

## FOREWORD

The ninth scientific journal prepared by RTU RCEH is published in the year of the University's 163rd anniversary and the 200th anniversary of the economist, publicist, politician, and founder of modern maritime education, Krišjānis Valdemārs, which is included in the UNESCO calendar of anniversaries. Popularizing the profession of a sailor and higher maritime education, as well as commemorating K. Valdemārs, the founder of modern maritime education, the ninth RTU History Day and the meeting of the section «History of Engineering Sciences and Institutions of Higher Education» of the 66th RTU International Scientific Conference were held on 10 October 2025. It presented reports on research in the history of engineering sciences, which are published in this issue of the journal. One of them, «The Contribution of Riga Polytechnicum (RP) / Riga Polytechnic Institute (RPI) Graduates (1875–1916) to Maritime Affairs in the 19th and 20th Centuries», was prepared by Edijs Štāls, Director of the RTU Latvian Maritime Academy; Alīda Zigmunde, RTU Professor and RTU RCEH Museum Project Manager; and Rūta Lapsa, RTU RCEH Museum Project Manager. The study identifies students who built ships and led the Maritime Department in the interwar period (1927–1939) and during World War II (1942–1944). Among the graduates are also Admiral, Commander of the Latvian Navy (1931–1940) Teodors Spāde (1891–1970), graduates of RP / RPI – maritime school teachers and university lecturers in maritime-related subjects.

The second study is dedicated to the international partnership of engineers from Riga and Karlsruhe (Germany) over three centuries (1862–2024). In the 19th and 20th centuries, the cooperation was developed with the oldest technical university in Germany – the Karlsruhe Polytechnicum, founded in 1825, and today known as the Karlsruhe Institute of Technology. At the end of the 20th century and in the 21st century, RTU scientists and lecturers have developed cooperation with Karlsruhe University of Applied Sciences. Riga students went to Karlsruhe to study in the 19th and 20th centuries, and some of them obtained engineering diplomas in Karlsruhe. The international partnership of the universities of the two cities has been studied by RTU Professors Alīda Zigmunde, Jānis Kaminskis, and Igors Tipāns, as well as Professor Kamil Kowalczyk of the University of Warmia and Mazury in Olsztyn (Poland), as Polish scientists have also studied in Karlsruhe and shared their experience with the engineers of this city.

The author of the third study is Vladimir Ladinski, a Professor at the private University American College Skopje in North Macedonia, who has focused on the history of the development of higher education, studying chemical engineering in the former Yugoslavia. The Professor pays special attention to the three oldest state universities – the University of Belgrade, the

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University of Ljubljana, and the University of Zagreb, which were established in the 20th century during the interwar period. V. Ladinski dedicated the article to the memory of his father, Boro Ladinski. The author's father was a Professor at the University of Saints Cyril and Methodius in Skopje, as well as President of the Association of Chemists and Technologists of the former Yugoslavia (1979–1981).

The RTU folk has a tradition every year, in anticipation of RTU's birthday, on 14 October, to visit the graves of former rectors buried in the Riga cemeteries. Although none of the former rectors of the university are buried in the Mārtiņš Cemetery, not only lecturers and former students have found eternal peace there, but also Carl Adolf Thilo, one of the initiators of the founding Riga Polytechnicum (RP) and a member of the RP Council. The fourth study is dedicated to the «polytechnicians» buried in the Mārtiņš cemetery. They were identified by historian Zinta Valdmane, RTU Professor Alīda Zigmunde, who has delved into the life stories of the individuals, and Valdis Gavars, Manager of the Mārtiņš and Torņakalns cemeteries of the Cemetery Administration of the Riga City Council Housing and Environment Department.

The authors of the fifth article in the journal about the Arnal family and their contribution to the economy of Latvia are Ilze Gudro, Associate Professor at the RTU Institute of Architecture and Design (IAD), Head of RTU RCEH, and Jānis Kalniņš, Lecturer at the IAD. The research, like all the previously mentioned articles, used documents from the Latvian National Archives and library collections. The Arnal company, which was engaged in the production of non-alcoholic and alcoholic beverages, went down in Latvian history as the largest producer of artificial mineral water in Tsarist Russia.

The sixth article in the scientific journal reflects the results of a study devoted to the characteristics and vocabulary of students and lecturers of Riga Polytechnic Institute (RPI) during the Soviet period, in the second half of the 20th century. It was conducted by RTU Professor Alīda Zigmunde, working on a consolidation project (2024–2025) together with colleagues from RTU Liepāja Academy. The characteristics (mainly in Russian), which were kept in personal files, were written for all RPI lecturers and students at that time, and for some lecturers, their number reached even more than two dozen.

The journal also contains obituaries of RPI / RTU personnel who passed away in 2024 and 2025. RPI / RTU faculty and staff who passed away in the 2024/2025 academic year were: Viktors Aļohins, Jānis Auziņš, Pauls Barons, Daina Brence, Mārcis Dzenis, Sigurds Jaundālderis, Arvids Kanbergs, Kārlis Ketners, Jānis Krastiņš, Velta Ļubkina, Laimonis Mālers, Skaidrīte Reihmane, Kārlis Timmermanis, and RTU Honorary Doctorate Rūdolfs Taurits. This issue of the journal concludes with a chronology of key events at Riga Technical University in the academic year 2024/2025 (1 September 2024–31 August 2025).

Editor-in-Chief, Associate Professor Dr. psych. Airisa Šteinberga

## PRIEKŠVĀRDS

Rīgas Tehniskās universitātes (RTU) Inženierzinātņu vēstures pētniecības centra (IVPC) sagatavotais devītais zinātniskais žurnāls iznāk universitātes 163. jubilejas un ekonomista, publicista, politiķa un modernās jūrniecības izglītības pamatlicēja Krišjāņa Valdemāra 200. jubilejas, kas iekļauta UNESCO svinamo gadadienu kalendārā, gadā. Popularizējot jūrnieka profesiju un augstāko jūrniecības izglītību, kā arī suminot modernās jūrniecības izglītības pamatlicēju K. Valdemāru, 2025. gada 10. oktobrī notika devītā RTU Vēstures diena un RTU 66. starptautiskās zinātniskās konferences sekcijas «Inženierzinātņu un augstskolu vēsture» sekcijas sēde. Tajā tika prezentēti ziņojumi par pētījumiem inženierzinātņu vēsturē, kas tiek publicēti šajā žurnāla numurā. Vienu no tiem – «Rīgas Politehnikuma / Rīgas Politehniskā institūta absolventu (1875–1916) devums jūrniecībai 19. un 20. gadsimtā», sagatavojuši RTU Latvijas Jūras akadēmija direktors Edijs Štāls, RTU profesore, RTU IVPC muzeja projektu vadītāja Alīda Zigmunde un RTU IVPC muzeja projektu vadītāja Rūta Lapsa. Pētījumā apzināti studenti, kuri būvējuši kuģus, vadījuši Jūrniecības departamentu starpkaru periodā (1927–1939) un Otrā pasaules kara gados (1942–1944). Absolventu vidū minams arī admirālis, Latvijas Jūras kara flotes komandieris (1931–1940) Teodors Spāde (1891–1970), Rīgas Politehnikuma / Rīgas Politehniskā institūta absolventi – jūrskolu skolotāji un augstskolu docētāji ar jūrniecību saistītos mācību priekšmetos.

Otrs pētījums veltīts Rīgas un Karlsrūes (Vācija) inženieru starptautiskai partnerībai trijos gadsimtos (1862–2024). Sadarbība 19. un 20. gadsimtā veidojusies ar senāko tehnisko augstskolu Vācijā – 1825. gadā dibināto Karlsrūes Politehnikumu, kas mūsdienās pazīstams kā Karlsrūes Tehnoloģiju institūts. 20. gadsimta beigās un 21. gadsimtā RTU zinātniekiem un docētājiem sadarbība veidojusies ar Karlsrūes Augstskolu. Rīgas studenti devās uz Karlsrūi studēt gan 19., gan 20. gadsimtā, un daļa no viņiem inženiera diplomu ieguvuši Karlsrūē. Abu pilsētu augstskolu starptautisko partnerību izpētījuši RTU profesori Alīda Zigmunde, Jānis Kaminskis un Igors Tipāns, kā arī Varmijas un Mazūrijas Universitātes Olštinā (University of Warmia and Mazury in Olsztyn; Polija) profesors Kamils Kovaļčiks (Kamil Kowalczyk), jo arī poļu zinātnieki ir studējuši Karlsrūē un dalījušies pieredzē ar šīs pilsētas inženieriem.

Trešā pētījuma autors ir privātās Skopjes Universitātes Amerikas koledžas Ziemeļmaķedonijā profesors Vladimirs Ladinskis (Vladimir Ladinski), kurš pievērsies augstākās izglītības attīstības vēsturei, izpētot ķīmijas inženieriju bijušajā Dienvidslāvijā. Īpašu uzmanību profesors

pievērsis trim senākajām valsts augstskolām – Belgradas Universitātei, Ļubļanas Universitātei un Zagrebas Universitātei, kas izveidojušās 20. gadsimtā starpkaru periodā. Rakstu V. Ladinskis veltījis sava tēva Boro Ladinska piemiņai. Raksta autora tēvs bija Skopjes Svētā Kirila un Metodija Universitātes profesors, bijušās Dienvidslāvijas Ķīmiķu un tehnologu asociācijas prezidents (1979–1981).

RTU saimei ir tradīcija katru gadu oktobrī, sagaidot RTU dzimšanas dienu 14. oktobrī, apmeklēt Rīgas kapos apbedīto bijušo rektoru kapavietas. Mārtiņa kapos gan nav apbedīts neviens no bijušajiem augstskolas rektoriem, taču tajos mūža mieru raduši ne tikai docētāji un bijušie studenti, bet arī Karls Ādolfs Tīlo – viens no Rīgas Politehnikuma (RP) dibināšanas iniciatoriem un RP Padomes locekļiem. Ceturtais pētījums veltīts Mārtiņa kapos apbedītajiem «politehniķiem». Tos apzinājusi vēsturniece Zinta Valdmāne, personu dzīvesstāstos iedzīlīnājusies RTU profesore Alīda Zigmunde un Rīgas domes Mājokļu un vides departamenta Kapu pārvaldes Mārtiņa un Torņakalna kapu pārzinis Valdis Gavars.

Žurnāla piektā raksta par Arnālu dzimtu un devumu Latvijas tautsaimniecībai autori ir RTU Inženierzinātņu vēstures pētniecības centra vadītāja docente Ilze Gudro un RTU Arhitektūras un dizaina institūta lektors Jānis Kalniņš. Pētījumam, tāpat kā visiem iepriekš minētajiem rakstiem, izmantoti gan Latvijas Nacionālā arhīva dokumenti, gan bibliotēku krājumi. Arnālu uzņēmums, kas nodarbojās ar bezalkoholisko un arī alkoholisko dzērienu ražošanu, Latvijas vēsturē iegājis kā lielākais mākslīgo minerālūdeņu ražotājs cariskajā Krievijā.

Zinātniskā žurnāla sestajā rakstā atspoguļoti pētījuma, kas veltīts Rīgas Politehniskā institūta (RPI) studentu un docētāju raksturojumiem un to leksikai padomju laikā, 20. gadsimta otrajā pusē, rezultāti. To veikusi RTU profesore Alīda Zigmunde, strādājot konsolidācijas projektā (2024–2025) kopā ar RTU Liepājas akadēmija kolēģiem. Raksturojumi (galvenokārt krievu valodā), kas glabājās personas lietās, tolaik tika rakstīti visiem RPI docētājiem un studentiem, un dažiem docētājiem to skaits sasniedza pat vairāk nekā divus desmitus.

Zinātniskā žurnāla noslēgumā tradicionāli atceramies un godinām iepriekšējā studiju gadā aizsaulē aizgājušos mācībspēkus un darbiniekus. 2024./2025. studiju gadā mūžībā devušies RPI / RTU docētāji un darbinieki – Viktors Aļohins, Jānis Auziņš, Pauls Barons, Daina Brence, Mārcis Dzenis, Sigurds Jaundālderis, Arvīds Kanbergs, Kārlis Ketners, Jānis Krastiņš, Velta Ļubkina, Laimonis Mālers, Skaidrīte Reihmane, Kārlis Timmermanis un RTU Goda doktors Rūdolfs Taurits. Žurnālā lasāmi viņu nekroloģi.

Zinātnisko žurnālu noslēdz RTU 2024./2025. studiju gada nozīmīgāko notikumu hronoloģija (01.09.2024–31.08.2025).

Galvenā redaktore asociētā profesore Dr. psych. Airisa Šteinberga

# THE CONTRIBUTION OF RIGA POLYTECHNICUM / RIGA POLYTECHNIC INSTITUTE GRADUATES (1875–1916) TO MARITIME AFFAIRS IN THE 19TH AND 20TH CENTURIES

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**Summary.** Some engineers who graduated from Riga Polytechnicum (RP) / Riga Polytechnic Institute (RPI) linked their lives with maritime affairs – they built ships, trained future sailors, and managed the work of the Maritime Department. RP/RPI graduates and students have made significant contributions to maritime affairs in Russia, Latvia, Poland, and Germany. A course in shipbuilding was taught at RPI, which was later taken over by the University of Latvia (UL). RP graduate Professor Charles Clark (1867–1942) was one of the best-known and most prolific designers of ships, including the icebreaker «Krišjānis Valdemārs», until World War II; RPI graduate (1914) Admiral Teodors Spāde (1891–1970), Commander of the Latvian Navy (1931–1940), worked in Latvia in the interwar period. «Polytechnicians» headed the Maritime Department (1927–1939; 1942–1944) and worked as teachers in maritime schools, taught maritime-related courses at the University of Latvia, and wrote about maritime issues in the press.

**Keywords:** Graduates of Riga Polytechnicum, graduates of Riga Polytechnic Institute, teachers in maritime schools, directors of the Maritime Department, Krišjānis Valdemārs.

## Introduction

The year 2025 marks the 200th birthday of economist, publicist, politician, and founder of the Ainaži Maritime School, Krišjānis Valdemārs

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(02.12.1825–07.12.1891), which is also included in the UNESCO calendar of anniversaries. At the RTU International Scientific Conference, which takes place in October, celebrating RTU's birthday, traditionally, since 2017, one day is dedicated to the history of RTU, each year highlighting a historically significant event or fact. RTU History Day is traditionally organized by the RTU Research Centre for Engineering History (RCEH). This year, the second part of RTU History Day was dedicated to K. Valdemārs and maritime education in Latvia. In addition, the Latvian Maritime Academy (LMA) has returned to the RTU ecosystem, and the second part of the RTU History Day was organized by the RTU RCEH in cooperation with the RTU LMA and the project «Enkurs 2025», which is implemented by the Latvian Maritime Union with the financial support of the Society Integration Fund [1].

To popularize the profession of seafarers and maritime education, as well as to commemorate the founder of modern maritime education, K. Valdemārs, on his 200th anniversary, in the spring of 2025, the LMA announced an essay and report competition for secondary school, college, and university students, «Let's multiply Valdemārs!». An essay by Kitija Kampaņa, a pupil at RTU Engineering High School, was recognized as one of the best works in the competition. At the beginning of the second part of RTU History Day, those present had the opportunity to familiarize themselves with the essay in a reading by the author. Next, Anita Freiberga, Editor-in-Chief of the Maritime Administration of Latvia magazine «Jūrnieks», gave an interesting report in the form of an interview «21st Century and Krišjānis Valdemārs»; One of the authors of this article – RTU Professor Alīda Zigmunde – spoke about the contribution of RP / RPI graduates to maritime affairs in the 19th and 20th centuries; librarian Brigita Ālere introduced the maritime industry rarities of the RTU Scientific Library, while RTU LMA Director Edijs Štāls shared his thoughts on maritime education in Latvia in the 21st century [2]. At the conclusion of the ninth RTU History Day, a panel discussion, «The Future of Maritime Education in Latvia,» was held, moderated by A. Freiberga. It was attended by RTU Rector Academician Tālis Juhna, Deputy Vice-Rector for Supervision of Independent Institutes and Agencies Ieva Rācenāja, RTU LMA Director Edijs Štāls, student Adams Aleksandrs Soini and industry professionals – Chairman of the Board of the Latvian Maritime Union Roberts Gailītis (LMA graduate, 2008), Vice-President of the Latvian Shipmasters' Association Captain Normunds Vilkaušs (RTU LMA graduate, 1998), and Member of the Board of the Association of Marine Engineers of Latvia, Senior Ship Engineer Uldis Ozols. At the end of the heated discussion, everyone agreed – as long as Latvia is washed by the sea, maritime education must exist in Latvia!



**Figure 1.** From left: Anita Freiberga, Uldis Ozols, Normunds Vilkaušs, Roberts Gailītis. 14.10.2025.

In preparation for the ninth RTU History Day, the RTU RCEH, in collaboration with the RTU LMA, created an express exhibition, which is also dedicated to the 200th anniversary of K. Valdemārs and maritime education in Latvia, and can be viewed at 6B Ķīpsalas Street 6B, 2nd floor, at the entrance to the RTU LMA. The LMA premises also display the painting «Krišjānis Valdemārs» by the artist Andrejs Šulcs (1910–2006) – a gift to the LMA at its fifth graduation in 1998.



**Figure 2.** Painting «Krišjānis Valdemārs». 1998.

LMA began its activities at RTU in 1990 as a faculty and operated as part of the university until 1993, when, by the decision of the Cabinet of Ministers of the Republic of Latvia of 8 January 1993 «Par Latvijas Jūras akadēmijas dibināšanu» (On the Establishment of the Latvian Maritime Academy), it became an independent higher education institution. In turn, on 6 July 2022, the Cabinet of Ministers of the Republic of Latvia issued Order No. 492 «Par Latvijas Jūras akadēmijas reorganizāciju» (On the Reorganization of the Latvian Maritime Academy) [3]; and, since 1 November 2022, the LMA has been included in the RTU ecosystem, becoming the RTU LMA.

The graduates and lecturers of the RP / RPI (since 1990 – RTU) are not direct students of K. Valdemārs, but thanks to the contribution of this great Latvian spirit to the development of maritime education in Latvia, more than one graduate of the university has contributed to the important sector of the national economy – maritime affairs.

## **Graduates and Students – for Shipbuilding**

Graduates of the RP Department of Machine Engineering / RPI Department of Mechanics found jobs in shipbuilding. In 1870, the Riga Shipbuilding and Machine Engineering Factory was founded, which later acquired the name of JSC «Lange & Sohn». Wilhelm Trompeter (1850–?), a graduate (1875) of the Department of Machine Engineering, worked there as a foreman (1877–1879) [4; 64]. One of the most famous graduates (1894) of the RP Department of Machine Engineering, Charles Clark, immediately after receiving his university diploma, began working as a constructor (1894–1906) at JSC «Lange & Sohn». Graduate (1906) Arvīds Zīle (1878–?) furthered his knowledge of shipbuilding at the technical universities of Berlin and Gdańsk. Since 1907, he worked in the Shipbuilding Department of the Kolomna Machine-Building Factory, located in the Moscow Governorate, Russia [4; 425]. It was one of the largest and most famous factories; its products won awards at Russian and world exhibitions. After the establishment of the Republic of Latvia, A. Zīle continued to live and work in Russia.

