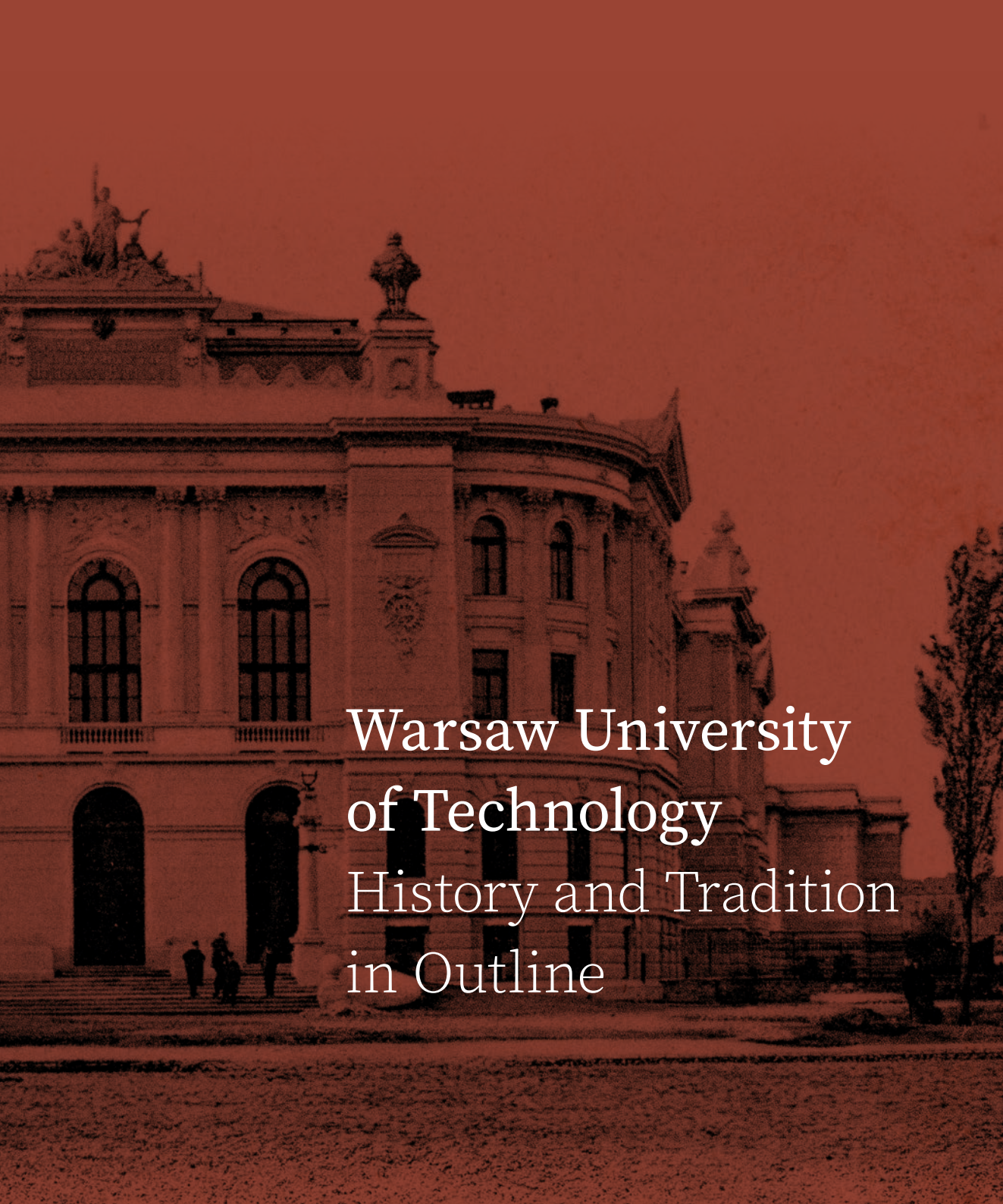

Warsaw University of Technology

History and Tradition in Outline

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Ladies and Gentlemen, in its nearly 200-year history, Warsaw University of Technology has been both a witness and a participant in many epoch-making events. Generations of students and doctoral students, academic teachers and administrative staff have passed through the walls of the University. Over the years, the academic community has created the tradition and shaped the identity of Our Alma Mater.

The book you are holding in your hands was prepared by a team of people who are extremely committed to popularising knowledge about the Warsaw University of Technology. The result of their work is an interesting publication, presenting the history of the Warsaw University of Technology in a synthetic form and allowing us to understand the importance of tradition for our everyday life, but also for building the future. I would like to thank all those who have contributed to the creation of this unique publication.

I hope that reading the book „Warsaw University of Technology. History and tradition in outline" will reveal many previously unknown stories or facts, and allow you to find answers to a number of questions about our University. Beautiful photographs will allow you to trace how the façade of the Main Building and its surroundings have changed over the years. The photographs of modern buildings juxtaposed with images of edifices constructed in the 1930s or 1970s will show you how the Warsaw University of Technology combines tradition with modernity, also in the architectural dimension.

I wish you an enjoyable read.

Professor Krzysztof Zaremba,
Rector of the Warsaw University of Technology
Warsaw, January 2023

Introduction

Warsaw University of Technology is the largest technical university in Poland with a nearly two-hundred-year tradition and an interesting history. The history of the University, which came into being under the conditions of the Partitions of Poland, where armed uprisings often intersected with the pursuit of knowledge and the economic development of the country, is worthy of study in every respect. The purpose of this work is to bring the history of Warsaw University of Technology closer to a wide range of readers, its students and staff, and the people, including those from other universities, who wish to learn about the history of the University.

The study is not a scientific work, but it popularises the history of the University in chronological order. The emphasis is placed on the earlier stages of the University's development, such as the Preparatory School for the Polytechnic Institute, the Tsar Nicholas II Polytechnic Institute and the Warsaw University of Technology in the inter-war period. The years 1915-1939 are emphasised quite a lot, as they show the functioning of the University at the time of regaining independence and in the Polish state reborn after 123 years of slavery. The work takes into account both the time of the terrible destruction wrought during the German occupation and the process of reconstruction and expansion of the University during the communist period. It also highlights political events with national overtones that were reflected in the functioning of the Warsaw University of Technology. The student protests of 1956-1957 and 1968, as well as the emergence of ‚Solidarity' in August 1980 and the related transformation process, are important contributions to the history of the University in-

cluded in this study. In describing the various stages in the history of Warsaw University of Technology, an attempt has been made to include its activities against the background of historical events and such elements as its organisational structure, buildings, student organisations, as well as information on the University's units related to culture, tradition, sport and recreation. The work includes short biographical sketches of ten of the most eminent late professors and graduates of the Warsaw University of Technology, respected in Poland and abroad for their momentous scientific achievements. The criterion for selection of the figures was their research work known and recognised outside our country at the time when they were active. The biographical entries have been positioned in places substantially related to these figures, and their modest selection only illustrates the creative potential „forged" within the walls of our Alma Mater.

The study was written on the initiative and with the participation of Professor Andrzej Kulig, head of the Senate's Committee for History and Tradition of the Warsaw University of Technology. The editorial reviews were prepared by Professor Mirosław Nader and Professor Marek Jakubiak. The Museum of the Warsaw University of Technology would like to thank Prof. Mirosław Nader and Sylwester Gładyś, PhD, for providing excellent illustrative material for this publication.

1.
Polytechnic Institute Preparatory School

The need for a higher technical school in Warsaw was perceived in some circles of Polish society as early as the beginning of the 19th century. The eminent statesman Stanisław Staszic understood the question of national education in terms of enlightenment and education. Unfortunately, his activities were affected by the exceptionally difficult conditions associated with the collapse of the state and the partitions, as well as the reluctance of part of the nobility to introduce innovative plans for the introduction of specialised education, including technical education. Full of commitment, in 1812 he appealed: „Fathers! Encourage your sons to excel in exacting skills." When he wrote about „exact sciences", he meant mainly the sciences and technical sciences. In 1815, at the Educational Directorate, Stanisław Staszic and Stanisław Kostka Potocki presented projects for the establishment of vocational and higher schools, including a polytechnic school.


STANISŁAW STASZIC.
Filantrop, znakomity geolog, minister stanu (ur. 1755, zm. 1826), prezes Tow. Przyj. Nauk w Warszawie, któremu to towarzystwu kupił dom i ofiarował swój księgozbiór. Założył szkołę agronom.-politechniczną, instytut dla głuchoniemych i wiele szkół wojewódzkich. Prace literackie jego obejmują różnorodne zakresy, najważniejsze: „Uwagi nad życiem Jana Zamoyskiego", „O równowadze Europy", „Przestrogi dla Polski". Wydał również wiele przekładów.

Fig. 1. Stanisław Staszic

Stanisław Staszic was active in the development of Polish higher education for nearly 20 years. He was a co-initiator of the founding of the Academic and Mining School in Kielce in 1816, the Special School of Forestry in Warsaw in 1816, the Agronomic and Forestry Institute in the village of Marymont in 1820, and the School of Civil Engineering of Roads and Bridges linked to the University of Warsaw in 1823. He also travelled extensively in the Polish lands of the Russian partition, becoming convinced of their great mineral wealth. He stressed that fu-

ture economic development depended on the existence of qualified human resources, and for this reason he strove to create them. He saw the establishment of a polytechnic school of academic standing, including education in the sciences and technology, as the foundation of development.

Two models for the organisation and operation of general technical schools prevailed in Europe at the time: the French and the Austrian. The Austrian system was more appropriate to Polish realities, although some elements of the French system were also used. In 1820, Stanisław K. Potocki, Stanisław Staszic's close associate, lost the chair of the Commission for Religious Denominations and Public Enlightenment, and his place was taken by Jan Kalasanty Szaniawski, a conservative who supported the sciences, and who was a protégé of Nikolai Novosilcov, Commissioner of the Council of State. Thanks to him, Staszic retained influence over the organisation of the future school. In 1824, the plan for a Polytechnic Institute in Warsaw was presented to the Tsar's governor, General Józef Zajączek, and the project was then sent to St Petersburg for government approval. In 1825, the government of the Congress Kingdom secured funds in the budget for the future University. In March, the Commission of Enlightenment set up the Polytechnic Council to oversee and direct the work of setting up the school. Stanisław Staszic was appointed President of the Polytechnic Council. The final decision to establish a new general technical college was taken on 21 December 1825.

The university was called the Preparatory School for the Polytechnic Institute. Its initial premises were the buildings of Warsaw University, and from 1828 also the right wing of Krasiński Palace, now belonging to the Academy of Fine Arts. The target seat of the University was to be located in the buildings erected by Antonio Corazzi at Smolna, Książęca and Nowy Świat streets. However, this plan was never realised. The opening ceremony took place in the Kazimierzowski Palace on 4 January 1826. The inaugural speech was given by Stanisław Staszic, and it was his last public appearance. The President of the Polytechnic Council died on 20 January 1826. From then on, the post of President was held by count

Ludwik Plater. It is worth noting at this point that the name Preparatory School was a temporary one. At the turn of 1830-1831, it was to be transformed into a Polytechnic Institute of statewide rank.

Learning took place in two-year introductory courses, also followed by two-year higher courses. The lower courses were divided into Class I and Class II, roughly corresponding to the secondary school level. The higher courses focused on theoretical mathematical and natural sciences and were divided into four faculties: civil engineering, chemical engineering, mechanical engineering and commerce. The curriculum of the last faculty differed slightly from the others. A total of twenty-eight subjects divided into fourteen departments were taught. Initially, the number of classes was quite large, reaching 50 hours per week. Practical classes were held in the Warsaw manufactories. The organisation of teaching in the courses was modelled on the French system. As the Congress Kingdom had a large degree of autonomy within the Russian Empire, the language of instruction was Polish. Kajetan Garbiński, a graduate of the College de France, the Sorbonne and the École Polytechnique in Paris, became director of the Preparatory School. From 1820, he taught mathematics at the Warsaw Lyceum, as well as descriptive geometry and analytical geometry at the University of Warsaw, where he obtained the title of full professor.

Fig. 2. Kajetan Garbiński (1796–1847) Director of the Polytechnic Institute Preparatory School in 1826–1831

It was anticipated that the Preparatory School would have great problems with staffing, as there was a shortage of people educated in the sciences, technology, natural sciences and commerce. The problem was solved in such a way that lower-level courses were taught by Warsaw University staff, while professors teaching specialist subjects were obtained by sending selected can-

didates to study abroad in France, Germany, Italy and England. In 1826, forty-four students were admitted to the first year of study. However, the number of students increased each year. In the academic year 1828/1829, there were already ninety-four students, and a year later one hundred and ten. The most successful faculty was the Faculty of Civil Engineering, followed by the Faculty of Chemistry, which trained, among others, workers in distilleries, breweries and tanneries. Less popular were: Mechanical Faculty, educating, among others, future textile workers, and the Faculty of Commerce. Throughout its existence, 217 students studied at the Preparatory School. In 1829, the School attained the rank of a Polytechnic Institute.

Unfortunately, the outbreak of the November Uprising put an end to its existence. It is true that Kajetan Garbiński sought permission from General Josef Rautenstrauch to reopen the School, but a decision by the government in St Petersburg on 19 November 1831 definitively determined the closure of the Preparatory School for the Polytechnic Institute.

In the mid-19th century, the only general technical university in the former Polish-Lithuanian Commonwealth was the Technical Academy, which opened in Lviv in 1844 and was renamed the Polytechnic School in 1877. From 1919 to 1939 the university functioned as the Lviv Polytechnic. It should be added that, completely independently, in 1895 the owners of the Warsaw bank Hipolit Wawelberg and Stanisław Rotwand established the Maurycy Mitty Secondary Mechanical and Technical School in Warsaw, which from 1906 to 1919 functioned as the H. Wawelberg and S. Rotwand Mechanical and Technical School. Rotwand with faculties: Mechanical and Electrical Engineering. Initially, the School had a private character and was the first all-technical school in the capital since the time of Staszic – from 1906 with Polish as the language of instruction. In 1929, it was renamed the H. Wawelberg and S. Rotwand State School of Mechanical and Electrical Engineering.

2.
Tsar Nicholas II Polytechnic Institute

The outbreak and fall of the November Uprising had many negative implications for the development of Polish culture and economy. In addition to the Preparatory School, the University of Warsaw was closed at that time. It was reopened in 1870 under the name of the Imperial University of Warsaw. Education and technical sciences found themselves in a demanding situation, mainly due to the lack of specialised human resources. The problem was attempted to be solved by various measures related to their acquisition. In 1835, the Agricultural Institute in Marymont resumed its activities, and in 1862, on the initiative of Margrave Aleksander Wielopolski, the Polytechnic and Agricultural and Forestry Institute was established in Puławy. The location of the Institute seems to be no coincidence, as from 1842 Puławy was called New Alexandria in honour of Tsar Alexander I. The Institute was staffed by lecturers from the Agronomic Institute in Marymont and the Real Gymnasium, formerly located in the Kazimierzowski Palace in Warsaw. The Polytechnic and Agricultural and Forestry Institute consisted of five faculties: Agricultural, Forestry, Mechanical, Civil Engineering and Chemical and Mining. Studies at the faculties of Agriculture and Forestry were to last two years, while at the other faculties they were to last three years. The language of instruction was Polish. 356 students were admitted to the first year. The university combined elements of an agricultural and technical college. The Polytechnic and Agricultural and Forestry Institute lasted only three months. Its functioning was interrupted by the outbreak of the January Uprising. In this complicated situation, the Russian authorities suggested dividing the school into two separate colleges: the Agricultural and Forestry Institute, based in Puławy, and the Polytechnic Institute, located in Łódź.

