic Framework 2020 – 2030 of Gdańsk University of Technology. The report presents activities of the university in different areas of Sustainable Development. Data for the purposes of the report were collected at the end of the academic year 2022/2023 and concern selected projects and initiatives in progress (including partially completed).

The activities delineated in the report were identified within four main areas:

- research,
- public engagement and partnership,
- education and student activity,
- internal activities of the university

and served as the background for the analysis We do not show achievement in some areas, but the identification of these areas is important to us and will allow us to make efforts to fill these gaps in the future. Two types of data are included in the report: quantitative (metrics) and qualitative (case studies) data. The records show the progress of scientific activity in the form of publications with affiliation of the University for the implementation of a given sustainable development goal. They were prepared with the use of entries developed under „Elsevier 2023 SDG mapping". The data related to the period from 01.10.2022 to 30.09.2023. The records are subject to updating every year.

The case studies described in the report constitute only selected elements of the University's activities. Their goal is to show our commitment to the implementation of the Sustainable Development Goals. More initiatives and examples of our activities in this area can be found at https://pg.edu.pl/en/sustainable-development.

We have ambitious plans for the near and further future. We count on the involvement of students, employees and the local community to implement them together. Please send any initiatives, ideas, thoughts and comments to sdgs@pg.edu.pl.

END POVERTY IN ALL VOLUNTEERING ITS FORMS EVERYWHERE

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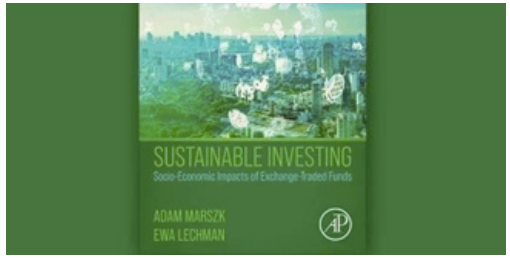
RESEARCH AND PROJECTS

HUMANITARIAN ARCHITECTURE

Humanitarian architecture is a trend of socially engaged architecture that helps communities affected by poverty. Economic constraints poses a particular challenge for architects and builders. It is a natural necessity to look for cheap, locally available materials and solutions that can be used by unskilled labor. Gdańsk Tech researchers from the Faculty of Architecture published a paper on "Vernacular and low-tech technologies in humanitarian architecture on the example of Senegal", in which they identified and analyzed material and structural solutions in 2 ongoing and 2 planned facilities in Senegal that support the local community. The conclusions concern the types and scope of vernacular and low-tech technologies applied, as well as the correlation between the design and construction of the analyzed facilities and sustainable development.

SUSTAINABLE INVESTMENT FUNDS

"Sustainable investing: Socio-economic impacts of exchange-traded funds" is a research paper by Prof. Adam Marszek and Prof. Ewa Lechman from the Faculty of Management and Economics at Gdańsk Tech, which concerns European sustainable investment exchange-traded funds (ETFs) in the context of the growing popularity of innovative forms of responsible investing, covering environmental, social and corporate governance aspects, i.e. ESG. The results of empirical analyzes indicated that the development of responsible investment ETFs markets in Europe was associated with improvements in the institutional attributes of European economies.



PUBLIC ENGAGEMENT AND PARTNERSHIP

SOCIAL AND ECONOMIC INEQUALITIES

The Faculty of Management and Economics of Gdańsk Tech hosted a conference on "Income and wealth inequality: drivers and consequences", during which the latest scientific research on economic and social inequalities was presented. The topics discussed at the conference included issues related to, among others: intergenerational inequalities within households and the problem of gender discrimination in the labor market. The impact of new technologies and AI on social inequalities was also covered. The event was organized by Gdańsk Tech and Luxembourg Income Study (LIS).

EDUCATION AND STUDENT ACTIVITY

CHILDREN'S UNIVERSITY OF ECONOMICS

The Children's University of Economics is a nationwide economic education project for students aged 10-13. The University is to develop entrepreneurial attitudes and behaviors in children and to popularize economic education among the youngest. Classes for young students are conducted on-site and include a series of 6 meetings ending with an economic knowledge test.

"SAVING AND LONG-TERM INVESTING" LECTURE

Raising awareness and spreading knowledge about the importance of saving in the process of building society's prosperity is one of the elements of reducing poverty. As part of the Modern Business Management Program at the Faculty of Management and Economics, there was a lecture titled “Saving and long-term investing", during which it was discussed why it is worth saving and why it is worth diversifying investment risk.

SHELTER- LEARNING BY DOING

Students of architecture faced the challenge of building four temporary shelters within 10 hours that could serve people in the refugee crisis. Temporary shelters, created on the premises of the Ethnographic Department of the National Museum in Gdańsk as part of the "Shelter - Learning by Doing" project, were designed to respond to the needs resulting from climatic conditions and to ensure comfort for refugees. Considering the issue of climate change, teams chose to build with materials such as corrugated cardboard, cardboard tubes and wood that can be recycled and reused.

INTERNAL ACTIVITIES OF THE UNIVERSITY

NOBLE GIFT

Once again, the community of Gdańsk Tech showed great commitment by participating in the nationwide campaign named “Noble gift”, a collection of items for Pomeranian families in need. This year, Gdańsk Tech employees and students joined forces to prepare packages for two families in need.

IN SOLIDARITY WITH UKRAINE

Thanks to the involvement of the academic community - employees and students, as well as the residents of Gdańsk, it was possible to collect several hundreds of gift boxes intended for residents of Ukraine who fled the war.The action organized at Gdańsk University of Technology supported the main city collection run by the Gdańsk Foundation. Items collected during the action were used to furnish rooms in a student dormitory in Brzeźno, which provided room for approximately 150 people from Ukraine.

2 ZERO HUNGER

END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE

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GDAŃSK UNIVERSITY OF TECHNOLOGY

RESEARCH AND PROJECTS

SOIL COMPOSITION ANALYSIS

Soil is one of the most important agricultural resources and proper management of its quality facilitates productive and sustainable agriculture. A cheap, fast and effective alternative to soil quality control in the laboratory is to use smartphones to perform chemical analyzes directly in the field or on the farm. Researchers from the Faculty of Chemistry at Gdańsk Tech published a paper titled "Analytical applications of smartphones for agricultural soil analysis", in which they presented an overview of the latest developments in smartphone-based methodologies for agricultural purposes and portable assessment of soil quality and properties.

RECOVERY OF MACROELEMENTS FROM LIQUID WASTE

Global food security, which has emerged as one of the challenges of sustainable development, affects every country. Since food cannot be produced without nutrients, research into recovering unused nutrients from waste streams has recently intensified. As a limited resource, phosphorus (P) is largely wasted. In the publication titled "Macro-nutrients recovery from liquid waste as a sustainable resource for production of recovered mineral fertilizer: Uncovering alternative options to sustain global food security cost-effectively" the researchers did a critical study of the technical application of various water treatment technologies for the recovery of macronutrients such as P, N i K from the liquid waste.

METABOLOMIC ANALYSIS OF BREAST MILK

As part of the project "The dynamics of human breast milk composition. Longterm metabolomic analysis of human breast milk" developed at the Faculty of Chemistry, the longterm changes at the molecular level in the composition of the metabolites present in the human breast milk were tested over the entire lactation period. Increasing knowledge about the specific properties of breast milk and the biological functions of its components is important for infant nutrition and raising public awareness of the benefits of breastfeeding.

BACTERIAL CELLULOSE

A team of Gdańsk Tech researchers from the Faculty of Chemistry is conducting research on "Bacterial cellulose as a matrix for vegetarian meat substitutes", studying the application of bacterial cellulose in vegan substitutes for meat products such as cold cuts. The goal is to obtain a product with the highest possible nutritional and taste values. The project is carried out as part of the BioTechMed Center.

PUBLIC ENGAGEMENT AND PARTNERSHIP

AGRO 2022

Gdańsk University of Technology hosted the 11th International Symposium on Waste Management Problem in Agro-Industry (AGRO 2022)". The theme of the conference is consistent with the concept of the European Green Deal and the Sustainable Development Goals, as it concerns achieving food security by promoting sustainable production and agriculture, using bio-waste as raw materials, ensuring access to stable, sustainable and modern energy at an affordable price and taking action to counteract climate change and its effects.

AGRARSENSE

The problem of food security is growing and is related to many different factors, such as climate change, the vulnerability of supply chains and the nature of agricultural practices. The need to increase agricultural production in order to feed the growing world population highlights the need to implement innovative solutions in this sector. With this in mind, a team of EU-funded AGRARSENSE project will join the forces of large enterprises, small and medium enterprises, and technological and research organizations, including researchers from the Faculty of Electronics, Telecommunications and Informatics at Gdańsk Tech. The researchers will develop a range of technologies, such as automated agricultural tools and improved sensing technology, that will help increase efficiency and protect value chains.

REVAMP

Food waste and hoarding have become a global problem. Food waste, which may be generated throughout the entire food supply chain, contains valuable substances such as natural fibers, carbohydrates, proteins, fats and lipids, as well as vitamins and minerals, which can be recovered. This challenge was faced by a group of reserachers from Gdańsk Tech and Donghua University in China with the REVAMP research project, which aims to ferment food waste with high efficiency and power.

EDUCATION AND STUDENT ACTIVITY

TEACHING SUBJECTS

As part of the study program at the Faculty of Chemistry at Gdańsk Tech, students complete, among others, such subjects as: general biotechnology, food chemistry, functional and bioactive food ingredients, food microbiology, nutritional science, food toxicology and new and fast analytical techniques in the analysis of food quality. They also have the opportunity to participate in online courses on the “eNauczanie” platform on topics such as: food preservation technology, the social role of food and nutrition, food analysis.

ENSURING FOOD HEALTH SAFETY

The Faculty of Chemistry of Gdańsk Tech offers training called Internal Auditor of the HACCP system. Hazard Analysis and Critical Control Points System). It is a system aimed at ensuring food health safety that identifies, assesses and controls threats relevant to food safety. The training is addressed to Gdańsk Tech employees and students as well as participants from outside the University who would like to learn the presented scope of training.

INTERNAL ACTIVITIES OF THE UNIVERSITY

THE WAY OF NOT WASTING FOOD

In between work and study at Gdansk Tech, it is possible to enjoy a tasty and nutritious meal using the eateries located in and around the campus. Some of the restaurants has been offering surplus food left over at a discounted price at the end of the day.

MEALS FOR THE NEEDY FROM UKRAINE

People from Ukraine who, fleeing the war, found refuge in one of the Gdańsk Tech dormitories were able to enjoy free full board for the duration of their stay, taking into account their dietary needs, including a lactose-free diet and a vegetarian diet.

ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES

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RESEARCH AND PROJECTS

INNOVATIONS IN CANCER RADIOTHERAPY

Precision of ionizing radiation dosage in cancer radiotherapy is a necessary condition for the effectiveness of treatment. The INN3D project, implemented at the Faculty of Applied Physics and Mathematics of Gdańsk Tech, in cooperation with the Institute of Nuclear Physics of the Polish Academy of Sciences in Krakow, concerned 3D dose distribution of ionizing radiation in gel phantoms for proton radiotherapy of cancer.

ANTIFUNGAL PROPERTIES OF PROPOLIS

The aim of the research project "Propolis and polyphenols derived from this product as potential antifungal agents", carried out in cooperation with the Medical University of Wrocław, is to identify the active ingredients of propolis, determine their antifungal activity in vitro and in vivo in mouse model systems, and examine possible synergistic interactions with antifungal drugs and to determine the molecular mechanisms of the antifungal activity of propolis components. The research isconducted jointly with international partners: Prof. Patrickiem Van Dijck from KU Leuven and Prof. David Williams from Cardiff University.

BIOMATERIALS FOR MINIMALLY INVASIVE SURGICAL PROCEDURES

There are three projects concerning the biomaterials for the purposes of minimally invasive surgical procedures conducted at Gdańsk Tech within the Advanced Materials Center. As part of the project „Injectable nanocomposite for an instantaneous fixation of titanium implants in a bone with effective antibacterial properties", the research teamis working on an innovative nanocomposite that quicly binds implants with bone tissue. In the project "Development of a novel bone cement based on magnesium phosphate dedicated as a degradable bone substitute" and "Development of a novel injectable ceramic-polymer bone cement", student research groups under supervision worked on the production of a new generation of medical cements based on phosphate magnesium and composite cements, classified as the so-called double binding.

TESTING THE BIOLOGICAL PROPERTIES OF CONJUGATES

The main goal of the project run at the Faculty of Chemistry, named "Cleavable molecular nanocarrier conjugates: antimetabolite with antimicrobial activity",is to determine the feasibility and usefulness of a new concept for the construction of potential antifungal and antibacterial drugs, consisting in combining effective molecular carriers with antimetabolites through linkers selectively cleaved in microbial cells.

BIOACTIVE PEPTIDES FROM FEATHER KERATIN

At the Department of Chemistry, Food Technology and Biotechnology of the Faculty of Chemistry, Gdańsk Tech, the researchers work on ways of rational management of waste product from poultry processing, such as feathers. Feathers consist of approximately 90% of keratin proteins, which are promising substrates for obtaining bioactive peptides and Maillard reaction products, which may be useful in the prevention and therapy of some lifestyle diseases, such as diabetes or hypertension. The main objective of the project is to develop conditions for processing keratin from poultry feathers, in order to obtain biopeptides and then Maillard reaction products, and to examine the properties of the obtained preparations. Achieving the research goals will enable the researchers to identify the possibility of using the obtained preparations for the production of functional foods, supplements or even drugs useful in the prevention or therapy of metabolic diseases.

PUBLIC ENGAGEMENT AND PARTNERSHIP

DIGITAL TWIN - ASSISTANT TO THE PREGNANT WOMAN

An innovative system for assisting pregnant patients based on artificial intelligence is being developed by Gdańsk Tech researchers as part of an international consortium. It will make it possible to predict the risk of pregnancy-related complications even before symptoms appear. The project

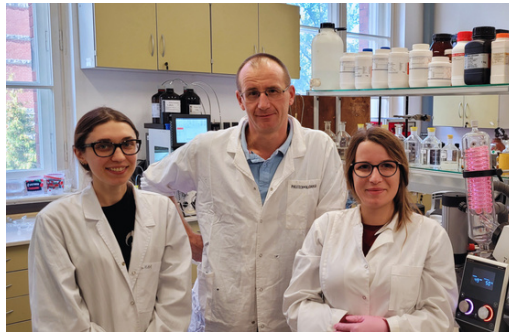
"Personalized monitoring and screening program for pregnant women at risk of preeclampsia or pregnancy-induced hypertension" is part of an international research consortium formed by Aarhus University (leader), Aarhus University Hospital (Denmark), Gdańsk University of Technology, Gameta Gdynia Centrum Zdrowia Sp. z o. o., and Zitec Com SRL (Romania). The research team will develop, among others: a "digital twin" that will support monitoring of the patient's health at home and at the care center. Clinical tests will be carried out by specialists from the Gameta clinic in Gdynia.