The life of Edgar Matzkait (1887–?), an RPI student (1904–1905), was connected with shipbuilding. When RPI was closed due to the events of the 1905 revolution, he went to study shipbuilding and engineering at the Gdańsk Technical University, and after graduating (1909), worked for a year in the Warship Building Department of the Stettin Machine Building JSC «Vulcan» (Stettiner Maschinenbau A. G. «Vulcan»), in Germany. Then he returned to Latvia and, in 1918, became the Director of the Riga Bourse Exchange Committee shipyard and machine factory in Bolderāja [5; 73, 98].

Students from other departments also connected their lives with the sea. Jānis Zēbergs (1871–1927), a graduate (1895) of the RP Department of Trade, worked in the shipping companies: in «Brāļi Seeberg»; before World War I, he worked as a Managing Director in the Russian-Baltic Shipping Company; during World War I, he worked in shipping in Russia (Petrograd, Arkhangelsk); was the Minister of Trade and Industry in the Latvian Provisional Government (1919); was co-owner of the shipping company «Helmsing & Grimm» (1923–1927); and held public positions, being the Chairman of the Latvian Shipowners' Union, the Chairman of the Latvian Water Rescue Society, etc. [5; 51].



Figure 3. Jānis Zēbergs. Early 1920s.

### «Polytechnicians» for Maritime Affairs

The Maritime Department was established in 1920 under the auspices of the Ministry of Finance of the Republic of Latvia, with the primary task of promoting the development of maritime shipping and trade. The Department existed until 1944 and was headed by four directors. Two of them were RPI graduates who headed the department for many years (1927–1939, 1942–1944). One of them – Arturs Ozols (1890–1969), a graduate (1914) of the RPI Department of Mechanics – headed the Department for many years (1927–1939). During World War I, A. Ozols served in the Black Sea Fleet. In 1918, he returned to Latvia and, together with his brothers Markuss Ozols (1895–1942; studied at the RPI Department of Engineering), Oskars Ozols (1889–1975; studied engineering at RPI, UL), and Aleksandrs Ozols (1896–1919; studied at the RPI Department of Agriculture), joined the Latvian Army and served in the

Separate Student Company. Artur's brothers were awarded the highest Latvian military award – the Military Order of Lāčplēsis [6]. At the initiative of A. Ozols, the Provisional Government of the Republic of Latvia confiscated the cargo and passenger ship «Saratov», abandoned during World War I. A. Ozols led the ship's takeover and repair in the workshops of the Liepāja naval port. It was the second ship in the Latvian Navy and is remembered in history as the place where the Provisional Government of the Republic of Latvia was located from 16 April to 26 June 1919. Mechanical engineer A. Ozols worked at the Liepāja Naval Port (1919–1920), participated in the construction of the icebreaker «Krišjānis Valdemārs» in Scotland (1924–1925), was an expert at the ship classification society «Lloyds Register of Shipping» in Riga (1928–1940), and worked at the Latvian Yacht Club [7].



**Figure 4.** Arturs Ozols. 1930s.



**Figure 5.** Fridrihs Šifers. 1930s.

During World War II (1942–1944), the Maritime Department was headed by Fridrihs Šifers (1887–1964), a graduate (1914) of the RPI Department of Engineering [8]. Several other RPI graduates have worked in the Department. One of them – Juris Kalējs (1875–1935), a graduate (1906) of the Department of Engineering – was the Vice-Director of the Department (1921–1935). After studying at the university, he was the Head of the Waterway Department in the Vilnius region (1911–1918), in the North-Western Water Transport Administration (1918–1920) [5; 71]. After returning to Latvia in 1920, he began working as the Head of the Hydrotechnical Department of the Waterways Directorate of the Latvian Roads and Construction Board, and a year later, he began working in the Maritime Department [9]. J. Kalējs' colleague was Kārlis Jansons (1876–?), a graduate (1903) of the RPI Department of Engineering, who also worked in the Waterways Directorate – as an engineer (1920–1921), as well as a senior technician of the Maritime Department (1928–1929) [5; 76].

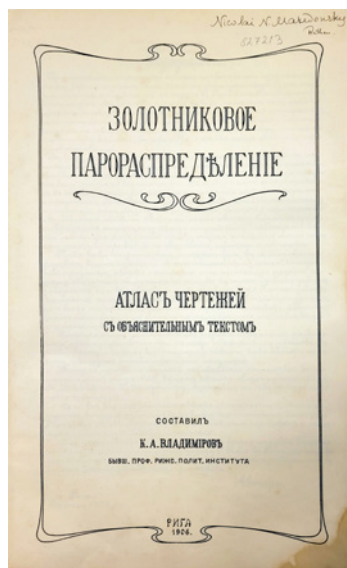
Admiral Teodors Spāde (1891–1970), commander of the Latvian Navy (1931–1940), graduated with honours from the RPI Department of Mechanics (1914). He also graduated from the Naval Praporshchik School in Petrograd (now St. Petersburg) in Russia and the Naval Academy in France. During World War I, he was drafted into military service and served in various places, holding various positions, in the Caspian and Black Sea Fleets. In 1920, T. Spāde returned to Latvia and was one of the co-founders and a Board member of the shipping company «Ausma» and the Latvian Yacht Club (1924)[10].

Michael von Benislawski (1860–1933), who organized Polish shipping after World War I, studied at the RP Department of Trade for a couple of years [5; 41].

## **Graduates of Riga Polytechnicum / Riga Polytechnic Institute – Maritime School Teachers and University Lecturers in Maritime-Related Subjects**

One of the authors of this article, A. Zigmunde, has researched that at least 15 % of graduates (1864–1919) worked as teachers in various educational institutions. Some have only been teaching for a few months, while others have been teaching for their entire lives. Future merchants at RP / RPI were taught a course in maritime law and maritime regulations. Later, at the beginning of the 20th century, they also received instruction in shipbuilding, and the Chair of Shipbuilding operated at the University of Latvia.

The book on the steam valve spool (1906) compiled by Konstantin Vladimirov (Константин Владимиров; 1860–1926), a graduate (1888) of the RP Department of Machine Engineering, an RP / RPI Assistant Professor (1892–1905), a Professor (1896), and a Dean of the Department of Mechanics (1901–1905), was used for teaching at the naval school of Tsarist Russia in Odessa [11].



**Figure 6.** Title page of the book on the steam valve spool compiled by Konstantin Vladimirov. 1906.

K. Vladimirov's colleague, Scott Charles Clark (1867–1942), a graduate (1894) of the RP Department of Machine Engineering, was associated with the pedagogy of the university for 46 years – he began working at RPI in 1896 and continued to work at the University of Latvia until the end of his life in 1942. In 1902, he was elected Professor and served as Dean of the Department of Mechanics (1906–1918). His courses of study were related to maritime affairs, and he introduced the discipline of shipbuilding. At the beginning of the 20th century, RPI planned to introduce a shipbuilding specialization in the Department of Mechanics; however, due to bureaucratic obstacles, the plan was not implemented [12]. C. Clark had designed several sea tugs for various Latvian ports, Riga city short-distance steamers, icebreakers «Pēteris Lielais» and «Krišjānis Valdemārs» [13], and participated in the ordering and construction of the Lake Lubāna hydrofoil ship. The professor developed about 200 different ship designs.

A graduate (1907) of the RPI Department of Commerce, economist Jānis Kārklīņš (1877–1955) led commercial courses in Pskov, Russia (1918), and was a lecturer at the University of Latvia, the University in Riga, and the Baltic University in Germany. He was the Chairman of the Board of the

shipping company «Katvaldis» (1930–1940), studied the development, formation and state of the Latvian shipping industry, its competition in the European market, and published articles. The topic of J. Kārklīņš's doctoral thesis was «Latvian Commercial Shipping Industry» (1936) [14].

A graduate (1913) of the RPI Department of Chemistry, the well-known astronomer Alfrēds Žaggers (1878–1956), worked as a teacher at the Mangaļi Maritime School (1903–1920), was its Director (1914), and during the interwar period taught marine astronomy at the Krišjānis Valdemārs Maritime School in Riga, compiling the textbook «Jūras astronomija» (Marine Astronomy), Part II (1930). He also taught technology at the naval school, setting up a weather station with attached signal clocks and lamps. A. Žaggers was also the Director of the Astronomical Observatory of the University of Latvia (1922–1944) and a lecturer at the University of Latvia [15]. A. Žaggers' colleague at the Mangaļi Maritime School was the teacher of special maritime subjects Ēriks Breikšs (1882–1970), the son of Jānis Breikšs (1850–1915), a long-time teacher and Director of the Mangaļi Maritime School. Ē. Breikšs simultaneously worked and studied at the RPI Department of Mechanics. Combining studies with work, Ē. Breikšs could not regularly attend drawing classes intended for engineering students, so he chose to continue his studies at the Department of Commerce, which he successfully graduated from (1916). During the interwar period, Ē. Breikšs taught maritime and trade subjects at the K. Valdemārs Maritime School [16].

Gustav Bientz (1883–after 1940), a graduate (1906) of the RPI Department of Commerce, worked briefly as a teacher of commercial studies at the Riga Bourse Exchange Committee Maritime School (1906/1907) [17].

At the beginning of the 20th century, Felix Martens (1879–?), an RPI graduate (1904), and Hans Haensel (1881–?), RPI graduate (1905), also worked as teachers at the Riga Bourse Exchange Committee Maritime School.



**Figure 7.** Title page of the book «Jūras astronomija», Part II, compiled by Alfreds Žaggers. 1930.

## Conclusions

RP / RPI has trained the first engineers in various sectors of the national economy, including shipbuilding and engineering. Graduates have worked in Tsarist Russia, Germany, and Latvia. The name of K. Valdemārs was also familiar to students and lecturers, whose articles were read and discussed, and whose contemporaries were students. The father of Honests Kuzņecovs (1884–1936), a student of the Department of Mechanics, was the lawyer and publicist Jūlijs Kalējs-Kuzņecovs (1843–1905), an associate of K. Valdemārs [19]. H. Kuzņecovs studied at RPI for only one semester, because after his father's death, finances dwindled, and the RPI was temporarily closed, but the story of K. Valdemārs and his contribution to maritime affairs lived on in the family.

The connection between RP / RPI graduates and the maritime industry remains largely unexplored; the future may lie in studying their biographies in archives and libraries. The history of the university also enriches the history of Latvian maritime affairs, constantly supplementing it – the activities of RTU LMA are part of this history.

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## SOURCES OF ILLUSTRATIONS

**Figure 1.** RTU IVPC.

**Figure 2.** RTU LJA.

**Figure 3.** LNA LVVA 3234. f., 32. apr., 74020. l., 3. lp.

**Figure 4.** LNA LVVA 2996. f., 14. apr., 8896. l., 1. lp.

**Figure 5.** LNA LVVA 2996. f., 17. apr., 14026. l., 1. lp.

**Figure 6.** 1906. RTU IVPC.

**Figure 7.** LNB.



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The Contribution  
of Riga  
Polytechnicum /  
Riga Polytechnic  
Institute Graduates  
(1875–1916) to  
Maritime Affairs  
in the 19th and  
20th Centuries

### **Rīgas Politehnikuma / Rīgas Politehniskā institūta absolventu (1875–1916) devums jūrniecībai 19. un 20. gadsimtā**

Daļa Rīgas Politehnikuma (RP) / Rīgas Politehniskā institūta (RPI) izglītību ieguvušo inženieru saistīja savu dzīvi ar jūrniecību – būvēja kuģus, skoloja nākamos jūrniekus, vadīja Jūrniecības departamenta darbu. RP / RPI absolventi un studenti devuši ieguldījumu jūrniecībai cariskajā Krievijā, Latvijā, Polijā, Vācijā. RPI tika lasīts kurss kuģu būvē, kas vēlāk tika pārņemts arī Latvijas Universitātē (LU). RP absolvents profesors Čarlzs Klarks (*Charles Clark*; 1867–1942) līdz Otrajam pasaules karam bija viens no pazīstamākajiem un ražīgākajiem kuģu, tostarp ledlauža «Krišjānis Valdemārs» projektētājiem; RPI absolvents (1914) admirālis, Latvijas Jūras kara flotes komandieris (1931–1940) Teodors Spāde (1891–1970) darbojās Latvijā starpkaru periodā. «Politehniķi» vadījuši Jūrniecības departamentu (1927–1939; 1942–1944) un strādājuši par skolotājiem jūrskolās, docējuši ar jūrniecību saistītus kursus LU, rakstījuši par jūrniecības jautājumiem presē.

**Atslēgvārdi:** Rīgas Politehnikuma absolventi, Rīgas Politehniskā institūta absolventi, jūrskolu skolotāji, Jūrniecības departamenta direktori, Krišjānis Valdemārs.

# INTERNATIONAL PARTNERSHIP BETWEEN RIGA TECHNICAL UNIVERSITY AND KARLSRUHE ENGINEERS OVER THREE CENTURIES (1862–2024)

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**Summary.** The oldest technical university in Germany, the Karlsruhe Institute of Technology (KIT), celebrates its 200th anniversary in 2025. The Institute (then known as Karlsruhe Polytechnicum; KP, Polytechnikum Karlsruhe) was one of the models after which the predecessor of Riga Technical University (RTU), Riga Polytechnicum (RP), was founded in 1862. The oldest technical university in Latvia, Riga Technical University, has been closely associated with Karlsruhe engineers and scientists for over 160 years. Scientists, university lecturers, and engineers have collaborated, shared experiences, developed engineering sciences, and sought new opportunities for collaboration in science and university pedagogy. More than 80 former students of Riga Polytechnic Institute (RPI) have continued their studies in Karlsruhe, with some also serving as lecturers at the KP. At the end of the 20th century, RTU also established cooperation with the Karlsruhe University (KU).

**Keywords:** Riga Technical University, Karlsruhe Institute of Technology, Karlsruhe University, engineering education, inter-university cooperation.

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## Introduction

Cooperation between universities in different countries has existed since their founding and is still relevant today. This is also the case with the oldest technical university in Riga – RP. Looking back in history, in the second half of the 19th century and the beginning of the 20th century, Riga engineers and university lecturers had the closest ties with universities in Germany, Austria, and Switzerland, because in them, like at RP (1862–1896), the language of instruction was German and their goals and traditions were similar. The established contacts were maintained even after the reorganization of RP into RPI (1896–1919) with the Russian language of instruction. With the development of rail and sea transport, and later telephone communications, information was obtained more quickly, which facilitated the pace of cooperation. The Baltic Germans, who were the wealthiest and most educated residents of Riga and the Baltic provinces, and who had contacts with fellow students, friends, and relatives in Europe, including Karlsruhe and its Technical University, played a major role. Considering that the language of instruction at RP was German, lecturers from Germany and other countries could communicate freely, and most Riga residents, regardless of nationality, also spoke German. In 1896, when RP was reorganized into RPI, the language of instruction became Russian, which was not mastered by university lecturers who came from Western Europe, including Karlsruhe.

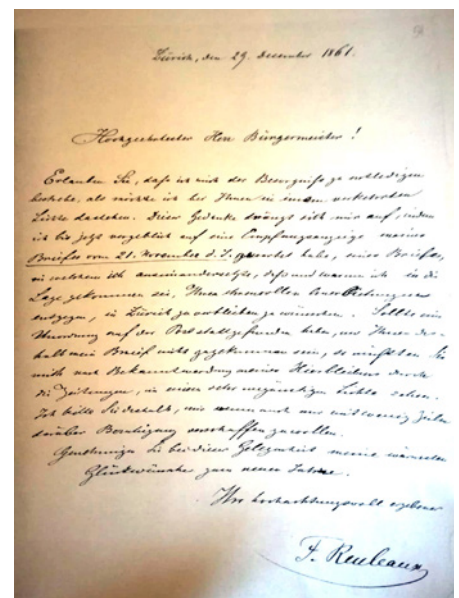
This study began as the authors continued to explore the inter-university cooperation that was initiated several years ago and resulted in a joint report on the partnership between RTU and the Technical University of Dresden (1862–2024) [1]. The materials were identified in archives and libraries, and the collection of the RTU History Museum was used.

## Cooperation Between Riga Polytechnicum and Karlsruhe Polytechnicum in the Second Half of the 19th Century

In the mid-19th century, when the Russian Empire was being formed, there were no multidisciplinary technical universities in either the Baltic provinces or the Russian Empire. Polytechnicums in Germany could share their experience, including the KP founded in 1825, also called the Karlsruhe Polytechnic School (Polytechnische Schule zu Karlsruhe), from 1885 – the Karlsruhe Technical University (KTU, Technische Hochschule Karlsruhe), from 1902 – the Karlsruhe Technical University Fridericiana (Technische Hochschule Fridericiana Karlsruhe), which is why in the

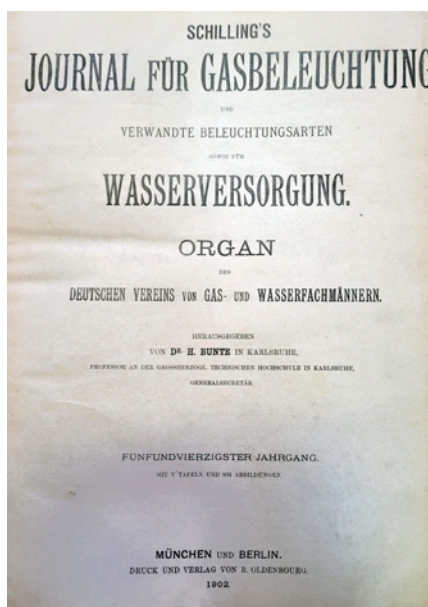
autumn of 1861, representatives of the RP Council visited it and 18 other Western European educational institutions [2]. During the visit, the RP Council received advice, recommendations, university curricula, and plans that were used in the creation of RP. One of the models for creating and developing RP was KP [3]. The RP Council was pleased with this, and its minutes record that on 3 November 1861, it sent a letter of gratitude for the advice and support from the KP Director Ferdinand Jacob Redtenbacher (1809–1863) and the Professor of chemistry, Karl Weltzien (1813–1870) [4], whom the Rigans had met during their visit.

For the new university in Riga to begin its work, the RP Council had another task – to find the RP Director (in modern terms, a rector). The Chairman of the RP Council and the Riga Burgomaster, Otto Mueller (1813–1867), invited Franz Reuleaux (1829–1905), a KP graduate, a student of F. J. Redtenbacher, and a Professor at the Federal Higher Technical School in Zurich (Eidgenoessische Technische Hochschule Zuerich), to work in Riga, but he declined the offer [5]. Mechanical engineer F. Reuleaux began working at the Berlin Academy of Crafts (Gewerbeakademie Berlin) in 1864, later a technical university, where he held the position of Rector (1890–1896). Professor F. Reuleaux played a crucial role in establishing the material foundation of mechanical engineering. Under his leadership, mechanisms were manufactured and educational materials were developed [6]. His care for the material base of RP in the first years of the university’s operation should be recognized as a significant support, because in the early days of engineering education, Riga residents lacked both funds and experience.



**Figure 1.** Letter from Franz Reuleaux to Riga Burgomaster Otto Mueller about declining the job offer in Riga. 29.12.1861.

In addition, books compiled by professors of KP ended up in the RP Library. Here must be mentioned: the mechanical engineer Josef Hart (1832–1915); botanist Moritz August Seubert (1818–1878), chemist Karl Seubert (1815–1868), the already mentioned mechanic F. J. Redtenbacher, as well as the physicist, Nobel Prize laureate in physics (1909) Karl Ferdinand Braun (1850–1918); Otto Lehmann (1855–1922), a physicist nominated for the Nobel Prize twice, whose publications were in the collection of RP / RPI Library. The Library also received engineering press, for example, the «Journal für Gasbeleuchtung und Verwandte Beleuchtungsarten, sowie für Wasserversorgung» (Journal for Gas Lighting and Related Types of Lighting, as well as Water Supply) edited by KTU Professor Hans Bunte (1848–1925) [7]. Some of the publications by the aforementioned scientists are currently in the RTU Scientific Library and the University of Latvia Library.