Although the subsequent initiative to launch a technical university (Polytechnic and Agricultural and Forestry Institute) proved unfortunate, the political situation in Europe indirectly influenced the subsequent history of higher technical education in the Polish lands of the Russian partition.

In the Crimean War (1853-1856), Russia suffered a severe defeat, which triggered reflection on the state of the army among the Russian political elite. A conviction emerged about the need to develop industry to modernise military formations and to establish technical universities as a forge for highly qualified personnel. After nearly four decades, this process found full understanding with the tsarist authorities. The main promoter of this policy was the Minister of Finance in the Russian government, Count Sergei Witte. In St. Petersburg, in the early years of Nicholas II's reign, a decision was made to open three technical universities at the same time: in St Petersburg, Warsaw and Kiev. In Warsaw, the possibility of opening an academic technical college unleashed great enthusiasm in society. The main proponent of the launch of such a university, on the Polish side, was Kazimierz Obrębowicz, president of the Scientific and Technical Department of the Association of Polish Technicians and chairman of the Technical and Industrial Section of the Warsaw Branch of the All-Russian Society for the Promotion of Industry and Trade. On his initiative, a committee was formed to draft a ‚Memorial on the Polytechnic Institute', submitted to the Governor-General, Prince Aleksandr Imeretyński. The Russian government accepted the ‚Memorial', and on 8 June 1898, a decree from the Tsar was issued on the establishment of the Warsaw Polytechnic Institute named after Tsar Nicholas II. At the same time, a decision was made to establish Polytechnic Institutes in St. Petersburg and Kiev. The universities were to be built with the city's own funds. In the case of Warsaw, the Ministry of Finance, to which higher education was subordinate, calculated that the cost of erecting the University buildings would amount to 2.5 million roubles. Accordingly, the Committee for the Construction of the Polytechnic School was established, and fundraising began. Among those who had the greatest share in raising funds for the construction of the Institute were Baron Leopold Julian Kronenberg, President of the Warsaw-Vienna Railway, and Jan Gottlieb Bloch, banker and industrialist. A major contribution

was also made by the city authorities, who donated a plot worth one million roubles for the construction of the University.

As the polytechnic buildings were under construction, the first classes were held in Jan Bloch's Union tobacco factory at 81 Marszałkowska St. At a cost of 100,000 roubles, the factory premises were adapted for teaching purposes, so that the first lectures began as early as 1898.

Fig. 3. J.G. Bloch's post-factory house – the first seat of the Polytechnic Institute from 1898–1900

In 1899, the erection of the buildings of the Polytechnic Institute began. The architects entrusted with the task of building the University were Stefan Szyller and Bronisław Rogójski. On 8 September 1899, the foundation stone of the future Main Building was ceremoniously laid. At the same time, construction began on the Physics, Mechanics and Chemistry buildings. In 1901, the Main Building (without the corner on Nowowiejska Street) was completed. The designs of the Main Building and the Physics Building were the work of Stefan Szyller, while the Chemistry and Mechanics edifices, as well as the residential buildings on Koszykowa Street (for professors) and Nowowiejska Street (for the administration), were constructed according to the designs of Bronisław Rogójski.

Fig. 4. The Main Building at the final stage of construction in 1901. – View from former Wiejska Street

Fig. 5. The Physics Building in its final stage of construction

The official inauguration of the first academic year took place on 4 September 1898 in the presence of Governor-General Prince A. Imeretyński and Deputy Finance Minister Vladimir J. Kovalevsky. As successive phases of construction were closed, classes with students gradually began to move to the Main Building and the other buildings.

Fig. 6. The Main Building at the time of the Tsar Nicholas II Polytechnic Institute in 1902

The Tsar Nicholas II Polytechnic Institute was a state-run Russian university with a Russian language of instruction, as the scientific and teaching staff employed at the school consisted overwhelmingly of Russians. Speaking Polish was forbidden at the school, although there were some Poles among the lecturers. Poles included Aleksander Wasiutyński, professor of iron roads, Wiktor Biernacki, professor of physics, Jerzy Józef Boguski, professor of chemical technology, and assistants Tadeusz Miłobędzki and Mieczysław Pożaryski. As the years went by, the Institute was also joined by teaching staff from the University of Warsaw and the Mechanical and Technical School of H. Wawelberg and S. Rotwand. In time, the number of Poles employed at the Institute reached almost 20%, and this situation was maintained until the

outbreak of the First World War. Although most of the scientific and teaching staff were Russian, the newly opened University was not an instrument of Russification. Many Russian professors were sympathetic to Polish national aspirations. Among them were professors of mechanics: Sergei A. Zaborowski and Nikolai B. Delone.

The institute initially consisted of three faculties: Mechanical, Chemical and Construction-Engineering. In 1903, thanks to the efforts of Count Witte, the Faculty of Mining was opened. The faculties included the following departments: mathematics, theoretical mechanics, applied mechanics, mechanical technology, physics, electrical engineering, building arts, architecture, chemistry, chemical technology, building materials technology, metallurgy, geology and mineralogy. In addition, political economy, construction law, bookkeeping, elastic theory, probability theory, projective geometry and hygiene were taught. Education at the Institute lasted four years. Aleksandr Yevgenevich Lagorio, a Russian petrographer and mineralogist, professor at the Imperial University of Warsaw, known for his liberal attitude towards Poles, became director of the Institute.

When the Institute opened in 1898, 270 young men were enrolled, and by the academic year 1904/1905, this number had already increased to over a thousand. Graduates of grammar schools, real schools and those secondary schools deemed appropriate by the Ministry were eligible to apply. A prerequisite for admission to study at the Institute was to have passed the examinations in mathematics and physics and proof of fluency in Russian. The annual tuition fee was one hundred roubles, ten roubles less than at the Mechanical and Technical School of H. Wawelberg and S. Rotwand.

Among the young people studying, Poles accounted for the largest percentage. The Institute's records show that 76% of the students were Catholics and Protestants, 15% adherents of Judaism and 9% adherents of Orthodoxy.

The Warsaw Polytechnic Institute was a thriving European centre in terms of its development and scientific achievements. Many distinguished scientists of international repute worked at this school. One of the most eminent was Mikhail Semenovich Tsvet, a Russian of Italian origin, professor at the University of Warsaw and, from 1908 onwards, at Tsar Nicholas II

Polytechnic Institute. His work entitled „On some absorption phenomena and their application in analytical chemistry" was the basis for the birth of a new field of science – chromatography and the theory of column separation. With his 1906 publications in the prestigious German journal Berichte der Deutschen Botanischen Gesellschaft, the professor gained recognition in the scientific world. The basic theses put forward by Tsvet are still relevant today and have an enormous number of citations. In 1994, Polish chemists commemorated him with a plaque within the walls of the Institute of Archaeology (formerly Botany) at the University of Warsaw.

Georgy Wulf was a Russian crystallographer, an employee of the University of Warsaw and the Tsar Nicholas II Polytechnic Institute. He formulated, independently of William Henry Bragg and his son, the condition for the interference reflection of X-rays from lattice planes of a crystal and was the creator of the so-called Wulf lattice. In modern science, the mentioned „condition" is called the Bragg-Wulf Equation.

Georgy Fedosevich Voronoi, a Russian mathematician of Ukrainian origin, worked at the University of Warsaw and the Tsar Nicholas II Polytechnic Institute, where he headed the Department of Mathematics. He defined the so-called Voronoi diagram, also known as the chain fraction. His students included the eminent Polish mathematician Wacław Franciszek Sierpiński.

The Polish part of the Institute's staff did not lack outstanding scientists either. Among them was certainly Aleksander Wasiutyński, an employee of the Road Department of the Warsaw-Vienna Railway and a professor at the Polytechnic Institute named after Tsar Nicholas II, who conducted research into the changes occurring in rails during the movement of trains. He developed three new types of rail and very modern, for the time, methods of securing railway traffic.

The first Pole to achieve the title of full professor at the Institute was the architect Mikołaj Tołwiński.

In 1905, the revolution from Russia spread to the Congress Kingdom. At the Polytechnic Institute, the first signs of discontent among Polish students were already noticeable around 1903. Their consequence was a rally organised on 28 January 1905 in the Great Hall of the Main Building, demanding

Fig. 7.
Students of the Tsar Nicholas II Polytechnic Institute in 1903.

Fig. 8. The Main Building in 1905

the overthrow of the Tsarist regime and the introduction of Polish as the language of instruction at the Polytechnic Institute. As a result, the Institute was temporarily closed. In September 1905, the Russian authorities attempted to reopen it, thus contributing to a student strike. Many Russian students decided to return to Russia. The demands of the students who remained at the University were supported by some professors such as Aleksander Wasiutyński and Mikołaj Tołwiński, claiming that since the University had been built with Polish money, it was right that classes should be held in Polish. In this situation, the Russian authorities decided to close the Institute again, which remained closed until the autumn of 1908, when it reopened, retaining Russian as the language of instruction. Alexander Lagorio, who had been dismissed, was replaced by the Russian geologist and paleontologist Vladimir Prokhorovich Amalitskiy, formerly dean of the Faculty of Mining, who was the first person to be named rector of the Institute by the authorities. After 1908, the number of Poles studying began to decline, reflecting a boycott of the Institute. At that time, slightly more Russians studied at the University – about 59%, while the percentage of Jews remained unchanged at 15%, as before.

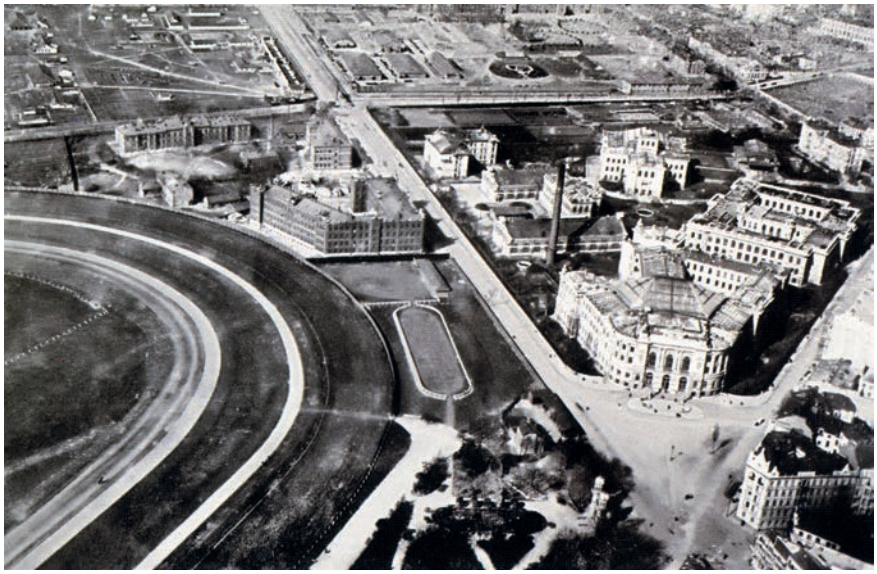

Fig. 9. The WUT main area from a bird's eye view – photograph taken in 1914

The Polytechnic Institute continued to function until 1914, but this was the declining period of the school's existence. With war approaching, the Russian authorities were preparing to evacuate the University deep into the Russian Empire.

The threat of a German offensive prompted the evacuation of movable property and teaching staff, including a sizable proportion of Poles, to Rostov in June 1915. Before departing, the Institute's Senate asked banker Peter Wertheim to curate the University's buildings and all that was left in them. The next stage of the evacuation took place from Rostov to Nizhny Novgorod, where the Nizhny Novgorod Polytechnic was opened on the basis of staff and movable property derived from Warsaw, and renamed the Nizhny Novgorod State University in 1918.

In the inter-war period, the Polish government demanded that the Soviet Union return the property it had taken away at the time. The Soviet government returned only part of the property, explaining that the rest had been used to build the Technical University in Nizhny Novgorod.

On 5 August 1915, the German army entered Warsaw. The University's history as the Tsar Nicholas II Polytechnic Institute came to an end.

3.
The beginnings of the Warsaw University of Technology in 1915

Fig. 10. Banner of the Warsaw University of Technology

In Warsaw, under German occupation, the Civic Committee of the City of Warsaw was constituted, consisting of, among others, Prince Zdzisław Lubomirski, a member of the Regency Council, and Count Bogdan Serwacy Hutten-Czapski, a Polish aristocrat, a trustee of the House of Hohenzollern. The Citizens' Committee was concerned with the creation of Polish education. With the consent of the German authorities, the Committee set up the so-called Higher School Section, divided into a university and a polytechnic section. The Polytechnic Section, headed by engineer Henryk Czopowski, dealt with the curriculum and announced a competition for lecturer positions. It was decided that the nascent Warsaw Polytechnic would establish a Faculty of Architecture, which was originally to be a component of the Academy of

Fig. 11. Medal on the occasion of the resurrection of the Warsaw University of Technology in 1915 – obverse and reverse

Fine Arts. On 2 November 1915, German Governor-General Hans von Beseler appointed Count Bogdan Hutten-Czapski as curator of the Warsaw University and the Warsaw University of Technology (WUT).

Count B. Hutten-Czapski, on behalf of H. von Beseler, presented the nomination for Rector of the Warsaw University of Technology to Eng. Zygmunt Straszewicz, who had been elected by the votes of the members of the Higher Education Section. Z. Straszewicz studied mathematics at the University of Warsaw, but interrupted his education for political reasons and went to Switzerland, where he continued his studies in mathematics at the University of Geneva and later at the Faculty of Mechanical Engineering at the Zurich University of Technology, receiving a diploma in mechanical engineering. On his return home he was arrested and imprisoned in the Citadel. After his release, he became a lecturer in mathematics and mechanics at the Mechanical and Technical School of H. Wawelberg and S. Rotwand. At the same time, the deans of the opening University were approved. From then on, the Faculty of Mechanical and Electrical Engineering was represented by engineer Stanisław Patschke, the Faculty of Civil and Agricultural Engineering by engineer Henryk Czopowski, the Faculty of Chemistry by Tadeusz Miłobędzki, PhD, and the Faculty of Architecture by architect Jan Dziekoński.