PREVENTIVE TEST PROGRAM

Gdańsk Tech, together with the University Clinical Center, organized a point for preventive tests for cardiovascular diseases on the campus of Gdańsk Tech.The program was addressed to professionally active people, over 18 years old, who had not been treated for cardiovascular diseases in the last 5 years, as well as who were not using the currently implemented ChUK Program (NFZ). Qualification for the health program took place after performing four free tests: lipid profile, glucose, creatinine and an ECG test.

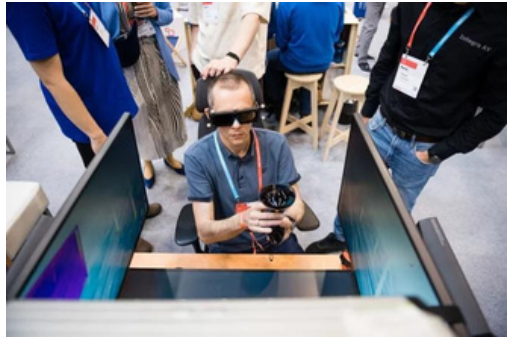
A STEP TOWARDS OVERCOMING CANCER

Blocking the pathway for removing mRNA with nonsense codons, i.e. NMD, in the proteins of cancer cells is a chance to create a non-invasive and extremely effective cancer therapy. Researchers from Gdańsk Tech adn University of Gdańsk are working on such solution as part of the Fahrenheit Union. Finding a compound that effectively blocks the protein is a long and time-consuming process. In total, there are several thousand structures with promising properties to be tested. This involves using supercomputers to calculate the interactions between the designed structures and proteins, the physical synthesis of compounds, and then laboratory tests on the proteins themselves, and - if any of the compounds turns out to be effective, in the next stage, also on cells.



INFOSHARE 2023

Technological solutions used in business have their origins in science. Gdańsk University of Technology, the University of Gdańsk and the Medical University of Gdańsk presented their technological solutions during this year's Infoshare conference. Gdańsk Tech presented a "Crystal Ball" that allows for recording an image of ionizing radiation dose distribution in three dimensions for potential use, among others, in cancer radiotherapy and MiniCAVE, i.e. a mini demo version of the Immersive 3D Visualization Laboratory, which can be used for virtual therapy of various phobias and in rehabilitation of muscle dysfunctions or the sense of balance.



EDUCATION AND STUDENT ACTIVITY

ACADEMIC SPORTS CENTER

The Academic Sports Center at Gdańsk Tech has a wide infrastructure that enables students and University employees to participate in various sports activities. Particularly athletic students can sign up for one of 28 sports sections that represent our university in the Polish Academic Championships in over 40 disciplines. It is also possible to use the football fields, sports hall, gym, aerobics room, judo room, swimming pools, beach volleyball courts and tennis courts for a fee.

AME 2023

At the turn of June and July 2023, Gdańsk Tech football team competed in the European Academic Championships in Tirana. After defending the championship title in the Polish Academic Championships, our team did not slow down and won the academic vice-championship of the "Old Continent" in great style. Sixteen teams, which were medalists of domestic championship tournaments last year, took part in the competition.

POLISH ACADEMIC CHAMPION

For the third time in a row, Gdańsk Tech became the Polish Academic Champion. Our university scored a total of 2,907.5 points in the general classification.

University of Warsaw took second place (2,783 points). The third place was taken by AGH University from Kraków (2,640.5 points).Third victory in the Polish Academic Championships is due to the hard work of coaches and the excellent starts of our students and employees in the competition.

MENTAL HEALTH WEEK

Awareness of the existence of mental problems and ways to overcome them is very important. As part of the Mental Health Week organized for the third time by the Student Government of Gdańsk University of Technology, a series of workshops and webinars with specialists were held. The meetings covered topics such as eating disorders, the phenomenon of hate and healthy setting of boundaries.

INTERNAL ACTIVITIES OF THE UNIVERSITY

FAMILY SPORTS FETE

The first Family Sports Fete took place at Gdańsk Tech Academic Sports Center. Children and teenagers could try out racket sports, 3x3 basketball, football, beach volleyball, and try their hand at the ergometer, runmageddon and numerous family games. The youngest had a chance to have fun in the Toddler Zone with numerous attractions for children.

PSYCHOLOGICAL CONSULTATIONS

Every student and doctoral student of Gdańsk Tech can use the help of a psychologist and psychotherapist as part of the services of the Psychological Assistance Center free of charge. A meeting with a specialist can help you deal with long-term stress, difficult emotions and pressure, as well as support your overall mental condition and show you how not to give in to excessive social expectations.

“HEY, ARE YOU OK?”

In the fall of 2022, we launched a project named "Hey, are you OK?", which main goal is to support the emotional health of students and university employees. International Relations Office of Gdańsk Tech is the coordinator of the activities within the project. The project included, among others: consultations with a psychologist, yoga classes, mindfulness, workshops on cultural differences, mediation workshops and seminars on coping with stressful situations.

ACOUSTIC CABINS IN THE LIBRARY

A new co-working space was created in the lending and reading space of the library, including two acoustic booths, which are a perfect place for work, study and meetings in small groups. The cabins have excellent acoustic insulation, so that the external noise does not disturb their users, and discussions or telephone conversations held inside the cabin do not disturb the silence of the reading room.

ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL

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GDAŃSK UNIVERSITY OF TECHNOLOGY

RESEARCH AND PROJECTS

BA&VET

In 2022, the BA&VET project (Establishing greater permeability between vocational and higher education by developing and implementing dual bachelor's degree programs with integrated continuing vocational education programs) was launched. As part of the initiative, Gdańsk Tech, as a Partner, is responsible for developing the concept, methods and tools for evaluating training programs and the dual study program in the scope specified by the Project Leader, participating in the development of the concept, program and teaching materials for the dual studies "Business Administration & Sustainable Management of SMEs" and testing selected program modules. The leader of the project is Hanse-Parliament from Germany, with which the Faculty of Management and Economics has been cooperating for years.

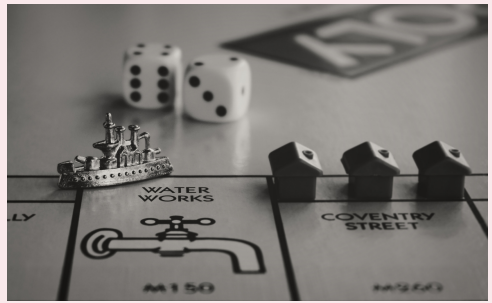
PUBLIC ENGAGEMENT AND PARTNERSHIP

BALTIC SCIENCE FESTIVAL

Baltic Science Festival is one of the largest events of this type in Poland and enjoys unflagging interest among the residents of Pomerania. It is an opportunity to learn about research conducted in the region and the latest technological achievements, presented in an interesting and attractive form. Gdańsk Tech students and employees prepare a wide range of classes in various scientific disciplines as part of BSF - starting from architecture, through mathematical sciences, to automation and robotics. One can take part in workshops, discussions and laboratory demonstrations, listen to lectures, watch multimedia presentations or spend time at a science picnic. BSF is also an opportunity to visit university workshops and laboratories that are not normally open to visitors.

CONFERENCE ON GAMIFICATION-BASED LEARNING

The first conference on the use of gamification in education was held at Gdańsk University of Technology. The conference was attended by 65 people from 11 universities in Poland (including Gdańsk University of Technology, Wrocław University of Science and Technology, University of Gdańsk, Nicolaus Copernicus University in Toruń, University of Łódź, University of Opole, WSB University in Toruń, American University of the Middle East), 8 schools and 11 science centers, methodological centers, non-governmental organizations and companies. During three sessions, 17 brilliant speeches were presented by 26 exceptional teachers. The participants also worked in teams on new gamifications and presented them during a special session.



MULTIGENERATIONAL UNIVERSITY OF TECHNOLOGY

As part of the Multigenerational University of Technology, people of different ages: preschoolers, students, adults and seniors can benefit from thematically diversified educational offer within their age category. During the meetings, the emphasis is put on practical activities: workshops, laboratory classes and activities that strongly engage the participants, where they have to create something, conduct an experiment or solve a problem in a group. The Multigenerational University of Technology also provides the opportunity to experience contact with science together as part of multigenerational lectures and workshops, in which parents with children and grandparents with grandchildren can participate.

CESAER STUDENT CHALLENGE 2023

As part of the CESAER Student Challenge 2023, Gdańsk University of Technology organized meetings with experts addressed to the competition participants. The meetings were an opportunity for students to contact experts from Gdańsk Tech and refine their applications as part of the CESAER Student Challenge 2023. During this event, a panel of experts participated in online discussions with the teams preparing their proposals. Teams had the opportunity to discuss their ideas with experts and receive guidance on various aspects of their propoals, including open innovation, sustainability and marketing.

EDU INSPIRATIONS

The Edu Inspirations of the Faculty of Management and Economics series is a series of articles on modern educational solutions, good practices, effective methodology and interesting teaching tools. The series of articles presents the use of tools such as artificial intelligence, gamification, simulation games and XR technology in the learning process.

DIDACTIC FRIDAYS

The “Didactic Fridays" program is a series of weekly free methodological and tool training for academic teachers at all universities in Poland. It is a program designed as a space for mutual inspiration enabling the exchange of experiences and joint search for solutions in the form of online webinars. The topics that appeared in the 3rd edition of the program included: artificial intelligence and its impact on education, persistence and ways of teaching it to students, as well as equality and diversity in teaching work.

IDEATORIUM

The 8th national Academic Didactics Ideatorium Conference was held at Gdańsk Tech. During the two-day event, which gathered 150 lecturers from 37 Polish universities, there were numerous inspiring speeches, 2 opening lectures about shades of turquoise at universities and the needs of students, a debate and an unforgettable evening picnic on the grass with a lecture on trends in higher education.

“WHY” CYCLE

A series of eight popular science films titled "Why", co-produced and scientifically supported by Gdańsk Tech, won in the category "Creation" and was among the top three in the category "Popularization of science", as part of the annual nationwide Awards of the PR and Promotion of Polish Universities "PRom” Association. The protagonists of each of the eight episodes were both young Gdańsk Tech PhD students and experienced Gdańsk Tech scientists. In subsequent editions, they provided reliable and interesting answers to questions asked through Internet search engines, such as: "Why are school grades pointless?", "Why are we forced to rely on wind energy?", "Why is 5G scary?" and “Why is the Baltic Sea dying?”

UNIVERSITY HIGH SCHOOL

In Gdańsk, near the campus of Gdańsk University of Technology, there is a University High School, named after Paweł Adamowicz, which is under the patronage of Gdańsk University of Technology, the University of Gdańsk and the Medical University of Gdańsk operating jointly as part of FarU. The universities agreed to support the school's development in terms of content and personnel, and to participate in its teaching and social projects. Supporting secondary education by Gdańsk Tech is an important element in teaching strong staff in the region.

EDUCATION AND STUDENT ACTIVITY

UNIVERSITY SYSTEM FOR ASSURING AND IMPROVING THE QUALITY OF EDUCATION (USZiDJK)

USZiDJK is co-created by representatives of university authorities, faculties and teaching centers and university administration units, as well as academic teachers, doctoral students, students and representatives of the economic community. The activities of USZiDJK focus mainly on building a culture of quality, ensuring coherence of education and research, improving the competences of research and teaching and administrative staff, increasing the attractiveness and competitiveness of Gdańsk University of Technology. Each person involved directly and indirectly in the education process can report a request for changes in the learning. Requests can be submitted in electronic form.

ACCREDITATIONS

High quality of education at Gdańsk University of Technology is confirmed by the accreditations listed below:

- Polish Accreditation Committee (Polish acronym PKA);
- Accreditation Commission of Universities of Technology (Polish acronym KAUT);
- European University Association (EUA)
- Association of Masters In Business Administration (AMBA);
- European Chemistry Thematic Network(ECTN);
- CEEMAN International Quality Accreditation;
- Accreditation Council for Entrepreneurial and Engaged Universities (ACEEU).

RANKING OF PERSPEKTYWY

For the third time in a row, Gdańsk Tech took third place in the annual ranking of "Perspektywy" among the best technical universities in the country, and in the classification covering all Polish universities it again maintained its high, sixth position. Gdańsk Tech offers three fields of study that are considered the best in Poland: Spatial Development -Faculty of Architecture; Environmental Engineering -Faculty of Civil and Environmental Engineering; Chemical Technology - Faculty of Chemistry.

INTERNAL ACTIVITIES OF THE UNIVERSITY

CENTER FOR INNOVATIVE EDUCATION

Center for Innovative Education (Polish acronym CNE), is an entity supporting the development of modern academic teaching at Gdańsk Tech. With the support of modern methodology designers, graphic designers, programmers and multimedia producers, lecturers create modern multimedia and interactive textbooks, implement gamification and simulation games for academic classes, record lectures and podcasts in a recording studio, and create modern e-learning courses. CNE offers a rich database of training courses for academic teachers, including: topics such as teaching methodology, neurodidactics, new technologies in teaching or working with a multicultural group. In the academic year 2022/2023, CNE conducted 73 training sessions, which gathered 200 participants.

CAREERS AND ALUMNI OFFICE

Our students and graduates can count on help in finding apprenticeships, internships and jobs, as well as support in improving their skills that will allow them to successfully enter the labor market. The Careers Office also offers support for young scientists, including PhD students, by offering them individual online consultations with a career advisor and an entrepreneurship advisor.

5 GENDER EQUALITY

ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

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RESEARCH AND PROJECTS

GVC AND PAY INEQUALITIES

Scientists from the Faculty of Management and Economics of Gdańsk Tech published a paper on „GVC involvement and the gender wage gap: Micro-evidence on European countries", in which they analyzed the links between involvement in global value chains (GVC) and gender pay inequalities, covering data from 18 European countries.

PUBLIC ENGAGEMENT AND PARTNERSHIP

FAHRENHEIT UNIVERSITIES WOMEN'S CLUB

As part of the Fahrenheit Union of Universities, a Women's Club was established, which brings together women from Gdańsk Tech, UG and MUG. Its assumptions include activities aimed at cooperation and exchange of experiences, building awareness around equality issues and mutual support. Before the club was established, there were short speeches and a discussion on the goals and forms of its operation.