**Figure 2.** Cover of the «Journal für Gasbeleuchtung und verwandte Beleuchtungsarten, sowie für Wasserversorgung» edited by Professor Hans Bunte. 1902.

## The First Lecturers of Riga Polytechnicum – Graduates of Karlsruhe Polytechnicum

When RP started working, it had essentially good, professional lecturers, who mainly came from Western Europe and were graduates of its technical universities. One of the first professors at RP was Gustav

Schmidt (1826–1883), who had studied mechanics at KP. In Riga, he taught courses in mechanical engineering and higher mathematics in the academic year 1862/1863 [8]. However, G. Schmidt had disagreements with the RP administration, and the salaries were not high, so he went to work in Prague.

Among the first lecturers was Karl Joseph Lovis (1839–1911), a KP graduate (1859), who arrived in Riga in 1859 at the age of 20 and worked as an engineer, later as a Technical Manager, at the Haecker Agricultural Machinery factory in Iļģuciems, which at that time was not yet part of the territory of Riga. In 1863, he began teaching at RP [8], was appointed a professor in 1870, and remained at the university until 1901. He taught the following courses: initially, mathematics, general and agricultural machine learning, technology, technical mechanics, and theoretical machine learning; in later years, mechanical heat theory, furnaces, heating and ventilation, water power machines, steam boilers, steamboats, locomotives, and mechanical engineering. The Professor was the first Dean (1870–1901) of the Department of Machine Engineering (Mechanics). In addition to his work at RP / RPI, K. J. Lovis was the Editor (1864–1876) of the Riga Technical Society newspaper, one of the founders (1873) and Directors of the mechanical engineering company «Felser & Co», worked in the technical office «Lovis und Weir», JSC «Sirius» [9; 711], and also compiled a textbook.

The RP Department of Machine Engineering, founded in 1864, was most closely associated with the Riga industry, in which K. J. Lovis and his colleagues were involved, and graduates of the Department had internships and jobs in factories. They participated in the work of the Riga Technical Society by presenting papers, taking part in discussions, and writing about current issues in engineering in the press [10].



**Figure 3.** Karl Joseph Lovis. 1860s.

Among the most active members of the Riga Technical Society, one should also mention the mechanical engineer Karl Moll (1831-?) – a KP graduate and a former student of Professor «the father of kinematics», F. Reuleaux. They had both compiled the manual «Constructionslehre für den Maschinenbau» (1854; Design for Mechanical Engineering). K. Moll was described very positively to the people of Riga by his teacher, F. Reuleaux, and K. Moll arrived in Riga in 1870 [11] to take up the position of lecturer Leonidas Lewicki (1840–1907). L. Lewicki was also familiar with F. Reuleaux – he was, for a short time, an Assistant Professor in Zurich (1862), but in Riga and elsewhere, steam pile drivers designed by engineer L. Lewicki were popular for many years.



**Figure 4.** Leonidas Lewicki. 1860s.

Assistant Professor (1870–1871), Professor (1872–1896), K. Moll taught a course in mechanical engineering at the Department of Machine Engineering, and at the Department of Trade – commercial arithmetic (1874–1892), and also served as Dean of the Department of Trade (1876–1877) [11].

His article on steam engines was published in several sequels in the Latvian newspaper «Mājas Viesis» in 1875 [12]. The Professor obtained a patent for the novelty of adding textile to drive belts in addition to leather [13]. However, due to Russification and the change of the language of instruction at the university, he left Riga for Karlsruhe in 1896.

In 1912, the 50th anniversary of the founding of RP / RPI was celebrated, and K. Moll, along with other scientists and university teachers, was nominated for RPI Honorary Membership [14]. Only six of the nine nominated were awarded this Honorary title, and K. Moll's name was not on the list. It should be noted that 11 German technical universities, including Karlsruhe, congratulated RPI on its 50th anniversary.



International  
Partnership  
Between Riga  
Technical  
University  
and Karlsruhe  
Engineers Over  
Three Centuries  
(1862–2024)

**Figure 5.** Karlsruhe Technical University building. 1907.



**Figure 6.** The Karlsruhe Institute of Technology building today. 2025.

## Lecturers of Riga Polytechnicum / Riga Polytechnic Institute in Karlsruhe

RP lecturers moved to Karlsruhe to work for various reasons. Thanks to its many years of successful activity, KP had gained popularity and recognition; however, the RP Director Ernst Nauck (1819–1875) managed to attract some KP graduates to the new technical university (RP) – talented educators and scientists endowed with organizational skills. It must be acknowledged that not all lecturers at RP remained in their positions for many years, as salaries were low and social security benefits were minimal. In 1866, Professor Etienne Laspeyres (1834–1913) from the University of Basel, Switzerland, came to Riga and carried out all the preparatory work for the opening of the RP Department of Trade in 1868. However, the organizer of the Department, one of the most prominent economists and statisticians, moved to the University of Dorpat (Universitaet Dorpat) in 1869 [15]; but in 1873, he went to Germany – he began working at the Karlsruhe Polytechnicum, and later – at the University of Giessen (Universitaet Giessen).

In Dorpat, E. Laspeyres developed the aggregate index theory, which was applied in economic statistics and economic analysis. His formula for calculating inflation is also known worldwide. The RP faculty maintained contacts with E. Laspeyres and other former faculty members who returned to Western Europe.

Also known worldwide is Engelbert Arnold (1856–1911), the Swiss electrical engineer, the «count of electrical engineering», a graduate of the Federal Zurich Polytechnicum (Eidgenössisches Polytechnikum in Zuerich, 1878). In 1880, the engineer became an Assistant to RP Professor K. Moll (later also his father-in-law), and from 1883, he was an RP Assistant Professor. Since the academic year 1885/1886, electrical engineering has been included in the curriculum of the Department of Machine Engineering [16]. It was taught from 15 April 1886 by E. Arnold, who worked as a lecturer at the University in Riga until 1891 [17]. He was also an author of textbooks and an entrepreneur who produced self-designed dynamos. E. Arnold did not speak Russian, and as Russification intensified, he and his family moved to Switzerland, and in 1894, to Karlsruhe. There he worked as a Professor at the KTU until the end of his life in 1911, and was also its Rector (1906–1911). In Karlsruhe, he met again Professor K. Moll, who spent the rest of his life in this city. Thanks to E. Arnold, RP was among the first higher educational institutions in the world and the first in Tsarist Russia to start training high-current electrical engineers.

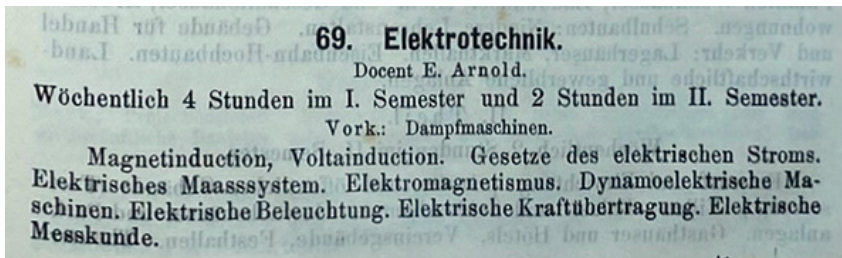


Figure 7. Description of the electrical engineering course taught by Assistant Professor E. Arnold. 1885.

Karl von Stilinger (1870–?), a Riga resident, graduated from the RP Department of Machine Engineering (1895) and was an RPI Assistant in Mechanical Engineering (1897–1899), completed a course for gas engineers at KTU (1910), and settled in Western Europe.

Many RP / RPI lecturers were educated at several universities, including KP / KTU. Here should be mentioned: RP Professor of Mechanical Technology (1876–1879) Martin Schoenflies (1841–1879) [18], Lecturer in drawing (1871, 1874) Oskar Poelchau (1835–1882), Assistant in the Laboratory of Chemical Technology (1908–1910) Johann Jacoby (1882–?), and Assistant in Chemical Technology (around 1910) Pawel Grebnew (1878–?).

It must be assumed that the botanist, mathematician, RP / RPI Professor of Geometric Geometry Karl Reinhold Kupffer (1872–1935) visited several technical universities in Europe at the beginning of the 20th century, because in September 1905, he wrote a report on teaching geometric geometry at technical universities in Western Europe, including Karlsruhe [19].

## Students and Graduates of Riga Polytechnic Institute – Lecturers at Karlsruhe Technical University

At the beginning of the 20th century, RPI graduates worked not only in the Russian Empire, which included the territory of present-day Latvia, but also abroad, including Karlsruhe. Bronislaw von Michelis (1870–1960), a graduate (1897) of the RPI Department of Mechanics, had some teaching experience, working as an Assistant at his alma mater in Riga (1895–1897). He then went to Karlsruhe to study and was also briefly an Assistant (1898) at KTU [9; 257]. Conrad Friedrich Gruenewaldt (1884–1945), a graduate (1909) of the RPI Department of Engineering, developed

his habilitation thesis in Karlsruhe (1927) [20] and worked as a Professor for longer than B. fon Michelis, two years (1932–1934).

Four former students of the RP / RPI Department of Mechanics have worked as assistants at KTU. Nikolai Adelung (1857–?) graduated from the University of Heidelberg (1888) and was an Assistant (1892–1894) at the KTU Zoological Institute. Ralph von Sengbusch (1885–?) studied at RPI shortly, from 1 September to 16 November 1905 [21], as the university was closed due to the events of the 1905 revolution. He studied electrical engineering at KTU and in 1908, began working as an Assistant to Physics Professor August Schleiermacher (1857–1953). Ernst Seywang (1883–?) studied mechanical engineering at KTU. After graduating from university (1906), he worked in a mechanical engineering factory, and in 1909, as an Assistant in Mechanical Technology to KTU Professor Georg Lindner (1859–1948). The Dane Niels Hviid (1882–1967) graduated from KTU (1907) and was a Private Assistant (1909–1911) to Carl Engler (1842–1925), a KTU Professor and one of the founders and most important promoters of petroleum science and technology [9; 500, 534, 577].

After World War I, chemistry was taught at KTU by physical chemist Andreas von Antropoff (1878–1956), a graduate (1904) of RPI Department of Chemistry and RPI lecturer.

## **Students and Graduates of Riga Polytechnicum / Riga Polytechnic Institute – Students of Karlsruhe Technical University in the Second Half of the 19th Century and the Beginning of the 20th Century**

KTU was a popular university not only among local but also foreign students. From 1900 to 1905, 25 % of students were foreigners, mainly from the part of the Russian Empire that is today the territory of Poland, and RPI students who were born in both the Kingdom of Poland and various provinces of the Russian Empire, as well as a few from other countries. The number of students at KTU and RPI at the beginning of the 20th century was approximately similar – in the academic year 1902/1903, almost 1900 students studied in Karlsruhe [22], and 1527 at RPI. By 1915, the number of students at RPI had reached 2000, while in Karlsruhe, it was in decline. The RPI students who studied in Karlsruhe were of different nationalities, including Latvians, Russians, Germans, Jews, Armenians, Danish people, Poles, and others, making the national composition of the RPI students remarkably diverse.

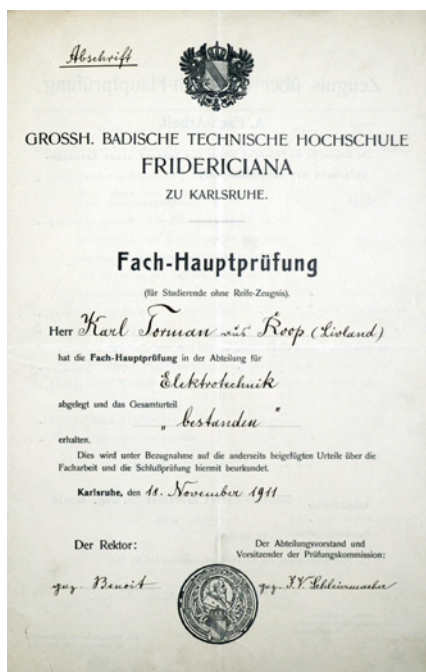
From 1868 to 1912, more than 80 RP / RPI students studied in Karlsruhe, some of whom continued their education there after graduation.

Before studying at the RP KP, three young people studied in the 1870s, two of whom received an RP diploma. By 1900, 12 RP / RPI students had studied at the KP / KTU, of whom four graduated from the University in Karlsruhe, three of whom obtained a diploma in electrical engineering in the late 1890s. Three more RP / RPI graduates from the Department of Mechanics went to Karlsruhe for their studies.

At the beginning of the 20th century, two graduates and five students of the Department of Mechanics went to Karlsruhe, one of whom – Konstantin Sarkissow (1876–?) – continued his studies and graduated from RPI (1911). Nikolai Petrov (1875–1940), a graduate (1900) of the RPI Department of Agriculture, after his studies in Riga, spent three years in private studies in Karlsruhe, where he studied chemistry with Professor C. Engler, and photography with Professor Fritz Schmidt (1861–1937). N. Petrow was a corresponding member of the Karlsruhe Photography Society since 1904.

The events of the 1905 revolution also reverberated at RPI – students participated in demonstrations, RPI buildings were shelled, and the university was closed in the academic year 1905/1906. It was unknown when studies could resume, and many young people went to study at foreign universities, including 55 to Karlsruhe. Their fates were different: 20 graduated from KTU, 20 from RPI, but 15 did not complete their studies. The majority completed their studies in the following years (1906–1911). Only Latvian chemist Pauls Kalniņš (1886–1955) graduated from KTU in 1923, finishing his studies in Karlsruhe (1907–1912) that he had begun after the 1905 revolution. P. Kalniņš was an Assistant to Friedrich Bergius (1884–1949), a Private Docent, Professor at the Hanover Technical University, and Nobel Prize Laureate in Chemistry (1931), who worked at the KTU during P. Kalniņš' studies, in 1909. P. Kalniņš worked at the University of Latvia during the interwar period and was elected Professor in 1940 [23].

More than one young person went to KTU to study electrical engineering because the aforementioned former RP lecturer, KTA professor E. Arnold, was known to the «polytechnicians»; and this branch of science, compared to others, was new and interesting. One of them was Kārlis Tormanis (1882–1950), a graduate (1911) of the KTU Department of Electrical Engineering, whose thesis supervisor was Professor E. Arnold. K. Tormanis and another KTU graduate (1911) – civil engineer Fritz Efferts (1880–1959) – had already known each other during their studies at RPI. In 1921, both developed a technical solution for the Amata Power Plant project in Kārļi, which was not implemented [24]. Another graduate (1913) of the KTA Department of Electrical Engineering – Kārlis Vējiņš (1885–?) – worked for many years at the Riga City Craftsman School and Technical School (1926–1941) [25], and was also a Member of the Latvian Chamber of Professions (1939–1940).



**Figure 8.** Karlsruhe Technical University Diploma issued to Tormanis. 1911.

It is interesting to note that out of the 11 graduates of the Department of Architecture in 1907 [26], four studied at KTU – two (Artūrs Krūmiņš (1879–1969), Herbert Tiemer (1879–1938)) studied in Karlsruhe when RPI was closed, and two (Heinrich Blumenthal (1880–?), Marjan Behr (1879–?)) supplemented their knowledge after their studies. H. Tiemer was one of the Art Nouveau architects of Riga, while A. Krūmiņš is known not only as an architect and architectural historian but also as the author of the libretto for the first Latvian opera, opera «Baņuta» (1903) by Alfrēdis Kalniņš' (1879–1951). During his studies in Karlsruhe (1906–1907), A. Krūmiņš was influenced by the prominent German researcher of architectural history, Professor Josef Durm (1837–1919), the author of fundamental handbooks on Etruscan, Italian Renaissance, Ancient Roman, and Ancient Greek architecture [27]. These are still in the collections of RTU and the University of Latvia Libraries.

Of the 12 graduates of the RPI Department of Architecture in 1911, two studied at KTU – Edgar von Irmer (1885–1967) and Alfons Fischer (1885–?).

Cousins Karl Agthe (1886–1974) and Johann Agthe (1882–?) also studied at KTU, having started their studies at the RPI Department of Chemistry. Both cousins' fathers were graduates of RP. Karl's father, Adolf Agthe (1850–1906), graduated from the RP Department of Engineering (1873) and is known as the Chief Engineer of Riga (1887–1899) and the founder of the Mežaparks development, while Johann's father, Edmund

Agthe (1852–1904), was a graduate of the RP Department of Technical Chemistry (1879). In 2015, descendants of the Agthe family donated six volumes of Karl Agthe's memoirs to the Museum of the History of Riga and Navigation. In them, he mainly wrote about Riga and his father, Adolf Agthe.

The courses taken at RP / RPI were considered equivalent to those at KTU, so students requested RPI certificates of passed exams. Ruwin Hotz (1884–?) also requested one [28]. After RPI was re-established, he returned to RPI and graduated from the Department of Mechanics (1910).

When the 1905 revolution was over, and RPI had successfully resumed its activities, seven students went to Karlsruhe, among them Heinrich Blumenthal (1880–?) and Marjan Behr (1879–?), graduates of the RPI Department of Architecture (1907). So, out of the 11 graduates of 1907, six, or more than half, of the architects acquired their knowledge at KTU. Of the seven post-revolutionary students mentioned in Karlsruhe, five received diplomas from RPI.

Two RP / RPI graduates obtained a doctorate in engineering at KTU: in 1910, Harald Vallem (1869–1953?), a graduate (1893) of the RP Department of Machine Engineering; and in 1927, the already mentioned KTU lecturer C. F. Gruenewald.

Most of RP / RPI students had obtained the necessary education to study at educational institutions of the Russian Empire, including Riga real schools, gymnasiums, the RP Preparatory School, etc., while the graduate (1883) of the RP Department of Technical Chemistry, Jozef Orłowski (1859–?), born in Warsaw, Poland, had graduated from the real gymnasium in Karlsruhe, and somebody else had attended a mathematics class in Karlsruhe.

RP / RPI students came to Karlsruhe not only to study engineering. After three years of study at the Department of Agriculture (1876–1879), Woldemar von Sternberg (1854–1925) decided to turn to singing and even made his debut in an opera at the Riga City Theatre (1885). He studied music in Karlsruhe [29]. Meanwhile, Oskar Lieth (1885–?), a graduate (1912) of the RPI Department of Engineering, won a silver cup in a running competition in Karlsruhe in 1906 [30].

## **Relations with Karlsruhe University of Technology in the Interwar Period**

After the proclamation of the Republic of Latvia, the need for a national higher education institution arose. Therefore, in 1919, the University of Latvia (UL, until 1923 – Latvian Higher School) was founded, in which, in

addition to the humanities, engineering sciences were also represented; the RPI was actually incorporated into the UL, and only in 1958, it was restored as an independent higher education institution. The language of instruction at the University of Latvia was Latvian, and many RPI graduates and former teaching staff worked there. Most of the old RP / RPI lecturers had either left Latvia or passed away, and some had taken a well-deserved retirement. Contacts with universities in Germany and other countries did not cease; they developed in directions appropriate to the era, but there were few close contacts with scientists from Karlsruhe. Among the Honorary Members and Honorary Doctors of the University of Latvia during the interwar period, there is no one from KTU.