The Physics and Chemistry buildings remained at the disposal of the Warsaw University of Technology. The Main Building was used

Fig. 12. Finial of the dean's chain of the Faculty of Hydraulic Engineering with which the Warsaw University of Technology honoured B. Hutten Czapski – obverse and reverse with dedication: „Bogdan Hutten Czapski Superintendent of the Warsaw University of Technology 1915-1917. Donated on the tenth anniversary of the opening of WUT". A gift of Professor Mirosław Nader to the WUT Museum

Fig. 13. Ceremony for the awarding of an honorary doctorate to Count Bogdan Hutten Czapski by UW and WUT on 13 May 1931. Count B. Hutten Czapski (wearing a tailcoat) with the rectors of UW (M. Michalowicz) and WUT (A. Pszenicki) in Smogulc.

as a German military hospital except for the library rooms, which could be used for academic purposes. The administration of the University was located in a residential building at 75 Koszykowa Street.

On 15 November 1915, the inauguration of the first academic year of the Warsaw University of Technology took place. The ceremony was attended, among others, by Rector Z. Straszewicz, Prince Z. Lubomirski, Governor-General H. von Beseler, Superintendent Count B.. Hutten-Czapski, and the deans. The ceremony began with a mass celebrated by Warsaw Archbishop H.E. Aleksander Kakowski in St. John's Cathedral. R. Canon A. Szlagowski addressed the gathered from the pulpit. After the service, the second part of the ceremony took place in the Physics Auditorium, where Rector Z. Straszewicz and Governor-General H. von Beseler spoke. During the event, congratulatory addresses and telegrams from more than a hundred institutions and individuals were read out, expressing the joy of Polish society at the launch of the most important general technical university on Polish soil.

The Warsaw University of Technology (WUT) was to operate under the terms of a provisional statute, which was granted to the WUT and the University by Governor-General H. von Beseler on 2 November 1915. The statute revealed the heavy dependence of the WUT authorities on the German Governor-General, who had the right to appoint the Rector and the Vice-Rector. The WUT Senate consisted of the Rector, the Vice-Rector, four Deans, four representatives of the teaching body, one for each faculty, and the so-called Syndic. Meetings of the Senate were convened by the Rector and resolutions were passed by majority vote. Minutes of the proceedings were taken and signed by the Rector and the Secretary of the University. The first Vice-Chancellor of WUT was a Germanised Varsovian, a chemist by profession, Julian von Braun, brought to the capital from Wroclaw at the request of the German authorities. The former Rector of the University of Freiburg, and promoter of Ignacy Mościcki, Józef Wierusz Kowalski, became the Syndic. His association with the Warsaw University of Technology proved to be temporary, as in 1919 he became Poland's minister plenipotentiary to the Holy See. Unlike in modern times, the faculties then functioned without chairs, as H. von Beseler's provisional statute

Fig. 14. German and Turkish soldiers in the Main Building – 1916

did not provide for them. Instead, applicants for admission to WUT had to be at least sixteen years of age and have a secondary school certificate with a major in mathematics, elementary geometry, plane trigonometry, elementary physics, chemistry and basic natural sciences. The course of study lasted four years. The recruitment process was based on passing examinations. The announcement of the first of these was made by the University on 6 November 1915. The enrolment of 613 students, including fourteen women, was a sign of the progressive tendencies of the time. The most successful faculty was the Faculty of Mechanical and Electrical Engineering, where 31% of those who took the examinations chose to study. This was followed by the faculties of Civil and Agricultural Engineering, Chemistry and Architecture.

4.
Warsaw University of Technology in the inter-war period

Historical outline

In 1916, there was a change in the position of rector of the Warsaw University of Technology. Zygmunt Straszewicz was replaced by Stanisław Patschke, MSc, while Julian von Braun remained as Vice-Rector. On 24 August 1916, Governor-General Hans von Beseler granted the University a new statute extending the powers of the faculty councils. In May, violent student riots began, triggered by the German police's brutal suppression of demonstrations marking 1 and 3 May. The students demanded that WUT, as well as the University, be freed from German dependence.

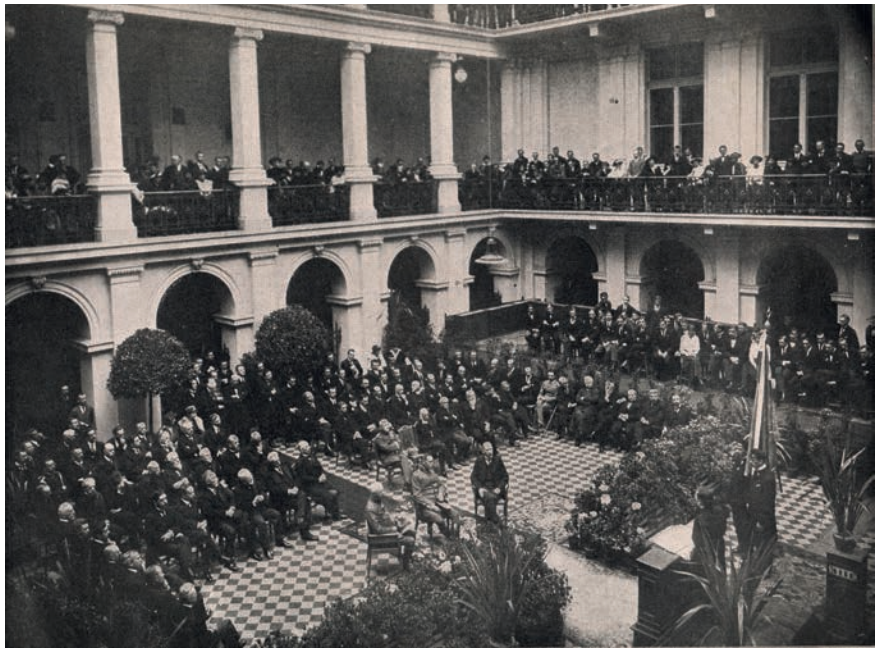

Fig. 15. Inauguration of the academic year 1916/1917

Although the WUT Senate agreed with the idea of student struggle, it opposed the tumultuous riots and therefore ordered the suspension of classes. Nevertheless, the student strikes continued, but when the protesters stopped paying the required fees for their studies, H. von Beseler on 22 June ordered WUT and University to be closed until further notice. All students who had not paid their fees were struck off the student register and, in addition, lecturers' contracts were not renewed. The political situation in the country was tense and as a result, on 1 October 1917. H. von Beseler published another statute, which gave the Warsaw University of Technology the possibility to confer professorships and other academic degrees. From then on, each rector became a vice-rector at the end of his term. The office of superintendent was abolished, although B. Hutten-Czapski had a positive record among the students of WUT. On 31 March 1919. Józef Piłsudski, the Head of State, approved the appointments of the first thirty ordinary and extraordinary professors of the Warsaw University of Technology. Among them were Józef Wierusz-Kowalski and Julian von Braun. The first professorial appointments at the Warsaw University of Technology enabled the creation of chairs. At the time, the term chair was understood to mean a full-time professorship, not an organisational unit. Under this system, an appointment as honorary or titular professor did not automatically entail the creation of a chair.

The Polish-Bolshevik war, which had begun and was taking an increasingly dangerous course, significantly affected the activities of the Warsaw University of Technology, as many students found themselves in the ranks of the army, which made it difficult for the University to function. The Senate asked the military ministry for the earliest possible release from service of the student population. In response, the Minister of War, by a decision of 14 March 1919, granted leave to half of the students for the winter semester and to the other half for the summer semester, allowing classes to begin. Two thousand students were then enrolled, almost all of whom had completed their military service. The WUT Senate decided to remain in the capital, even though many offices were being prepared for evacuation due to the Bolshevik offensive. In the summer of 1920, students of WUT, like young people from other universities, be-

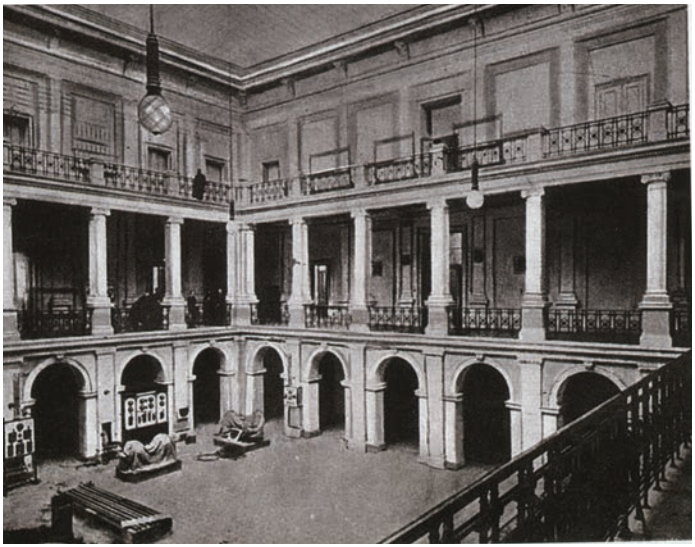

Fig. 16. The auditorium of the Physics Building in 1921

gan to enlist en masse in the army. At this time, the Warsaw University of Technology became an important military operations centre. In the Main Building, the staff of Lieutenant General Józef Haller and Colonel Włodzimierz Ostoja-Zagórski were located on the first floor. A military hospital was organised on the third floor. Part of the Mechanics and Architecture buildings were also given over to the army. On 25 November 1923, a ceremony was held in the Great Hall of the Main Building to unveil plaques dedicated to students killed in the Polish-Bolshevik War. Commemorating this history is part of the tradition of the annual solemn laying of flowers on 15 August in front of the plaques bearing the names of Warsaw University of Technology students killed in the defence of Poland's independence in the years 1918-1920 by representatives of the Warsaw University of Technology Alumni and Friends Association, the University authorities and the Senate's Committee for History and Tradition.

During this difficult period for Poland, the Prime Minister of the Republic was Antoni Ponikowski. As a scientist, he specialised in applied geodesy and served as rector of the Warsaw University of Technology in 1921-1922 and 1923-1924. He was also an activist of the National Democratic Party and a member of the Board of the Polish Christian Democracy Party.

Mościcki Ignacy (1867–1946)
graduate of the Technical University in Riga, professor at the Technical University of Warsaw, rector of the Technical University of Lviv (1925/1926), activist of the Second Proletariat party, independence activist, President of the Republic of Poland 1926-1939, researcher at the University of Freiburg. He improved and popularised the method of extracting nitrogen from the atmosphere, using a rotating electric arc.

The repulsion of the enemy offensive and the end of the war in 1921 restored the normal functioning of the University. The new statutes of WUT, issued based on the Sejm Act on Academic Schools of 13 July 1920 and approved by the Minister of the Commission for Religious Denominations and Public Enlightenment, extended the autonomy of the University and defined the functioning of WUT in more detail. Among other things, the Statutes stated that the scientific and teaching staff of the University consisted of honorary professors, ordinary professors, associate professors, assistant professors, teachers of special subjects and lecturers. The first graduates of the Warsaw University of Technology left the walls of the University with such titles as road and bridge engineer, hydraulic engineer, mechanical engineer, electrical engineer, chemical engineer, geodetic engineer or certified architect (from 1928 – engineer architect). By law, the term of office of the rector was one year. In 1921 the Senate of the University adopted the design of the emblem of the Warsaw University of Technology by a student of the Faculty of Architecture, Jan Ogórkiewicz. Three years later, in 1924, the Warsaw University of Technology awarded the first honorary doctorate, which was conferred on 11 January 1925. This honourable academic title was conferred on Professor Ignacy Mościcki, then a lecturer at the Warsaw University of Technology and Rector of the Lviv University of Technology, Aleksander Rothert and Karol Pollak. In the academic year 1925/1926, honorary doctorates were awarded to the following outstanding scientists: Maria Skłodowska-Curie, Józef J. Boguski and again Ignacy Mościcki. After Józef Piłsudski's coup d'état in 1926, Professor Ignacy Mościcki was elected President of the Republic of Poland.

Fig. 17. President Ignacy Moscicki in the WUT laboratory viewing an experiment with liquid carbon disulphide at low temperatures

In 1931, due to the developing economic crisis, austerity measures became necessary. The number of optional and elective classes was reduced at the University, which aroused student dissatisfaction. In 1932, the Commission for Religious Denominations and Public Enlightenment (WRiOP) presented a draft of a new Act on Higher Education to Polish universities. This act differed significantly from the previous one, as it made significant changes to the structure of universities. Chairs became organisational units within the faculty from that moment on. In addition, any change in the name, closure or creation of a department required an appropriate decree in the Journal of Laws of the Republic of Poland. The bill was drafted in such a way as to allow the ministry to interfere in the internal affairs of the university in exceptional cases. As the draft restricted the University's freedom of action quite severely, it thus provoked heated protests and a strike. Rector Wiesław Chrzanowski resigned as a sign of disapproval of the new law, but the University Senate did not accept this

Fig. 18. 1936 WUT students' strike in the Great Hall of the WUT Main Building

resignation. Finally, by the votes of the Sejm and the Senate, the Act was passed in March 1933, albeit in a somewhat mitigated form. In 1935, the University Professor Wojciech Świętosławski was appointed Minister of the Commission for Religious Denominations and Public Enlightenment. The tuition fee increases announced at that time again provoked a strong reaction from the students. 9 March 1936 saw the beginning of a two-day student occupation strike of the Main Building, during which there were violent brawls between supporters of the National-Radical Camp and the

strikers. The building was surrounded by police.

As a result, some fees were reduced, although poorer students were still unable to afford the tuition fees, resulting in their removal from the student list. In such an atmosphere, the riots continued, taking the form of fights between left-wing students and ONR (National Radical Camp) supporters. In 1937, this provoked a reaction from Minister Wojciech Świętosławski, who dissolved all political student associations and suspended the self-help ones. Eventually, as a result of his efforts, changes were made to the most controversial provisions of the law.

In the period before the outbreak of the Second World War, the staff of the Warsaw University of Technology consisted of, among others, sixty-six professors (including three contract professors and two honorary professors) and two deputy professors. The number of students in the academic year 1938/1939 was around 6,000.

Infrastructure development – main campus buildings

The majestic Main Building of the Warsaw University of Technology is pentagon-shaped in plan. It has four storeys, with the ground floor lowered below the pavement. At the beginning of the 20th century, the lowering was about 1 m. In the Main Building, during the interwar period, the

Świętosławski Wojciech Alojzy (1881–1968) physicochemist, graduate of the Kiev University of Technology, lecturer in organic chemistry, physics and thermodynamics at Russian secondary schools, professor and rector at the Warsaw University of Technology (1928-1929), minister of the WRiOP (Commission for Religious Denominations and Public Enlightenment) (1935-1939), lecturer at Iowa State University and the University of Pittsburgh. He was one of the founders of modern thermochemistry, ebuliochemistry and cryometry. In his facility, the theoretical basis and mechanisms of the so-called Guinot process were elucidated in 1950. He invented various types of calorimeters, ebulliometers, cryometers. He held honorary doctorates from, among others, Lomonosov University in Moscow and Humboldt University in Berlin, and was repeatedly mentioned as a candidate for the Nobel Prize.