WOMEN OF GDAŃSK SCIENCE

The exhibition "Pioneers, Researchers, Leaders. Women of Gdańsk science" exhibition was presented in front of the Library in the Main Building at Gdańsk Tech. The exhibition was devoted to the profiles of outstanding female precursors, researchers and leaders associated with Fahrenheit Universities who inspired and continue to inspire subsequent generations of women, including: Prof. Wanda Szczepula and Prof. Marianna Sankiewicz-Budzyńska.

NEW TECHNOLOGIES FOR GIRLS

Students of Gdańsk University of Technology can apply for a scholarship in a unique program "New Technologies for Girls", which provides financial and substantive support to young women who associate their future with the technology sector. By participating in the scholarship program coordinated by "Perspektywy", the university wants to support talented high school graduates and students in planning and building a professional career in the technology sector or in science. In the 2022/2023 edition, 6 out of 25 scholarship holders studied at Gdańsk University of Technology.

EDUCATION AND STUDENT ACTIVITY

NEW TECHNOLOGIES FOR WOMEN – UKRAINE

The winners of the program "New Technologies for Women – Ukraine" were four students of Gdańsk University of Technology from Ukraine. The scholarship program was addressed to Ukrainian students, PhD students and high school graduates studying in Poland who are in a difficult financial/life situation due to the ongoing war in Ukraine.

INTERNAL ACTIVITIES OF THE UNIVERSITY

GENDER EQUALITY PLAN

In 2021, Gdańsk Tech introduced the Gender Equality Plan (GEP) - a plan for gender equality, i.e. a document describing activities aimed at ensuring equal opportunities in work, education and study environment, in which everyone, regardless of gender, will be able to develop their talents . The introduction of GEP at our University resulted in, among others: creating a feeding point and a family room, which are public social rooms open during building opening hours. As part of GEP, Gdańsk Tech opened a kindergarten “Mega Mocni: (Megamind). The facility was created for the children of PhD students, students and Gdańsk Tech employees and their grandchildren, however after meeting the needs of this group, recruitment was launched for all the youngest residents of Gdańsk. The preschool education offer includes a variety of activities, including: coding on the carpet with robotics, Social Skills Training (TUS), experiments, finger gymnastics, children's mathematics according to the concept of Prof. E. Gruszczyk-Kolczyńska, sensoplasty or dog therapy.

DIVERSITY WITHIN ENHANCE

In 2022, Gdańsk Tech joined the ENHANCE Alliance - an association of 10 European technical universities. Due to membership in ENHANCE, Gdańsk Tech students and employees had the opportunity to take part in the staff week entitled „ENHANCING Talent for All” organized by Politecnico di Milano. The main goal of the event was to promote the core values of ENHANCE, such as diversity, integration and gender equality. During the three-day event, special attention was paid to discussing activities of ENHANCE related to gender and social inclusion.

WOMEN IN TECH SUMMIT

Perspektywy Women in Tech Summit 2023, is the largest conference in Europe and Asia for women in science, business and technology who want to share their experiences, scientific achievements and visions of the technological future of the world. Gdańsk Tech was the Academic Partner in this event organized by the Education Foundation Perspektywy. The leading topics of this year's Summit were artificial intelligence and machine learning, deep tech, cloud solutions, quantum computers and digital ecology, as well as WEB 3.0 and NFT.

PROFESSIONAL DEVELOPMENT

The Gdańsk Tech Careers and Alumni Office organized an event addressed to women, which included workshops and webinars with experts on professional development. The event took place as part of a series of free meetings for residents of Pomerania "March on high heels".

VENDING MACHINES WITH HYGIENIC PRODUCTS

Vending machines with free personal hygiene products for women are available in selected toilets on Gdańsk Tech campus. The vending machines are the answer to the important but often overlooked problem of menstrual exclusion.

ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL

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RESEARCH AND PROJECTS

SELECTIVE ADSORPTION OF CONTAMINANTS

Adsorption is one of the most efficient, convenient to handle and economically justifiable methods of contaminant separation. The use of polymer-based adsorbents for this purpose allows for energy savings, high efficiency and, most importantly, regeneration and biodegradation of the adsorbent. The aim of the project titled ''Green cyclodextrin polymers for selective adsorption of organic pollutants from aqueous solutions'', carried out at Gdańsk Tech, Faculty of Chemistry, was to obtain natural fully regenerable cyclodextrin-based adsorbents as effective materials for the adsorption of a wide spectrum of organic compounds (mainly dyes, toxic, carcinogenic and endocrine compounds) from aqueous solutions after production or purification processes.

FLOATING HYDROPHYTE ISLAND SYSTEM

Researchers at Gdańsk Tech have been working on nutrient removal processes of selected heavy metals and arsenic in floating hydrophyte island systems fed by surface runoff from agricultural and urban areas. The project on "Processes and pathways of nutrients, selected heavy metal and arsenic removal from surface runoff from the agricultural and urban catchments in floating treatment wetlands", conducted at the Faculty of Civil and Environmental Engineering, Gdańsk Tech, assumes learning the pathways and mechanisms of removal of biogenic compounds (nitrogen and phosphorus), heavy metals (Cu, Cd, Pb) and metalloid (As) by 4 species of macrophytes (Phragmites australis Cav, Iris pseudacorus L., Typha latifolia L., and Alisma plantago-aquatica L.) characteristic of the Polish climate.

PUBLIC ENGAGEMENT AND PARTNERSHIP

RAINWATER QUALITY MONITORING SYSTEM

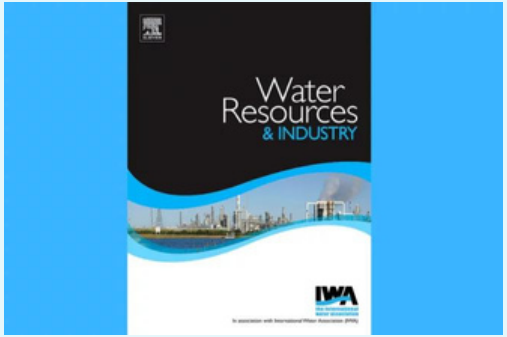
An online monitoring system for detecting pollutants in rainwater sewers and rainwater retention reservoirs will be developed jointly by scientists from Gdansk, Krakow and Lodz. A consortium comprising an interdepartmental team of scientists from Gdansk University of Technology, researchers from the AGH University and Lodz University of Technology, and a private company will develop, manufacture and implement the MoReLogg modular system for monitoring pollution of anthropogenic origin, i.e. generated by human activity. The installation, equipped with, among other things, advanced bio-sensors and using artificial intelligence, is intended to support efficient water management in the city in times of climate change. It is to be the first such advanced system in Poland and will be tested in Sopot.

GREEN RETENTION CONFERENCE

Gdańsk Tech took part in a panel discussion titled "Rainwater - is it clean?", which was held as part of the second edition of the conference on using greenery for rainwater management and treatment titled "Green Retention". The aim of the event was to exchange experiences by practitioners - local government officials, employees of municipal companies, designers. It was an opportunity for representatives of cities wishing to implement rain gardens and other natural retention solutions, to learn where to start.

WATER RESOURCES AND INDUSTRY

A scientist from the Faculty of Chemistry at Gdańsk Tech has become a member of the editorial committee of Water Resources and Industry of the Elsevier Publishing journal, which focuses on the challenges faced by water-intensive industries in the utilization, management and treatment of water resources.



EDUCATION AND STUDENT ACTIVITY

TEACHING SUBJECTS

Students at the Faculty of Civil and Environmental Engineering learn about water and wastewater treatment as part of the courses taught by staff from the Department of Water and wastewater technology. The Department is also involved in running one of the interdisciplinary specializations in the field of Power Engineering – Environmental Protection Technologies in Power Engineering, where the problem of water contamination is one of the most relevant. In the field of Green Technologies and Monitoring, students of the Faculty of Chemistry study the subject Wastewater Treatment and Sludge Management, in which they acquire knowledge in the field of protecting soil, air and water from pollution and supervising environmentally friendly technologies.

INTERNAL ACTIVITIES OF THE UNIVERSITY

DRINKING WATER SUPPLY SYSTEMS

As part of the cooperation with Saur Neptun Gdansk, there are sensor-controlled wall-mounted drinking water outlets at Gdańsk Tech. Using these outlets is a cheaper and more environmentally friendly alternative to bottled water. Thanks to the public sprinklers at Gdańsk Tech, more than 80,000 one-litre disposable bottles have already avoided ending up in the bin.

GDAŃSK TECH NATURALLY RESPONSIBLE

Gdansk University of Technology - Naturally Responsible - was a series of four emailings with humorous graphics, aimed at encouraging employees to save money during and after work. "Use energy from passion - not from the socket" (in Polish: „Weź energię z pasji - nie z gniazdka"), "Saving? Think of it fondly" (Oszczędność? Pomyśl o tym ciepło"), "A few drops - a sea of savings" („Kilka kropel – morze oszczędności") and "Eco-friendly paper culture? Naturally!" („Ekokultura papierowa? Naturalnie!") were the slogans that promoted the initiative at the University.

7 AFFORDABLE AND CLEAN ENERGY

ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL

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RESEARCH AND PROJECTS

SUP&ER

The aim of the SUP&ER - Solar Urban Performance and Energy Efficiency project is to build a modern Light Living Lab at the Faculty of Architecture of Gdańsk Tech, to study environmental conditions, conduct pilot research in the area of energy-efficient buildings and study the impact of natural lighting on the development of buildings. The research is conducted in an interdisciplinary research team, joining the issues of urban planning, lighting and energy efficiency. The subject matter of the research will be selected urban complexes that meet the criteria of the sustainable development paradigm.

SILICON FROM PHOTOVOLTAIC MODULES

Scientists from Gdańsk Tech can now recover pure silicon from used photovoltaic modules in laboratory conditions. A distinction from “Rzeczpospolita Cyfrowa” for developing this technology was awarded to Prof. Ph.D. Ewa Klugmann-Radziemska. Researchers are currently investigating whether the technology they have developed can be implemented on an industrial scale. Not only photovoltaics, but also all electronics are based on this expensive element. The solution of Gdańsk Tech researchers will reduce the consumption of valuable materials and energy in further production processes and the amount of waste.

ENERGY EFFICIENCY OF SMALL WASTE TREATMENT PLANTS

Improving the energy efficiency of small waste treatment plants and agricultural biogas plants are the main assumptions of the innovative system created by Gdańsk Tech researchers. Improving the energy efficiency of small waste treatment plants and agricultural biogas plants are the main assumptions of the innovative system created by Gdańsk Tech researchers.

WASTE PROCESSING PYROLYSIS REACTOR

An innovative waste processing pyrolysis reactor for treatment of industrial and municipal waste was created at Gdańsk Tech. It enables safe waste disposal and energy recovery in the form of syngas, and in the further process, hydrogen of sufficient purity to be used, for example, in public transport buses and char for heating purposes. The project was awarded the main prize and a special prize of the Minister of Education and Science in the 25th edition of the “Polish Product of the Future Competition” and also received the main prize of the "Eagle Innovations" in the "Start-up with Poland-World potential" category during the gala of the "Rzeczpospolita" newspaper.

PUBLIC ENGAGEMENT AND PARTNERSHIP

PG NETWORK #OFFSHORE MEETUP

PG Network #Offshore Meetup is an event organized at Gdańsk Tech and addressed to students in fields related to offshore, people interested in working in offshore wind energy sector and in business. PG Network #Offshore Meetup, which took place in June 2023 in AK PG Kwadratowa, is aimed at building a society around Gdańsk Tech, related to this field.

EXPERT DEBATE "ENERGY, BUT WHAT KIND?"

Gdańsk Tech hosted an expert debate "Energy, but what kind?". The guests included the Swiss ambassador to Poland, representatives of the city authorities and three universities operating within the Fahrenheit Union of Universities: Gdańsk Tech, UG and MUG. During the debate, the following topics were discussed: the possibilities of searching for solutions that will allow our country to move away from coal-based energy and about the possibilities of using nuclear energy and energy based on renewable sources in our economic reality, comparing them to examples of solutions from other countries.

HYDROGEN ACADEMY

A series of theoretical and practical classes were held at Gdańsk Tech as part of the Hydrogen Academy. This is the first educational program on hydrogen in Poland, addressed to students and graduates of universities, created by PKN Orlen. Gdańsk Tech is one of the expert partners of this project. Academy participants could take part in laboratory classes and several lectures on, among others: wind energy, chemical hydrogen storage or hydrogen corrosion and degradation of metals and alloys used in the energy industry. The main goal of the Academy is training and development of staff that specializes in innovative hydrogen technologies and their practical use in business.

BALTIC WINDUSTRY OPEN ACADEMY

Offshore Wind Energy Center at Gdańsk Tech was the organized of the series of lectures as part of the Baltic Windystry Open Academy. As part of the event, an open lecture was held at Gdańsk Tech on: "Digital technologies in the offshore wind industry - reality, future or buzzword?", which concerned the use of machine learning in offshore wind. The lecturer presented methods and tools for extracting important business information from heterogeneous data from maritime structures. The event was held under the patronage of the director of the Fahrenheit Union of Universities.

EDU OFFSHORE WIND 2023

The 1st Educational Career Fair EDU OFFSHORE WIND 2023 took place in Gdańsk. Gdańsk University of Technology and Union of Universities named after Daniel Fahrenheit were the scientific partners of the event. It was organized for young people who are interested in development in the offshore industry. During the Fair, a comprehensive career offer in the offshore industry was presented, including the definition of individual professions, the qualifications required to perform them and information on where these qualifications can be obtained.

EDUCATION AND STUDENT ACTIVITY

RECYCLING AND ENERGY RECOVERY

Recycling and energy recovery is a new interdisciplinary field of study at the Faculty of Civil and Envirnmetal Engineering and the Faculty of Chemistry at Gdańsk Tech. Students of the new field will acquire skills in natural resources management, sustainable development and waste management. They learn about technologies that recover raw materials and energy. They will learn how to analyze the life cycles of industrial products and processes and will also design strategies to reduce waste and increase resource efficiency in the economy.

HYDROGEN TECHNOLOGIES AND ELECTROMOBILITY

Hydrogen technologies and electromobility is a new, unique field of study at Gdańsk Tech, in which classes are conducted by lecturers from three faculties: Electrical and Control Engineering, Chemistry and Electronics and Telecommunications. The study program includes the design and implementation of installations and systems for hydrogen production and storage based on the latest available technologies.