The political situation and the establishment of the Republic of Latvia also introduced adjustments to the lives of local Baltic Germans and the population of German origin living in the Baltics. During World War I, Germanophobia spread in Russia, and as a result, German lecturers at RPI who were not Russian citizens were dismissed from their jobs at the university, deported to Siberia and the Volga region. Some went to Western Europe or returned to their ethnic homeland. RPI operated in evacuation in Moscow during World War I, and after the end of World War I, the university's material base was destroyed; most of the inventory, equipment, teaching aids, as well as lecturers and students, remained in Russia. The buildings of RPI stood in the centre of Riga, but in October 1918, the Baltic Technical University began operating in the institute's premises with the German language of instruction [31] – this was ensured by the military occupation administration established within the German army, which existed from August 1915 to November 1918. In the German-occupied Baltic provinces, self-defence units of the population were established – the Baltic Landwehr, the organization of which began in the autumn of 1918. The KTU became a gathering place for Baltic German students, where they could gain knowledge in their chosen profession. Almost all of them had fought in the Baltic Landwehr and defended the newly formed state against the Red Army, fighting against the Bolsheviks. The German Empire, where many of the «polytechnicians» had relatives, also collapsed. Problems also arose because the new generation did not speak the local languages and could no longer study at universities in Riga and Tartu (Dorpat) [32].

The physical chemist Andreas von Antropoff, a Tallinn-born RPI graduate and lecturer who was arrested during World War I on suspicion of spying for Germany, played a major role in attracting students to KTU. The physical chemist was active in the oldest German student corporation, «Fraternitas Baltica», founded in Riga (1865).

A. von Antropoff habilitated at KTU (1918) and taught courses in physical chemistry and inorganic chemistry until 1925, when he moved

to the University of Bonn. Six corporals were A. von Antropoff's students in Karlsruhe, but in total, 19 representatives of the aforementioned corporation from the former Baltic provinces studied between 1918 and 1929 [32]. There were also those who had begun their studies in Riga.

Among the lecturers of engineering sciences at the University of Latvia (1919–1944) were mechanical engineer and heat engineering specialist Aleksandrs Bankins (1882–1965), architect Artūrs Krūmiņš, KTU graduates – electrical engineer Kārlis Tormanis and chemist Pauls Kalniņš, the only one who had closer contacts with his alma mater in Germany, as he graduated from KTU only in 1923. After World War II, when the University of Latvia was renamed the State University of Latvia, the list of its lecturers included P. Kalniņš, A. Krūmiņš, and K. Tormanis, while A. Bankins emigrated at the end of World War II. A new collaboration was formed only at the Faculty of Mechanics – in the academic year 1938/1939, lecturer and UL graduate (1933) Jānis Hugo Inveiss (1896–1981) was granted scientific leave and was seconded to KTU. J. H. Inveiss received an A. Humboldt scholarship for this, and from 1 November 1938 to 31 July 1939, he studied mechanical engineering, specializing in the arrangement of machine laboratories, piston engines, machine testing, and issues of experimental education of students [33]. J. H. Inveiss used the knowledge and skills acquired at KTU in establishing machine laboratories at the Faculty of Mechanics of the University of Latvia and organizing practical work for students.

2. god. L. U. Rektora ngm  
Mehānikas fak. Rektora vi  
un vie. asistenta Jāņa Inveisa  
lūgums  
Ar šo lāstīni lūdu pieņemt man ko-  
mandējumu zinātniskā atvaļinājuma  
laikā un nākošā mācības gada brīvdie-  
nās no 2. p. l. l. b. 1939. g. 15. 11. uz  
Vāciju, Franciju, Šveici, Itāliju, Čehoslo-  
vāciju, Beļģiju un Poliju.  
Vācijā iemantošu, man uz visu mā-  
cības gada pieņemto, A. v. Humboldt'a  
stipendiju, lai papildinātu Karlsruhes  
tehniskā augstskola virzības mācību un  
spējo mācību iemēģināšanā. Pārējās  
valstīs apmeklētu universitātes un stu-  
diju brīvlaikus, lai iepazītos ar virzības  
mācību būv un tehniskā augstskolu  
spējo mācību laboratorijām.  
12. 11. 38 J. Inveiss

**Figure 9.** J. H. Inveiss' application to the Rector of the university with a request to grant a business trip to Germany, France, Switzerland, Italy, Czechoslovakia, Belgium, and Poland during his scientific leave. 1938.

In 1927, Magda Voit (1902–1997), a graduate (1927) of the University of Latvia, married German chemist and later Nobel Prize laureate (1953), Hermann Staudinger (1881–1965), becoming Magda Staudinger. Her

husband, H. Staudinger, was a Professor of Organic Chemistry at KTU for a few years (1907–1912). At that time, RP / RPI students also studied with him. In the 1930s, the Professor spent several summers in Latvia with his wife and would have also lectured to UL students, if only the officials of Hitler's Germany had allowed him to do so [34].

After World War II, engineer and cultural worker Kārlis Ieleja (1909–1970), who completed his engineering studies at the University of Latvia in Munich, was a doctoral student at KTU, and lived and worked in the Federal Republic of Germany (FRG) and the USA [35]. In the 1st semester of the academic year 1945/1946, 10 Latvians were admitted to KTU. In the 2nd semester, there were 15 Latvian students [36]. In the academic year 1946/1947, KTU invited foreigners to study, including those Latvian residents who had become refugees at the end of World War II and ended up in Germany [37].

However, times had changed, and the benefits of studying at KTU and the university's offers applied to those residents living abroad who had emigrated from Latvia. Engineering and higher education institutions in Latvia operated in accordance with the orders of the Soviet regime, and cooperation with Western universities was not permitted. New contacts were established and maintained, and cooperation and friendship agreements were concluded with universities in socialist countries. Karlsruhe was located in the FRG, but cooperation was only possible with universities in the German Democratic Republic, which was also implemented. Student and lecturer exchanges took place with universities in Dresden, Ilmenau, Rostock, and others. Only after the reunification of Germany (1990) and the restoration of the Republic of Latvia (1991) did cooperation begin with other universities around the world.

## **Cooperation Between Riga Technical University and Karlsruhe University**

Although there was an intention to create a joint study program with the Karlsruhe Institute of Technology, which is the successor to KP, founded in 1825 and acquiring its current name in 2009, this was not realized. Since 1996, cooperation has been established with another higher education institution – Karlsruhe University (KU, Hochschule Karlsruhe), founded in 1878. In 1998–1999, KU professors Heinz Saler, Hans-Otto Peter, and Reiner Jaeger participated in the joint RTU and KU project «GEMLA or Geomatics Education in Latvia». The international coordinator of the project was Jānis Bikše (1939–2010), Assistant Professor of the

Geodesy and Cartography professorial group of the RTU Faculty of Civil Engineering [38].

The collaboration continued after more than 10 years in the joint project «Theory and Practice in the Cross-Section of Current Geomatics». In connection with the project, lecturers of the RTU Department of Geomatics, Mārtiņš Reiniks and Jānis Kaminskis, gave lectures to students and lecturers of bachelor's and master's study programs at KU on 26 and 27 November 2012. M. Reiniks and J. Kaminskis, one of the authors of this article, introduced the audience to the following topics:

- cadastral surveying in Latvia, legislation, practical examples, and analysis of problem situations;
- topographic surveys in the territory of Riga Municipality;
- inter-university cooperation of RTU Department of Geomatics in education, research, and current events in Latvia;
- development of geomatics topics at RTU in cooperation with regional scientific institutes, including topics in the field of space geodesy, and the possibilities of using various innovative solutions.

The cooperation was supported by the Baltic-German Higher Education Office, attracting funds from the German Academic Exchange Service (Deutscher Akademischer Austauschdienst (DAAD)) [39]. The cooperation was also implemented in organizing international conferences – one of the members of the scientific commission of the subsection «Geomātika» (Geomatics) of section «Būvzinātne» (Civil Science) of the 56th RTU International Scientific Conference in 2015 was the long-time cooperation partner – KU Professor Reiner Jaeger [40].

In 2025, the RTU postdoctoral project «Hibrīda gravitācijas lauka modeļa, kas balstīts vertikālajās novirzēs un gravimetrijā, projektēšanas optimizācijā: mašīnmācīšanās kā alternatīvas pieejas novērtēšana» (Design Optimization of a Hybrid Gravity Field Model Based on Vertical Deflections and Gravimetry: Evaluating Machine Learning as an Alternative Approach) is being implemented by RTU graduate Katerina Runde, who is a visiting student at KU [41].

## Conclusions

One of the oldest international partnerships between Riga Polytechnicum and Karlsruhe Polytechnicum began in 1861 and continued until World War II, when cooperation was not possible for political reasons. The language of instruction facilitated cooperation and students' desire to study in Karlsruhe, as well as attracting lecturers to work in Riga – it was not only Germans who knew German. Until the end of the 19th century, it was not only the language of instruction but also

the language of communication between RP students and lecturers, and the language in which cooperation with German universities was carried out. World-renowned scientists (E. Arnold, F. Reuleaux, E. Laspeyres, et al.) participated in the international partnership. As RP began its work and developed, it needed university lecturers, and several professors, KP graduates, moved to Riga to help ensure high-quality studies. At critical moments – during the RPI's interrupted work due to the 1905 revolution and after World War II – the Karlsruhe KTU provided an opportunity for several dozen former students of RP / RPI and the UL, as well as those who chose to study in Karlsruhe, to continue their education. Electrical engineering was a popular speciality, but architecture, chemistry, mechanical engineering, and mechanics were also of interest to young people.

After a half-century break, the partnership with Karlsruhe was renewed, collaborating with another higher education institution, KU. It has resulted in joint projects and guest lectures. The international partnership has enriched not only the history of RP / RPI (since 1990 – RTU), as well as the history of the University of Latvia, but also made a significant contribution to the pedagogy and science of the university.

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## SOURCES OF ILLUSTRATIONS

**Figure 1.** LNA LVVA 3143. f., 1. apr., 1860. l., 54. lp.

**Figure 2.** A. Zigmundes privātarhīvs.

**Figure 3.** RTU IVPC.

**Figure 4.** RTU IVPC.

**Figure 5.** A. Zigmundes privātarhīvs.

**Figure 6.** Photographer Katerina Runde.

**Figure 7.** Programm der polytechnischen Schule zu Riga für das Studienjahr 1885/1886. Müllerschen Buchdruckerei, Riga, 1885, S. 51.

**Figure 8.** LNA LVVA 1632. f., 1. apr., 21917. l.

**Figure 9.** LNA LVVA 7427.f., 13. apr., 649. l., 68. lp.



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International  
Partnership  
Between Riga  
Technical  
University  
and Karlsruhe  
Engineers Over  
Three Centuries  
(1862–2024)



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### **Rīgas Tehniskās universitātes un Karlsrūes inženieru starptautiskā partnerība trijos gadsimtos (1862–2024)**

Vecākā tehniskā universitāte Vācijā – Karlsrūes Tehnoloģiju institūts (KTI) – 2025. gadā atzīmē 200 gadu jubileju. Institūts (tolaik – Karlsrūes Politehnikums; KP; *Polytechnikum Karlsruhe*) bija viens no paraugiem, pēc kura 1862. gadā tika dibināts Rīgas Tehniskās universitātes (RTU) priekštecis – Rīgas Politehnikums (RP). Ar Karlsrūes inženieriem un zinātniekiem vecākā tehniskā universitāte Latvijā – Rīgas Tehniskā universitāte – ir cieši saistīti vairāk nekā 160 gadu. Zinātnieki, augstskolu docētāji, inženieri sadarbojušies, dalījušies pieredzē, attīstot inženierzinātnes un meklējot jaunas sadarbības iespējas zinātnē, augstskolu pedagogijā. Karlsrūē studijas turpinājuši vairāk nekā 80 bijušie RP / Rīgas Politehniskā institūta (RPI) studenti, daži arī strādājuši par KP docētājiem. RTU 20. gadsimta beigās izveidojās sadarbība arī ar Karlsrūes Augstskolu (KA).

**Atslēgvārdi:** Rīgas Tehniskā universitāte, Karlsrūes Tehnoloģiju institūts, Karlsrūes Augstskola, inženieru izglītība, starpaugstskolu sadarbība.

# THE DEVELOPMENT OF HIGHER EDUCATION IN CHEMICAL ENGINEERING IN FORMER YUGOSLAVIA

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**Summary.** The article presents the results of research into the development of higher (tertiary) education in Chemical Engineering in former Yugoslavia. It focuses on the three oldest schools in the country, established during the interwar period at the Universities of Zagreb, Ljubljana, and Belgrade within the Kingdom of Serbs, Croats and Slovene / Yugoslavia. Although the oldest school of engineering, the University of Belgrade, was the last one to establish a chemical engineering programme after initially providing education in this field within the school of mechanical engineering. In contrast, universities in Zagreb and Ljubljana initiated these programs from their founding in 1919. The paper also explores the important role of foreign-educated chemical engineers who had their degrees formally recognised in Yugoslavia. This study contributes to the history of engineering/chemical engineering in former Yugoslavia.

**Keywords:** Yugoslavia, higher education, chemical engineering, Zagreb, Ljubljana, Belgrade.

## Introduction

The early 19th-century advances in chemistry led to the development of the chemical industry, a major engine for growth in Germany, Europe, and the USA. The chemistry laboratories of German universities trained several chemists who played a prominent role in the field. Justus Freiherr von Liebig (1803–1873) (see Figure 1) played a major role in the establishment of the Chemistry Laboratory at the University of Giessen in 1825 [1], [2], followed by Friedrich Wöhler (1800–1882) (see Figure 2) at

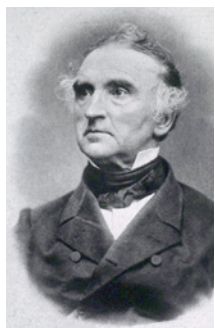
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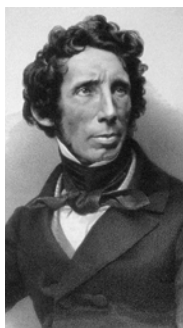
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the University of Göttingen [3], and Robert Wilhelm Eberhard Bunsen (1811–1899) (see Figure 3) [4] and Gustav Robert Kirchhoff (1824–1887) (see Figure 3) [5] at the University of Heidelberg. Initially, the development of new products in Germany and Europe was based on the partnership between (industrial) chemists, who provided the scientific foundations, and mechanical engineers, who helped facilitate the manufacturing processes [6]. Over time, this resulted in the development of a new and distinctive discipline of chemical engineering.



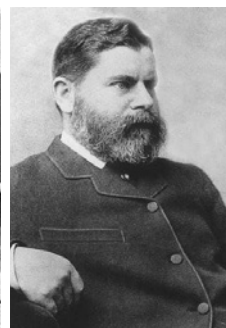
**Figure 1.** Justus Freiherr von Liebig. C. 1866.



**Figure 2.** Friedrich Wöhler. C. 1856.



**Figure 3.** Gustav Robert Kirchhoff (left) and Robert Wilhelm Eberhard Bunsen (right). C. 1850.



**Figure 4.** George Edward Davis. C. 1890.

In 1880, George Edward Davis (1850–1907) (see Figure 4) proposed the establishment of the Society of Chemical Engineers in the United Kingdom (UK), which eventually led to the foundation of the Society of Chemical Industry in 1881. In 1887, G. E. Davis founded the Chemical Trade Journal, where he publicised his ideas on chemical engineering, which were presented in 1887 as a series of 12 lectures at the Manchester Technical College (now, UMIST – University of Manchester Institute of Science and Technology). Expanded, these lectures were published in 1901 as ‘Handbook of Chemical Engineering’, which is the foundation of chemical engineering. His original proposal of 1880, 42 years later, managed to get sufficient support, which led to the establishment of the Institute of Chemical Engineers in the United Kingdom in 1922, with G. E. Davis considered the ‘father’ of chemical engineering [7, 8, 9]. Yet, chemical engineering, as a distinct profession from that of the chemists and the mechanical engineers, was adopted earlier in the USA, when they established the American Institute of Chemical Engineers in 1908 [1].

Three years before G. E. Davis' lectures in Manchester, in 1884, a university-level course called Chemical Engineering was announced by the Central Institution, a college funded by the Livery Companies of London. Their degree course in Chemical Engineering leading to the Diploma of Chemical Engineer was short-lived (1884–1888) when the Department of Chemical Engineering was renamed to the Chemical Department [10]. On the other side of the Atlantic, Lewis Mills Norton (1855–1893) of the Chemistry Department at the Massachusetts Institute of Technology (MIT) in 1888 introduced a curriculum for Course X on Industrial Chemical Practice, which became the first one in chemical engineering taught at MIT, with the first degrees awarded in 1891. In 1898, L. M. Norton's successor, Frank Hall Thorpe (1864–1932), an MIT graduate with a PhD from the University of Heidelberg in 1893, published 'Outlines of Industrial Chemistry', a chemical engineering textbook. The original courses focused on industrial chemistry and mechanical engineering, but without the characteristic unit operations laboratory [6]. This eventually led to the definition of chemical engineering as a distinct discipline underpinned by a special training method, for which the Americans Arthur Amos Noyes (1866–1936) [11], Arthur Dehon Little (1863–1935), William Hultz Walker (1869–1934), and Warren Kendall Lewis (1882–1975) [12] are particularly credited.

The emergence of this new discipline inspired the development of higher education in chemical engineering in former Yugoslavia in the interwar period, and the Universities of Zagreb, Ljubljana, and Belgrade represented the first three schools in the country. This paper contributes to the history of higher education in chemical engineering in former Yugoslavia.

## Methodology

The research is based on a combination of primary and secondary sources, including archive material, historic publications, and materials provided by the university/faculty libraries at the Universities of Zagreb, Ljubljana, and Belgrade.

Within this paper, the term Yugoslavia is used in relation to the Kingdom of Serbs, Croats and Slovenes (1918–1929), Kingdom of Yugoslavia (1929–1941), Federal People's Republic of Yugoslavia (1945–1963), and the Socialist Federal Republic of Yugoslavia (1963–1991). All original words in Cyrillic script within this paper have been romanised using the BGN/PCGN 2005 and the BGN/PCGN 2013 Agreements for Romanisation of Serbian and Macedonian Cyrillic, respectively.

The term 'chemical engineering' is used to indicate the appropriate and higher level of education than 'chemical technologists' in the English-speaking world. Both historically and currently, within former Yugoslavia and the successor states, the term 'technology' has been predominantly used to describe '(chemical) technology engineering'. In the post-WWII period and up to the implementation of the Bologna Accord, the higher education programs in technology were delivered through universities. The five-year full-time programmes led to the qualification of Graduate Technology Engineer (e.g., Diplomiran Inženjer Tehnolog).

This language-related terminological difference is reflected in the evolution of the national association name. The Association of Chemists-Technologists of the Federal People's Republic of Yugoslavia (Savez hemičara-tehnologa Federativne Narodne Republike Jugoslavije), founded in 1953, was renamed into the Association of Chemists and Technologists of Yugoslavia (Savez hemičara i tehnologa Jugoslavije) in 1961, the Association of Chemical Engineers (Savez hemijskih inženjera) in 2003, and the Association of Chemical Engineers of Serbia (Savez hemijskih inženjera Srbije) in 2009, since Serbia is the legal successor of the Yugoslav association.