Fig. 19. The Main Building of the Warsaw University of Technology in 1939

ground floor housed: Library, Fraternal Aid Society, research facilities and auditorium. On the first floor, the Rector's Office of the Warsaw University of Technology with a waiting room was located on the left, as well as the Secretariat, the Bursar's Office and the Intendant's Office. On the right were the meeting room, the professors' waiting room and six deans' offices. The auditorium, professors' offices, departments and lecture theatres were located on the second floor. The third floor, like the floor below, housed the professors' offices, lecture rooms and drawing rooms.

In its floor plan, the Physics Building is reminiscent of a square. Originally, the front part of the edifice was dedicated to physics and the rear part to electrical engineering. The assembly hall was occupied by the Electrical Engineering Department. The ground floor housed the cloakrooms, workshops and scientific laboratories of physics, and on the electrical engineering side the Weak Current Laboratory and the High Voltage Laboratory. On the second floor were the offices of the professors of physics and electrical engineering, the electrical engineering auditorium, the Radio Engineering Laboratory, the drawing room for the students of the Electrical Faculty and the Electrical Engineering Metering Department.

The Chemistry Building was completed in 1901. The three-storey building housed three auditoriums. In the early years of the Warsaw University of Technology it housed the departments of: General Chemistry, Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Inorganic Chemical Technology and Large Inorganic Industry, Organic Chemical Technology and Carbohydrate Technology, Large Organic and Dyeing Industry Technology, Fermentation and Food Products Technology.

The Mechanics Building, located on the side of Nowowiejska Street, was built according to a design from 1898 by architect Bronisław Rogójski. Construction was completed in 1901. The building, now known as the Old Boiler House Building, housed a boiler house, a machine hall with a 200 kW DC power plant and a heating and ventilation centre. The Mechanics Building was used for teaching in the laboratories: Strength of Plastics, Metalworking and Aerodynamics. Between 1919 and 1923, the Mechanics Building was expanded. It housed the Mechanical Engineering Laboratory, and the premises of the former power station housed, among other things, a steam boiler, steam turbines and a diesel engine. In 1922, construction of an additional building adjacent to the Old Boiler House Building began on the side of Nowowiejska Street. For its construction, materials were obtained from the demolished St. Alexander's Cathedral on Saski Square, now Marshal Józef Piłsudski Square in Warsaw.

The New Drawing Hall building, designed by Tadeusz Zieliński, was completed in 1922. Six drawing rooms were located in the two front wings, with professors' offices on two floors. The basements housed changing rooms, model collections and a buffet. The frontage was decorated with bas-reliefs by the artist Jan Maria Jakóbowski.

The Aerodynamics Building was constructed in connection with ambitious plans for the development of the aviation industry, and at the same time thanks to outlays from the Ministry of Military Affairs, the National Air Defence League and contributions from the public. It was built on the site of the former Ujazdowski Cemetery, dating from 1831-1837, and was designed by architects Franciszek Lilpop and Karol Jankowski. The building was put into use in 1926, although finishing work continued for some time.

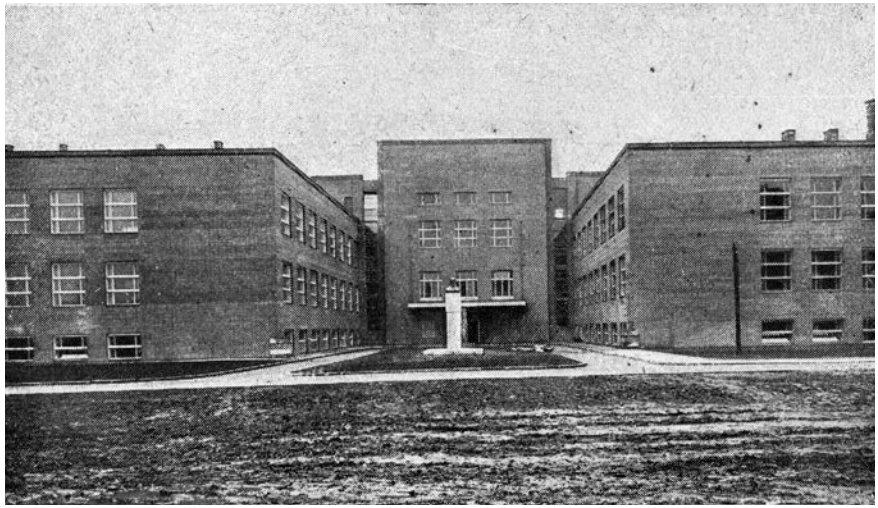

Fig. 20. Chemical Technology Building and the monument of President Ignacy Moscicki

The Chemical Technology Building was designed by Czesław Przybylski. Its construction owed much to the personal involvement of the President of the Republic of Poland, Ignacy Mościcki. The construction of the 1,567 sq. m. edifice was a major investment by the Polish state, the cost of which was calculated at 3,893,000 zlotys. It housed: Departments of Metallurgy and Metal Science, Explosives Technology, Inorganic Chemistry Technology, Large Organic and Dyeing Industry, and Fermentation and Food Products Technology. The Chemical Technology Building was completed gradually between 1934 and 1935.

The Electrical Engineering Building was a concurrent, and similarly costly, investment by the Polish state. It was built to a design by the architect Czesław Przybylski, while the management of the design of the electrotechnical laboratories was entrusted to Professor Kazimierz Drewnowski. The building housed the departments: Electrical and High Voltage Metering, Radio Engineering and Telecommunication Engineering. The building was put into use in 1934, but finishing work continued until the outbreak of war.

The Faculty of Architecture received the building of the 5th Gymnasium at 55 Koszykowa Street from the city council, which has been the seat

of the faculty ever since. However, it was not until 1921 that the building was fully adapted for academic purposes, as it was used as a military hospital due to the ongoing war.

Organisational structure – faculties and departments of the University of Technology

Over the years, the organisational structure of the Warsaw University of Technology has undergone multiple changes. Faculties have changed their names, new units and positions have been created. The oldest Faculty of the Warsaw University of Technology is the Faculty of Chemistry, which already existed at the Preparatory School for the Polytechnic Institute. In 1916, it changed its name to the Faculty of Chemistry. By order of the Vice-Rector Julian von Braun, the lecture courses in organic and inorganic chemistry of the Warsaw University of Technology and the University of Warsaw were incorporated into the curriculum of the First Chemical Institute of the Warsaw University of Technology and the University of Warsaw. Von Braun himself became director of the resulting Chemical Institute. His

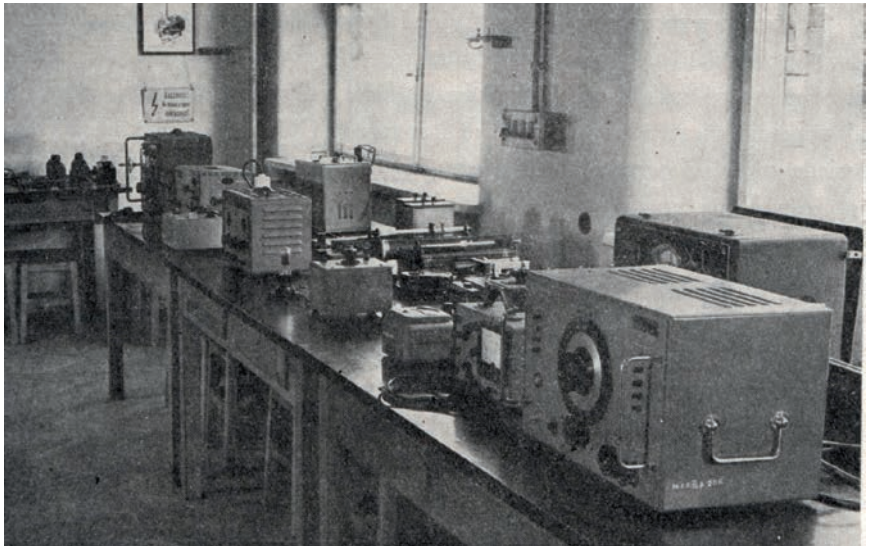

Fig. 21. Electrical metrology laboratory

jurisdiction included the University Chemistry Building as well as the budget and authority over assistants. In the autumn of 1917, when all education came under Polish curatorship, the Polytechnic Institute was abolished and the Faculty of Chemistry was divided into ten departments. In the academic year 1928/1929, the name Faculty of Chemistry was reverted to.

The Faculty of Mechanical and Electrical Engineering became known as the Faculty of Mechanical and Electrical Engineering in 1916. In 1921, the Faculty of Mechanical Engineering and the Faculty of Electrical Engineering were separated from it.

The Faculty of Mechanical Engineering at its inception had the Department of Boiler Machinery and Equipment later renamed: Department of Locomotives, Department of Machine Parts, Department of Water Engines and Pumps, and Department of Home and Factory Health Equipment transformed into Department of Labour and Industrial Enterprises Organisation. In agreement with the Department of the Navy, lectures on ship machinery and shipbuilding were introduced in the Faculty. The Faculty of Mechanical Engineering consisted of four departments: General Engineering (later Construction), Communication Engineering (later Communication), Aeronautical Engineering and Technology.

In the separate Faculty of Electrical Engineering from 1921 to 1923, the departments were: Mechanical Devices, Experimental Physics, Metering Electrical Engineering, and Weak Currents. In the academic year 1924/1925, the name of the unit was changed to the Electrical Faculty, which was divided into the departments of Strong Currents, Weak Currents and Radio Engineering.

The origins of the Faculty of Architecture, on the other hand, can be sought in the Faculty of Engineering and Construction of the Tsar Nicholas II Polytechnic Institute. The initiative to establish the Faculty of Architecture came from the Circle of Architects grouping students from foreign universities (Russia, Germany, Austria, Italy) and the Institute. The Faculty of Architecture was constituted in 1915, and in 1922 it issued the first diplomas of graduate architects. By the mid-1920s, the Faculty had as many as ten chairs: Building, History of Art and Ancient Architecture, History of Medieval Art, History of Modern Art, History of Polish

Architecture, Rural Design, Urban Design, Monumental Design, Urban Construction, Hand Drawing and Architectural Drawing.

Established in 1915 the Faculty of Civil and Agricultural Engineering was already divided into the Faculty of Construction and the Faculty of Agricultural Engineering in 1916. The Faculty of Building was transformed into the Faculty of Civil Engineering on 14 June 1921. In the 1920s the faculty consisted of two divisions: Communication (bridges, roads) and Urban (city construction, city architecture, sewerage and water supply).

The Faculty of Agricultural Engineering, after one year of operation, was renamed the Faculty of Water Engineering on 1 October 1917. In the 1920s the faculty was made up of two departments: Water Construction and Water Power Exploitation, and Water Drainage. There were six chairs in the faculty: Surveying, Water Engineering I, Water Engineering II, Sewerage and Water Supply, Land Reclamation, and Political Economy. Between 1926 and 1937, the head of the Chair of Water Engineering II, Professor Mieczysław Szczęsny Rybczyński, organised a water laboratory in the Main Building of the University, at that time the first installation of this kind in Poland, which was unfortunately destroyed during the Warsaw Uprising.

In the academic year 1921/1922, the Faculty of Metering began operating at the Warsaw University of Technology, which was established on the initiative of the Ministry of Public Works, the Main Land Office and the Circle of Metering Engineers at the Technicians' Association. The determination of the study profile of the new faculty was entrusted to the Council of the Faculty of Water Engineering. The name of the faculty was modelled on the analogous name of the faculty already functioning at the Lviv Polytechnic University. In its first years of operation, the Faculty had three Departments of Metering (I, II, III) and consisted of three plants. On 1 September 1925 the Faculty of Metering was renamed the Faculty of Surveying.

On 26 September 1933, by a decree of the Council of Ministers, the faculties of Civil Engineering, Water Engineering and Surveying were merged into the Faculty of Engineering. From then on, there were six faculties at the Warsaw University of Technology until the outbreak of war in 1939.

Extra-curricular and military activities

In addition to the subjects of science and technology, lectures on political economy were given at the Warsaw University of Technology of the interwar period. The University had a Department of Political Economy, Statistics, and Treasury functioning in the Faculty of Water Engineering. Lectures in economics began in the academic year 1917/1918. The lecture schedule provided for three hours of compulsory lectures per week throughout the academic year. The hourly dimension of the lectures varied in different faculties between two and four hours. Political economy lectures were compulsory at all faculties except the Faculty of Architecture. Usually, the economics lecture course was conducted in the last or penultimate year of study. The first lecturer to teach this subject at the Warsaw University of Technology was Władysław Zawadzki, PhD.

In the academic year 1927/1928, technical-military studies were introduced at the Warsaw University of Technology, in three faculties (Mechanical, Electrical, Chemical). A Department/Section of Armament was established at the Faculty of Mechanical Engineering, a Section of Military Electrical Engineering at the Faculty of Electrical Engineering, and a Department of Chemical Weapons at the Faculty of Chemistry.

Library

The book collection inherited from the Tsar Nicholas II Polytechnic Institute in 1915 numbered 1,500 book publications and pamphlets. In 1916 the Library was granted a statute. Under the statutory arrangements, the Library was governed by a Library Commission consisting of six faculty delegates and a chairman elected by the Senate of the Warsaw University of Technology. A librarian subordinate to the Rector, five clerks and two caretakers were employed full-time in the Library. In 1938 the entire library stock comprised 73,389 volumes and 516 journals.

5.
Student organisations

Academic Legion

The Academic Legion was formed in November 1918 to defend the independence of the Republic of Poland. Of the approximately 3,200 students of Warsaw universities (WUT, UW, SGGW and SGH) serving in various military formations, 1,200 formed a branch of the Academic Legion (including over 450 from the Warsaw University of Technology). The Academic Legion, as the 36th Infantry Regiment, in 1920 took part in, among other things, the Lviv and Russian campaigns, the defence of Warsaw and the pursuit of the enemy after the Battle of Warsaw. In the 1930s, she intermittently conducted military training for students. During the September campaign of 1939. Among other things, the Legion joined in the defence of Modlin, and in 1944 it was a participant in the fighting in the Warsaw Uprising. In May 2000, the Academic Legion was reactivated by veterans of the 36th Infantry Regiment..

Fig. 22. Officer's badge of the 36th PP (Infantry Regiment) of the Academic Legion from 1928 with miniatures of the coats of arms of Warsaw universities

WUT Fraternal Aid Society

On 24 November 1915, the idea of founding a Society of Fraternal Aid to Students (Bratniak) of the Warsaw University of Technology was conceived in the circle of students at the Warsaw University of Technology. An Organising Committee was set up and consultations began with the Rector Zygmunt Straszewicz, to whom a draft statute was presented. On 18 December 1915, the founding meeting of the Society was held and 334 students joined. By the mid-1920s, the number of members had risen to 3,000. The Society was divided into committees: Non-Permanent Income, Publishing,

Scholarship and Qualification, Placement, Stall and Library. In 1916-1917 the Society set up an Economic Committee and opened a cheap tea room. The tasks of the Fraternal Aid Society were to obtain monetary allowances, to support the activities of student research groups with loans, to organise medical care for students, take initiatives in the provision of lunches and to obtain lodgings. The Publishing Committee oversaw publishing scripts and books. The Society also undertook the organisation of camps and holidays, sending students to resorts on the Baltic coast and to the Health House in Zakopane. The Fraternal Aid Society contributed to the publication of the Akademik weekly and the organisation of the ball „Warsaw to its University". The Society was headed by a president and vice-president. The Board of Bratniak in the mid-1920s consisted of twenty-one people. About 70-80 people were active in committees. The Society's patrons were the rectors of Warsaw University of Technology: Professor Zygmunt Straszewicz, Professor Stanisław Patschke, Professor Ignacy Radziszewski, Professor Czesław Skotnicki, Professor Leon Staniewicz and Professor Jan Zawidzki.