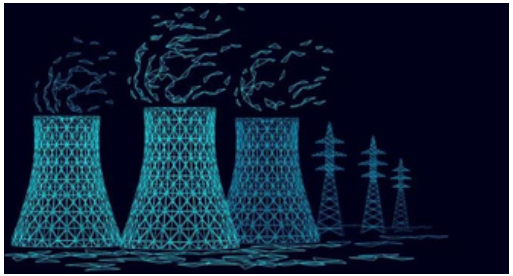
NUCLEAR POWER IN THE MODERN ECONOMY

To meet the challenges related to the energy transformation leading to zero-emission energy supply systems, Gdańsk Tech has launched new postgraduate studies: Nuclear power in a modern economy, intended to contribute to the education of competent staff to assess the rationality of development projects, implement investments, and develop skills for safe operation of nuclear power plants. The unit directly responsible for the studies is the Nuclear Energy Center at Gdańsk Tech.

INTERNAL ACTIVITIES OF THE UNIVERSITY

OFFSHORE WIND ENERGY CENTER (CMEW)

CMEW comprises experts in areas related to offshore industry. It has a specialized laboratory base which enables identification of diverse technical problems and organizational issues related to construction and exploitation of offshore wind farms. The Center is a response to energy transition in Poland and Europe.



INDUSTRIAL WASHING MASCHINES IN DORMITORIES

Gdańsk Tech conducts activities aimed at replacing the most worn-out household appliances washing machines in dormitories with modern industrial washing machines. These devices will reduce electricity and water consumption thanks to the possibility of selecting short washing cycles and higher energy efficiency of the devices. Launching a fee collection system for using the devices also changes the residents' approach to using the laundry room - shorter programs are selected and doing laundry has become a more thoughtful activity.

8 DECENT WORK AND ECONOMIC GROWTH

PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL

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RESEARCH AND PROJECTS

CHALLENGES OF PERSONNEL MANAGEMENT IN PUBLIC EMPLOYMENT SERVICES

The Faculty of Management and Economics at Gdańsk Tech has developed a report titled "PES staff management - challenges in the 'new normal'" prepared for the European Network of Public Employment Services.Personnel management practices in public employment services are crucial for these organizations to function effectively in a changing work environment. The report highlights changes in human resource management, including in the public sector, such as the introduction of new workforce management practices (including remote and hybrid working), which was accelerated by the COVID-19 pandemic.

IMPACT OF RESOURCE PRODUCTIVITY ON THE ENVIRONMENT

In the publication titled 'Resource productivity and environmental degradation in EU-27 countries: context of material footprint' Gdańsk Tech presents the results of a study on the relationship between natural resource productivity and environmental degradation in the 27 countries of the European Union. The data used in the study are prepared using a machine learning algorithm.

PUBLIC ENGAGEMENT AND PARTNERSHIP

DEPENDENT SELF-EMPLOYMENT

A study prepared by Gdańsk Tech and the Prague University of Economics and Business titled "Dependent self-employed individuals: are they different from paid employees?", examined dependent self-employment, which encompasses the situation where a person works on a self-employed basis for the same employer as a typical employee under an employment contract, i.e. without a traditional employment contract and without certain rights granted to 'regular' employees. The main hypothesis that dependent self-employment is most common in low-skilled occupations has been empirically confirmed.

INTERNATIONAL STAFF WEEK AT GDAŃSK TECH

An Interantional Staff Week was held at Gdańsk Tech for researchers, teachers and staff from partner universities. Its main theme was sustainability, diversity and wellbeing. The university hosted more than 30 representatives of partner universities from 10 countries including the Czech Republic, Estonia, Finland, Greece, Lithuania, Germany, Romania, Hungary, the UK and Italy. The invited guests learnt about both the areas of activity and the direction of future development of our University, and also went on a tour of Gdańsk and spent a day exploring the beauty of Kashubia. The participants also had the opportunity to take part in two workshops: 'Diversity & Inclusion. "Diversity & Inclusion" and "Integrating sustainable management into the courses at HEIs".

EDUCATION AND STUDENT ACTIVITY

ECONOMIC ANALYTICS

At the Faculty of Management and Economics of Gdańsk Tech, students within the Economic Analytics programme can learn how to obtain and use information and how to use information systems to present research and analysis results in an interesting way. The scope of courses offered covered economics, finance and management.

INTERNAL ACTIVITIES OF THE UNIVERSITY

GDAŃSK TECH AS AN EMPLOYER

Gdansk University of Technology offers stable employment conditions, caring also for the professional development of its employees, e.g. through a rich and thematically wide offer of training courses and conferences, as well as the possibility of abroad trips under the Erasmus+ programme. The University provides some of the best working and development conditions for researchers in Europe, as confirmed by the HR Excellence in Research award granted to Gdańsk Tech by the European Commission. The University's cooperation with the Medical University of Gdansk and the University of Gdansk as part of the Daniel Fahrenheit Union of Universities in Gdansk opens up new opportunities for inter-university research. The University is creating an academic organizational culture based on the principles of respect equality and diversity, as demonstrated by numerous internal activities and the adopted provisions of the Declaration of Social Responsibility and Gender Equality Plan.

HR CENTRE

Among the tasks of the HR Centre, which operates at Gdańsk Tech, is to support the University authorities in the development and implementation of personnel policy and to organize the recruitment and adaptation of employees. The Centre's remit also includes the development and implementation of an employee motivation and training system. The HR4R Strategy implemented by the HR Centre is a confirmation of the commitment of our University to increasing the attractiveness of working conditions and the career development of employees. One of the numerous activities implemented as part of the HR4R Strategy for 2022-2025 is a series of meetings titled. "Let's talk about... let's talk to..." (in Polish „Porozmawiajmy o… porozmawiajmy z…"), which fosters the exchange of information, good practices and the integration of the entire academic community of the University.

HR EXCELLENCE IN RESEARCH

IN-HOUSE TRAINING

A wide range of training courses and workshops is available to the entire academic community, including trainings organized by the HR Centre on topics such as effective communication, effective teamwork and how to cope with stress and psychological difficulties. Academic staff, on the other hand, can additionally benefit from the training offer of the Centre for Innovative Education, which covers topics such as teaching methodology, new technologies in teaching, conflict management, neurodidactics and academic teacher well-being.

STARTUP SCHOOL ONE

The aim of the Startup School One programme "Test Your Idea" is to provide teams of participants with professional support in the validation and further development of their submitted business ideas with a view to creating innovative startup companies. The programme is aimed at students, doctoral students and employees and graduates of Gdansk University of Technology.

BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

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RESEARCH AND PROJECTS

HAPADS

Highly Accurate and Autonomous Programmable Platform for Providing Air Pollution Data Services to Drivers and the Public (HAPADS) is a project that will develop a novel intelligent and autonomous monitoring platform that will help end-users make decisions to reduce human exposure to air pollution. The project is implemented at the Faculty of Electronics, Telecommunications and Informatics in cooperation with renowned universities and institutions from Poland and Norway.

SUSTRONICS

The main goal of the international Sustronics project, implemented as part of the Horizon Europe program and conducted at the Faculty of Electronics, Telecommunications and Informatics at Gdańsk Tech, is to support the renewal of the European electronics industry towards a circular economy, eco-design, biomaterials and material- and energy-efficient production processes. During the implementation of the project, the following will be considered: quantification of environmental impact, definition of business models, involvement of external stakeholders and measures to ensure compliance with policies and standards.

AIMS5.0

As part of the Horizon Europe program, at the Faculty of Electronics, Telecommunications and Informatics at Gdańsk Tech, a project is being implemented entitled "Artificial Intelligence in Manufacturing leading to Sustainability and Industry 5.0", which aims to strengthen European digital sovereignty in comprehensively sustainable production. New IoT technologies and technologies based on semantic web ontologies, ML and AI will help enable the transformation from Industry 4.0 to Industry 5.0, create human-centric conditions in the workplace and enable the transformation of European industry to climate-friendly production.

PUBLIC ENGAGEMENT AND PARTNERSHIP

ENERGY EFFICIENCY OF SMALL WASTEWATER TREATMENT PLANTS

Improving the energy efficiency of small wastewater treatment plants and agricultural biogas plants is the main focus of an innovative system being developed by scientists at Gdansk Tech. An interdepartmental team of scientists from Gdansk Tech has undertaken the construction and testing of a system demonstrator that will provide energy efficiency improvements in small wastewater treatment plants and agricultural biogas plants.

FARU BUSINESS POINT

FarU business point is the so-called "one contact window", within which three universities belonging to the Daniel Fahrenheit's Union of Universities, i.e. Gdańsk University of Technology, the University of Gdańsk and the Medical University, are developing cooperation with entrepreneurs. The cooperation offers access to a variety of comprehensive research services and modern infrastructure of three universities, holistic support in the implementation of research and development projects of companies and the possibility of creating interdisciplinary teams.

INNOVATION IN TECHNOLOGY

The sixth edition of scientific and technical workshops entitled "Belzona - innovation in technology" co-organized by the Faculty of Mechanical Engineering and Ship Technology. During the event, in addition to a demonstration of the practical applications of Belzona polymer composites, there were speeches by Gdańsk Tech scientists, representatives of the Office of Technical Inspection and the Institute of Fluid-Flow Machinery of the Polish Academy of Sciences. Topics discussed at the workshops included issues such as rational use of energy and raw materials, reducing renovation costs as well as the future of materials engineering and energy sources.

RELIABLE ELECTRIC DRIVES

The aim of the DORNA program implemented at the Faculty of Electrical and Control Engineering at Gdańsk Tech together with foreign partners is to create a coherent network of exchange of research and innovation employees to meet the technical challenges facing electric drive applications, with particular emphasis on the development of high-reliability electric motor drives. . This network brings together world-leading universities in disciplines such as electrical machinery, power electronic converters, mechanical drive systems, control algorithms and artificial intelligence, wireless communications, prognostics and diagnostics, data acquisition and analysis, as well as leading global industries specializing in aerospace, vehicles electric, high-speed trains, electric ships and component manufacturing.

NEPTUN

The interdisciplinary Gdańsk Tech team is working on increasing excellence in manufacturing as part of the project entitled New Approach to Innovate Technologies in Manufacturing (NEPTUN). Scientists from the Faculty of Mechanical Engineering and Ship Technology and the Faculty of Management and Economics in cooperation with foreign universities, i.e. Technische Universitaet Berlin (Germany), Kungliga Tekniska Hoegskolan Stockholm (Sweden) and the National University of Athens (Greece) will work together to increase the level of excellence of Gdańsk Tech in the area of broadly understood manufacturing. Thanks to the tasks provided for in the project, Gdańsk Tech will be able to become a world-leading research center, as well as an effective partner for the industry in implementing solutions in the field of digitization, automation or robotization, i.e. the broadly understood Industry 4.0. The main tasks of the project concern improving the competences of scientific staff through training in partner institutions and at Gdańsk Tech.

INTEGRATED BIOREFINERY

The WasteValue project conducted by the Faculty of Civil and Environmental Engineering at Gdańsk Tech is in line with the vision of a circular economy, which is one of the priorities of the European Union. Its long-term effect is to include: sustainable use of resources, development of new technologies and reduced pressure on the natural environment. The aim of the project is to recover resources through integrated processing of the organic fraction of waste into biofuels. The project fits into the idea of a biorefinery, a platform designed to meet the demand for energy, fuels, chemicals and other materials.

EDUCATION AND STUDENT ACTIVITY

PGRACING TEAM

In July 2023, at the Experyment Science Center in Gdynia, there was a presentation of the PGR-07 racing car, on which several groups of Gdańsk Tech students had worked. Formula Student races are competitions for engineering teams from universities around the world. These teams construct a car themselves and then compete with it in static and dynamic categories against other teams and their cars, with a total of 1,000 points to score. In 2023, the Gdańsk Tech vehicle took part in competitions on tracks in Italy, Germany and Poland.

MANAGEMENT AND PRODUCTION ENGINEERING

In the field of Management and Production Engineering, students of the Faculty of Mechanical Engineering and Ship Technology are pursuing the subject of Innovations in production engineering. The aim of the course is to

familiarize the student with a wide range of issues in the field of entrepreneurship and innovation. In the era of rapid scientific and technical progress, constant changes which are difficult to predict, intuitive forecasting is insufficient. The development is stimulated by the creation and development of new technologies. An important task for future engineers working in manufacturing is to follow trends in the development of technologies useful for constructing and producing innovative products using innovative technologies.

ARCHITECTURE AND ECOLOGICAL CONSTRUCTION

Postgraduate studies in Architecture and ecological construction conducted at the Faculty of Architecture are a response to the socially important need to increase the competences of professionals in the field of designing and managing spatial structures, taking into account the principles of environmental protection. They are also a reaction to the growing legal requirements for pro-ecological solutions used in architecture and construction. The knowledge and skills acquired by students will contribute to improving the quality of design decisions that take into account the overall impact of buildings on the environment: from the stage of extraction of raw materials needed for construction to the stage of disposal of the materials used.

INTERNAL ACTIVITIES OF THE UNIVERSITY

START-UP SCHOOL

Gdańsk Tech START-UP SCHOOL (i.e. GTS2) is a project implemented by the Center for Technology Transfer, whose aim is to initiate and support the development of academic entrepreneurship, in particular based on the results of research conducted at Gdańsk University of Technology. The summary of the completed training cycles of the Startup School One and Startup School Two programs are the Demo Day events, during which startup teams publicly present their projects in the form of short presentations addressed to potential investors.

PROTOLAB

ProtoLabs are 24-hour, modern laboratories for students and academic staff of the University, which are equipped with devices for testing solutions in the ICT information and communication technology industry. The laboratories are equipped with technical infrastructure enabling the development and production of any prototype.

INNOVATION INCUBATOR 4.0

The aim of the Innovation Incubator 4.0 Program implemented at Gdańsk Tech until the end of 2023 is to support entities active in the commercialization of the results of scientific research and development work in initiating cooperation between the scientific community and the economic environment and in carrying out tasks that will lead to the application of the results of this research and work on specific market solutions, in particular entities working to disseminate science.

REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES

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GDAŃSK UNIVERSITY OF TECHNOLOGY

RESEARCH AND PROJECTS

ERASMUS+ NEWCOMERS@WORK

Gdańsk Tech is the coordinator of the project entitled "Erasmus+ Newcomers@Work Strengthening the Employability of Young Refugee and Migrant NEETs", which is addressed to a group of young adults aged 18-34 with a migrant background. The project assumes early activation of young adults in order to ensure quick integration in education, apprenticeships, internships on the labor market, improving their skills and preparing them to enter the labor market through individualized training and advisory support. The project also aims to develop tools and methodologies supporting the profiling of skills of young people with a migrant background, which will enable the creation of a "fast track" for introducing these people to the labor market. Gdańsk Tech is implementing the project together with partners from Greece, Luxembourg, Portugal, Romania and Italy.

PUBLIC ENGAGEMENT AND PARTNERSHIP

ADAPTATION COURSE

As part of the project entitled "Solidarity with Ukraine" an adaptation course was organized for candidates/students from Ukraine. Its main goal was to support young people from Ukraine in overcoming various difficulties resulting from the sudden need to start or continue studies at a Polish university. The adaptation course was intended to allow students to acquire language competences and compensate for differences in the mathematics and physics curriculum necessary to study at Gdańsk Tech.

The meeting program also included classes introducing Polish culture and seminars on coping with culture shock.

ASD STUDENT ASSISTANT

Gdańsk University of Technology joined the "ASD Student Assistant" project implemented by the Sowelo Foundation and DGA A.S. aimed at supporting students on the autism spectrum (ASD) in functioning at the university. Support includes help with communication with lecturers and administrative staff of the university, assistance in adapting the form of classes or assessments to their needs, as well as assistance in planning and organizing tasks during their studies.

EDUCATION AND STUDENT ACTIVITY

GDAŃSK TECH ASC INTEGRATION SECTION

An Integration Section was established within the Gdańsk Tech Academic Sports Center, whose goal, apart from organizing and conducting competitions, is the widest possible integration of the academic community: students, doctoral students and University employees. As part of the training, the section prepares players to take part in the Polish ASC Integration Championships, which are a series of sports competitions for people with disabilities. In 2023, our university was represented in the competition by four competitors: two female swimmers and two male swimmers. The debut of students of the Integration Section

of Gdańsk Tech AS resulted in two silver and two bronze medals.

MULTICULTURAL VOLUNTEERING

As part of multicultural volunteering, integration workshops are organized periodically for Polish and foreign Gdańsk Tech students. Our students help their foreign colleagues get to know the city, Gdańsk University of Technology and feel at home. The student can also become a mentor and, as part of multicultural mentoring, help other foreign volunteers learn about Gdańsk, Polish customs and culture. It is also possible to go abroad and help as a foreign volunteer.

INTERNAL ACTIVITIES OF THE UNIVERSITY

STUDENTS WITH DISABILITIES

Students with disabilities at Gdansk Tech can benefit from an individualised mode of passing classes and examinations. Most buildings are adapted to the needs of students with mobility impairments. Facilities include the use of ramps, ramp platforms and lifts. Also the Student Dormitories have rooms friendly for persons with disabilities. The Gdansk Tech Library has text magnification devices and a computer adapted for use by visually impaired or wheelchair users. The university also provides support in the form of adaptation of teaching materials to digital.

NEURODIVERSITY IN THE WORKPLACE

Scientists from the Faculty of Management and Economics at Gdańsk Tech organized a seminar on neurodiversity, during which research results regarding neuroatypical people in the workplace were presented. They show that including neurodivergent people in the work environment, using their enormous potential, unconventional thinking and creative solutions, can bring a number of benefits to the company while creating a work environment in which different types of minds can complement each other and use their potential. Among the potential benefits resulting from the inclusion of such people is an increase in productivity, innovation and competitiveness in enterprises.

WORKSHOPS ON INTERCULTURAL DIFFERENCES

As part of the project "Hi, are you OK?" the International Relations Office organized four-day workshops on cultural differences and culture shock addressed to teaching and administrative staff who have contact with foreigners in their daily work. Looking at cultural differences in a broader context can contribute to better communication with students and doctoral students from abroad and make it easier for the didactic staff to plan, organize and conduct classes in intercultural groups.

SCHOLARSHIPS FOR FOREIGNERS

Foreign students can apply for benefits financed from the Scholarship Fund, i.e. the rector's scholarship, maintenance scholarship, scholarship for disabled people and allowance on the same terms as students who are Polish citizens.

GDAŃSK TECH CODE OF ETHICS

Gdańsk Tech Code of Ethics defines the principles of counteracting discrimination and mobbing at the university and establishes a procedure for dealing with actions or behaviors that constitute discrimination, mobbing and sexual harassment. It also specifies the rights and obligations of employees in these situations.

GDAŃSK TECH RECTOR's PLENIPOTENTIARY FOR EQUAL TREATMENT

The tasks of the Gdańsk Tech Rector's Plenipotentiary for Equal Treatment include monitoring compliance with the principles of equal treatment and preparing proposals for solutions and actions for equal treatment for the entire academic community in order to improve compliance with the principles of equal treatment at Gdańsk Tech, including preparing proposals for actions for people and groups exposed to or experiencing discrimination. Through the Gdańsk Tech Rector's Plenipotentiary for Equal Treatment, Gdańsk Tech cooperates with other organizations, institutions and universities in Poland and Europe so that activities in this area are coordinated and consistent with the highest standards.

RECTOR'S PLENIPOTENTIARY FOR PEOPLE WITH DISABILITIES

The tasks of the Gdańsk Tech Rector's Plenipotentiary for people with disabilities include identifying the needs, problems and expectations of students with disabilities in order to take actions aimed at ensuring equal access of students to full participation in the educational process at Gdańsk University of Technology. The representative also reviews applications regarding student support and support for both students with disabilities and university employees in activities that eliminate barriers occurring at the university.

11 SUSTAINABLE CITIES AND COMMUNITIES

MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE

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RESEARCH AND PROJECTS

LIGHT POLLUTION

Excessive exposure to light at night can disrupt the circadian rhythm and disturb sleep. There are more and more scientific studies showing that it may also increase the risk of chronic lifestyle diseases. Researcher from the Gdańsk Tech Faculty of Architecture, Karolina Zielińska-Dąbkowska, PhD, Eng., Arch, together with invited experts from Europe and the United States, in the American scientific journal "Science", synthesizes research work from recent years on the impact of nighttime artificial light pollution on public health, presenting the state of current knowledge and identifying critical areas for future research.

TELOS

The TELOS project, implemented at Gdańsk Tech in cooperation with international partners, aims to develop a multidisciplinary and multi-sectoral teaching infrastructure in the field of landscape economics, effectively addressing local and international urbanization challenges and using good practices, innovations and a systemic approach. The TELOS project assumes the creation of a network of institutions whose activities will contribute to promoting sustainable urban development and the 2030 Agenda. The implementation of the project by Gdańsk Tech will also allow the development of a new teaching offer at the Gdańsk Tech Faculty of Architecture.

SUSTAINABLE AND RESILIENT URBAN AREAS

The international EmbedterLabs project, implemented as part of an international consortium at the Gdańsk Tech Faculty of Architecture aims to develop the ability of cities to transform towards sustainable and resilient urban areas. The project deals with selected areas of current urban planning necessary for transformation. A novel approach is developed, tested and refined based on retrospective analysis of both successful and poorly established living labs in Gdańsk, Stockholm and Maastricht.

BIOMED LAB

The project involves the creation of a modern BioMed Lab at the Gdańsk Tech Faculty of Electronics, Telecommunications and Informatics - an interdisciplinary laboratory within the Biomedical Engineering discipline, which will significantly accelerate scientific research, increase Gdańsk Tech's innovation on a national and global scale, and intensify cooperation with the economic environment. The main goal of the Laboratory will be broadly understood analyses: mechanical, optical, chemical and biological - both of tissues of various organisms and materials used in biomedical engineering.

PUBLIC ENGAGEMENT AND PARTNERSHIP

CONFERENCE ON HAPPY CITIES

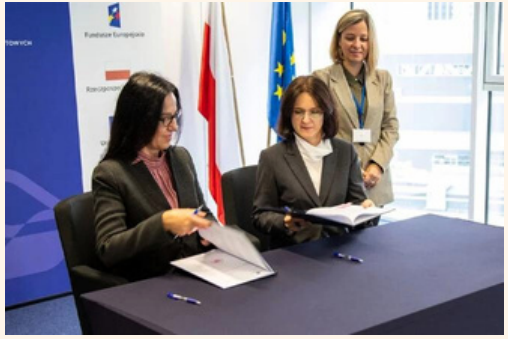
Gdańsk Tech took part in the debate "Soft city - an oxymoron or an alternative to smart cities", which took place during the Danish-Polish conference Happy Inclusive Healthy Cities. The discussion took place among four people: an architect, the vice-president of the city, a city activist and a representative of science, looking at the topic from completely different perspectives and often disagreeing with each other.

MIASTOLOGICZNIE

Gdańsk Tech runs a series of podcasts MiastoLogicznie together with experts in the field of smart cities. This is the first podcast in Poland devoted to Smart City for professionals, which discusses the challenges cities face and how technology can help or harm their development.

COOPERATION WITH CUPT

Gdańsk Tech signed a cooperation agreement with the Center for EU Transport Projects (CUPT). The purpose of cooperation resulting from the agreement is to exchange information for the purposes of transport analyzes and the development of analytical tools in the field of traffic modeling and forecasting.



REGENERATION OF THE MARKET IN OLIWA

The project for the regeneration of the market square in Gdańsk Oliwa, co-created by architects from Gdańsk University of Technology, was awarded in the "revitalized urban public space" category in the 16th Competition of the Society of Polish Urban Planners for the Best Developed Public Space 2022. The renovated facility serves as an urban market, which leads to social and economic activation of this place. As part of the project the market hall was renovated and modernized and the space of the market square was reorganized with respect for greenery elements, thus creating an active public space.

EDUCATION AND STUDENT ACTIVITY

URBAN DESIGN AT GDAŃSK TECH

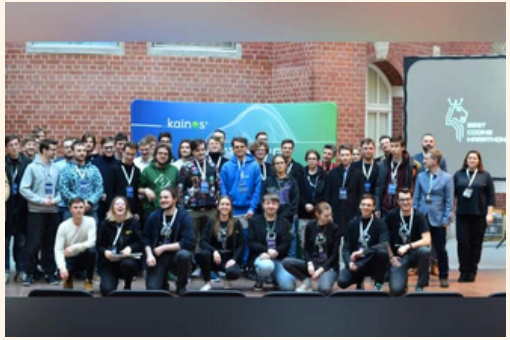
The educational program at the Gdańsk Tech Faculty of Architecture aims to create conditions for students to understand cultural and social values and conditions and environmental issues and to motivate them to create a sustainable environment. Graduates of Architecture and Spatial Management at the Faculty of Architecture have knowledge in the field of urban and spatial planning, economic, natural and social sciences, allowing active participation in subsequent stages of planning and implementation of the development processes of cities and communes, with particular emphasis on spatial development and the location of new investments.

MITIGATION AND ADAPTATION TO CLIMATE CHANGE

A new interdisciplinary field of postgraduate studies at Fahrenheit Universities, Mitigation and adaptation to climate change, was created thanks to cooperation between three universities: Gdańsk Tech, UG and MUG. The studies are aimed at acquiring advanced and in-depth knowledge about sustainable development in the context of mitigation and adaptation to climate change with elements of knowledge from four different fields of science: social sciences, exact and natural sciences, medical and health sciences, and engineering and technical sciences.

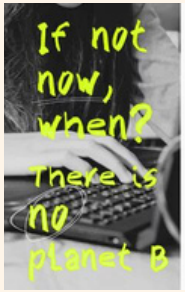
BEST CODING MARATHON

The "BEST Coding Marathon" programming marathon was held at Gdańsk Tech, the participants' task was to program a solution to a problem in one of two categories within 24 hours: Smart City or Artificial Intelligence. The topic of the task in the Smart City category was a 15-minute city, i.e. one that provides residents with the opportunity to meet all their basic needs within 15 minutes from their place of residence. In the Artificial Intelligence category, participants had to create a program that would designate available travel routes using ZTM Gdańsk public transport network in order to get from point A to point B in the shortest possible time.



HACK4CHANGE

Gdańsk Tech took patronage over the 3rd edition of Hack4change - an ecological and technological hackathon, i.e. a programming marathon, in which over 150 participants, under the supervision of experts from the IT, business and science industries, faced the problems of the modern world. The aim of the event was to create innovative projects, tools and applications that can influence the quality of our lives. The issues that the event participants focused on concern uncontrolled production of goods, food waste, economic problems, climate change and world political instability. The hackathon was preceded by technology workshops that helped introduce participants to the problem areas of the event.



hack4change

INTERNAL ACTIVITIES OF THE UNIVERSITY

SUMMER SCHOOL OF THE GDAŃSK TECH FACULTY OF ARCHITECTURE

As part of the Architecture for Place series, the Summer School of the Faculty of Architecture was held in the picturesque Kashubia, the topic of which was the use of plant materials in the design of resilient ecosystems of villages and cities. Using field observations, an interactive vegetation map, a related plant catalog and a greenery design around a bicycle stop in the surrounding village were created. School participants learned about the use of native vegetation by the ancient inhabitants of the Kashubia region and the contemporary importance of plant materials in shaping a healthy built environment.

GDAŃSK TECH GREEN CITIZEN BUDGET

The Citizens' Budget is a part of the Gdańsk Tech budget allocated in a given calendar year, the allocation of which can be decided by Gdańsk Tech employees and students. What is new is the university's move towards green, environmentally friendly projects. According to the provisions of the regulations, at least one of the selected ideas must be consistent with the implementation of the goals defined in the Gdańsk Tech Climate Plan. According to its provisions, the university will take actions related to reducing CO2 emissions, limiting waste generation, using natural resources and energy, and developing green areas and biodiversity on the campus. The winning projects of the 7th edition of the Gdańsk Tech Participatory Budget include a solar power plant on the roof of one of the buildings, as well as a shed and external containers for selective waste collection.

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

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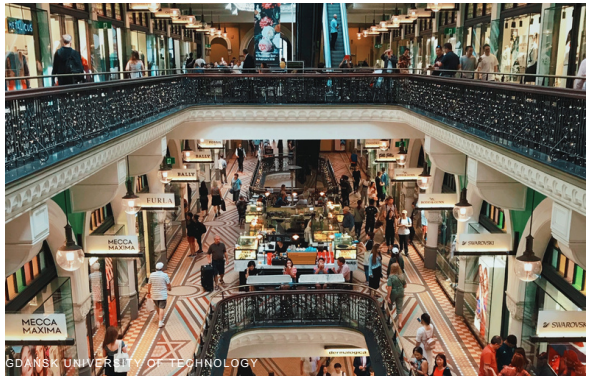


RESEARCH AND PROJECTS

NEGATIVE CO2 EMISSION GAS POWER PLANT

An international research project, NEGATIVE-CO2-PP, was conducted at Gdańsk Tech. The objective of the project was, among others, to develop a novel technology with the proof of concept, confirming the possibility of using sewage sludge to produce electricity while achieving a positive environmental impact.