The current names of the original three schools for chemical engineering in the analysed countries of former Yugoslavia are:

- University of Zagreb – Faculty of Chemical Engineering and Technology (Fakultet kemijskog inženjerstva i tehnologije);
- University of Ljubljana – Faculty of Chemistry and Chemical Technology (Fakulteta za kemijo in kemijsko tehnologijo);
- University of Belgrade – Faculty of Technology and Metallurgy (Tehnološko-metalurški fakultet).

## Limitations

The research limitations of this paper are:

- Unless specifically stated, the gender of the students was determined by their names and surnames as recorded in the available documents. If the first/given names are considered to be unisex (e.g., Vanja), and in the absence of other available information, the gender of the graduate was counted as male based on the prevalence of male students among the graduates.
- The number of graduate chemical engineers from the University of Belgrade is based on the available information from the register that covers only those who graduated up to and including 1938. There was limited available information to cover the remainder of the analysed period in detail. Due to missing pages in the register,

it has not been possible to establish the gender of the graduates for the year 1932. Due to the prevalence of male graduates, it has been assumed that all six graduates were males.

- The number of foreign graduates who had their degrees formally recognised in Yugoslavia is limited only to those who were recognised by the University of Belgrade in the period 1919–1938. No information was available for the period 1939–1945, before 1919, or if any such recognitions were made by the Universities of Zagreb and/or Ljubljana. Although the Universities of Ljubljana and Zagreb were approached, to date, no access to similar registers, if in existence, has been possible. For this research, only those whose recognised degrees are listed as chemical engineer (hemijski inženjer), technology engineer (inženjer tehnolog), or 'inženjer tehn (assumed, technology engineer) were included in the analysis, but not those whose recognised degrees are listed as 'chemists' (hemičar).

## Higher Education in Chemical Engineering in Former Yugoslavia until 1945

The development of tertiary education in chemical engineering in former Yugoslavia can be traced back to the interwar period in the three main constituent parts of the Kingdom: Serbia, Croatia, and Slovenia. Until the end of World War I (WWI), Slovenia and Croatia were part of the Austria-Hungary Empire, with limited opportunities for tertiary education in engineering in their territories. Although the Principality of Serbia was established in 1817 as an autonomous province within the Ottoman Empire (de facto until 1867 and de jure until 1878), it was engaged in several wars from the early 19th century until the end of WWI. This interfered with the development of engineering education despite the establishment of the first school of engineering in 1846.

### University of Zagreb (*Universitas Studiorum Zagrabiensis*), Croatia

The history of tertiary education in engineering and chemical engineering in Croatia is associated with the foundation of the Royal High Technical School (*Kraljevska visoka tehnička škola*) in Zagreb by the decree of 10 December 1918, leading to the 1919 opening in the Kingdom

of Serbs, Croats and Slovenes (see Figure 5). Due to a lack of funding, the 1899 attempt to establish a High Technical School in Zagreb (Technische Hochschule in Agram), initially for civil engineering only, under the Austria-Hungary Empire was postponed, allowing for the High Technical School in Brno (now in the Czech Republic) to be established instead [13, 14].

The first three professors at the Royal High Technical School in Zagreb were the civil engineer Milan Čalagović (1878–1945), mechanical engineer Jaroslav Havliček (1879–1950) and architect Martin Pilar (1861–1942). Later on, (the same year) professorship was attained by architect Edo Šen (Edvard Schön; 1877–1949), who was the first Rector of the School (1919–1920); civil engineer and surveyor Pavle Horvat (1879–1936); mathematician Marije Kiseljak (1883–1947); and chemist Vladimir Njegovan (1884–1971). A few departments were established at the school covering Architecture, Civil Engineering, Urban Engineering, Chemical Engineering (see Figure 6), Surveying, Mechanical Engineering, Electrical Engineering, Naval (Architecture) Engineering and Maritime Engineering. Out of the 255 students enrolled in 1919, 18 graduated by the end of the academic year 1925/1926. The first graduate was architect Alfred Albini (1896–1978) in 1923, who transferred from the High Technical School in Vienna (Technische Hochschule – TH Wien, now Technical University – TU Vienna), and the first PhD was (now) Ukrainian civil engineer Konstantin Čališev (1888–1970) [13, 14].

As the existence of the school was brought into question by the central government, in 1926, the Royal High Technical School in Zagreb became a Technical Faculty at the University of Zagreb. The university goes back to 23 September 1669, when it was established as the Jesuit Academy of the Royal Free City of Zagreb by the Holy Roman Emperor Leopold I (1640–1705) [15].



**Figure 5.** Rector's Office and Faculty of Law of the University of Zagreb. 2007.



**Figure 6.** Entrance to the Faculty of Chemical Engineering and Technology of the University of Zagreb. 2008.

V. Njegovan was the first professor appointed at the Department of Chemical Engineering at the Royal High Technical School in Zagreb. He graduated from TH Wien in 1907, specialised in agricultural chemistry at the Federal Technical High School (Eidgenössische Technische Hochschule – ETH) in Zürich (1908–1910) and got a PhD from the TH Wien in 1912. In 1912, he became the Head of the Agricultural Chemical Institute at the Royal Commerce and Forestry School in Križevci (now Croatia, then Kreutz / Körös in the Austria-Hungary Empire), and from 1913 a secondary school professor initially at the II and later at the I Real School (Realschule) in Zagreb. His expertise was in the area of analytical and physical chemistry, and he is considered to be the founder of education in chemical engineering and technology in Croatia. Between 1920–1943, he established and led the Institute for Analytical and Physical Chemistry within the Department. Until his retirement in 1943, he undertook a few leadership functions within the Department, School, and Faculty [13, 14, 16].



**Figure 7.** Wilhelm Friedrich Ostwald.  
C. 1913.



**Figure 8.** Franjo Hanaman  
(seated) and Alexander Friedrich  
Just. No date.

Apart from the Institute led by V. Njegovan, the three other original institutes were: for Organic Chemistry led by Ivan Marek (1863–1936), Physics and Physical Chemistry led by Ivan Stepanovič Plotnikov (Plotnikow; 1878–1955), and Inorganic Chemical Technology and Metallurgy led by Franjo Hanaman (1878–1941), who became a professor in 1922. I. Marek [13, 14] graduated as one of the first chemists from the Faculty of Philosophy at the University of Zagreb in 1886 before becoming a secondary school professor in Zemun (now Serbia) and Zagreb.

I. Stepanovič Plotnikov [13, 14] (See Figure 7) graduated in physics and mathematics in Moscow in 1901, before studying under the Riga-born, 1909 Nobel Prize Chemistry holder, Wilhelm Frederich Ostwald (1853–1932) [17] at the University of Leipzig, where I. Stepanovič Plotnikov obtained his first PhD in 1906. His second PhD was in photochemistry from Odesa in 1915, before becoming a full professor in 1916. German scientists helped him move to the factory Agfa in Berlin after the 1917 October Revolution, before he accepted V. Njegovan's invitation for a professorship in Zagreb. F. Hanaman [13, 14] was an inventor, engineer and chemist who co-invented the first patented applied electric lightbulb with a tungsten filament in 1904 with his assistant Alexander Friedrich Just (1874–1937) (see Figure 8). F. Hanaman graduated from the Chemistry Department at TH Wien and obtained a PhD from the High Technical School Charlottenburg in Berlin in 1913. He was the Head of the Institute for Material Research in Vienna (1911–1915).

In 1927, the Institute for Organic Chemical Technology was established, which was led by Matija Krajčinović (1892–1975), a professor from 1944. He graduated from the Department of Chemical Engineering in Zagreb in 1925, specialised at the Chemical Institute of the University of Nancy (1926–1927) under Gustave Vavon (1884–1953), and obtained a PhD from the University of Zagreb in 1927 [13, 14].

## University of Ljubljana (Universitas Labacensis), Slovenia

Slovenians had long-standing aspirations for higher education in their homeland. The Jesuit College at St Nicholas Church in Ljubljana operated between 1597 and 1773. In the early 18th century, a three-year programme in Philosophy was offered, but no degrees were conferred. Following the dissolution of the Jesuit Order by the Pope in 1773, the Jesuit schools were taken over by the state. Later in the 18th century, the Imperial-Royal Lyceum in Ljubljana was established, followed by the short-lived Central School (École Centrale) between 1809 and 1813, when Ljubljana was the capital of the Illyrian Provinces under France. However, no one graduated from the school by 1814 when the Austrians took over from the French [18, 19].

After WWI and the establishment of the Kingdom of Serbs, Croats, and Slovenes, the University of Ljubljana was founded. The signing of the 'Act for the University of the Kingdom of Serbs, Croats and Slovenes in Ljubljana' by the Regent Aleksandar Karađorđević on 23 July 1919 led to the establishment of the third and newest university in the country (see Figure 9). The 18 founding members of the faculty were led by mathematician Josip Plemelj (1873–1967) as the first Rector. J. Plemelj (see

Figure 10) was a mathematician with a PhD from the University of Vienna (1896) and postdoctoral studies in Berlin (1899/1900) and Göttingen. Known for the Sokhotski-Plemelj theorem, he started the lectures on 3 December 1919 across the four schools: law, philosophy, medicine, and theology. Out of the 942 enrolled students, 28 were women and 914 were men. Most of the faculty were those who taught at the universities in the Austria-Hungary Empire, lost their jobs at the demise of the country, and returned home. Half of the initial students transferred from Vienna. Among them was Ana Mayer (married Kansky; 1895–1962), who was the first to obtain a doctorate from the University of Ljubljana with her doctoral thesis 'About the effect of formalin on starch' on 15 July 1920 [18, 19, 20].

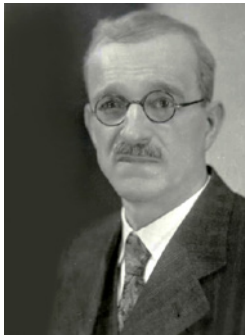


**Figure 9.** The State Crafts School in Ljubljana that initially hosted part of the Department of Chemical Engineering in Ljubljana. C. 1918.

In anticipation that the Austrian model would be followed, whereby the technical sciences (engineering) are studied outside the universities within the High Technical Schools, a separate High Technical School in Ljubljana was established on 19 May 1919. However, the new university followed the University of Belgrade model, whereby technical sciences were studied within the university too. Apparently, changes to the higher education models created problems in practice that led to adjustments to the exam provisions in some of the faculties to help the transferring

students from Austria complete their degrees. The University of Ljubljana also struggled for its survival, especially before 1929 [18].

The first three professors at the Technical Faculty of the University of Ljubljana were: Karel Hinterlechner (1874–1932) [21], geologist at the Institute of Geology in Vienna and the first Dean; Maks Samec (1881–1964) (see Figure 11) [22], chemist, biochemist and meteorologist with a PhD in chemistry from the Faculty of Philosophy at the University of Vienna (1904), who became grammar school professor at the Real Schools in Vienna; and Milan Vidmar (1885–1962) (see Figure 12) [23], electrical engineer and chess player with a degree in mechanical engineering from the University of Vienna (1907) and a PhD from the High Technical School in Vienna (1910) with specialism in three phase transformers.



**Figure 10.** Josip Plemelj. C. 1920s.



**Figure 11.** Maks Samec. 1920–1940.



**Figure 12.** Milan Vidmar. C. 1930s.

In the initial post-establishment period, chemistry was studied at two faculties of the University of Ljubljana: Chemical Engineering at the Technical Faculty and Chemistry (for research and teaching) at the Faculty of Philosophy. However, the latter did not have regular lecturers until WWII. At the Technical Faculty, the situation was somewhat better, whereby M. Samec and Marij (Marius) Rebek (1889–1982), professor since 1933, lectured all chemistry-related courses [24]. M. Rebek studied chemistry and physics at the University of Vienna, where he got a PhD in 1913. Before WWI and after demobilisation, he was an assistant to Guido Goldschmidt (1850–1915) and Wilhelm Johann Schlenk (1879–1943), both at the Second Chemical Laboratory at the University of Vienna [25].

## University of Belgrade (Universitas Belgradensis), Serbia

Higher education in engineering in the Principality of Serbia commenced on 19 June 1846, when Prince Aleksandar Karađorđević

(1806–1885) established the Engineering School (Indzinirska škola) in Belgrade. The study programme was three years long, and the study of German was mandatory. The initial nine students transferred from the second year of the Philosophy programme at Principality of Serbia Lyceum (Liceum Knjaževstva Serbskog), between 1838 and 1841 in Kragujevac, and from 1841 in Belgrade. Later, on 24 September 1863, the Great School (Velika Škola) in Belgrade was founded with Konstantin Branković (1814–1865) as its first Rector. He held degrees in Philosophy from Szeged and Law from Pest, both in Hungary. Initially, the Great School had three faculties/schools: Philosophy, Engineering, and Law. The Philosophy studies were three (four from 1880) and the Technical and Law studies were four years long. From 1873, the Faculty of Philosophy had two departments: History and Philology, and Natural Sciences and Mathematics, and from 1896, seven, including Chemistry and Natural Sciences. From 1897, three departments were established within the Technical School: Architecture, Civil Engineering, and Mechanical Engineering. The new High School was accommodated in the Captain Miša Mansion, constructed between 1857/1858 and 1863 (see Figure 13). This building was donated to the country for educational purposes by Mihajlo Anastsijević – Captain Miša (1803–1885), a Serbian merchant, teacher, and philanthropist, and one of the richest men in Serbia and the Balkans. Now the building houses the University of Belgrade Rectorate [26, 27].



**Figure 13.** The Great School (now Headquarters of the University of Belgrade) in Captain Miša Mansion (the building with the lantern). C. 1890.

Over time, the work of the Great School laid the foundations for the establishment of the University of Belgrade by Decree of King Petar I (1844–1921) on 27 February 1905 [26]. The first Rector was Sima Lozančić

(1847–1935) [28], who held a Law degree from Belgrade, studied chemistry under Johannes Wislicenus (1835–1902) [29] in Zurich and August Wilhelm von Hofmann (1818–1892) [30] in Berlin before obtaining a PhD from the University of Zurich in 1870. He was one of the first eight founding professors at the University of Belgrade (see Figure 14).



**Figure 14.** The first eight full professors at the University of Belgrade in 1905. Seating (from left): Jovan Žujović, Sima Lozančić (Rector), Jovan Cvijić and Mihailo Petrović Alas. Standing (from left): Andra Stevanović, Dragoljub Pavlović, Milić Radovanović, and Ljubomir Jovanović.

The foundations for the establishment of the Department of (Chemical) Technology (Engineering) at the University of Belgrade were laid between 1905 and 1924 within the Department of Mechanical Engineering at the Faculty of Engineering, initially through the establishment of the Chemical Technology Cabinet in 1910 (Institute of Chemical Engineering from 1912). This was supported by the appointment of engineer Dušan Tomić (1875–1947) in 1905 as a lecturer in mechanical technology and engineer Kosta Todorović (1876–1953) in 1908 as a lecturer in chemistry, chemical technology, and metallurgy. However, this development was interrupted by WWI, when the University was closed between 1914 and 1919 [31, 32].



Figure 15. The University of Belgrade Technical Faculty in the interwar period.



Figure 16. The University of Belgrade Faculty of Technology and Metallurgy. 2007.

In late 1923, within the Department for Mechanical and Electrical Engineering, the Technology (Engineering) unit was established, allowing for research and teaching to take place within the Laboratory for Chemical Engineering. This was supported by the appointment of

Dr Aleksandar Marko Leko (1890–1982), a lecturer in chemistry. Initially, the curriculum for all three Units (Mechanical, Electrical, and Technology) was fairly general during the first two years, whilst the final two years of the studies were focused on the selected specialism. The first 15 students enrolled in the Technology (Engineering) unit in 1922 graduated from the Department of Technology (Engineering) established on 16 November 1925. Twenty new students enrolled, and 20 students transferred from the Mechanical Engineering Unit. In 1925/1926, the prominent appointment of engineer Panta Tutundžić (1900–1964), who held a degree and doctorate (1925) from the High Technical School in Berlin, led to the establishment of the Laboratory of Physical Chemistry and Electrochemistry within the Department of Technology [33].

Those who graduated in 1925 and 1926 after transferring from the Mechanical Engineering Unit got mechanical engineer–technologist degrees, while the first technology engineers graduated in 1927. Despite the increased student interest, initially, the enrolment numbers were restricted by the limitations imposed by the available laboratory facilities. As a result, about 30 students were enrolled each year until the academic year 1936/1937. Afterwards, the number of enrolled students increased and reached 170 in the last pre-WWII academic year 1940/1941. In total, between 1925 and 1941, 221 students graduated as technology engineers and a further 25 who graduated during 1942/1944 when the University of Belgrade was formally closed. The Department of Technology suffered heavy losses during the 1941–1944 occupation. A lecturer from Munich is alleged to be responsible for taking the department's possessions, including books, journals, instruments, etc. In addition, an Anglo-American bombing raid in 1944 resulted in partial demolition of the Technical Faculty and most of the chemical and chemical engineering laboratories. Forty-four persons from the Department of Technology lost their lives during WWII, including the first graduate, Jovan Božović, whilst four became National Heroes [32].

## Recognised Foreign Educated Chemical Engineers

The Act of Equivalence (Recognition) (Zakon o nostrifikovanju (priznanju)) from 11 July 1930 allowed for the degrees from foreign Universities and (tertiary) High Schools to be recognised as being equivalent to those of the Technical Faculty in Belgrade [34]. This allowed for a few foreign graduates to formally have their qualifications recognised in the country. This applied mainly to those from former Yugoslavia who have studied abroad or those who moved to Yugoslavia from abroad. The second category covered several emigrées, especially from the Russian Empire, following the 1917 October Revolution and the

subsequent Civil War. One of those with a recognised degree in (chemical) technology engineering is Konstantin Mironov, who graduated from the Riga Technical School (Riga Polytechnic Institute) [35].



**Figure 17.** Fritz Pregl.  
No date.



**Figure 18.** Leopold  
Ruzicka. C.1935.



**Figure 19.** Vladimir Prelog.  
No date.

## Number of Graduates and Those with Recognised Foreign Degrees

The number of graduated students from the three schools of chemical engineering within the period 1919–1945 is shown in Table 1, along with their gender breakdown where available. For the University of Belgrade, the total number of graduates is 246: 221 between 1925–1941 and 25 during 1942–1944 when the University was formally closed due to WWII [14, 24, 34].