In 1921, the Senate of the Warsaw University of Technology legalised the activities of the Mutual Aid of Jewish Students of the University. Three hundred students enrolled in this organisation, which accounted for about 60% of the Jewish students at the Warsaw University of Technology.

Student corporations

Among the student organisations that began their activities with the opening of the Warsaw University of Technology in 1915 were student corporations. The first corporation to register at the Warsaw University of Technology was Sarmatia, which was founded in 1908 by Poles studying in St. Petersburg. The members of Sarmatia wore caps with a brown brim, modelled on the brown caps of the students of the Warsaw University of Technology. In 1916, the Weletia corporation appeared at the University. It was formed by members of the Weletia Circle in Riga, who had decided to stay in Warsaw because of the war turmoil. In 1918, during the gaudi of the 35th anniversary of Weletia, the members of this corporation officially recognised Warsaw as the seat of the organisation. In the academic year 1917/1918, a third stu-

dent corporation, Arkonia, was formed. Thus, the Warsaw University of Technology became the seat of three significant corporations. Later, other, less well-known corporations such as Maritimia, ZAG Wisła, Aquilonia also appeared. In 1921, the Presidium of Sarmatia organised the First Nationwide Congress of Polish Academic Corporations, which took place on 16-18 April 1921 at the Warsaw University of Technology. The Corporate Ideology was then adopted, and the Warsaw University of Technology became an important centre of corporate life in the interwar period. In May 1923, the Third Corporate Convention was held at the Warsaw University of Technology, which passed a number of proposals of ideological and educational nature. In September 1924, the Warsaw University of Technology hosted the Second Congress of the International Confederation of C.I.E. Jozef Podoski from the Arkonia corporation became the General Commissioner of the Congress. The corporations enjoyed a great deal of sympathy among the University community. Members of the corporations included the rectors of the WUT: Czesław Skotnicki (Arkonia), Jan Zawidzki (Arkonia), Professors: Henryk Czopowski (Welecja), Jan Podoski (Arkonia), Marian Świderek (Welecja), Włodzimierz Piotr Zych (Sarmatia), Stanisław Kunstetter (Sarmatia), Bohdan Pniewski (Welecja), Mieczysław Bekker (Maritimia) and many others. The Sarmatia Academic Corporation is also active today, already outside the structures of the University, maintaining historical ties with the Warsaw University of Technology, among other things cultivating common patriotic traditions.

Bekker Mieczysław Grzegorz (1905–1989) graduate of the Faculty of Mechanical Engineering at the Warsaw University of Technology, participant in the September Campaign, professor at Michigan State University in Ann Arbor. As part of a NASA programme, he led the team that developed the Lunar Roving Vehicle (LRV). This vehicle was launched to the moon during the Apollo 15 mission in 1971.

Student Research Groups

JEven in the early days of the Warsaw University of Technology students undertook numerous self-help initiatives, which were reflected in the establishment of student research groups providing support for education,

Groszkowski Janusz (1989–1984) graduate of the Warsaw University of Technology, Professor at the Chair of Radio Engineering of the Electrical Faculty of the Warsaw University of Technology, Member of the Sejm of the People's Republic of Poland for the sixth term, Deputy Chairman of the Council of State, Nobel Prize candidate. He contributed to the deciphering of the control systems of V1 bombs and V2 rockets. He was the creator of the method of analysing non-linear electrical oscillations known as the „Groszkowski harmonic method".

Fig. 23. Badge of the WUT Student Mechanics Association

obtaining internships, organising camps and trips to holiday resorts and job placement. The greatest number of student research groups were founded between 1915 and 1916, with the Electricians' Student Research Group and the Chemists' Student Research Group being among the first. The idea for them dates back to late 1915.

One of the initiators of the establishment of the Electrical Engineers' Student Research Group was Janusz Groszkowski, a student at the time, later to become an eminent professor and world-renowned scientist. The official date of the establishment of the Electrical Engineers' Student Research Group is 29 February 1916. Its first curator was Rector Z. Straszewicz. In the mid-1920s the Electrical Engineers' Student Research Group had 800 members and organised excursions to power stations and factories, and co-published the „ Student Research Group Magazine". In 1924, members of the Student Research Group of Electrical Engineers formed the Section of Radio Engineering and Weak Currents.

The Chemists' Student Research Group was established at an organisational meeting on 15 December 1915, and the first general meeting was organised by the Group's board as early as January 1916. The Group aimed at scientific and material self-help and the establishment of social relations in the faculty. In 1918, due to the riots, the Group was suspended and reactivated in November 1919 under the name of the Research Group of Chemistry Students of the Warsaw University of Technology. By the mid-1920s it had three hundred members.

February 1916 saw the further intensive development of student research groups. As early as the first day of that month, the Mechanics' Student Research Group was founded with the aim of exploring technical knowledge and familiarising future engineers with the conditions

of development of Polish industry at the time. Its members represented the students of the Faculty of Mechanical Engineering outside the department and outside the Warsaw University of Technology. The Mechanics' Student Research Group also organised excursions to factories in the country and abroad. On the initiative of twenty students in the Group, the Aeronautical Section, later known as the WUT Aviation Section, was formed. Thanks to the kindness of the military authorities, the Section was given the opportunity to work at the Central Aviation Works, where three gliders were built with the participation of students from the Section. One of these, the SL-1 ‚Akar', received an award at a competition in Czarna Góra in 1923. The Mechanics' Student Research Group had four hundred members in the mid-1920s. The students active in the Section, Stanisław Rogalski, Stanisław Wigura and Jerzy Drzewiecki, designed the JD-2 sport aircraft in 1926, which proved to be a considerable achievement. In 1927, they constructed the famous RWD two-seater sports aircraft. In the international Challange competition of 1934, the RWD-9 aeroplane achieved a great victory. Polish crews took first and second place.

On 5 February 1916, the statutes of the Engineering Students' Student Research Group were adopted at the general meeting of the Faculty of Civil and Agricultural Engineering. In 1921, the organisation was renamed the Civil Engineering Student Research Group. From the beginning, the Group organised excursions to domestic and foreign factories and plants. The Groupe participated in the publication of the journal „Ars Technica" and managed to accumulate nearly 650 volumes in its book collection. In 1923, the Communication Section was separated from the Group. By the

Pszenicki Andrzej (1869–1941) graduate of the Faculty of Physics and Mathematics at the University of St. Petersburg, assistant and then head of the department at the University of St. Petersburg, WUT professor. He designed and built 11 wooden, 5 stone and 27 steel bridges in St. Petersburg. Between 1909 and 1919 he was co-developer of the road-rail bridge over the Volga in Saratov. At the time, it was one of the longest bridges in Russia at 2250 m.

Fig. 24. Badge of the Civil Engineering Association of WUT students

early 1920s, the Group had two hundred members. The Group's patrons were such eminent professors as Aleksander Wasiutyński and Andrzej Pszenicki.

At the beginning of February 1916, the Agricultural Engineering Student Research Group was founded, which became the Water Engineering Student Research Group in 1921. Already in its first period of existence, its members took care to complete a library, and in 1917 they participated in holiday internships in the following fields: soil science, land reclamation, geology and surveying. The students had the opportunity to visit, among other places, Gdańsk and the harbour under construction in Gdynia. In 1922, a new statute for the Group was adopted. The Group took care to familiarise students with the latest trends in European science and technology by travelling to Italy, Germany and Switzerland, among other places. The Group enjoyed the patronage of Rectors Czesław Skotnicki and Antoni Ponikowski.

In June 1916, the Union of Architecture Scholars was constituted, developing intensive activities in terms of competitions, lectures and exhibitions. The Union organised annual domestic excursions to Gdansk, Krakow, Lublin, Lvov, Vilnius and Zbarazh, among other places. Foreign tours visited Vienna, Rome, Trieste, Budapest, Paris, Chartres and Cologne, among others. The organisation attached significant importance to interpersonal relations, which were always particularly good at the Faculty of Architecture, and a fraternal atmosphere prevailed among the students.

In February 1922 the Senate of the Warsaw University of Technology officially legalised the Measurers' Student Research Group, which took charge of organising field exercises in the field of metrology, finding housing and food for the faculty students, and collecting books for the Group's library. Professor Edward Warchałowski provided much assistance to the Measurers in this respect. In the 1920s, the library had a collection of 235 books. The Measurers' Student Research Group was also involved in publishing, publishing important scripts of the time such as „Physical Levelling" and „Polygonometry". An excursion to the optical instrument factory „Gerlach" was organised. The Measuring Student Research Group had ninety-five members at that time.

6.
German occupation period 1939–1945

Wartime activities and the German occupation caused great personnel and material losses at the Warsaw University of Technology. In October 1939, the German army occupied the Main Building. The governor of the Warsaw district, Ludwig Fischer, communicated to the rectors of the Warsaw University of Technology and Warsaw University that the universities would be closed. Shortly afterwards, salaries for academic staff were stopped. In 1940, the German authorities gave permission for eight factories to operate on the grounds of the Warsaw University of Technology. These were to take orders for the German army. Among these establishments were the Materials Research Facility and the Building Research Facility. The Aerodynamic Institute was separated from the Technical University and was henceforth subordinate to the Aerodynamic Institute in Brunswick. The Department of Metallurgy and Metal Science, headed by Professor Jan Czochralski, collaborated underground with the Polish resistance movement, and the Professor himself, through his connections, helped Poles who had been arrested to regain their freedom.

Czochralski Jan (1885–1953) attended lectures at the University of Berlin and the Technical University of Charlottenburg, employee of Kunheim & Co., head of the steel and iron research department at the Allgemeine Elektricitäts Gesellschaft, professor at the Warsaw University of Technology, honorary doctor of the Warsaw University of Technology. Inventor of a tinless bearing alloy called B metal. His most important discovery was the development of a method for measuring the rate of crystallization of metals called the Czochralski method. Its subsequent application to the production of silicon monocrystals led to a worldwide revolution in electronics. Professor Jan Czochralski has become one of the most quoted Polish scientists in the world's technical literature.

Educational activities did not die out in the University circles despite the extremely unfavourable conditions. Semi-confidential and semi-concealed teaching and research activities were carried out by vocational schools closely linked to the Warsaw University of Technology and managed by the university's staff. These were the Electrical School headed by Professor Roman Trechciński, the Metalworking School headed by Assistant Professor Kazimierz Gierdziejewski and the Civil Engineering School headed by Professor Edward Warchałowski. Classes were held in the premises of the Warsaw University of Technology. The schools had a 2-year curriculum with an unofficial extension of knowledge. In 1940, Technical Drawing Courses were launched, organised by Zenon Jagodziński, a senior assistant at the Warsaw University of Technology. The war effort of the Third Reich was so great that the occupier was keen to make use of Polish, and especially University resources. As a result, he agreed to the opening of the State Higher Technical School (PWST), which commenced operations on 1 April 1942. The school initially had four faculties: Construction with the departments of Communications and Water and Construction; Electrical with the departments of Telecommunica-

Fig. 25. Professor Aleksander Bojemski during classes at PWST (State School of Technology)

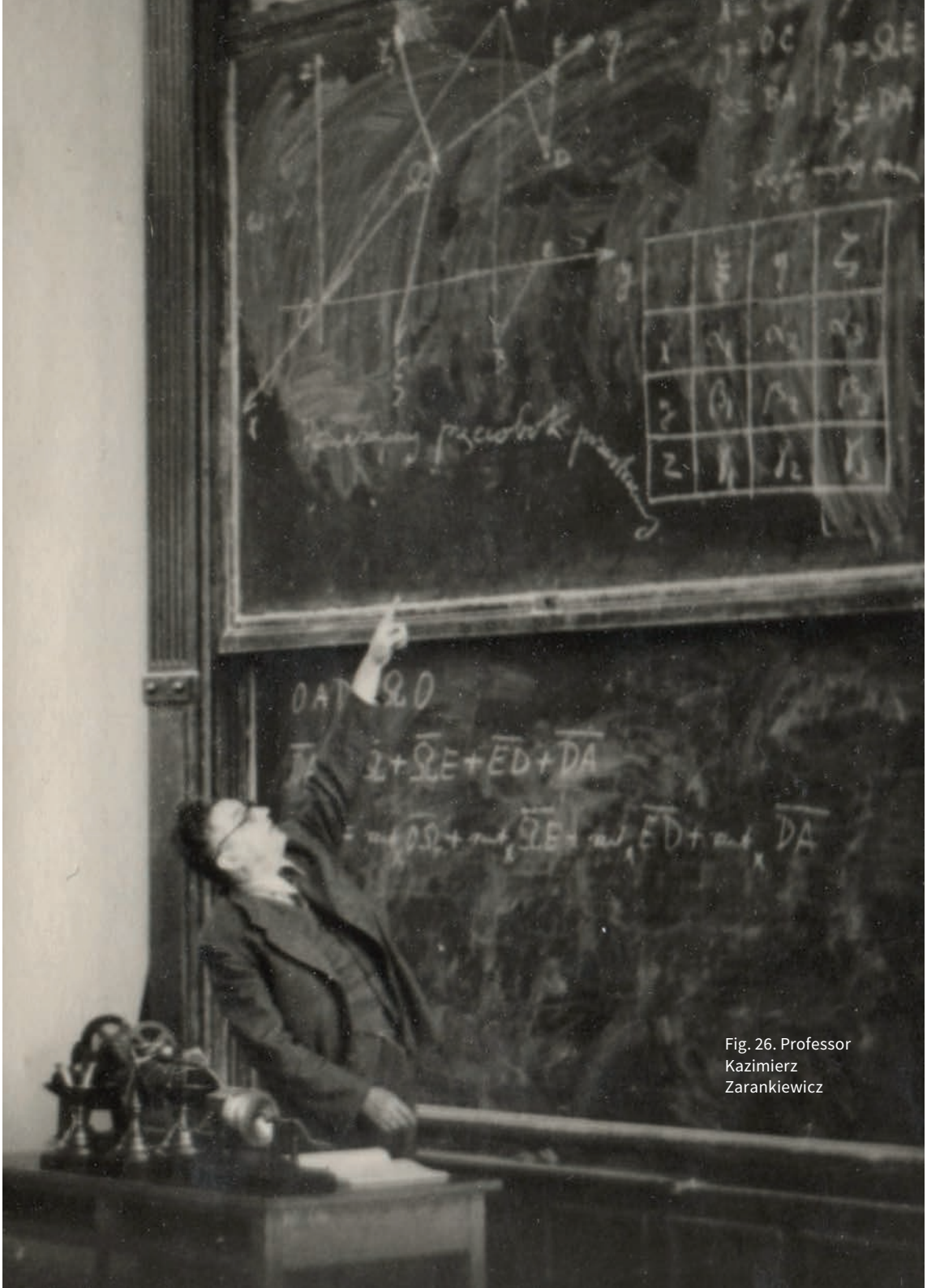

Fig. 26. Professor Kazimierz Zarankiewicz

Zawadzki Józef (1886–1951) graduate of the Jagiellonian University and Karlsruher Institut für Technologie, specialised in chemistry. Professor at the Warsaw University of Technology and twice Rector of this University in 1936-1939. Member of international scientific societies: Conseil de l'Union Internationale de Chemie and the Faraday Society. Many of the physico-chemical constants determined in Zawadzki's work entered international tables. The main thrust of his work was the study of the Ca-O-S system for the use of sulphur from sulphuric acid sulphate and cement.

tions and Electrical Engineering; Mechanical Engineering with the departments of Construction and Technology; and Technical Chemistry. In the autumn of 1942, an additional Faculty of Measurement was launched.