RECYCLING OF WIND TURBINE BLADES

Playground equipment, bicycle sheds, aggregate for construction - an interdepartmental research team from Gdańsk Tech is looking for ways to recycle end-of-life wind turbine blades as energy-efficiently as possible. The researchers hope that the solutions developed will not only help to protect the environment, but also increase the availability of building materials.

MANAGEMENT OF WOOD-LIKE WASTE

The main objective of the OPUS 22 project, conducted by the Faculty of Chemistry, is to develop a model process for the management of wood-like waste by biomass liquefaction. The project includes a number of studies on the influence of liquefaction process parameters and the composition of the reaction mixture on the chemical structure and properties of the polyols obtained.

INTEGRATED RESOURCE RECOVERY SYSTEM

The aim of the SIREN project, carried out at the Faculty of Civil and Environmental Engineering, Gdańsk Tech, together with partners from Poland and Norway, is to develop and implement an integrated system for resource recovery and production of valuable products in municipal wastewater treatment plants. The scope of the project includes 6 tasks related to the following elements of the treatment process: sludge management, post-sludge water treatment (scope of Gdańsk Tech), increased biofuel production, development of a metagenomic model for microbial transformations, modelling and life cycle assessment (LCA) of the integrated system (scope of Gdańsk Tech), and assessment of the quality and suitability of the products produced.

PUBLIC ENGAGEMENT AND PARTNERSHIP

WOODEN CONSTRUCTION DAYS

During the Wood Construction Days at Gdańsk Tech, participants of the event had the opportunity to attend a variety of presentations and lectures that covered topics related to design, construction, ecology and sustainability in wood construction. Lecturers, speakers and experts from renowned institutions and companies presented the latest developments, trends and innovations in the field, inspiring participants to expand their knowledge and develop their skills in this ever-evolving industry.

QUALITAS CONFERENCE "ECO, GREEN AND BLUE TRANSFORMATIONS"

The 14th Qualitas conference "Eco, green and blue transformations" , held at the Faculty of Management and Economics of Gdańsk Tech, was devoted, among other things, to the topic of sustainability management and green transformation projects. During the speeches of invited guests, the topic of circular economy and business improvement in the areas of eco and green was also addressed.

ZERO WASTE FASHION SHOW

As part of the Fahrenheit Science Picnic prepared by Gdansk University of Technology, the University of Gdansk and the Medical University of Gdansk, there was a ZERO WASTE fashion show organized. The presented outfits, created by staff and students, were made of forgotten and unwanted clothes, used packaging or their components. The initiative aimed to encourage people to reduce their clothing purchases and inspire reuse.

EDUCATION AND STUDENT ACTIVITY

WASTE MANAGEMENT

As part of the study programme at our faculties, students pursue subjects such as Waste and Sewage Sludge Management, Waste Energy Utilization, Waste Management and Municipal Waste Disposal or Hazardous Waste Management.

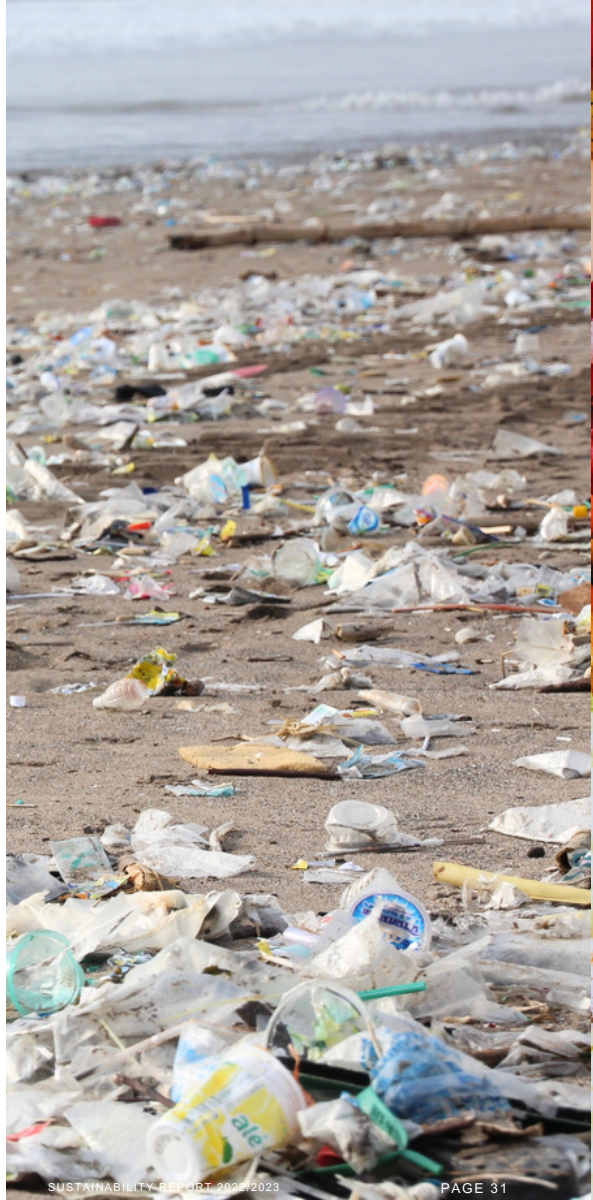
REDIVIVUS WIND TURBINE BLADES

A competition for the best conceptual design of a building using an end-of-life wind turbine blade was held as part of a project led by researchers from the Faculty of Civil and Environmental Engineering and the Faculty of Architecture at Gdańsk Tech. The Redivivus Wind Turbine Blades project aims to develop practical methods for recycling composite material obtained from wind turbine blades. Five designs of bicycle shelters and two designs of any building structures were submitted for the competition. The premise of the winning design, which was a bicycle shelter, was maximising the use of the turbine by cutting it into parts and using them all in this project.

INTERNAL ACTIVITIES OF THE UNIVERSITY

WASTE SEGREGATION

At Gdansk University of Technology we aim to maximize the degree of waste segregation. Currently there are marked bins for segregated waste in the corridors of Gdańsk Tech buildings: paper, glass, metals and plastics, bio and residual waste. In addition, ink and toner cartridges, used batteries and plastic caps are collected in designated areas.



TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

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RESEARCH AND PROJECTS

WATER CIRCULATION IN WETLANDS

Scientists from Gdańsk Tech, in the publication "Leaf wettability and plant surface water storage for common wetland species of the Biebrza peatlands (northeast Poland)", presented the results of research on the relationship between leaf wettability based on contact angle measurements and the ability of wetland vegetation to store water. The research was carried out for ten common plant species collected from the Biebrza peat bogs in Poland. The aim of the research is to expand knowledge about wetlands, which play a key role in mitigating the effects of climate change and are also one of the most endangered ecosystems in the world.

CARBON DIOXIDE ABSORPTION

The publication entitled 'Free volume in physical absorption of carbon dioxide in ionic liquids: Molecular dynamics supported modeling' presented the results of research by Gdańsk Tech scientists aimed at understanding the mechanisms underlying the absorption of carbon dioxide in ionic liquids. Knowledge regarding this issue is the key to their effective use in industrial flue gas purification.

PUBLIC ENGAGEMENT AND PARTNERSHIP

POLAR RESEARCH COMMITTEE

A scientist from the Gdańsk Tech Faculty of Chemistry became a member of the Polar Research Committee of the Presidium of the Polish Academy of Sciences for the 2023-2026 term. The tasks of the Polar Research Committee of the Polish Academy of Sciences include, among others: issuing expert opinions for the needs of the Polish Academy of Sciences, the Government of the Republic of Poland and individual ministries and agencies financing scientific research, and cooperation with international polar organizations.

IAKOŚ CONFERENCE

The Interdisciplinary Academic Conference on Environmental Protection IAKOŚ, which took place at Gdańsk Tech, is a forum for the exchange of thoughts, ideas and experiences created for young scientists and science enthusiasts. It is a conference organized by students for students and PhD students, which aims to promote technologies that have a positive impact on environmental protection. The role of the invited speakers is to popularize knowledge about modern technologies used in environmental protection in fields such as chemistry, biology, physics, computer science, construction and environmental engineering.

INTERNATIONAL SOS CLIMATE WATERFRONT WORKSHOPS GDAŃSK 2022

At the Gdańsk Tech Faculty of Architecture intensive workshops were held as part of the international SOS Climate Waterfront project. This is an interdisciplinary project that aims to investigate waterfronts in Europe struggling with climate change. The project brings together experts from different disciplines to create new strategies for sustainable infrastructure and urban planning solutions in Europe.

COUNCIL OF THE GDAŃSK CLIMATE CHANGE FORUM

How to meet the challenges related to climate change? This is the fundamental question that the participants of the Gdańsk Climate Change Forum are trying to answer. Gdańsk focuses on cooperation with residents, representatives of science, specialists and non-governmental organizations to prepare for future climate

and environmental challenges. The Council of the Gdańsk Climate Change Forum is an advisory body of the Forum and consists of scientists specializing in climate and city issues. Two Gdańsk Tech representatives were invited to the Council consisting of 8 people.

CLIMATE COUNCIL

Gdańsk Tech has its member on the Climate Council of the UN Global Compact Network Poland, which works for the environment, human rights, counteracting corruption and decent and legal work. The aim of the Climate Council at the UN Global Compact Network Poland is, among others: providing advice and expert support for UNGC activities, climate education activities and implementation of sustainable development goals. The Council is a group of experts in many fields representing academic and scientific centers in Poland with the highest quality of education and research.

EDUCATION AND STUDENT ACTIVITY

ENVIRONMENTAL PROTECTION IN EDUCATION

During their studies in the field of Green Technologies students of the Gdańsk Tech Faculty of Chemistry acquire knowledge related to the use and development of methods for monitoring the state of the environment, removing pollutants from it, as well as developing and carrying out the so-called "green", i.e. environmentally safe industrial processes.

However, in the Environmental Engineering field run at the Faculty of Civil and Environmental Engineering, students can gain knowledge on: climate change and extreme phenomena.

SCIENTIFIC EXPEDITION TO SPITSBERGEN

A group of Gdańsk Tech students went on a polar scientific expedition to Spitsbergen. It was an extraordinary opportunity to learn about research work in the field, outside laboratory conditions. Preparations for the expedition lasted several months, during which the students took part in scientific camps and in a hiking camp in the Żywiec Beskids, where the conditions were as close as possible to the summer conditions in Spitsbergen. The main research area in the Arctic was the Eidembukta lagoon located on the west coast of the island of West Spitsbergen in the Svalbard Archipelago (Norway). A group of students and their leader joined a group of scientists from the University of Klaipėda (Lithuania) working as part of the EIDEMBUKTA project (Formation of a new coastal lagoon ecosystem after the retreat of the Eidembukta glacier, in the Arctic). Logistical support was provided by the Institute of Oceanology of the Polish Academy of Sciences in Sopot.

INTERNAL ACTIVITIES OF THE UNIVERSITY

CLIMATE PLAN

The Climate Plan created at Gdańsk University of Technology includes real actions for climate protection in the area of education and scientific research, but also increasing ecological awareness and the involvement of the academic community as well as internal initiatives related to the use of natural resources. The plan is intended to shape and direct the university's involvement both as an institution and in pro-environmental activities.

GDAŃSK TECH IS A SIGNATORY OF "RACE TO ZERO"

Gdańsk Tech is one of four Polish universities that joined the "Race to Zero" campaign supported by the UN. "Race to Zero" is a global campaign that unites entities such as enterprises, educational institutions, including universities, cities and regions around the common goal of planning and implementing specific actions leading to the reduction of greenhouse gas emissions. Joining the "Race to Zero" campaign Gdańsk Tech confirms the University's commitment, included in the Gdańsk Tech Climate Plan, to reduce carbon dioxide emissions by half by 2030 and then strive to achieve net zero emissions in 2040. It should be noted that this is a very demanding challenge with no guarantee of success.

GDAŃSK TECH BEST IN POLAND IN THE GREENMETRIC RANKING

In the latest edition of the UI GreenMetric World University Ranking, Gdańsk University of Technology took first place among Polish universities. This is a ranking that examines the university's involvement in issues related to the natural environment, primarily in the field of infrastructure, care for the climate and environment, transport, water and electricity consumption and waste management. Gdańsk Tech not only became a leader among Polish universities, but also took a high position on a global scale - out of 1,050 universities from 85 countries, it was ranked 137th. The rankings aim to gain a picture of how a university responds to or deals with sustainability issues through policies, actions and communication.

GDAŃSK TECH AT THE LEAD OF POLISH UNIVERSITIES IN THE IMPACT

Ranking Gdańsk Tech is once again among the top universities from Poland in the Times Higher Education Impact Ranking 2023. This is the only global ranking based on the UN Sustainable Development Goals. In the latest ranking, Gdańsk Tech was classified in the general ranking and six specific Sustainable Development Goals.

EKOTECH CENTER

The EkoTech Center is a Gdańsk Tech research center that deals with shaping a harmonious, sustainable human living space in the face of current environmental challenges, climate change and social and demographic changes. Scientists are working on solutions that will help counteract the negative effects of human activity. They are also looking for innovative pro-ecological solutions for smart urban and non-urban areas. Additionally, they develop new methods for monitoring the environment and infrastructure, as well as modern technologies for the production of electricity and heat, reducing the carbon footprint and contributing to meeting emission requirements.

ECO-INNOVATION CENTER

The Eco-innovation Center. currently under construction at Gdańsk Tech, will be a research and development base for the most important specializations of the region, i.e. construction, eco-energy and environmental protection technologies. The construction of one of the most modern, "green" research centers in Central and Eastern Europe meets the challenges faced by our entire current generation, such as the fight for a clean planet or the implementation of ecological solutions into everyday life. The building was designed to be environmentally friendly and uses advanced and innovative technologies, including: the use of modern, pro-ecological renewable energy systems such as photovoltaic cells and heat pumps. Gdańsk Tech students and scientists will start taking full advantage of the complex probably in autumn 2024.