2025/9

Table 1

Number of Recognised and Graduate Chemical Engineers in former Yugoslavia until 1945  
(Tot – total, M–Male, F – Female)

Place Year	Uni. of Belgrade, No of recognised degrees [34]			Uni. of Belgrade, No of graduates [32, 34]			Uni. of Ljubljana, No of Graduates [24]			Uni. of Zagreb, No of graduates [14]		
	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F
1919	NA	NA	Founded	Founded								
1920	0	0	0	NA	–	–	–	–	–	–		
1921	0	0	0	NA	–	–	–	–	–	–		
1922	1	1	0	NA	–	–	–	–	–	–		
1923	0	0	0	NA	2	2	0	10	10	0		
1924	0	0	0	NA	5	5	0	15	12	3		
1925	0	0	0	9	8	1	8	6	2	14	14	0
1926	1	1	0	4	4	0	14	13	1	17	14	3
1927	3	3	0	4	4	0	3	3	0	18	14	4
1828	1	1	0	1	1	0	10	10	0	15	15	0
1929	3	2	1	6	6	0	12	11	1	11	10	1
1930	20	16	4	11	10	1	8	6	2	12	11	1
1931	14	13	1	13	10	3	8	8	0	15	13	2
1932	9	8	1	6	6	0	11	11	0	14	13	1
1933	1	1	0	11	10	1	1	1	0	11	9	2
1934	5	4	1	10	6	4	5	4	1	15	13	2
1935	9	9	0	15	7	8	13	13	0	15	13	2
1936	5	5	0	24	17	7	8	8	0	6	5	1
1937	2	2	0	23	12	11	10	8	2	10	6	4
1938	8	8	0	24	20	4	14	12	2	16	11	5
1939	NA	ND	ND	N/D	14	13	1	29	20	9		
1940	NA	N/D	N/D	N/D	8	8	0	21	18	3		
1941	NA	Closed (WWII)	19	16	3	24	21	3				
1942	NA	Closed (WWII)	14	13	1	8	6	2				
1943	NA	Closed (WWII)	12	9	3	52	41	11				
1944	NA	Closed (WWII)	11	8	3	15	9	6				
1945	NA	Closed (WWII)	1	1	0	8	3	5				
<b>Total</b>	<b>82</b>	<b>74</b>	<b>8</b>	<b>161</b>	<b>121</b>	<b>40</b>	<b>211</b>	<b>189</b>	<b>22</b>	<b>371</b>	<b>301</b>	<b>70</b>
1939– 1941				60	ND	ND						
1942– 1944				25	ND	ND						
<b>Total</b>	<b>82</b>	<b>74</b>	<b>8</b>	<b>246</b>			<b>211</b>	<b>189</b>	<b>22</b>	<b>371</b>	<b>301</b>	<b>70</b>

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## Nobel Prize Winners

Three Nobel Prize winners in Chemistry were born in the territory of former Yugoslavia in the past:

Fritz Pregl (1869–1930) (see Figure 17), Nobel Prize in Chemistry 1923 “For his invention of the method of micro-analysis of organic substances.” Born in Laibach, Austria-Hungary (now Ljubljana, Slovenia) and passed away in Graz, Austria. Received an MD in 1894 from the University of Graz. He studied for short periods in Tübingen, Leipzig, and Berlin, and taught at the Universities of Innsbruck and Graz. Initially, his research focused on physiology and physiological chemistry, and later on the constitution of chemical components, e.g., bile acids [36].

Leopold Ruzicka (Lavoslav Stjepan Ružička; 1887–1976) (see Figure 18), Nobel Prize in Chemistry 1939 “For his work on polymethylenes and higher terpenes.” Born in Vinkovci, Austria-Hungary (now Croatia) and passed away in Mammern, Switzerland. He studied at the High Technical School (Technische Hochschule) in Karlsruhe, Germany, where he obtained his PhD in 1910. His research in biochemistry resulted in teaching appointments at the ETH (Eidgenössische Technische Hochschule) in Zurich and the University of Utrecht [37].

Vladimir Prelog (1906–1998) (see Figure 19), Nobel Prize in Chemistry 1975 “For his research into the stereochemistry of organic molecules and reactions.” Born in Sarajevo, Austria-Hungary (now Bosnia and Herzegovina) and passed away in Zurich. He received his diploma in chemical engineering from the Czech Technical University in Prague in 1928 and his doctorate in 1929. Between 1935 and 1941, he lectured in organic chemistry and chemical engineering at the Technical Faculty in Zagreb before moving to Switzerland, where he started working in the Organic Chemistry Laboratory at ETH Zurich, where he became a full professor in 1952 and, in 1957, succeeded L. Ruzicka as the Head of the Laboratory [38].

Unfortunately, out of the three Nobel Prize in Chemistry holders born in the territory of former Yugoslavia, only Vladimir Prelog taught there at the University of Zagreb.

## Conclusions

This paper presents the findings of the research into the development of higher (tertiary) education in Chemical Engineering in former Yugoslavia. The focus of the research is on the early developments during the period of First Yugoslavia, the Kingdom of Serbs, Croats, and Slovenes/Yugoslavia, up to the end of WWII. The new country emerged on the ashes

of WWI and effectively resulted in the merger of territories belonging to the two opposing sides in WWI. Slovenia, Croatia, Bosnia and Herzegovina, and Vojvodina (now an autonomous province of Serbia) were part of the Austria-Hungary Empire, while Serbia, Montenegro, Kosovo (considered a province of Serbia by Serbia), and North Macedonia were part of the Kingdom of Serbia. The latter territories were part of the Ottoman Empire until the mid-to-late 19th century and the early 20th century.

This past history played a significant role in the development of higher education in Chemical Engineering in the Kingdom. The degree programmes in Chemical Engineering were offered by the newly founded High Technical Schools in Croatia (from 1926 part of the University of Zagreb) and the Technical Faculty of the University of Ljubljana, both in 1919. They benefited from being part of the Austria-Hungary Empire: the 18 faculty members of the University of Ljubljana were past professors and lecturers in the Austria-Hungary Empire who lost their appointments and were left unemployed at the end of the Empire and had to return home to seek employment, and half of the enrolled students at the University of Ljubljana in 1919 were those who transferred from their studies in Vienna. This, in part, was the case with the High Technical School in Zagreb.

The older University of Belgrade could not benefit in a similar way, and this may account for the slightly later foundation of the degree programmes in Chemical Engineering. The first graduates completed their studies and graduated with the degree of mechanical engineering technologist, although they had attended the course on the newly created third study pathway in chemical engineering. Those in Serbia benefited from the support provided by the Allies of the Entente that supported the enrolment in the universities of their countries after the end of WWI, as well as from scholarships to study abroad by the Kingdom's government.

All three early schools benefited to varying degrees from the refugees from the Russian Empire following the 1917 October Revolution and the later Russian Civil War, or from the Russian Empire WWI prisoners interned in Slovenia, Croatia, and Bosnia and Herzegovina who decided to stay in the newly created state at the end of WWI rather than return to their homeland.

The analysis of the degrees conferred in Chemical Engineering clearly shows that the largest number of graduates comes from the High Technical School/University of Zagreb (371), followed by the University of Belgrade (246) and the University of Ljubljana (211). The lower number of graduates from the University of Belgrade can be attributed to the later commencement of the programme and the fact that the school was closed during WWII.

Eighty-two foreign graduates had their degrees in Chemical Engineering/Technology recognised by the University of Belgrade in the interwar period. Based on their names and surnames, the majority of the foreign graduates appear to originate from former Yugoslavia and studied abroad, whilst a smaller number were foreign nationals who moved to former Yugoslavia. The majority of those who had their qualifications recognised came predominantly from several countries (based on the current borders): France (35 per cent), the Czech Republic (24 per cent), and Germany (11 per cent), with the University of Toulouse, and the High Technical Schools in Prague and Brno being the prime alma mater for these graduates. A similar number of graduates from Germany came from the Russian Empire, or 8.5 per cent from current Ukraine and 4 per cent from current Russia. However, in the absence of personal data but based on the names of the graduates, most of those from the Russian Empire are most likely to be of Russian Empire origin but who emigrated to the Kingdom of Yugoslavia, whilst most others who completed their degrees abroad and had them recognised by the University of Belgrade appear to be nationals of the Kingdom. Only one of the foreign graduates, Konstantin Mironov, who had their degree in chemical engineering recognised at the University of Belgrade, has graduated from the Riga Technical School.

Three Chemistry Nobel Prize winners have originated from the territories of former Yugoslavia in the past: Fritz Pregl, born in Ljubljana, Slovenia; Ladislav Ruzicka, born in Vinkovci, Croatia; and Vladimir Prelog, born in Sarajevo, Bosnia and Herzegovina, then the Condominium of the Austria-Hungary Empire. Unfortunately, only Vladimir Prelog was able to contribute to teaching and research at the schools of Chemical Engineering at the Faculty of Chemical Engineering in Zagreb, in the Kingdom of Yugoslavia, between 1935 and 1941.

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This paper is dedicated to the memory of my late father, Professor Dr. sc. Boro Ladinski (1922–1990), Professor and one of the founding members of the Faculty of Technology, Ss. Cyril and Methodius University in Skopje, North Macedonia, and the past President of the Association of Chemists and Technologists of Yugoslavia (1979–1981).

## **Ķīmijas inženieru augstākās izglītības attīstība bijušajā Dienvidslāvijā**

Rakstā prezentēti pētījuma rezultāti par ķīmijas inženieru augstākās (terciārās) izglītības attīstību bijušajā Dienvidslāvijā, uzmanību pievēršot trīs vecākajām augstskolām valstī, kas izveidotas starpkaru periodā – Zagrebas Universitāte, Ļubļanas Universitāte un Belgradas Universitāte Serbu, Horvātu un Slovēņu Karalistē (1918–1929), Dienvidslāvijas Karalistē (1929–1941). Lai gan Belgradas Universitāte ir vecākā inženierzinātņu augstākās izglītības iestāde, tā bija pēdējā, kurā izveidota ķīmijas inženierijas programma pēc tam, kad sākotnēji izglītība šajā jomā tika nodrošināta mašīnbūves izglītības ietvaros. Zagrebas un Ļubļanas universitātes šo programmu ieviesa jau kopš to dibināšanas 1919. gadā. Rakstā pētīta arī to ķīmijas inženieru loma, kuri zinātnisko grādu ieguvuši ārzemēs un kuru zinātniskie grādi oficiāli atzīti Dienvidslāvijā. Šis pētījums sniedz ieguldījumu inženierzinātņu, īpaši – ķīmijas inženierijas, vēsturē bijušajā Dienvidslāvijā.

**Atslēgvārdi:** Dienvidslāvija, augstākā izglītība, ķīmijas inženierija, Zagrebas Universitāte, Ļubļanas Universitāte, Belgradas Universitāte.

# THE CONTRIBUTION OF THE «POLYTECHNICIANS» BURIED IN THE MĀRTIŅŠ CEMETERY, RIGA, TO THE DEVELOPMENT OF RIGA AND LATVIA

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Riga City Council Member

**Summary.** Many notable personalities are buried at the Mārtiņš Cemetery in Riga, including those who have contributed to the development of engineering sciences. Several personalities are associated with Riga Polytechnicum (RP) / Riga Polytechnic Institute (RPI). These are the founders of the RP, members of the Council, lecturers and former students. Nine individuals were identified during the research: one founder of the RP, two lecturers and four former students, one of whom was also a lecturer, and two graduates. The most well-known personalities are the Thilo family and the RP lecturer and entrepreneur Rudolph Heinrich Mantel (1853–1924). Monuments have survived for some of the buried, and their photographs are included in the article.

**Keywords:** Mārtiņš Cemetery in Riga, Riga Polytechnicum, Riga Polytechnic Institute, Thilo family, Rudolph Heinrich Mantel.

## Introduction

Mārtiņš Cemetery in Riga is one of the oldest in the city, founded on 3 August 1773, and closed to new burials in 1952. This Cemetery mainly houses those who lived in Pārdaugava, Āgenskalns. Only a small part of the burials are currently being looked after by relatives. Many families

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emigrated from Riga abroad during World War I or at the beginning and end of World War II. Germans, Latvians, Russians, Swiss and people of other nationalities are buried here. Walking through the Cemetery and looking at the monuments, one can read the names and surnames of many notable personalities. They have contributed not only to the development of engineering sciences but also to medicine, education and other sciences, as well as culture.

At the Riga City Council meeting on 12 June 2010, a decision was made to allow urn burials at the Mārtiņš Cemetery. This decision was taken after a petition to the Riga City Council by one of the authors of this article – Valdis Gavars. In 2015, a special memorial was created here for people who donated their bodies to medicine and science after death at Riga Stradiņš University, located near the Mārtiņš Cemetery in Riga.

The first chemist of Latvian origin, David Hieronymus Grindel (1776–1836) [1], Professor at the University of Dorpat (now Tartu), is buried in the Mārtiņš Cemetery in Riga. JSC «Grindeks» is named after him, and in 1995, it established the D. H. Grindel Prize, which has also been awarded to RPI lecturers and graduates.

The continuator of the traditions and activities of the RP / RPI – Riga Technical University (RTU) family has a tradition every year in October, when the anniversary of the university's founding is celebrated, to lay flowers at the graves of former rectors – at Meža Cemetery, Matīsa Cemetery and Great Cemetery in Riga. On 10 October 2024, on RTU History Day, participants of the Section «History of Engineering Sciences and Institutions of Higher Education» of the RTU 65th International Scientific Conference gathered at the Mārtiņš Cemetery in Riga for a moment of remembrance. At the memorial event, the authors of this article spoke to participants about the «polytechnicians» buried in the cemetery. At that time, the research was still in progress, and historians of science continued their work in identifying these «polytechnicians».

## **The Thilo Family and Engineering Sciences**

In 1833, Georg Adolf Thilo (1789–1854) purchased a cloth manufactory in Zasmusiža (present-day Zaslauks District, Riga, Pārdaugava). By modernizing it, he provided jobs for about 100 people, including women. The manufactory was inherited by his son Carl Adolf Thilo (1817–1887). In the mid-19th century, the Thilo family also purchased adjacent land plots, which were needed to expand production. Their company was profitable and developed into a kind of «factory town» [2]. With the rapid development of industry and the introduction of new technologies and equipment into production, educated specialists were needed, who

were not being prepared in Riga. Therefore, C. A. Thilo was involved in the establishment of the first technical university in the Baltic provinces – Riga Polytechnicum, and in 1858, as a representative of the Riga Bourse Committee, he was elected to the commission that organized the establishment of this educational institution. Together with other influential Rigans, C. A. Thilo achieved that in May 1861, the Russian Tsar approved the regulations of the new educational institution, and the governing body of the university – the RP Council – began its work. The elder of the Riga Merchants' Association, the manufactory's advisor – C. A. Thilo [3] was elected and worked there for ten years (1861–1871). In 1864, he was one of the initiators of the establishment of the Analytical and Agricultural Chemistry Experiment Station and allowed the Zsulauks Manor (Sassenhof) he owned to be used for practical demonstrations by the RP Department of Agriculture [4]. This was a great support for the Department founded in 1863, because the university, located in the centre of Riga, did not have land for agriculture; only in 1877, did RP lease land in Pētermuiža (Peterhof) near Olaine.

C. A. Thilo is buried next to his father, G. A. Thilo and his mother Charlotte Thilo (1800–1884) at the Mārtiņš Cemetery in Riga, near Slokas Street. He is the only known co-founder of RP and one of the Council members who rest in this Cemetery. The son of C. A. Thilo, a graduate (1869) of the University of Dorpat, lawyer Ernst Thilo (1847–1884) taught courses (1875–1879) at RP related to commercial, bill of exchange and maritime laws, agricultural rights, and property management [5]. He passed away at the age of 37. The Thilo family tombstone also contains the names of his two brothers – Adolf Thilo (1843<sup>1</sup>–1921), who had studied chemistry at the University of Dorpat and was engaged in trade in Riga, and Otto Wilhelm Thilo (1848–1917), a graduate (1875) of the Faculty of Medicine of the University of Dorpat, an orthopaedist, and one of the pioneers of biomechanics [6]. It should be noted that he had studied drawing and drafting privately with the RP lecturers.



**Figure 1.** Tombstone at the resting place of the Thilo family at the Mārtiņš Cemetery in Riga. 2025.

<sup>1</sup> The tombstone indicates 1844–1921.

## The Activities of the Swiss Engineer Rudolph Heinrich Mantel in Riga

In November 1875, the Swiss engineer Rudolph Heinrich Mantel began work at RP. In RP, he was known as Heinrich Mantel, and he also signed documents related to his work at the university with one name [7]. R. H. Mantel, a graduate (1875) of the Zurich Federal Polytechnicum from Winterthur, Switzerland, lectured on geodesy, road, railway and waterworks construction [8]. He left the university in 1878. For a short time, he worked as an engineer in a factory in St. Petersburg, then in 1879, he returned to Riga and turned to business.

Together with mechanical engineer Mathias Salathe (?-?), R. H. Mantel founded a technical office, opened a machine factory and a foundry. At the beginning, the factory was small – just a small carpentry workshop, mechanical workshops with five lathes, a planning machine, two drilling machines, small forges, foundries with a cast-iron standing furnace and a ladle furnace. It employed about 40 workers [9]. Gradually, the company expanded, and in 1899, it was transformed into the Mechanical Engineering Joint Stock Company «R. H. Mantel» [10]. It was possible to buy steam engines, lifting equipment, pumps, turbines and other goods. The metal foundry cast the large lampposts with lamps that are still located on Jēkaba Street near the Saeima building. In 1910, the company employed around 550 workers and 50 civil servants. Initially, the company built small steamboats, as well as manufactured various metal goods and made improvements to surrounding factories. Before World War I, it manufactured steam engines and boilers, mills, machines for cellulose, cardboard and paper production, and turbines. By 1910, R. H. Mantel's company had built 18 steamboats and also produced other goods [8], some of which had won recognition at various exhibitions. For example, in 1888, at the Exhibition of Crafts, Industry and Agricultural Products in Jelgava, R. H. Mantel was awarded a silver medal for achievements in mechanical engineering, especially for the manufacture of a butter churn [11].

During World War I, the engineer and his company were evacuated to the city of Yekaterinoslav in Russia (now Dnipro, Ukraine), and its operations in Latvia were not resumed. After the war, he returned to Riga. In addition, he owned two pasteboard factories in Vidzeme – in Bormaņi (now Trapene Parish) and in Grūbe (Ape Parish) [12]. They had been damaged during World War I, and it was planned to restore them. Whether this was implemented, the authors do not know.

R. H. Mantel was also a well-known public figure. In 1897, the Swiss Government appointed him as its Consul in Riga, and after the establishment of the Republic of Latvia (LV), the engineer was the

Honorary Consul of Switzerland in Latvia until 1923. At the meeting of the Cabinet of Ministers of the Republic of Latvia on 21 October 1921, R. H. Mantel was confirmed as the delegate of Latvia to the League of Nations International Labour Conference in Geneva, but already at the meeting of 3 November, the decision was amended, approving agronomist Jānis Apsītis (1886–1952) in his place [13].

In addition, he was a good organizer and was highly regarded in the Latvian engineering community. He was one of the organizers of the Bureau of the Congress of Engineers and Technicians of Latvia, who helped create the program of the 2nd Congress of Engineers and Technicians of Latvia (1922) and presented two reports on issues of Latvian industrial renewal [14]. He took an active part in the Riga Technical Society (being an Honorary Member of it), at the Manufacturers' Society [15], and the Riga Literary and Practical Citizens' Union. The engineer and industrialist R. H. Mantel was respected by Latvians, Baltic Germans, and the few Swiss living in Riga.

In 1879, Swiss engineer R. H. Mantel married Anna Luise Brieger (1856–?), daughter of Heinrich Adolf Brieger (1823–1904), founder of the soap and perfume factory «H. A. Brieger». Their daughter Anna Luise, born in 1880, married merchant Robert Biedermann (?–?) from R. H. Mantel's hometown of Winterthur in 1901 [16]. The engineer's sons, Jacob Hans Heinrich (1883–1943) and Heinrich Adolph Mantel (1888–1960), were also born in Riga. The eldest of the engineer's sons – J. H. H. Mantel – studied at the Federal Technical University of Zurich (Eidgenössische Technische Hochschule Zürich), obtaining a diploma in mechanical engineering (1908), and managed a paper mill in Worblaufen in the Canton of Bern. His brother, the youngest of engineer R. H. Mantel's sons – H. A. Mantel, studied law at the University of Zurich and obtained a doctorate (1912) in this field of science, and a few years later founded his own firm in Switzerland.