Almost the entire staff of the PWST consisted of former employees of the Warsaw University of Technology. Professor Albert Guettinger, a German, was appointed director of the School. WUT professor Bolesław Tołłoczko was appointed deputy director. Among the lecturers was also the rector of WUT from the years 1936/1939, Professor Józef Zawadzki. His son Tadeusz Zawadzki, pseudonym „Zośka", a second lieutenant of the Home Army, was killed in a clash with the Germans in Sieczychy, in 1943.

A total of 1,500 students began their education at the School. Only Poles were entitled to acquire knowledge at PWST. Classes were held in lecture theatres of the Warsaw University of Technology. During the School's operation, 186 graduates received an engineering diploma. The State Higher Technical School ceased to function with the outbreak of the Warsaw Uprising. Independent of the official PWST, there was a clandestine University of Technology, whose acting rector was the pro-rector Stefan Straszewicz. Classes were held in conspiracy, including the awarding of academic degrees.

Outside of Warsaw in 1943/1944, Architectural Courses were organised as an agency of the Warsaw University of Technology. Their launch was due to a senior assistant from the Faculty of Architecture at the Warsaw University of Technology, engineer Stefan Żychoń. On the other hand, in the autumn of 1944, the University Courses were launched in Zakopane, co-organised by Maksymilian Tytus Huber, a well-known professor

at the Warsaw and Lviv University of Technology. Officially, they operated as drawing courses. In November 1944, Academic Courses were launched in Kielce, headed by the rector of the Warsaw University of Technology Edward Warchałowski.

Professors of the Warsaw University of Technology also took individual actions to support the fight against the occupying forces. An example is Professor Janusz Groszkowski, who developed transmitters for the Home Army to facilitate the establishment of communications and had a hand in deciphering the control systems of V1 missiles and V2 rockets.

The Warsaw University of Technology suffered tremendous damage from the German army especially during the Warsaw Uprising. The 3rd Armoured Battalion of the Home Army ‚Golski' fought against the occupiers in the area of the Southern City Centre, including the main area of the University. Clashes in the area began on 5 and 6 August 1944. After heavy fighting and bombing, which led to the devastation of the University buildings, the Germans captured the University on 19 August. Approximately 30% of the staff of the Warsaw University of Technology perished during the war. Among them were professors such as Stefan Bryła, Aleksander Bojemski, Roman Trechciński, Marian Lalewicz, Kazimierz Wóycicki, Oskar Sosnowski and many others. Most of the School's equipment was destroyed. Burnt out and largely collapsed were, among others, the Main Building, the Building of Chemical Technology, the Building of Physics, the Building of Electrical Engineering. The entire University archive was also burnt down during the uprising.

Huber Maksymilian Tytus (1872–1950), graduate of the Lviv Polytechnic School, professor and two-time rector of the Lviv Polytechnic (1914-1915 and 1921-1922), member of international scientific societies, including the International Society for Testing Materials, the Czech Masaryk Academy of Labour. He was head of the Department of Mechanics at the Warsaw University of Technology. He conducted research on the strength of materials, theory of elasticity, theory of plasticity and plate theory. He formulated a hypothesis called the Huber Mises-Hencky hypothesis on strain.

7.
Post-war period – times of reconstruction

In 1944, the Ministry of Education under the Polish Committee of National Liberation (PKWN) decided to reopen the Warsaw University of Technology, temporarily in Lublin, as the Germans were still stationed in Warsaw and there was fierce fighting. The first organisational meeting on the reactivation of the Warsaw University of Technology was held on 4 December 1944 at the headquarters of the PKWN Planning and Reconstruction Office in Lublin, and on 10 January the Organising Commission of the Warsaw University of Technology met. A decree issued by the Minister of Education Stanisław Skrzeszewski on 22 January 1945 appointed Władysław Kuczewski, Eng. as interim rector of the Warsaw University of Technology. Thus, the Warsaw University of Technology with its seat in Lublin reactivated its activities. The academic year was inaugurated in Lublin, in the building at 10 Spokojna Street and in the Building School at 2 Długosza Street. 684 students began their studies, to be educated in three faculties: Architecture, Engineering and Electrical and Mechanical Engineering. As Warsaw was terribly ruined, in April 1945, Rector W. Kuczewski proposed moving the Warsaw University of Technology to Łódź. However, the proposal did not gain support among the professors. At that time, the Committee for the Rebuilding of the Warsaw University of Technology was established in the liberated capital, with Professor Edward Warchałowski as its chairman. The Committee's first efforts were directed towards getting the best-preserved edifices, i.e. the New Drawing Hall and Mechanics, up and running. A distinguished scientist, Professor Mieczysław Wolfke, who, among other things, organised the Department of Physics at the Warsaw University of Technology, was actively involved in the efforts to rebuild and launch the University.

In the work of rebuilding the destroyed capital city, great merits were rendered by Jan Zachwatowicz, professor of the Faculty of Architecture

at the Warsaw University of Technology, who from 1945 was an employee of the Department of Historic Architecture at the Bureau for the Rebuilding of the Capital and served as the General Conservator of Monuments. Professor J. Zachwatowicz was also the creator of the original concept for the reconstruction of the Old Town in Warsaw. This concept was appreciated not only at home, but also abroad, which was honoured with an entry on the UNESCO World Heritage List.

Wolfke Mieczysław (1883–1947) graduate of the Paris Sorbonne, habilitated at the Zurich University of Technology, professor at the University of Warsaw and the Warsaw University of Technology. Creator of the telectroscope, prototype of the television, precursor of holography. His research led to the discovery of two forms of the liquid helium phase and the solidification of liquid helium under pressure. He was Grand Master of the Grand Masonic Lodge of Poland from 1931 to 1934.

In May 1945, the interim rector Władysław Kuczewski tendered his resignation. Thereafter, until the academic year 1951/1952, Professor E. Warchałowski served as Rector. In September 1945, the Warsaw University of Technology began a gradual move to the rebuilt buildings in the capital. The first to begin regular classes in Warsaw was the Faculty of Mechanical Engineering. On 13 January 1946, the first inauguration of the academic year took place at the rebuilt Warsaw University of Technology. The ceremony was organised in the New Drawing Hall Building. After its complete relocation to Warsaw in 1946, the Warsaw University of Technology offered education in six faculties: Engineering, Geodesy, Mechanical, Electrical, Chemistry and Architecture. In 1949, all the buildings of the main area were put back into use, although reconstruction work was still underway in many of them. In the Main Building, the missing wing on Nowowiejska Street was added according to S. Szyller's plans.

In the first post-war years, the subject of establishing a trade union organisation for the employees of Warsaw University of Technology was taken up. Soon, the Union of Polish Teachers (Związek Nauczycielstwa Polskiego) was constituted at the University, with Professor Stefan Strasze-

Fig. 27. Inauguration of the academic year at the Warsaw University of Technology in 1946

wicz as its president and Professor Edward Czetwertyński as its vice-president. The first election meeting of the Union of Polish Teachers at WUT was held on 20 September 1946. Thanks to the efforts of the Union, an employee canteen was opened at the Warsaw University of Technology, and in 1956, holiday camps for the children of WUT employees were organised in Sarbinowo. A Housing Fund Commission was also established under the leadership of Professor Ludwik Uzarowicz. The Commission drew up a plan for a housing fund to accumulate surpluses from the University's extra-budgetary activities, which made it possible to grant loans for cooperative housing contributions.

In 1948, the Unification Congress of the Polish Workers' Party (PPR) and the Polish Socialist Party (PPS) was held in the Great Hall of the Main Building. The Congress deliberations lasted from 15 to 21 December and resulted in the formation of the Polish United Workers' Party (PZPR). In 1949, Professor Janusz Lech Jakubowski became the first secretary of the resulting PZPR Basic Party Organisation at the Warsaw University of Technology.

Fig. 28. Unification Congress of the PPR (Polish Workers' Party) and PPS (Polish Socialist Party), 15 December 1948

Jakubowski Janusz Lech (1905–2000) graduate of the Electrical Faculty of the Warsaw University of Technology, participant in the Warsaw Rising, lecturer at the Hipolit Wawelberg and Stanislaw Rotwand Engineering School, dean of the Electrical Faculty of the Warsaw University of Technology. On behalf of UNESCO, he carried out a project in Algeria on high voltage technology. He organised a polytechnic in the town of El Harrach. His scientific activities focused on high voltage technology, theoretical electronics and power engineering. While conducting research in the Sahara, he discovered a new form of discharge.

During the inauguration of the 1948/1949 academic year, the University Senate presented the insignia reconstructed by Assistant Professor Stanisław Wocjan, recreated based on surviving fragments, drawings and photographs. The original ones had been destroyed during the war.

Fig. 29. The WUT Main Building, as it stood in 1945 and 1950. On 27.11.1950, the Congress of Defenders of Peace was held at WUT

8.
Communist period 1950–1990

The first half of the 1950s brought many organisational changes at the Warsaw University of Technology. In 1951, the Committee for the Reconstruction of WUT ceased its activities and the Investment Board of the Warsaw University of Technology was established. In the 1950/1951 academic year, military service was included in the course of study at the WUT and a course in Marxism and Leninism was introduced. In May 1951, the Commission for the Merger of the Warsaw University of Technology and the Hipolit Wawelberg and Stanisław Rotwand School of Engineering, appointed by the Minister of Higher Education and Science Adam Rapacki, was constituted. The school operated under the chairmanship of the Dean of the Faculty of Mechanical Engineering, Professor Jerzy Bukowski. As a result of this merger, the number of faculties and students at WUT increased. The University also took over the buildings of the H. Wawelberg and S. Rotwand School: at 14 Chodkiewicza Street for the needs of the Faculty of Mechanical Engineering and at 84 Narbutta Street, where the Faculty of Mechanical Engineering was located. In the academic year 1954/1955, the following faculties functioned at WUT: Architecture, Civil Engineering, Hydraulic Engineering, Sanitary Engineering, Communications, Geodesy, Aeronautics, Mechanical Engineering, Mechanical Engineering Technology, Mechanical Engineering Technology, Agromechanics, Electrical Engineering, Communications, Chemistry, Industrial Engineering, and Automobiles and Tractors. At that time, the management of the University consisted of a Rector, a Vice-Rector and an Administrative Director. In the academic year 1953/1954 there were approximately 12,000 students at the Warsaw University of Technology.

With the development of new faculties and an increase in the number of students, the University authorities made efforts to build new buildings. In 1948, construction began on a wing of the Aerodynamics Building – the Aeronautical Building, which was completed in 1951. In 1951-1954, two fur-

Fig. 30. WUT students in the 1950s

ther buildings were erected: the Heat Engineering Building at 21/25 Nowowiejska Street and the Technology Building at 85 Narbutta Street (currently in the University's Southern Campus). In 1956/1959, the new Aeronautical Pavilion (now the New Aeronautical Building) was completed, being another wing extending the western section of the frontage at Niepodległości Avenue. At the end of 1959, construction began on the Communications Building (currently the Electronics Building, named after Professor Janusz Groszkowski from 1984) on Nowowiejska Street. It was finally completed and opened for use in 1965.

In 1956, there was a split in the ruling Communist Party. Political unrest was also evident at the Warsaw University of Technology. On 15 October 1956, the first student rally was held in the Small Hall. The next one attracted even more participants. One of the organisers of the gathering was Jan Wilkoszewski, a student at the Industrial Construction Faculty of the Warsaw University of Technology. Those rallying demanded the dismissal of Marshal Konstanty Rokossowski, the proclamation of Our Lady as Queen of

Fig. 31. Rally at the Warsaw University of Technology, October 1957. Rector of the Warsaw University of Technology Professor Jerzy Bukowski addressing the rallying students

Poland and expressed solidarity with the uprising in Hungary. A year later, on 3 October 1957, riots took place in front of the student house on Narutowicza Square in connection with the closure of the magazine Po prostu. The following day, on 4 October 1957, students gathered in the Main Building of the Warsaw University of Technology. The mood was calmed by Professor Jerzy Bukowski, who gave a speech to the students.

In November 1963, an exhibition was opened in the Great Hall of the Main Building entitled. „Warsaw University of Technology – the national economy". The exhibition presented the University's cooperation with post-war Polish industry. In March 1965, the Technical Culture Club was launched at the Warsaw University of Technology.

The post-war years were also a time of reconstruction of the WUT Main Library's book collection. In the academic year 1954/1955, the Main Library held 130,000 volumes and oversaw 170 department libraries. In 1965, the library stock had already increased to 189,520 volumes. There were around two hundred department libraries at the time.

At the end of the 1960s, two architects, Stefan Jaczewski and Jan Reda, designed the building of the Faculty of Sanitary and Water Engineering (as of 2016, Faculty of Building Services, Hydro and Environmental Engineering). The construction of the tallest building in the WUT Main Campus, located

Fig. 32. The Faculty of Sanitary and Water Engineering building under construction – as it stood in October 1975

on the side of Nowowiejska Street, on the site of the defunct wing of the Mechanics Building, took seven years. Completed in 1977, the edifice consists of two wings: a west wing and a south wing. The south wing, running parallel to Nowowiejska Street, was connected to the Old Boiler House Building.

On 18 April 1967, on the basis of an order of the Minister of Education and Higher Education Henryk Jablonski, a Branch of the Warsaw University of Technology was established in Plock. In 1967-1970 the following branches came into existence: the Faculty of Civil Engineering of the Warsaw University of Technology, Branch of the Faculty of Mechanical Engineering of the Warsaw University of Technology and Branch of the Faculty of Chemistry of the Warsaw University of Technology. In 1971 the Branch of Warsaw University of Technology in Płock, as the first stationary unit of higher education in north-western Mazovia, received its own statute, while in 1974 the head of the Branch was elevated to the position of Vice-Rector of the WUT. Currently, the Branch educates students at the Faculty of Civil Engineering, Mechanics and Petrochemistry and the College of Economics and Social Sciences. In 2017 the Branch celebrated its 50th anniversary.