ELECTRONIC DIPLOMA THESES

Students submitting diploma theses at the Faculty of Management and Economics at Gdańsk Tech can do so using the MojaPG system. This means that these works do not have to be printed in several copies, but only sent electronically. The change in the Gdańsk Tech Study Regulations, which abolished the obligation for students to print diploma theses, is a consequence of the implementation of the Gdańsk Tech organizational culture, part of which concerns environmental protection.

SURVIVAL FIELD COOKERS

Students from KNSPG Microbiology in Environmental Engineering "MIŚ" visited the Center for Monitoring and Water Protection of the University of Gdańsk in Borucin, where they took part in field research in the area of the Raduńskie Lakes Loop. In their free time from research, they prepared over 70 survival camp stoves from cans, cardboard, candle remnants and paraffin according to the "zero waste" approach. They were transferred to the "Students for Ukraine" Foundation, from where they will go to those in need in war-front areas.

THE GREAT CLIMATE KNOWLEDGE TEST

The Gdańsk Tech Faculty of Management and Economics hosted participants of the Great Climate Knowledge Test from all over the Tricity. The event, which aims to expand young people's knowledge about climate change, its causes and effects, took place simultaneously in five different cities at the same time. The Great Climate Test was part of greenwashing workshops for students organized by the Hub for ZiEmi, whose task is to disseminate the idea of sustainable development among the community of the Faculty of Management and Economics at Gdańsk Tech.

ECO-ENVELOPES AT GDAŃSK TECH

Gdańsk Tech makes use of reusable envelopes, which are the result of EkoPG workshops carried out by the Center for Strategic Analysis. The Eco-Envelope has a table with multiple places to write down the sender and addressee, which means that one envelope can be used multiple times in intra-university communication.

CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT

8

RESEARCH AND PROJECTS

INVESTIGATION OF POLLUTION IN THE ARCTIC

The implementation of the project entitled "Determination and characterization of pollutants melting from glaciers and snow in Antarctica as a result of climate change" is aimed at determining and examining the characteristics of pollutants melting from glaciers and snow in Antarctica as a result of climate change, which will allow to assess whether and how the re-emission of pollutants deposited in snow and glaciers affects the chemistry of polar environments. This is especially important in the context of climate change. The resulting extensive, valuable and unprecedented data set on the presence of chemicals in Antarctica can also be used to verify existing environmental fate models and identify threats to local fauna.

PUBLIC ENGAGEMENT AND PARTNERSHIP

WATERMAN

The aim of the WaterMan project, in which 16 partners from 6 countries: Denmark, Lithuania, Latvia, Germany, Poland and Sweden, take part is to support water reuse in the Baltic Sea region. By promoting a circular approach to water itself at local and regional levels, the project will ensure that it contributes both to a climate-resilient water supply and to reducing the outflow of nutrients and hazardous substances into surface water, groundwater and the Baltic Sea. The project will include, among others:

pilot research aimed at developing technologies for pre-treatment and reuse of rinsing water and used swimming pool water. The team consists of: prof. Magdalena Gajewska, PhD, Eng. (head), Krzysztof Czerwionka, PhD, Eng., Katarzyna Kołecka, PhD, Eng., Tomasz Kolerski, PhD, Eng., Karolina Fitobór, PhD, Eng., Grażyna Gałęzowska, PhD, Eng., and Magda Kasprzyk, PhD, Eng., and is cooperating with the City of Braniewo as part of the project to develop a rainwater management strategy, including a surface urban retention system with the implementation of pilot circuits and developing a technology for reusing swimming pool water from the Municipal Sports Center "Zatoka".

EDUCATION AND STUDENT ACTIVITY

INTEGRATED COASTAL ZONE MANAGEMENT

Students of the Integrated Coastal Zone Management specialization at the Faculty of Architecture at Gdańsk Tech will learn the principles of planning and spatial development in areas where land and sea meet. They acquire interdisciplinary knowledge in the field of urban and spatial planning, management of port areas and port-industrial structures related to maritime economy, as well as the natural basis of planning, with particular emphasis on the principles of protecting ecosystems at the interface of land and sea. The course program also includes

methods of resolving functional and spatial conflicts in the exploitation and use of the coastal zone, as well as cooperation with representatives of many economic sectors.

SCIENTIFIC CAMP "MICROBIOLOGY IN ENVIRONMENTAL ENGINEERING - MIŚ"

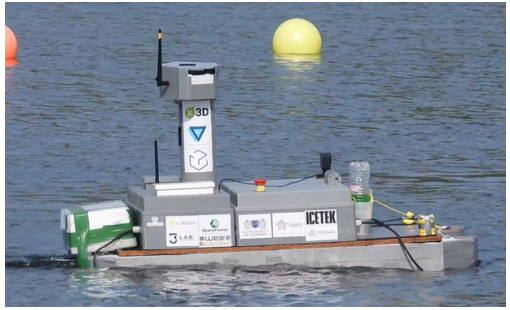
Students of the Scientific Club "Microbiology in Environmental Engineering - MIŚ" took part in a summer scientific camp that took place at the Vistula Lagoon, during which research was planned on monitoring the sanitary quality of bathing areas. In addition to field and laboratory research, students also participated in workshops entitled: "The Vistula Lagoon - the environment and sustainable development." The camp was also the next stage of the "Spitsbergen challenge - scientific expedition to the Arctic" project. During the camp, students also refined the details of a role-playing game that is intended to raise interest in the topic of climate change, especially visible in the polar regions.

MARINE AND COASTAL ENGINEERING

Marine and coastal engineering is an inter-faculty field of study run jointly by the Faculty of Civil and Environmental Engineering and the Faculty of Mechanical Engineering and Ship Technology. Graduates of second-cycle studies obtain advanced knowledge in the design and implementation of marine, coastal and river hydrotechnical facilities, and also learn the requirements for implementing a sustainable development policy.

SV PERKOZ ON ROBOBOAT 2023

SV Perkoz, an autonomous surface vehicle, was created as part of the SeaSentinel project. The aim of the project is to stimulate the activity of talented students through their participation in the international RoboBoat 2023 competition in the USA. The students' task was to design, build and test an autonomous, modular unit floating on the water surface (Autonomous Surface Vessel, ASV). In the future this unit will be used to measure the purity of the water in the port basin. The drone, based on the concept of a port of the future, i.e. with a limited human factor, will be equipped with water turbidity, temperature and pH sensors, and thus can act as the "eyes" of the port authorities and detect water pollution.



INTERNAL ACTIVITIES OF THE UNIVERSITY

CLEANING THE MOTŁAWA RIVER

On the occasion of Earth Day, Gdańsk University of Technology, in cooperation with the local kayak club and kayak marina, once again organized the cleaning of the Motława River. The participants of the action, accompanied by experienced kayakers and a kayaking instructor, collected waste floating on the river surface and transferred it to the accompanying motor units.

EXHIBITION IN MEMORY OF PROF. CZESŁAW DRUET

In the hall of the Gdańsk Tech Main Building, in front of the Library there was an exhibition prepared by the Institute of Oceanology of the Polish Academy of Sciences, dedicated to the memory of prof. Czesław Druet, PhD, DSc, Eng., a Gdańsk Tech graduate, a distinguished hydrotechnician and an outstanding oceanologist. The scientist led, among others, the Laboratory of Sea Dynamics at the Institute of Hydraulic Engineering of the Polish Academy of Sciences, chaired the Sea Research Committee of the Polish Academy of Sciences and took an active part in creating the foundations of Polish marine hydrotechnics. This knowledge was used in the construction of the first Polish deep-water port - the Northern Port in Gdańsk (early 1970s). Prof. Czesław Druet, PhD, DSc, Eng. was also a co-organizer of the first Polish oceanological research in international cooperation. In the mid-1980s, the scientist contributed to the entry of Polish oceanology into the group of European Arctic researchers.

PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND HALT BIODIVERSITY LOSS

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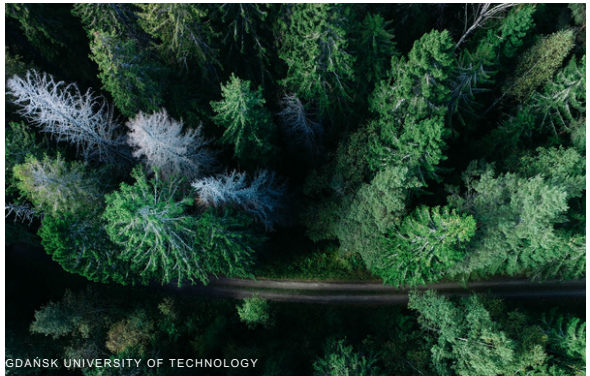


GDAŃSK UNIVERSITY OF TECHNOLOGY

RESEARCH AND PROJECTS

ENVIRONMENTAL DESIGN

At the Faculty of Architecture in the Department of Environmental Design, scientists conduct research on shaping landscapes and architecture from an environmental perspective. They are carried out in cooperation with local governments of rural and urban communes. Their results include, among others: space management methods that aim to restore landscape harmony, protect cultural heritage and maintain regional identity. The research work results in designs of energy-saving houses and ecological housing estates, revalorization of historical parks and modifications of public spaces.

PUBLIC ENGAGEMENT AND PARTNERSHIP

FIRE MODELING

The launch of the WRF-Sfire model, which is a modern and comprehensive fire spread forecasting model, at IMWM-PIB will be carried out in the TASK IT Center at Gdańsk University of Technology. Two-day online workshops prepared by the IMWM-PIB Meteorological Modeling Center were devoted to the topic of fire modeling. Over the last dozen or so years, progressive changes in the climate system have been observed, which cause a sharp increase in extreme phenomena, including the risk of forest fires, also in Poland. A factor mitigating the destructive impact of the threat is the effective use of information provided by high-resolution fire risk forecasts by fire services and forest land owners. One of them is the WRF-Sfire model, which combines the existing forecasting methods with a fire spread model.

EDUCATION AND STUDENT ACTIVITY

LANDSCAPE ARCHITECTURE

During the compulsory course on Landscape Architecture, students of the Gdańsk Tech Faculty of Architecture acquire knowledge about the types of landscapes and their forms. They learn how to study landscape composition and how the principles of composing public green areas have changed over time. They learn to shape the landscape on an architectural, urban and planning scale. After the course, they will be able to recognize basic trees and shrubs, prepare a dendrological inventory and design a plant composition.

GEOLOGY AND HYDROLOGY

Students of the Faculty of Chemistry, majoring in Green Technologies, participate in Geology and Hydrology classes, during which they acquire knowledge of the impact of natural geological processes and human activities on the environment. The aim of this subject is to learn the basic geological and hydrological processes that shape the Earth's environment.

SUSTAINABLE DEVELOPMENT AND BIOECONOMY

For the first time, the topic of sustainable development appeared in a systematic way in the first-cycle Energy studies program. Students participate in classes such as

Sustainability and Bioeconomy. The subject answers the main questions regarding the possibility of implementing the philosophy of sustainable development in terms of resource scarcity, climate and socio-economic changes. Particular attention is paid to bioeconomy - technologies that enable reducing dependence on fossil fuels by using renewable resources (waste biomass) to create goods and services.

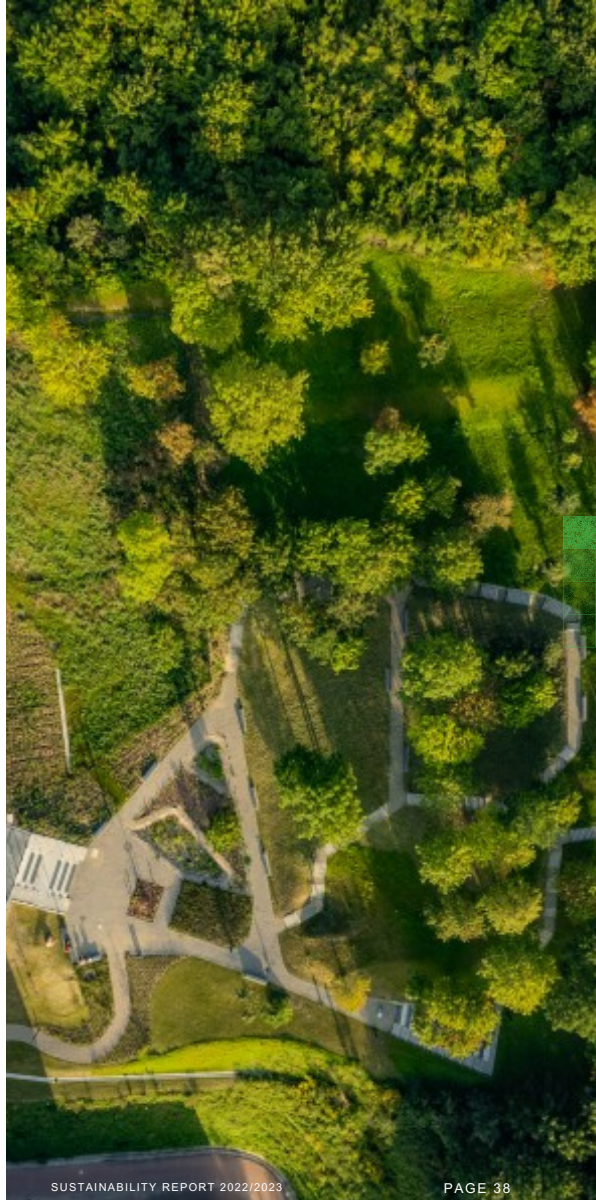
INTERNAL ACTIVITIES OF THE UNIVERSITY

GDAŃSK TECH CAMPUS

The campus of Gdańsk University of Technology has been recognized as one of the most beautiful campuses in Europe according to the Times Higher Education website. The 77 hectare campus area includes modern and environmentally friendly buildings as well as majestic structures from the beginning of the 20th century. Outside, in places surrounded by greenery, there are both outdoor benches and picnic areas, as well as an outdoor gym. There are almost 100 different species of deciduous and coniferous trees and shrubs throughout the entire Gdańsk Tech campus. Corridors of trees dominate the historical part of the campus. Between the buildings you can see houses for hedgehogs and insects, as well as beehives. Monitoring and maintaining green areas is a key task for the team of gardeners who manage these areas sustainably. We want to provide space for the development of biodiversity on the campus.

SDG THEMATIC PAVILIONS

The Gdańsk Tech Faculty of Architecture presented an exhibition of selected works by students whose task was to create models of pavilions with a structure enabling movement and temporary residence, taking into account the implementation of one of the 17 UN Sustainable Development Goals. The works presented included: design of a forester's house, a nature observatory, temporary social housing and a pavilion intended for charity purposes. The ideas presented by the students are a proposal for Gdańsk to meet local needs seen through the prism of the Sustainable Development Goals.



PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

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RESEARCH AND PROJECTS

NEUROINCLUSIVE THEORY OF LEADERSHIP

At the Faculty of Management and Economics at Gdańsk Tech, a research project is being carried out entitled: "Towards a neuro-inclusive theory of leadership". As the project manager points out, neurodiverse people are characterized by different cognitive functioning than what is perceived as "standard", and thus have unusual needs and preferences that require different leadership approaches. The aim of the research project is, among others, exploring how neuro-inclusive leaders and employees understand neuro-inclusive leadership and understanding the facilitators and barriers to being a neuro-inclusive leader.

TRUST AND DISTRUST IN ONLINE VOTING

David Duenas-Cid, PhD from the Gdańsk Tech Faculty of Management and Economics was awarded in the Marie Skłodowska-Curie Actions (MSCA) program as Fellow of the week. MSCA is the European Union's reference program for the promotion and education of doctoral students and habilitated doctors. Recognition in the program is an achievement that few Polish scientists have ever achieved. The scientist was also awarded an MSCA grant for research on "The dynamics of trust and distrust in online voting." The research results will shed light on the dynamics of trust and distrust formation, which can be further applied to other technologies.

PUBLIC ENGAGEMENT AND PARTNERSHIP

ARCHITECTS FOR THE RECONSTRUCTION OF UKRAINE

A two-day conference of Polish and Ukrainian architects entitled: "Reconstructions-transformations-renovations". The event program included: presenting the concept of rebuilding northern European cities after World War II and the effects of the transformation after 1989 in spatial planning and urban planning in Gdańsk. The issues of destruction and reconstruction as well as challenges in the field of architecture and urban planning in Ukraine were also presented. The conference was accompanied by an exhibition entitled "Peace and War: Architecture of Ukraine", the ceremonial presentation of which took place in the presence of the Gdańsk Tech Rector, Prof. Krzysztof Wilde, PhD, Eng.

STOS COMPETENCE CENTER

In spring 2023, the STOS Competence Center was put into operation. It is one of the most modern IT centers in this part of Europe. The key element of the complex is a server room hidden underground, containing seven chambers. This is where the new Gdańsk Tech supercomputer - Kraken - is located, which will allow for advanced research and complex simulations. Its computing power will enable scientists to conduct advanced work in fields including: the development of artificial intelligence algorithms, nuclear energy, environmental protection technologies, and medicine and pharmaceuticals. The facility has a fully integrated security system based on access control systems, video monitoring, as well as an intrusion and anti-assault system. All systems are integrated and managed by a special server. The center was created based on the assumptions of Green Computing, so as to reduce as much as possible the impact of IT activities on the environment, but at the same time increase the energy efficiency of equipment and laboratories. The server room meets the requirements of the so-called TIER III with TIER IV elements, which are the highest possible levels of security for data storage centers, which makes it the most modern and safest server room in Europe.

SUPPORT FOR THE NATIONAL UNIVERSITY OF ECONOMICS IN ODESSA

Gdańsk University of Technology, which has signed a cooperation agreement with the National University of Economics in Odessa, is strongly involved in supporting the university. As part of this cooperation, the University of Technology provides support in the field of scientific exchange, scholarship programs and other forms of cooperation. Odessa, home to the university, was among the top five Ukrainian cities with the least access to electricity due to Russian missile attacks. Gdańsk Tech, together with Caritas of the Archdiocese of Gdańsk, organized a fundraiser to finance the most urgent needs of the university, such as the purchase of power generators, inverters and batteries.

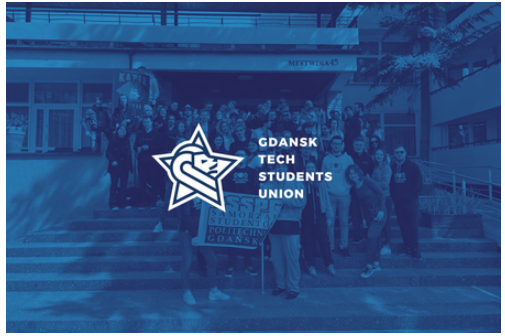
EDUCATION AND STUDENT ACTIVITY

ETHICS AND LAW AT GDAŃSK TECH

As part of their study programs, students of various faculties learn selected subjects related to applicable law and ethics, dedicated to their future professional life. These include subjects such as Jurisprudence, Business Law, Environmental Protection Law, Water Law, Engineer's Ethics, Business Ethics and Bioethics.

GDAŃSK TECH STUDENTS' UNION

The Gdańsk Tech Students' Union is the statutory representative of the university's students, which promotes the rights and obligations of the student community and implements educational and cultural projects addressed to students and the local community. One of the main tasks of the Students' Union members is to support students through educational and information initiatives, as well as by distributing funds to student organizations. It works for the benefit of the student community, and the scope of these activities can be divided into four main areas: protection of the rights, dignity and interests of students, initiating cultural and entertainment life, initiating charity campaigns and implementing university-wide projects, and social and living matters.



INTERNAL ACTIVITIES OF THE UNIVERSITY

VALUES AT GDAŃSK UNIVERSITY OF TECHNOLOGY

The Strategy of Gdańsk University of Technology 2020–2030 defines the basic values that guide the University. Gdańsk Tech supports universal humanistic values: dignity and individual freedom, social equality, interpersonal solidarity, tolerance and affirmation of diversity and social inclusion. The university is guided in particular by the principles expressed in the European Convention on Human Rights. The main values cultivated by the University of Technology include concern for the conditions and quality of life of the present and future generations. The university actively participates in the implementation of the UN Sustainable Development Goals and the European Commission's European Green Deal.

Gdańsk University of Technology is also a signatory of the Declaration of University Social Responsibility and an active subject of activities aimed at shaping social attitudes conducive to the broad implementation of the declaration's postulates.

WORKSHOPS ON THE ASSUMPTIONS OF THE SOU STRATEGY AND SDGs

An interdisciplinary team, consisting of representatives of the University - research workers, employees of administration units, representatives of students and doctoral students - worked on the assumptions, goals and actions under the future strategy. The ideas developed during the creative workshop will be the basis for developing the University's Social Responsibility and Sustainable Development strategy.

OPEN ACCESS

On the occasion of Open Access Week, the Gdańsk Tech Library organized a series of events whose main theme was "Openness for climate justice". As part of the Open Access Week, a webinar for scientists and PhD students was held entitled: "A wise choice of a journal as an important element of the author's success", organized together with Elsevier, and the online paragraph game "Warrior of Openness".

17 PARTNERSHIPS FOR THE GOALS

PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE, ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS

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GDAŃSK UNIVERSITY OF TECHNOLOGY

RESEARCH AND PROJECTS

PULA

Gdańsk University of Technology has become a strategic partner of PULA, an initiative for a better Gdańsk. PULA is the result of the Greencoin project implemented by a consortium of six entities led by Gdańsk Tech. Thanks to the PULA application, by collecting Good Coins, you can change your habits to be more planet-friendly. The project aims to connect residents and local economic entities (gastronomy, services, social economy entities) for a sustainable change in Gdańsk and reward positive behavior. The Greencoin project has been nominated for the Polish Intelligent Development Award 2023 in the Social Innovation category.

PUBLIC ENGAGEMENT AND PARTNERSHIP

ENHANCE+

In 2022, Gdańsk University of Technology joined the ENHANCE alliance of European technical universities, which aims to create a European and interdisciplinary space for interaction of innovative technological progress, society and our environment. In January 2023, ENHANCE, as a consortium of 10 universities, submitted a joint application ("ENHANCE+") as part of the new competition of the "European Universities" initiative, the work on which was supervised by Prof. Janusz Nieznański, Vice-Rector for Internationalization and Innovation. The European Commission positively assessed the application and granted it financing. Gdańsk Tech became the leader of one of the thematic areas of the project: Human Dimension, the implementation of which will be coordinated by the HR Center in cooperation with other Gdańsk Tech units.

DANIEL FAHRENHEIT UNION OF UNIVERSITIES IN GDAŃSK

The Daniel Fahrenheit Union of Universities in Gdańsk (FarU) was established at the joint request of the rectors of the Medical University of Gdańsk, Gdańsk University of Technology and the University of Gdańsk. The senates of three leading universities in Pomerania adopted appropriate resolutions and accepted the content of the Union's statute, specifying the scope of tasks, bodies and method of management of this new organization. The most important task of the Union is to make the best possible use of the resources and potential of the three universities that constitute it. Its activities focus on developing solutions supporting joint research and development work, as well as recommendations regarding the consolidation or establishment of new inter-university doctoral schools. One of the strategic tasks of the Union is to conduct a common promotional and ranking policy, especially in the international arena, as well as expressing opinions and representing common interests towards state and local government administration and legislative initiatives. The Medical

University of Gdańsk, Gdańsk University of Technology and the University of Gdańsk have been implementing joint initiatives in the scientific, educational and organizational areas for many years. Thanks to the establishment of the Union of Universities, it is possible to deepen the existing cooperation and create one of the strongest academic centers in Poland in Pomerania.

EXHIBITION TECHNOLOGY FOR A GREEN FUTURE

An exhibition entitled: "CLEANTECH - technology for a green future", jointly opened by the Swiss Ambassador to Poland Fabrice Filliez and prof. Krzysztof Wilde, rector of Gdańsk Tech, was opened in the Main Building. The exhibition presented innovative technological solutions developed by Swiss scientists and entrepreneurs in areas such as water management, agriculture, electromobility, recycling and energy.

EDUCATION AND STUDENT ACTIVITY

WHAT'S NEXT?" CONFERENCE

Conference "What's next?" is a joint initiative of students of the Student Scientific Club of Psychology (MUG), the Scientific Club of Sound and Image Engineering (Gdańsk Tech) and the Student Scientific Club of Inspiar (UG). The event, which took place in May 2023 at the European Solidarity Center, aimed to start a dialogue on the future of our society. The conference included 3 lectures and 7 discussion panels, 4 workshops and a film screening with a debate after the film, with a total of over 30 speakers on stage. The event was held thanks to the cooperation of groups from Fahrenheit Universities, the European Solidarity Center, the Gdańsk University of Technology Alumni Association and DKF UG Miłość Blondynki.

Fahrenheit Universities

RAILWAY TO THE SOUTH

"Transfer to culture", "Green carpet" and "Yellow Ribbon" are the winning projects of the second stage of the "Railway to the South" competition, organized jointly by the Pomeranian Metropolitan Railway (PKM) and Fahrenheit Universities (FarU). Students from MUG, Gdańsk Tech and UG developed concepts for the operation of future stops of the PKM Południe (Southern) line. According to the authors of the best project, entitled "Switch to culture", means of transport should be integrated, use tools from the Big Data sector, which will make them more accessible and attractive, but they should also engage users and take care of the environment.

INTERNAL ACTIVITIES OF THE UNIVERSITY

FAHRENHEIT SCIENCE PICNIC

Science with climate is the main theme of this year's Fahrenheit Science Picnic, which took place on the last Sunday of May on Góra Gradowa in Gdańsk. At the outdoor event organized by the Hevelianum Center and Fahrenheit Universities, i.e. Gdańsk Tech, MUG and UG, special attention was paid to topics related to the environment and ecology. The program presented on stage referred to the Sustainable Development Goals set by the UN, including education in the field of everyday habits and consumer choices. During the picnic, children could, among others: move to the Land of Positive Energy by taking part in an energy competition prepared by the Center for Strategic Analysis and the Gdańsk Tech Faculty of Management and Economics. On the stage and in the picnic area, friendly figures of the Sun, the Windmill and the Atom invited people to join in the fun and explained how they could generate electricity.

CESEENET

The Faculty of Management and Economics has joined the CESEENet organization (Central, East and South-East European PhD Network), which promotes and facilitates cooperation between universities from Central, Eastern and South-Eastern Europe in order to improve the quality of their doctoral programs. The network enables universities to

organize joint courses in individual fields of study, research seminars, exchange of doctoral students and intensification of research cooperation.

EUA CONFERENCE

„We need to talk about impact" – this is the leading slogan of the international EUA conference, which took place for the first time in Poland, at Gdańsk University of Technology. The university hosted rectors, representatives of management and science staff from several hundred European universities. The main topic of the conference was the impact of universities on the surrounding social and business environment and their shaping of key principles in times of great changes or crisis.

POSTGRADUATE STUDIES IN SUSTAINABLE DEVELOPMENT AT GDAŃSK TECH

Sustainable development is one of the most important issues in the modern world. To meet this challenge, the Gdańsk Tech Faculty of Management and Economics has created two new fields of postgraduate studies: Project management for sustainable development and Management in the conditions of implementing sustainable development goals. Raising staff competences in the values promoted by the 17 Sustainable Goals can support the sustainable development of the economy. The knowledge acquired during studies will contribute to increasing the skills of employees in positions such as climate change specialist, recycling specialist and sustainable development economist.

FARU ECONOMIC CONVENTION

The Economic Convention (previously operating at the Rector of Gdańsk University of Technology) is a platform for exchanging information, consultations and expressing opinions and positions between the scientific community of Fahrenheit Universities and the economic community, on all matters affecting the economic development of the country and the region. The Economic Convention is composed of representatives of leading enterprises representing various fields of economy, economic organizations and business environment institutions, invited by the Rectors of the University of Gdańsk, Gdańsk University of Technology and the Medical University of Gdańsk.

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8. AGRARSENSE. Project manager: dr hab. inż. Łukasz Kulas. Financial Program Name: Horizon Europe - KDT JU – NCBiR. Project realized in: Department of Microwave and Antenna Engineering.
9. REVAMP. Project manager: prof. dr hab. inż. Jacek Mąkinia. Financial Program Name: SHENG. Project realized in: Department of Sanitary Engineering
10. INN3D. Project manager: dr Brygida Mielewska. Financial Program Name: Studenckie koła naukowe tworzą innowacje. Project realized in: Faculty of Applied Physics and Mathematics
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17. WODIA. Project manager: prof. dr hab. inż. Jacek Rumiński. Financial Program Name: ERA-NET COFUND. Project realized in: Department of Biomedical Engineering
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34. DORNA. Project manager: dr hab. inż. Leszek Jarzębowicz. Financial Program Name: HORYZONT 2020. Project realized in: Department of Electrified Transportation
35. NEPTUN. Project manager: dr inż. Marek Chodnicki. Financial Program Name: Granty na granty. Project realized in: Applied Mechanics and Biomechanics Section
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