R. H. Mantel's company was located in Pārdaugava, on Daugavgrīvas Street, where the Riga Agricultural Machinery Factory later stood, opposite the RTU Campus in Ķīpsala. The Mantel family also lived next to the company in Pārdaugava, and engineer R. H. Mantel was buried in the nearby Mārtiņš Cemetery. Representatives of the Union of Industrialists and Craftsmen and the Union of Latvian Merchants were invited to the funeral. The farewell speech at the grave was delivered by Vilis Vilhelms Cipste (1881–1930), a graduate (1914) of the RPI Department of Engineering [14]. Latvia had become R. H. Mantel's second homeland, where he lived for almost half a century.

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Figure 2. Monument to R. H. Mantel at the Mārtiņš Cemetery in Riga. 14.09.2017.



Figure 3. Title page of the 1901/1902 annual report of the Mechanical Engineering Joint Stock Company «R. H. Mantel».



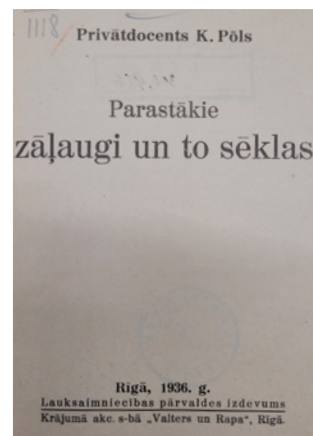
Figure 4. Advertisement for the Mechanical Engineering Joint Stock Company «R. H. Mantel». Rigasches Adressbuch, 1911.

The engineer's wife, Swiss citizen A. L. Mantel, left Latvia for Switzerland in 1925 and settled in the town of Worblaufen with her son J. H. H. Mantel. In 1926, she came to Latvia for three months to improve her health, staying in Riga and Jūrmala [17].

## RPI Students

During the research, four former students and two graduates of RPI, buried in the Mārtiņš Cemetery in Riga, were identified. The eldest of the two graduates, Karl Pohl (1877–1938), graduated from the Department of Agriculture in 1904, receiving an agronomist diploma. His first job was in Kurzeme – K. Pohl was authorized to manage the property «Jaunmokas», which at that time belonged to the Mayor of Riga George Armitstead (1847–1912), a graduate (1868) of the RPI Department of Engineering. From June 1904 to the end of March 1908, the young agronomist worked as a sworn appraiser, valuing agricultural land in Vidzeme. In the summer of 1908, he began working at the RPI as an assistant [18]. K. Pohl performed his work duties at the RPI experimental farm in Pētermuiža near Olaine, and he also had to supervise the development of students' diploma theses in crop production. Before World War I, courses on bog culture and grassland cultivation were organized in Pētermuiža, and agronomist K. Pohl gave a course on seed material to the participants. During World War I, when RPI was evacuated to Moscow, K. Pohl taught students a course in general crop production. In 1918, he returned to Latvia and was invited to lecture in agricultural accounting at the Baltic Technical University, which was established based on RPI. This university was closed in January 1919, but in the autumn of 1919, the Latvian Higher School (from 1923 – the University of Latvia) began its work, which included the technical faculties of RPI, and K. Pohl continued to work at this university. He taught agricultural accounting at the Faculty of Agriculture until he died in 1938 [19]. In science, K. Pohl focused on crop production, mainly on the study of seeds; he is the author of two brochures: «Determination of the Most Common Grasses (Gramineae) in the Flowerless State» (1934) and «The Most Common Herbs and Their Seeds» (1936).

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**Figure 5.** Title page of K. Pohl's brochure «The Most Common Herbs and Their Seeds». 1936.

Jānis Stalbovs (1886–1950) graduated from the RPI Department of Commerce in 1915. He came from a family of six children and, before his studies, worked in trade and industry, established a winery in his father's house in Kraukļi Parish and made wine for sale from fruits and berries grown in his own garden. Then, against his parents' wishes, he moved to Riga and, in 1909, began business studies. During his studies, he joined the Latvian student corporation «Talavija» [20]. He received a diploma from RPI in 1915. He worked as an accountant during his studies. He evacuated to Russia during World War I and returned to Latvia in 1920. He had held various positions, including being the Latvian Consul in Estonia. After that, his life was connected with banks: first, in 1925, he became the Manager of the Daugavpils branch of the Bank of Latvia, and in 1928, after becoming one of the Directors of the Bank of Latvia, he moved to Riga. It should be explained that at that time the Bank of Latvia was headed by a director general and three directors. J. Stalbovs served as director for many years, until 1940 and then from 1941 to 1944. J. Stalbovs' life ended in 1950, and he was buried in the Mārtiņš Cemetery.



**Figure 6.** V. Remmerts' grave at the Mārtiņš Cemetery in Riga. 2025.

One of the most recent burials (urn with ashes) at the Mārtiņš Cemetery is the grave of Vello Remmerts (1960–2001), a former student of the RPI Faculty of Civil Engineering (1978–1987). He is considered an Estonian living in Latvia because his father was Estonian. During his studies, V. Remmerts was the Commander of the Student Construction Unit

«Vēcrīga» of the RPI Faculty of Architecture and Civil Engineering and the Faculty of Civil Engineering [21]. After his studies, he was a senior expert at the Latvian Culture Foundation and, as the Head of the Foundation's Volunteer Centre, he encouraged people to participate in the cemetery cleanup campaign across Latvia on 7 and 8 May 1988. More than one service was organized, including at the Mārtiņš Cemetery in Riga [22], where both V. Remmerts and architect, RPI graduate (1979) Pēteris Blūms [23] contributed. In addition, V. Remmerts worked in the National Cultural Heritage Administration and, in the 1990s, in the Riga Restoration Bureau, first as a chief restorer, then as Chairman of the Board. He was active in the association «Latvia – Finland» and at the Riga Rotary Club, in which he also served as Chairman [24]. An engineer, restorer, public figure, patron of the arts, and opera lover, V. Remmerts' life ended at the age of 41.

Student of the RPI Department of Commerce, Kārlis Kaminskis (1889–1908) was born in Sloka, but the family soon moved to Riga, Kandavas Street in Zaslauks. His father, Kārlis Kaminskis (1852–1904), was a merchant and passed away in 1904, before Kārlis began his studies [25; 125]. Unfortunately, the student K. Kaminskis' life was cut short at the age of 19. He was buried next to his father.

It is known that Alberts Meldriņš (1886–?) is also buried in the Mārtiņš Cemetery in Riga [26]. He studied at the RPI Department of Engineering (1906–1911) and the RPI Department of Agriculture (1912–1913) [25; 42]. The exact year of his death is unknown, but it must be assumed that it was after World War II.

Gonestis (Honestis) Svīķis (until 1921 – Kuzņecovs; 1884–1936), son of the lawyer, publicist, and linguist Jūlijs Kalējs-Kuzņecovs (1843–1905), associate of one of the founders of the New Latvian movement, publicist, Krišjānis Valdemārs (1825–1891), founder of the Ainaži Naval School, began studying mechanics at RPI in 1905 [27], but the 1905 Revolution began and the university suspended its work, leaving students in the dark about when their studies would resume. Gonestis went to Paris to study medicine, but studying far away from his relatives required money. Although he was supported by his relatives, after his father's death, he returned to his homeland. He then lived in St. Petersburg, but after World War I, he returned to Latvia. He worked for a short time in the Ministry of Foreign Affairs. G. Svīķis was buried on the Slokas Street side, with only a wooden cross placed on the grave, which has since perished. His cousin, Vasilijs Kuzņecovs (1875–1943), a graduate (1898) of St. Petersburg University and graduate (1907) of St. Petersburg Mining Institute, a mining engineer and teacher, is also buried in the cemetery, and due to fabricated (forged?) documents, was considered his brother for a long time [28].

## Conclusions

Church documents about those buried in the Mārtiņš Cemetery in Riga have only been partially preserved, so it is believed that more than one polytechnician is buried there. During the research, the authors found out that the parents of RP / RPI Professor Georg Thoms (1843–1902) were also buried in the aforementioned graves – his father, English merchant Henry Thoms (1799–1846) and mother Emilie Sophie Hollander (1817–1876), who was married for the second time to Heinrich Eduard Gustav von Hollander (1820–1897), member of the RP Council (1867–1869), Chairman (1870–1890). Other relatives of students and lecturers are also buried in the Mārtiņš Cemetery, such as Karin Hviid (1884–1892), sister of Danish former RPI student Niels Hviid (1882–1967), father Niels Christian Hviid (1854–1916) and mother Elisa Alexandra Caroline Hviid (1854–1926).

Although there are no documents, the electronic encyclopaedia «Timenote» ([www.timenote.info](http://www.timenote.info)) contains information about more than 300 people buried in the Mārtiņš Cemetery in Riga. The list is constantly being updated, as monuments with personal data have survived, as well as obituaries published in newspapers and announcements from relatives about the passing of loved ones. Research on the buried continues.

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## SOURCES OF ILLUSTRATIONS

**Figure 1.** Tīlo dzimtas kaps Mārtiņa kapos Rīgā. 2025. V. Gavara foto.

**Figure 2.** Pieminekļis R. H. Mantelam. 14.09.2017. A. Zigmundes foto.

**Figure 3.** Mašīnbūves akciju sabiedrības «R. H. Mantel» 1901./1902. gada atskaites titullapa. LNB.

**Figure 4.** Mašīnbūves akciju sabiedrības «R. H. Mantel» reklāma. *Rigasches Adressbuch*, 1911. LNB.

**Figure 5.** K. Pola brošūras «Parastākie zāļaugi un to sēklas» titullapa. 1936. LNB.

**Figure 6.** V. Remmerta kapavieta Mārtiņa kapos Rīgā. 2025. V. Gavara foto.

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## Mārtiņa kapos Rīgā apbedīto «politehniķu» devums Rīgai un Latvijai

Mārtiņa kapos Rīgā apbedītas daudzas ievērojamas personības, tostarp arī tādas, kas devušas ieguldījumu inženierzinātņu attīstībā. Ar Rīgas Politehnikumu (RP) / Rīgas Politehnisko institūtu (RPI) saistītas vairākas personības. Tie ir RP dibinātāji, Padomes locekļi, docētāji un bijušie studenti. Pētījuma gaitā apzināti deviņas personas: viens RP dibinātājs, divi docētāji un četri bijušie studenti, no kuriem viens bijis arī docētājs un divi absolventi. Pazīstamāko personību vidū ir Tīlo dzimta, kā arī RP docētājs un uzņēmējs Rūdolfs Heinrihs Mantels (*Rudolph Heinrich Mantel*; 1853–1924). Daļai no apbedītajiem saglabājušies pieminekļi, rakstā pievienotas to fotogrāfijas.

**Atslēgvārdi:** Mārtiņa kapi Rīgā, Rīgas Politehnikums, Rīgas Politehniskais institūts, Tīlo dzimta, Rūdolfs Heinrihs Mantels.

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# THE ARNAL FAMILY OF «POLYTECHNICIANS» AND ENTREPRENEURS AND THEIR CONTRIBUTION TO THE ECONOMY OF LATVIA

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**Summary.** The study reveals previously unknown facts about the Arnal family, who were well-known entrepreneurs and beverage producers in the late 19th and early 20th centuries, and their contribution to the Latvian economy – the production of mineral water, fruit powders, writing instruments (ink, typewriters, etc.), mustard, table vinegar and many other products, as well as their advertising in the press and at exhibitions. The descendants of the Arnal family studied at Riga Polytechnicum / Riga Polytechnic Institute. Family data have been compiled, revealing new and previously unknown personalities in the Latvian history. Additionally, facts have been uncovered about the family that lived in Latvia until 1940, when the Baltic German Arnals family emigrated.

**Keywords:** Riga Polytechnicum, Riga Polytechnic Institute, engineers, mineral water, industry, national economy, Arnal family.

## Introduction

The Arnal family, who lived in Riga, was a well-known beverage producer from the second half of the 19th century until World War II. As the political situation changed in 1940, private industry was liquidated, supposedly to establish new factories, including the Beverage Factory «Veldze». Its origins can be traced back to the company «Rīgas augļūdeņu un minerālūdeņu fabrika» (Riga Fruit and Mineral Water Factory), which was established on 1 January 1941, by merging the nationalized companies

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«Arnāla dēli», «Oskars Krūmiņš», «Rīgas mākslīgie minerālūdeņi», JSC «Vērmaņa parks», and «Gust Kuncendorf» (Order of the People's Commissariat of the Food Industry of the LSSR No. 276, 31 December 1940 in the newspaper «Ziņotājs» No. 102 [1; p. 1]).

«Rīgas augļūdeņu un minerālūdeņu fabrika» began its work in 1944. On 17 August 1949, the Factory was merged with the Riga Wine Factory «Vīndaris» and named the Riga Fruit and Berry Wine and Non-Alcoholic Beverage Factory. On 30 May 1967, it was renamed the Beverage Factory «Veldze». On 24 December 1969, the Beverage Factory «Veldze» was attached to the Beer and Wine Factory «Rīga» and named the Beer and Wine Production Association «Rīga» of the Ministry of Food Industry of the LSSR. The functions of the factory included the production of wine and non-alcoholic beverages [1; p. 2].

All the most popular soft drinks and lemonades were produced at the factory of the Latvian Soviet Socialist Republic. Before the 1980 Games of the Olympiad in Moscow, the factory «Veldze» became one of the first Pepsi producers in the Union of Soviet Socialist Republics (USSR). State Joint-Stock Company «Beverage Factory Veldze», founded after the restoration of Latvia's independence, was privatized in 1994, while JSC «Veldze» was liquidated in 2006 [2].

The study found that the non-alcoholic sparkling drink produced at the Arnāls factory, which could be made by mixing various flavoured powders into water, had a close relationship with products produced by the factory «Veldze», such as Fanta. Its patent was issued in Germany in 1940, but already at the beginning of the 20th century, various sparkling lemonades that could be purchased at the Arnāls company were advertised in the press of the time, especially highlighting the «Orangenseuer»s sparkling orange drink.

At first, only Emil Amandus Johannes Arnal (1836–1910) was involved in the company's operations, and then the company's name in the press in Latvian, Russian, and German was «E. Arnāls» (E. Arnal; E. Arnahl). In 1901, his two sons – John August Christian Arnal (1872–1907) and Eugen Alexander Adolph Arnal (1873–?) – joined, and the company was known in all three languages as «E. Arnāla dēli» (E. Arnal (Arnahl) Söhne; Sons of E. Arnal). After the tragic death of their eldest son John in 1907, only Emil and his youngest son Eugen continued the business. After E. A. J. Arnals' death in 1910, the company was run by his youngest son Eugen. After the end of the 1920s, the company was represented by John's sons – Egon Emil Robert Arnal (1901–?) and Klaus Robert Arnal (1905–?) – together with their uncle Eugene. In the 1920s, Eugen's son Rolf Ludvig Eugen Arnal (1906–?) had his own company, which probably separated from the company «E. Arnāla dēli» and was engaged in the sale of ink and typewriters.

## The Arnal Family Business in Riga

The German citizen merchant Emil Amandus Johannes Arnal (1836–1910) joined the Riga business community in the early 1860s, upon arriving from Hamburg [3]. He first engaged in wine production and trade. An 1865 advertisement in the newspaper «Mājas Viesis» reported that «in E. Arnal's wine cellar, on Kaļķu Street, in the Minnus House, under Mr. Rēdlih's English newspaper store, one can get all sorts of wine at the cheapest price» [4].

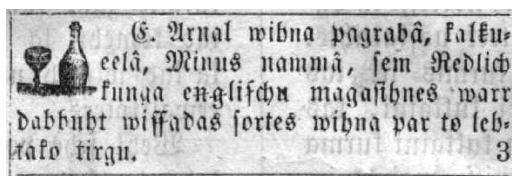


Figure 1. The first company advertisement in the newspaper «Mājas Viesis». 1865.

Later, it was mentioned that the company was founded on 19 January 1865. E. A. J. Arnal gradually settled in Riga. In 1866, E. A. J. Arnal moved from Mr. Rēdlihs' basement to premises on the corner of Kungu and Pēterbaziņas streets – under Mindelis' cigar booth. Various white and red wines were available for purchase there, such as Madeira, Malaga, and Muscat – 45 kopecks per bottle, rum – 60 kopecks per bottle, as well as French wine – 2.5 rubles per bottle [5].



Figure 2. Logo of the company «E. Arnal». 1880s.

In 1869, the company continued its operations at 25 Grēcinieku Street. In 1870, 2nd guild merchant E. A. J. Arnal was granted permission to sell champagne, punch, and other non-medicinal beverages, in addition to wines [6].

In 1871, the company began producing soft drinks, lemonades, and mineral water, which were offered for purchase in refillable bottles – siphons [7]. The price of the drink was 8 kopecks per litre. The authors of

the article managed to find a picture of such a siphon on the global web – one on the Estonian auction website, the other – in the collection of the Museum of the History of Riga and Navigation (VRVM 189014, Coll. No. 069).

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**Figure 3.** Siphon of the E. A. J. Arnal Company. 1871.



**Figure 4.** Original siphon from the E. A. J. Arnal company. Late 19th century.



**Figure 5.** Porcelain bottle stopper from the E. A. J. Arnal company. Late 19th century.

In the 1870s, the company's products were also sold in Zaslauks. In 1873, the Governor of Vidzeme gave permission to Riga merchant E. A. J. Arnal to move his establishment for the preparation of refreshing, non-medicinal drinks to his house at 4 Strēlnieku Street [8]. From 1873 to 1899, extensive construction was carried out on the corner of what is now Dzirnavu and Strēlnieku streets, where the entire block was built for the needs of the Arnal family – two residential buildings, a factory building, a warehouse, a garden, and a shop. The general address was 16 Dzirnavu Street.

The first development plan for the territory was drawn up in 1869, featuring three buildings designed by architect Heinrich Karl Scheel (1829–1909) [8, p. 3]. In 1873, the factory extension was coordinated by architect Friedrich Wilhelm Hess (1822–1877) [8; p. 3] who also participated in the construction of the Riga Polytechnicum (RP) building at 19 Thronfolger (now Raina) Boulevard. Later – in 1883 – the project for a residential brick building in the mentioned area was coordinated by architect Otto Dietze (1833–1890) [8; p. 8]. In 1888, a project for a canopy was developed, coordinated by the architect Oscar Alexander Johann Baar (1848–1914), a graduate (1874) of the RP Department of Architecture [8; p. 32] and the architect Friedrich Rudolph Hamilkar von Petersen (1851–?) [8; p. 34]. Later, architect Konstantīns Pēkšēns (1859–1928), a graduate (1885) of the RP Department of Architecture, and architect and civil engineer Edmund von Trompowsky (1851–1919), a graduate (1878) of the RP Department of Architecture, also became involved in the development plans for the territory [8; pp. 43, 59, 66, 78]. The last works to improve the area were carried out until 1906 under the leadership of architect Rudolf Philipp Dohnberg (1864–1918), a graduate (1893) of the RP Department of Architecture [8; p. 81].



Until the demolition of the territory and the construction of a new building in 1937, the following buildings existed on the territory: a two-story brick residential building at 16 Dzirnavu Street; a two-story brick mineral water facility building; a two-story courtyard building (horse stable, warehouse, ice cellar, and apartment); a two-story brick residential building with a facade on Strēlnieku Street; a one-story brick wooden shed; a one-story brick extension (smithy, garage) [8; p. 194].