On 8 March 1968, the Warsaw University of Technology and the University of Warsaw witnessed student protests. Their cause was the expulsion of Adam Michnik and Henryk Szlajfer from their studies. Approximately three hundred students gathered in the Main Building at that time, against whom units of the Civic Militia and Volunteer Reserve of the Civic Militia were deployed.

In turn, the nationwide events of August 1980 at the Warsaw University of Technology provided an opportunity to establish an independent and self-governing trade union movement. As a result of the actions taken, on 27 September 1980, representatives of the faculties and other organisational units of the University, during the Company Delegates' Meeting, decided to establish the Company Organisation of NSZZ „Solidarity" at the Warsaw University of Technology. On 10 November 1980, the union was registered. At the same time, the publication of the magazine „Solidarność PW" was started, which between June 1982 and April 1989 was published under the changed title: „Informacja NSZZ Solidarność Politechniki Warszawskiej".

Fig. 33. The events of March 1968

9.
Warsaw University of Technology after 1990

The University was led into the period of political transformation by Professor Marek Dietrich, Rector of the Warsaw University of Technology from 1990 to 1996. The Institute of the Problems of Contemporary Civilisation, which was established in 1996 and is an interuniversity unit comprising: Warsaw University of Technology, the Warsaw University of Life Sciences, the Warsaw School of Economics, the University of Warsaw and the Warsaw Medical University. The Institute studies the social aspects of the development of civilisation against the background of scientific and technological achievements and undertakes activities to integrate the academic community. Five years earlier, in 1991, the Business School was established at the Warsaw University of Technology as a joint venture of three European universities of international repute: London Business School, HEC Paris and the Norwegian School of Economics. The School provides managers with a set of practical skills necessary to effectively manage a company and runs ranked MBA programmes. In 2000, the OKNO PW Distance Learning Centre of the Warsaw University of Technology was launched.

The 1990s also saw the start of the revitalisation of the University's main campus. The usable space of the Main Library of the Warsaw University of Technology was significantly expanded, and in the new millennium investments such as the erection of a modern edifice of the Faculty of Mathematics and Information Sciences and the extension of the New Drawing Hall used by the Faculty of Transport were finalised. Modern ‚wings' with innovative laboratories were created at the Faculty of Electronics and Information Technology of the Warsaw University of Technology. The projects were co-financed by the European Union from the European Regional Fund.

Fig. 34. Building of the Faculty of Mathematics and Information Science

Fig. 35. ‚Wings' of the Faculty of Electronics and Information Technology

Entering the 21st century, the Warsaw University of Technology has expanded not only its material base but, above all, the university's offer in the area of education as well as research and development projects targeting the Polish economy and international corporations. In 2000, with the first offer of lectures at the advanced level, the idea of creating a Centre for Advanced Studies emerged, which since 2008 has been conducting research activities as well as seminars and conversation classes and „Pythagorean Disputes" conducted in the form of talks, interactions and meetings. The Centre for International Cooperation is responsible for the University's cooperation with foreign countries, as well as for supporting other units in their international teaching and research activities.

The various projects are also supported by the University Research Centres operating at the Warsaw University of Technology, which conduct interdisciplinary activities in fields such as functional materials, aerospace, defence and security. Innovative solutions for industry are also provided by the Research Centre for Business at the Faculty of Mathematics and Information Sciences and the Institute of Applied Research. Recent years have also seen the creation of such investments as the CEZAMAT Centre for Advanced Materials and Technologies operating in the so-called ‚high technology' area, the Centre for Innovation Management and Technology Transfer of the Warsaw University of Technology, as well as the CENAGiS Centre for Scientific Geospatial Analysis and Satellite Computing, which comprises Poland's first and uniquely European cloud for geo-information processing. An Aeronautical Research Centre of the Warsaw University of Technology has been established in the Mazovia region near Przasnysz, and the Central Laboratory of Mechanics and Construction – a regional research facility in the area of structures, building materials and mechanical and machine systems – has been established at the Warsaw University of Technology Branch in Płock. The Warsaw University of Technology is also part of the Centre for Preclinical Research and Technology (CePT) consortium, which conducts interdisciplinary basic research and research into new diagnostic and therapeutic methods.

In recognition of its achievements to date and its potential for the future, in 2019 Warsaw University of Technology, as Poland's leading tech-

nical university, was among the winners of the „Excellence Initiative – Research University" competition of the Ministry of Science and Higher Education, receiving the status of a Research University. In 2020, it joined the ranks of European Universities within the ENHANCE (European Universities of Technology Alliance) consortium.
Currently, the Warsaw University of Technology is made up of nineteen faculties and one college. In the capital, students can study at the faculties of: Administration and Social Sciences; Architecture; Chemistry; Electronics and Information Technology; Electrical Engineering; Physics; Geodesy and Cartography; Building Services, Hydro and Environmental Engineering; Chemical and Process Engineering; Civil Engineering; Materials Science and Engineering; Mathematics and Information Science; Power and Aeronautical Engineering; Mechanical and Industrial Engineering; Mechatronics; Automotive and Construction Machinery Engineering; Transport; Management. The Faculty of Civil Engineering, Mechanics and Petrochemistry and the College of Economics and Social Sciences are located at the Warsaw University of Technology Branch in Płock. The university employs nearly 5,000 people, while more than 25,000 students and doctoral students are educated within its walls. Warsaw University of Technology is a member of the Conference of Rectors of Academic Schools in Poland (CRASP).

Student socio-political organisations and research groups

After the end of the war, student organisations of various profiles were formed or reactivated. In September 1945, the Academic Union of Youth Fight „Życie" was established. In April 1950, at the national congress of the Congress of Polish Students at the Warsaw University of Technology, the Union of Polish Students (ZSP) was founded, and with the consent of the Senate of the Warsaw University of Technology, it was granted the right to send its representatives to meetings of the Senate and faculty councils. ZSP was active in student self-help, bringing together 82% of all students at the WUT in the early 1960s. In 1973, it was replaced by the Socialist Union of Polish Students (ZSP), which functioned until 1982. The

Fig. 36. PW-Sat2 visualisation of the deorbit sail burning in the Earth's atmosphere

growing wave of national and social discontent contributed to grassroots movements in the academic community and the establishment of the Independent Students' Union (NZS) in September 1980, registered in February 1981. During martial law, the NZS operated in conspiracy. It was legalised again in 1989 and is still active today. At the Warsaw University of Technology, it implements such initiatives as the educational programme „Career Guideposts", the Student Construction Competition or Maturalnie with NZS. The reactivated Fraternal Aid to Students Association of the Warsaw University of Technology, continuing the traditions of the pre-war Bratniak, is also active.

The student research groups that were active in the inter-war period underwent many transformations after 1945 to suit the changing environment. One of the largest and first student research groups of the post-war years was the Student Research Group of Civil Engineering, which was founded in the academic year 1949/1950 and had seven hundred members. In 1953, the University Committee of Student Research Groups was established. In 1956, among others, the following were established: Student Research Group of Surveyors and Students of Architecture, Student Research Group of Hydro-Technicians, Student Research Group of Chemists, Student Research Group of Rocket Technology and Astronautics or Student Research Group of Construction. In 1961, there were thirteen student research groups at WUT, with 437 members.

At present, more than 150 student research groups are formed by students and doctoral students at the Warsaw University of Technology, covering fields such as biomedical engineering, advanced computer techniques, up to the creation of a full range of vehicles and vessels, both airborne and waterborne. An example of such activities is PW-Sat, the first Polish artificial satellite, which was created on the initiative of Warsaw University of Technology students associated in the Student Astronautical Research Group and the Student Space Engineering Research Group. Professor Piotr Wolański, among others, engaged in the project. The coordination of activities in this space task was undertaken by Rafał Przybyła (in 2004-2009) and Maciej Urbanowicz (project manager since 2010). The final construction work was conducted in cooperation with the Space Research

Centre of the Polish Academy of Sciences. The next instalment of the student initiative was PW-Sat 2, which, after 813 days in orbit, completed its mission and was deorbitated on 23 February 2021. The project work on PW-Sat 3 continues to this day. All the University's student research groups are brought together by the Council of Student Research Group of the Warsaw University of Technology, which, as a body of the Students' Union, represents the collective interests of the student research groups. An example of an annual event presenting the achievements of the Warsaw University's student research groups is the „KONIK" Fair of Research Groups and Student Organisations. Student research groups also engage in initiatives dedicated to communities outside the University, e.g. shows, lectures, workshops, where classes are conducted by their members. The achievements of the research groups have been repeatedly awarded in the National Competition of Student Constructions (KOKOS) or the Student Nobel Prize. It should be added that the academic tutors of the student research groups are employees of the Warsaw University of Technology.

Fig. 37. Student WUT-3 Formula car constructed by members of the KN WUT Racing Team on display at the KONIK Student Research Groups and Student Organisations Fair in 2022

WUT alumni and staff associations

Associations grouping graduates from various faculties of the Warsaw University of Technology began to emerge in the 1970s. As time passed, the number of associations grew. Their activities fostered the integration of the academic community and the launching of various valuable initiatives such as lectures and excursions to industrial plants. Among the associations that maintained ties at the faculty level were: Association of Graduates of the Faculty of Automotive and Construction Machinery Engineering, Aviators' Club, Association of Graduates of Mechatronics, Association of Graduates of Chemical Engineering, Association of Graduates of the Faculty of Electronics and Information Technology, Association of Graduates of Sanitary Engineering, Graduates' Club of the Institute of Environmental Engineering Systems or Association of Graduates of Hydro and Environmental Engineering.

In 2001, on the occasion of the 175th anniversary of the establishment of the Warsaw University of Technology, the Association of Graduates and Friends of the Warsaw University of Technology (SAiP) was established on the initiative of the Rector Professor Jerzy Woźnicki. The Association has legal personality and its activities are defined by the SAiP statutes. The aim of the Association is to disseminate the achievements of the Warsaw University of Technology, to strengthen collegiate ties and to support the University authorities in their efforts to promote its dynamic development. Among the activities cultivating the memory of people and events that are the initiative of the Association are the Appeal of the Fallen Employees and Students of the Warsaw University of Technology in the Fight for the Independence of the Fatherland in 1918-1921, the Historical and Sports Salons or the Golden Book of the Warsaw University of Technology. An entry and a commemorative statuette are awarded to graduates who have achieved success in their professional activities in connection with their studies at the Warsaw University of Technology. Exceptionally, the award may be given to outstanding graduates who are active and successful outside their learned profession (e.g. in culture, art, sports, public activities, etc.). Among those honoured with the Golden Book are Profes-

sor Maciej Nowicki (ecologist, social activist, Minister of Environmental Protection), Leszek Cichy (mountaineer, surveyor, financier), architect Janusz Kapusta PhD, (draughtsman, painter, discoverer of a new geometric figure called K-dron) or Tadeusz Diem, PhD (chemist, participant in the Round Table Talks, diplomat and ambassador of the Republic of Poland, Deputy Minister of National Education and Defence). At present, the President of the Association of Alumni and Friends of the Warsaw University of Technology is Professor Andrzej Jakubiak (electronics engineer, Vice-Rector of the Warsaw University of Technology, creator of the Great Music in a Small Hall series), honoured with an entry in the Golden Book in 2016.

10.
Culture and sport at the Warsaw University of Technology

Warsaw University of Technology – the largest technical university in Poland, consistently ranked among the top Polish universities in national and world rankings for years, in addition to high quality education, also offers students and doctoral students, employees and graduates many opportunities in the area of culture and tradition. The academic community has sports activities, as well as leisure and recreational offers realised both in and outside the facilities of Warsaw University of Technology.

Culture, art, tradition

A unit closely associated with the preservation of the history and traditions of the Warsaw University of Technology is the Museum of the Warsaw University of Technology. The WUT Museum was established in 1978 on the initiative of Professor Stanisław Pasynkiewicz, Rector of the University in 1973-1981. For the first years the Museum functioned as a department of the Main Library of the Warsaw University of Technology. In 1999 the WUT Senate declared 2001 to be the Jubilee Year of the Warsaw University of Technology commemorating the 175th anniversary of the establishment of the University. One of the decisions made at that time was to separate the WUT Museum from the Main Library. At the turn of 2001/2002 the Warsaw University of Technology Museum received new premises in the annexe to the Aerodynamics Building, where it operated until 2020. Currently, the WUT Museum offices, storerooms and a small exhibition hall are located at 22 Nowowiejska St., while the main exhibition hall is located in the Main Building, in the cloisters of the Great Hall. The hall was ceremonially opened in 2015 as part of the celebrations

Fig. 38. Exhibition room of the Museum of the Warsaw University of Technology in the Main Building

Fig. 39. Masovia Folk Dance Group at The Malta International Dance Folk Festival, Valetta Malta 2022

of the 100th anniversary of the Renewal of the Tradition of the Warsaw University of Technology. The WUT Museum participates in organising exhibitions, collecting and recording collections, publishing and filming activities, guided tours, and providing information to those interested in the history and tradition of the Warsaw University of Technology. The museum's activity is primarily focused on the history of the University, although complementary activities complementing the offer of the WUT Museum also include exhibitions related to the history of technology, Polish history against the background of universal history events or vernissages of e.g. watercolours by Ewa Wasiutyńska, a graduate of the WUT Faculty of Architecture.

The Warsaw University of Technology also boasts a beautiful tradition of the WUT Song and Dance Ensemble, which was founded in 1951 on the initiative of a group of students interested in folklore. The group's dance performances are based on folk customs, traditions of the nobility, Christmas carols, patriotic songs and the folklore of the Lemkos and Hutsuls. The ensemble is made up of dance and vocal groups along with a band. The approximately 60-person ensemble has been led by Janusz Chojecki since 2009. So far, the ensemble has given concerts in over forty countries in both hemispheres, and in 2005 it won the Grand Prix at the World Festival of Amateur Folk Groups in Malaysia. A characteristic feature of the Ensemble is intergenerational integration. Former members, the so-called ‚oldboys', take part in performances combining stage experience with the lively expression of youth.

The Academic Choir of the Warsaw University of Technology is another artistic ensemble of the University. Its activities were initiated in 2000 by the Rector of the University, Professor Jerzy Woźnicki. The choir currently numbers around one hundred members. Not only graduates and students of the Warsaw University of Technology sing in the Choir, but also graduates and students of other universities, such as the University of Warsaw. The director and conductor of the Choir is Dariusz Zimnicki, PhD. Among the choir's many successes, it is worth mentioning that it won the Grand Prix three times at the Legnica Cantat National Choir Tournament, thanks to which the main prize, the Ruby Lute, became the

Fig. 40. The concert, conducted by Krzysztof Penderecki, ‚Seven Gates of Jerusalem' in the Great Hall of the Warsaw University of Technology at the end of the jubilee year of the 100th anniversary of the Renewal of the Tradition of the Warsaw University of Technology, 5 December 2015.

choir's property. The choir has performed at concerts in Brazil, Spain and Thailand, as well as on national stages, e.g. the National Philharmonic, and has graced university ceremonies, including the inauguration of the academic year.

The Warsaw University of Technology Band „The Engineers Band" („Inżyniersi") is another band that, having performed since 2005, has quickly gained popularity outside the University. The repertoire of the WUT „Engineers" includes over two hundred pieces of popular and dance music performed with such artists as Hanna Banaszak and Vadim Brodski. A great artistic event on a nationwide scale was the concert Everything is Poetry with songs to the texts of Edward Stachura, organised as part of the celebrations of the 100th anniversary of the Renewal of the Tradition of the Warsaw University of Technology, as well as the jubilee of the University of Warsaw and the Day of the Mother Tongue. The concert was held in the Great Hall of WUT in February 2015, with the participation of the President of the Republic of Poland. Since its inception, the Orchestra has been led by maestro Dariusz Łapiński.

In the University we can also find a group of people gathered around the Theatre of the Warsaw University of Technology, established in 2005. The WUT Theatre, operating under the direction of Grzegorz Sierzputowski, an actor and director who cooperates with, among others, the Dramatic Theatre and the Trans-Atlantic Theatre Foundation. The WUT Theatre is made up of thirty people, the vast majority of whom are engineers. Its varied repertoire includes productions referring both to the canons of European drama, such as William Shakespeare's The Tempest, and those tackling the social aspects of late communist Poland and the times of transformation, such as Michał Olszewski's Senga Sengana. The WUT Theatre also engages with children, for example on the occasion of St. Nicolaus' Day, staging well-known and popular fairy tales such as „Cinderella" and „Hansel and Gretel". Participating in many national and international artistic events, such as the International Festival of Avant-garde Theatres „Pestka", the Festival Najazd Nowego Pokolenia or the Festival of Student Theatres START, the WUT Theatre has won awards more than once.

Fig. 41. Frame from the 10th anniversary concert of the Warsaw University of Technology Band 10 years of „The Engineers Band”

Fig. 42. A frame from the performance „Cinderella” by the Warsaw University of Technology Theatre

The student cultural map of Warsaw could not, of course, lack student clubs. The Central Students' Club of the Warsaw University of Technology, commonly known as Stodoła, began its activities in 1956. Although initially it only offered dance and cabaret evenings, in subsequent years the programme included film, theatre, dance, cabaret, literature, music and photography, and the club's activities also involved Warsaw residents. Much younger than Stodoła is Klub Riviera Remont (formerly Klub Remont), established at the turn of 1973/1974 as part of the Warsaw University of Technology student dormitory. In the 1970s, the club hosted, among other things, the "Kij w mrowisko" (Stick in the Anthill) student song festival. The theatre stage of the club hosted, among others, the OTTO cabaret, whose core comprised students of the Faculty of Electronics at the Warsaw University of Technology.

The WUT Branch in Płock, within which the Academic Cultural Centre (ACK) has been operating since 2003, can also boast of its artistic achievements. Its long-standing employee, and since 2013 its manager, is Małgorzata Grabowska-Panek. For many years, the Centre has provided support for various cultural initiatives, such as cabarets or the Chamber Academic Choir of the Warsaw University of Technology Branch in Płock, established in 1997, which for over twenty years (until 2020) has developed interest in choral music and popularised Polish and foreign choral works from various eras. Currently, celebrations and anniversaries are honoured by the Masovia Folk Dance Ensemble. The Masovia Folk Dance Ensemble was founded in 1977 by Maria Ingwer-Żabowska as a Student Song and Dance Ensemble of the Warsaw University of Technology Branch in Płock and already after a year it won the laurels of the 2nd Płock Amateur Artistic Ensemble – the Cup of the Mayor of the City of Płock. Mazovia cultivates native folklore, nurturing the development of academic youth in the tradition of folk culture. Recent achievements include the award of the Marshal of the Mazovian Voivodeship in 2014 and the ‚Laude Probus' medal awarded by the Mayor of the City of Płock in November 2017. The award was presented during the Jubilee Concert on the occasion of Mazovia's 40th anniversary for its overall cultural activity

and for its contribution to the cultural development of Mazovia. By 2022, Mazovia had performed in more than 1,000 concerts at home and abroad.

The artistic ensembles of the Warsaw University of Technology form the so-called Artistic Crown of the WUT. They also showcase their talents in the well-known and much-loved concert series Great Music in the Small Hall, in which they join forces during anniversary and historical events. Such events included the 20th anniversary of the series in October 2022 or the 100th concert inaugurating the celebrations of the centenary of regaining independence at the Warsaw University of Technology in 2018. The creator of Great Music in the Small Hall is Professor Andrzej Jakubiak.

The annual event that all students look forward to is, of course, Juwenalia, organised both in Warsaw and at the Warsaw University of Technology Branch in Płock. This student festival consists of, among other things, numerous concerts organised at the „Syrenka" stadium in Warsaw or the Płock Amphitheatre. The Juwenalia programme also included parades, film screenings and sports events.

The calendar of current events at the Warsaw University of Technology also includes those related to the dissemination of the University's traditions. Among them, a prominent place is occupied by the WUT Day established by a Senate resolution of 26 October 2005 to commemorate the establishment of the Warsaw University of Technology on 15 November 1915 Warsaw University of Technology with the Polish language of instruction. In 2015 the University celebrated the 100th anniversary of the Renewal of the Tradition of WUT honouring this epoch-making event. The anniversary was honoured with artistic and scientific events. These included a charity ball, an educational picnic, numerous exhibitions, shows, concerts, conferences, lectures, films and commemorative publications.

The academic community of the Warsaw University of Technology, while constantly developing its competences and implementing innovative solutions, at the same time remembers the achievements of previous generations that have shaped its current face and are the pride of its con-

temporaries. In June 2011 the WUT Senate passed a resolution to restore the good name of Professor Jan Czochralski, and two years later the Polish Parliament established 2013 as the Year of Jan Czochralski. Professor Mirosław Nader of the Warsaw University of Technology was appointed National Coordinator of the celebrations. In September 2019, Professor J. Czochralski, known as the ‚father of world electronics', was honoured with an IEEE Milestone for his epoch-making discovery: „The method of crystal extraction".

In 2018 the University joined in the nationwide celebrations of the 100th anniversary of the restoration of independence. On 15 November 2018, on WUT Day, this momentous anniversary was celebrated together with the 100th anniversary of the establishment of the Academic Legion. The Warsaw University of Technology, joining the national programme ‚Niepodległa' (The Independent), for two consecutive years, with the participation of the faculties and organisational units of the University, organised events referring to the times that shaped the profiles of the next generations of students and young scientists. For it is their passions developed in organisations, research groups and associations that are transformed into concrete achievements and recognised with numerous awards at home and abroad.

Initiatives in the area of history and tradition are coordinated by the Senate's Committee for History and Tradition, which, like other standing Senate committees, in accordance with the Statutes of the Warsaw University of Technology, gives opinions and prepares proposals relating to a specific area of the University's activities. Its chairman for the 2020-2024 term is Professor Andrzej Kulig.

Sport and recreation

The Warsaw University of Technology is also a place conducive to physical activity. Among the university's sports organisations, one should mention the Physical Education and Sports Centre, in operation since 1 February 1951. Mieczysław Piotrowski became the first director of the College. The staff was provided by former graduates of the Academy of Physical Ed-

ucation and colleges of physical education. Between 1954 and 1955, the number of students attending the College was approximately 6,000. Currently, the WUT Physical Education and Sports Centre offers classes in a wide range of disciplines, such as aerobics, boxing, mountain biking, bodybuilding, football, volleyball, basketball, swimming, judo, bodybuilding, tennis, swimming, canoeing, mountain climbing, etc. Students at the Warsaw University of Technology have the opportunity to improve their physical fitness not only through compulsory classes at the Centre, but also through participation in the activities of the Academic Sports Association (AZS), the club of the Warsaw University of Technology, which was founded in 1916. Currently, AZS PW consists of over twenty sections including badminton, floorball, equestrianism, basketball, athletics, skiing, swimming, rowing, or sport climbing. AZS PW also participates in the annual Polish Academic Championships, as well as in national discipline championships. Many victories have been recorded by the volleyball players of ONICO AZS PW.

The Warsaw University of Technology also has parallel sports clubs of a slightly more specialised nature. One example is the Students' Sailing Club of the Warsaw University of Technology, founded in 1969, which boasts a number of successful ventures, such as the 1977 expedition to the lakes of Finland or the 2004 voyage to Franz Josef Land with a circumnavigation of Spitsbergen. In addition, the following sports organisations are active: the WUT Yacht Club, the Entropia Chess Club Student Organisation or the Świętokrzyskie Mountains Guides Student Research Group. Irrespective of the aforementioned, there are faculty sports clubs at the WUT, e.g. the Wimpel Sailing Club at the Faculty of Mechatronics, the Tachymeter Surveying Sports Club, and the Academic Sports Club of the Academic Sports Association of the School of Technical and Social Sciences in Płock. Employees can take advantage of a sports subscription under the MultiSport card.

For many years, the programme of the WUT Day celebrations has been highlighted by the Run for the Rector of Warsaw University of Technology Cup and the Pairs Sports Bridge Tournament for the WUT Rector

Fig. 43. Main Building – Warsaw University of Technology Christmas Fair, December 2022

Cup. A novelty, on the other hand, is the 2021 chess Tournament for the Rector's Crown of the Warsaw University of Technology which is an initiative of the Sports and Tourism Committee of the WUT Students' Union. The event aims to identify the best chess player among the students and doctoral students of the Warsaw University of Technology. In turn, traditional sporting struggles include the eight rowing races on the Vistula River as part of the Warsaw Rowing Regatta with the participation of the Warsaw University of Technology and Warsaw University's rowing teams. In the 71st edition of this event, in September 2022, the engineering eights beat the University of Warsaw's rowing team for the thirteenth time.

Leisure and recreation are also provided at the WUT leisure centres located in Grybów, Sarbinowo, Wilga and Ublik. Children of employees, students and doctoral students can also take advantage of the St. Nicolaus' Day and kindergarten offers. An all-university Christmas Eve and a Christmas fair are organised every year, and in spring and autumn employee and research picnics are held to allow people to spend time actively.

The 200th anniversary of the Warsaw University of Technology, celebrated in 2026, will not only be an excellent occasion for reminiscing, but will also show those aspects of the University's functioning which, while changing over the years, contribute to enhancing its good name and dynamic development.

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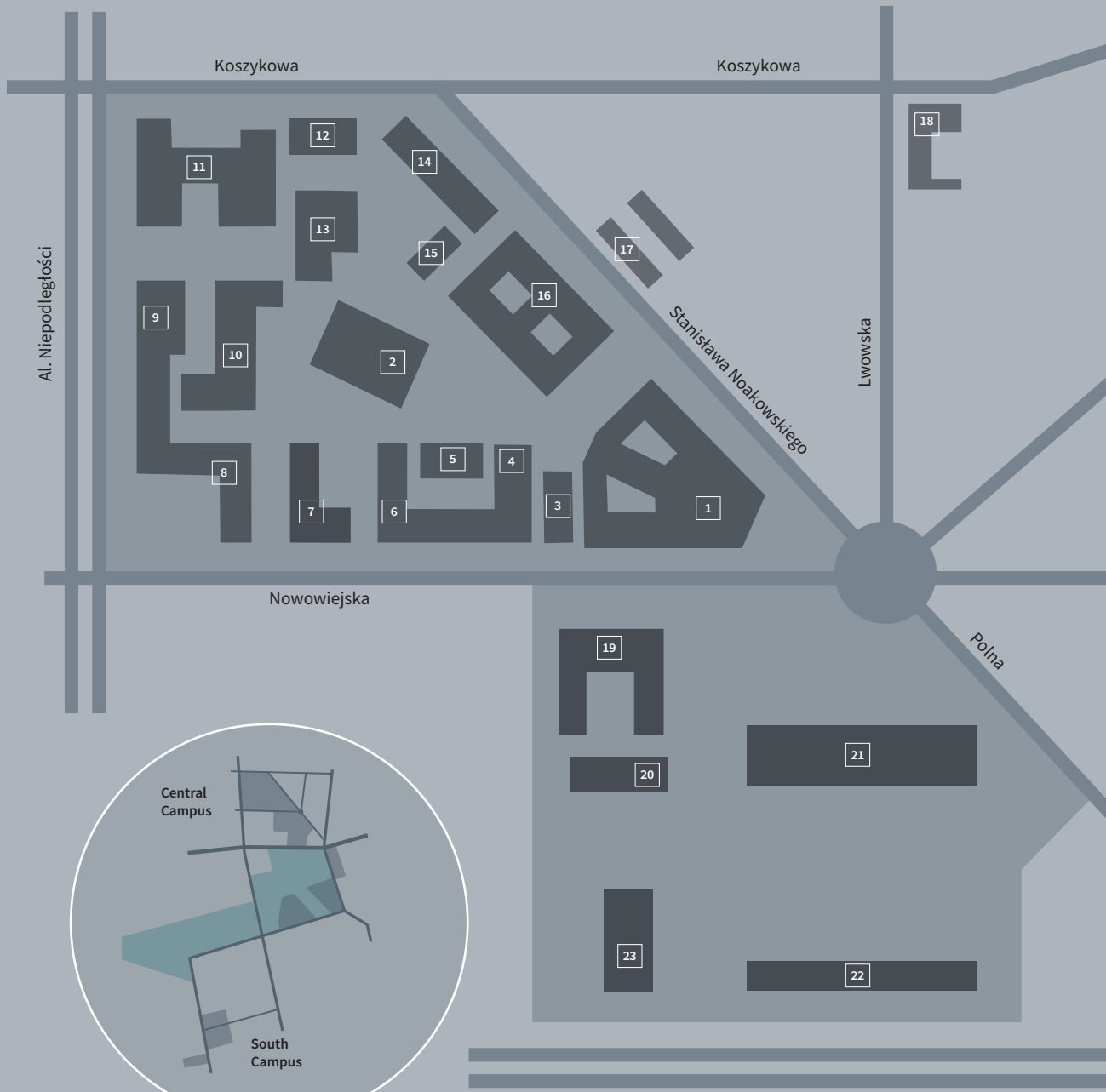
WUT Central Campus



Legend

1 Main Building
2 Physics Building
3 Chimney Building
4 Old Boiler Room Building
5 Mechanics Building
6 Building of the Faculty of Building Services, Hydro and Environmental Engineering
7 Residential building – Warsaw University of Technology Museum
8 Aerodynamics Building
9 New Aviation Building
10 Electrical Engineering Building
11 Chemical Technology Building
12 Residential building
13 Building of the Faculty of Mathematics and Information Science
14 New Drawing Hall
15 Building of the Faculty of Transport
16 Chemistry Building
17 Central Administration Building
18 Building of the Faculty of Architecture
19 Heat Engineering Building
20 Central Canteen Building
21 Electronics Building
22 Building of the Faculty of Civil Engineering
23 Building of the Centre for Innovation and Technology Transfer Management