Construction work continued into the early 20th century. Evidence that the factory was actually there can be found in the pictures of the National Library of Latvia's «Zudusī Latvija» (Lost Latvia). In the late 1930s, all the factory buildings were demolished, and the Post Telegraph Building (now the Riga International German Private School) was built in their place.



**Figure 9.** Building at 16 Dzirnavu Street. The two-story brick factory building, an extension was built by the industrialist and merchant E. A. J. Arnal, according to the project approved by the architect Friedrich Wilhelm Hess on 8 August 1873.



**Figure 10.** Plot of land on the corner of Dzirnavu and Strēlnieku streets (address – 16 Dzirnavu street). In the foreground – E. Arnal's company former garden of the mineral water institution with the remains of a fountain. 1930s.

In the 1870s, E. A. J. Arnal also introduced subscription cards that offered discounts to regular customers. If a customer bought six or more siphons, their delivery was free [9]. Siphons were available at two prices – 8 and 5 kopecks, lemonade – 12 kopecks [10]. If the glass cylinder of the siphon was accidentally broken, if the customer returned the bottle valve mechanism to the company, the loss was not to be compensated. If the valve mechanism was broken, the money was not returned.

After the news was published in the newspaper «Zeitung für Stadt und Land» in 1879, the company's product range expanded significantly, starting to produce fruit powders that could be mixed with water, mineral water, and tea. Available flavours included cherry, currant, raspberry, orange, blueberry, strawberry, lemon, pear, pineapple, vanilla (14 variations in total) [11].

In the 1880s, the company had two addresses: the production plant at 23 Dzirnavu dambis (Embankment), the office at 25 Grēcinieku Street [12]. It was a time when the company expanded its product range and distribution regions – its products could be purchased not only in Riga, but also in Liepāja [13], Jelgava, Pärnu and Tallinn [14]. Since 1896, the company has also sold mineral waters in Nizhny Novgorod [15]. At the end of the 19th century, the company's stores were located in several places in Jūrmala Region of Riga – Bulduri, Dzintari, Majori, Dubulti, Melluži, and Asari [16].

On 16 February 1888, the Governor of Vidzeme granted Riga merchant Emil Arnal a concession to produce artificial mineral water for the production of lemonades and refreshing waters at his company at 16 Dzirnavu Street [17]. As the newspaper «Düna Zeitung» wrote: «... the most extensive requirements in terms of sanitation and hygiene have been taken into account here. In the solution room on three floors, large clay pots containing the salt solutions used are visible. Next to them is a large laboratory equipped with the most complete and excellent equipment. Rinsing systems, arranged according to the latest technology, offer the most comprehensive guarantee of absolute bottle cleanliness. Below is a water distillation apparatus, three carbon dioxide pumps, and several mixing cylinders, which allow the production of 20 000 bottles per day. On the first floor, there is a machine room, a dolomite grinding room, a spacious warehouse and packaging room, and an office. After visiting the facility, you will be convinced that it is a factory with a modern style vision. This fact, and the fact that it is also under the supervision of a professional chemical engineer, calls for public attention to it, especially now that the artificial mineral water season is beginning [18].»



Figure 11.  
Factory area.  
Early 20th  
century.

To prove the quality of their products, regular newspaper advertisements emphasized sterility, noting that the products were made from distilled water under the supervision of professionals. It is also interesting that the company tested the products at the Chemistry Testing Laboratory (station) of Riga Polytechnicum.

In the 1892 newspaper «Balss», E. A. J. Arnals mentioned that the factory's production was supervised by the Director (1871–1887) of the Vērmānes Dārzs Mineral Water Institution, chemist and technician Hermann Seidler (1852–?) [19].

In 1897, the company was called «E. Arnal Söhne», although the family business had not yet been officially transferred to the sons [20]. That same year, the Governor of Vidzeme allowed Riga merchant Emil Arnal to open a warehouse to sell copying machines, called «Automātisks ziklostils» (Automatic Cyclostyle), at 24 Grēcinieku Street in Riga [21]. It is possible that in the late 1920s, Rolf Ludvig Eugen Arnal, grandson of the founder, founded his own company, «E. E. Rattermanis un Biedrs», on its basis.

By the turn of the 19th and 20th centuries, the company suffered several fires – in 1883 [22, 23], 1888 [24], and 1889 [25].

In 1901, following a resolution by the Acting Governor of Vidzeme, E. A. J. Arnal was allowed to transfer his chemical-technical laboratory, as well as an artificial mineral water, lemonade, and kvass production facility in Riga, at 16 Dzirnavu Street, to his sons: John August Christian Arnal and Eugen Alexander Adolph Arnal for further management [26].

In 1905, an advertisement in the newspaper «Dūna Zeitung» indicated the company's sales outlets not only in Rīga, Jelgava, Bulduri, Majori, Dubulti, Ķemeri, Tukums, Liepāja, Ventspils, Aizpute, Kuldīga, Kandava, Sable, Priekuli, Bauska, Baldone, Birzgale, Varakļani, Vecumnieki, Grenči, Cēsis, Valmiera, Smiltene, Ogre, Saulkrasti, Salacgrīva, Sigulda, Kalnamuiža, Vietalva, Skaistkalne, Daugavpils, Lutriņi, but also in Pärnu, Murawjewo (Mažeikiai), Narva, Novoaleksandrovsk, Odessa, Sebez [27].

At the beginning of the 20th century, the expansion of sales outlets reached Poland [28].

On 24 April 1905, the company opened the healing season in the Strēlnieku Garden [29]. On 26 April 1909, at 7 a.m. in the same garden, the company opened a SPA complex, where mineral waters produced by itself were used [30, 31]. In the park, at the beginning of the 20th century, the company organized several musical events, probably to advertise its products [32].

In 1914, the company, together with other local producers of fruit waters, seltzer, and other soft drinks, formed a syndicate to regulate prices and achieve cheaper procurement of raw materials [33]. However, at least in the Latvian society, the reaction to the syndicate was negative. It was said that it suppressed competition and was a «crusade against buyers' wallets». However, that no longer mattered, as World War I broke out. The Arnal company was not evacuated. The sons of E. Arnal produced fruit juices and seltzer even during the years of World War I and in the times of trouble. After the war, Eugen Alexander Adolph Arnal took over the management. In 1924, the Department of Industry allowed the company to open a chemical and technical laboratory in Riga [34].

However, the family business was no longer doing so well. In 1931, due to debts, a few factory belongings – washing machines, automatic fillers, etc. – were sold at auction for the value of 1600 lats [35]. In the autumn of 1931, the sons of E. A. J. Arnal became insolvent. Debts reached 160 thousand lats. However, the company was not closed, it continued to operate under the management of an administrator [36]. The 3rd Civil Department of the Riga Regional Court, in an open court hearing on 16 December 1931, approved the company's administrator, Hermanis Aleksandrs [37]. On 29 July 1932, the same Civil Department appointed Herbert Hahn as an administrator [38], who continued to represent the company until 1936 [39].

In 1934, a property at 16 Dzirnāvu Street 16 was put up for auction (land register No. 144, group 19, plot 39; plot area 2,959 sq. m). The property was up for sale at public auction for 75 080 lats [40]. However, that same year, the company continued to supply sparkling drinks, for example, for the biggest event of the season – the Press Ball [41].

In 1935, a public company was registered in the Commercial Register of the Riga Regional Court – the firm «E. Arnāla dēli», whose personally liable members were Eugon and his nephews Egon and Klaus [42].

In 1937, the company moved to new premises at 19 Laboratorijas Street [43]. In 1938, Ādolfs Feldmanis became a member of the open society «E. Arnāla dēli» [44]. In 1940, the company «E. Arnāla dēli» changed its name to ««E. Arnāla dēli» un I. Kronbergs un biedris» [45, 46]. In 1940, the list of nationalized industrial enterprises included the open company

«E. Arnāla dēli», a mineral water institution and a chemical factory in Riga, 19 Laboratorijas Street; the persons responsible for the enterprise were its members: Klaus Arnal and Leiba Dreijers [47]. In the summer of 1940, the enterprise was nationalized, with agronomist Herberts Valters appointed as a commissioner [48, 49].

## Products Manufactured by the Company

In the company's early years of operation, its primary business was the sale of alcoholic beverages, including wine and rum. However, it later transitioned to the production and sale of mineral water, distilled water, and fruit powders. Interestingly, in an advertisement from 1873, E. Arnal's company also offered fire-resistant bricks (Schamottstein) in its office at 25 Grēcinieku Street [50].

In the 1880s, the range of drinking products was supplemented by seltzer drink – soda water [51], which was widely sold in Liepāja. The company sold carbonated water, lemonades (in regular bottles and siphons), fruit waters, fruit syrups and powders, and table mustard (seven types). The manager offered to deliver all products to the customer's door free of charge. The advertisements emphasised that the products were made on the basis of distilled water [52].

The advertisement is for 'ZENU RAHDITAJŠ. Mineral ūdensu eestabde' (Mineral water establishment) by E. Arnala, Riga. It is dated 1905. The ad is divided into several sections:

- Header:** 'ZENU RAHDITAJŠ. Mineral ūdensu eestabde (ar tvaika spēku) E. ARNALA, RIGA. Sīma pulcētis no 1905. g.' (Mineral water establishment with steam power, E. Arnal, Riga. Since opened in 1905).
- Section A: Mineralūdensu u. t. l. pudeles** (Mineral water and other bottles). This section contains a table with columns for product names and prices.
- Section B: Dietētiskie dzērieni** (Dietetic drinks). This section contains a table with columns for product names and prices.
- Section C: Vīnas** (Wines). This section contains a table with columns for product names and prices.
- Section D: Dažādas prezes** (Various goods). This section contains a table with columns for product names and prices.

The advertisement also includes descriptive text in Latvian, such as 'Mineralūdensu eestabde' and 'Zenu rahtitajš', and mentions 'Sīma pulcētis no 1905. g.' (Since opened in 1905).

Figure 12. Advertisement for the products of the company «E. Arnal» in the newspaper «Balss». 1892.

One of the most extensive advertisements for the company's products appeared in the newspaper «Balss» in 1892 [53]. It divided the products into four categories.

- A. Mineral waters, etc. in bottles – various spring waters, mineral waters, bromine water, fruit waters (lemonades) (more than 40 variations).
- B. Diet drinks – various spring waters (possibly with lower gas content), seltzer, soda water, orange, lemon, and raspberry lemonades, various fruit syrups (about 20 types), fruit waters (powders about 20 types), etc.
- C. For bath procedures – foaming soaps with various fruit aromas, filled in special containers, and the possibility of purchasing bath products containing clay, fats, etc.
- D. Various goods – salt, whey essence, distilled water.

In 1893, in addition to the above-mentioned products, various types of inks (both liquid and powdered) and writing instruments were produced and sold [54]. World-famous mineral waters were also produced and distributed [55], such as Emser Kränchen mineral water, Franz-Joseph-Bitterquelle medicinal water, Hunyadi Janos Bitterwasser, and Vichy Cölestiner. The products were supplemented by vaseline.



**Figure 13.** Vaseline, produced by the company «Arnal & Söhne». Early 20th century.

By the end of the century, the company had significantly expanded its range of products, including office glue, shoe polish [56], stamp paints, and soap [57].

In 1901, the range of artificial mineral water products expanded, for example, the company began producing mineral water «Essentuki 17», «Borshom» (Borjomi) and «Narsan», popular in the Caucasus [58]. In 1906, the production of non-alcoholic champagne «Solo-Sekta» began [59].



**Figure 14.** Advertisement for non-alcoholic champagne «Solo-Sekta». 1906.

Around 1908/1909, table salt «Kristall» was sold, produced by the J. J. Komen factory in Riga [60]. It was sold in 37 retail outlets in Riga and also in Bauska, Kuldīga, Liepāja, Sloka, Jelgava, Talsi, Tukums, Valka, Cēsis, Valmiera, and Dorpat [61, 62, 63].

In 1910, the company began producing «Orangenfeuer», a sparkling non-alcoholic soft drink. For several years, it published interesting advertisements with comic elements [64].



Figure 15. Advertisement for «Orangenfeuer» in the newspaper «Rīgas Avīze». 1910.



Figure 16. Advertisement for «Orangenfeuer» in the newspaper «Dzimtenes Vēstnesis». 1911.

In 1911, one of the company's most elegant advertisements in the newspaper «Rigasche Zeitung» advertised two of its most popular products – the non-alcoholic champagne «Solo-Sekta» and the sparkling non-alcoholic soft drink «Orangenfeuer» [65].



Figure 17. Advertisement of the company's products in the newspaper «Rigasche Zeitung». 1911.

In the 1920s, table vinegar was also produced. It is interesting to note that the company employed Harald Hahne (also Harald Adolf Hahne; 1892–1940), a graduate (1918) of the RPI Department of Chemistry, who patented the invention «Method for the Concentration of Acetic Acid» in 1934 (patent certificate No. 1978) [66, 67].

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**Figure 18.** Table vinegar, produced by the company «E. Arnāla dēli». 1920s.

In the 1920s, seltzer, lemonades, and malt beverages were produced in large quantities [68, 69]. In the 1930s, the company offered the possibility of purchasing the Ķemeri natural mineral water «Veselība» [70].

Even before the company's demise, solutions for new products were sought, for example, in 1934 a new drink was produced – «Gambijas dzēriens» [71], and in 1936 – «Ābolu pērle» [72]. In the late 1930s, colourful posters advertising the company's products could still be found.



**Figure 19.** Advertisement for a malt beverage produced by the company «E. Arnāla dēli». 1938.



Figure 20. Advertisement for a seltzer product manufactured by the company «E. Arnāla dēli». 1938.

It has been researched that after the company was nationalized in 1940, the family emigrated to Germany and continued their activities there. In the newspaper «Latvija», published in the Federal Republic of Germany, in 1955, a certain Klaus Arnal advertised alcoholic beverages in the German city of Wilshofen am Donau. Similar advertisements can also be found in the 1960s.

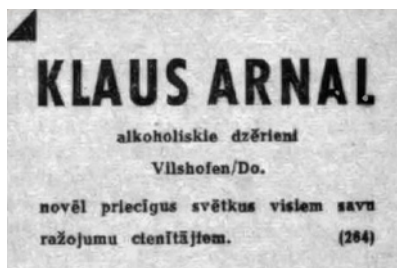


Figure 21. Klaus Arnal's drink advertisement in the newspaper «Latvija». 1955.



Figure 22. Advertisement for Arnal's company in the newspaper «Latvija». 1962.

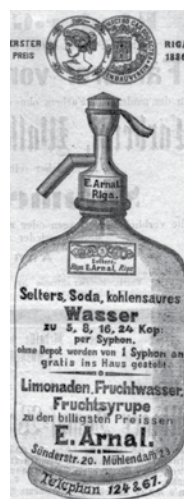
## Company Participation in Exhibitions

In 1880, an exhibition was held where E. Arnal, for the first time, advertised his company's products – snacks and lemonades – to the general public on a mobile exhibition stand [73, 74].

In 1883, the Grīva (Daugavpils) exhibition was held, where the company's products were advertised in the large industrial hall. At this exhibition, the company received its first award (a gold medal); this information later also appeared in the company's advertising pages [75]. The company advertised not only mineral waters and fruit waters, but also soap [76].

In 1886, the company participated in the Horticultural Exhibition held from 26 to 27 July and won a silver medal, promoting refined fruit water and berry essences [77]. At that time, 22 different flavoured fruit syrups and extracts were available [78, 79].

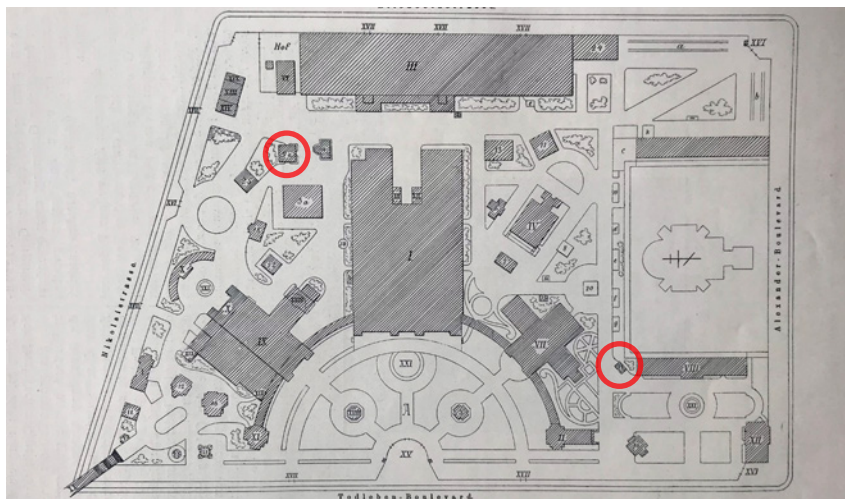
In 1887, an exhibition was held in Tukums [80]. At that, E. Arnal's company won an honourable first place [81], boasting about it in an advertisement in the newspaper «Rigasche Zeitung» [82].



**Figure 23.** Advertisement in the newspaper «Rigasche Zeitung», where the company is proud of having won the first place. 1887.

The greatest preparations at the company took place before the Riga 700th Anniversary Exhibition, which took place from June to August 1901 in Riga at Esplanade Square (industrial and craft exhibition) and Strēlnieku Garden (recreation and entertainment facilities). Several companies discussed the course and layout of the exhibition a year before the event. A pressing issue was the construction of pavilions – some of them were built by the companies at their own expense, others were supported by the Exhibition's Executive Committee. The Executive Committee also undertook the construction of the Arnal company stands [83]. In 1901, before the great industrial exhibition dedicated to the 700th anniversary of Riga, several industrialists met to discuss the layout of the exhibition and the location of their stands. During the meeting, the location of one of the kiosks of the company «E. Arnāla dēli» (E. Arnal

Söhne) (No. 9a) was determined – next to the kiosks of the companies «Livonia» and «Ilgezeem» [84] – No. 9b – near the cathedral.



**Figure 24.** Location of kiosks No. 9a and 9b of the company «E. Arnāla dēli» at the Riga 700th anniversary exhibition. 1901.

It is believed that in preparation for the large exhibition, a special, artistically designed poster was also made, which is available at the Art and Music Centre of the National Library of Latvia.



**Figure 25.** Advertisement for the company «E. Arnāla dēli» in Russian. Early 20th century.

The company «E. Arnāla dēli» (E. Arnal Söhne) participated in the Riga 700th anniversary exhibition with four stands – two outdoors – with refreshing drinks No. 9a and 9b [85; pp. 69, 76] and two in the large industrial hall (building) – where mustard, table salt and other table food products were sold and advertised (No. G9), as well as various inks, glues, varnishes and writing equipment (No. H5), indicating two addresses in the contacts – 16 Dzirnavu Street and 24 Grēcinieku Street [85; p. 255]. In the Riga 700th Anniversary Exhibition catalogue, the company's serial number was 948 [86].



**Figure 26.** The stand of the company «E. Arnal Söhne» at the Riga 700th Anniversary Exhibition in the large industrial hall with ink, wax, varnish, etc., products. 1901.

In 1907, at the First International Culinary and Crafts Exhibition in St. Petersburg, the company received a Diploma of Appreciation for artificial mineral water [87]. After 1907 and during World War I, the company's advertisements were no longer as bright, although they occupied a significant place in terms of volume. At the 1909 Trade and Industrial Exhibition in Pärnu, the company received the Great Gold Medal [88]. In 1924, at the 4th Riga Fair, the company's products were highly appreciated [89]. At the 1925 Jelgava Jubilee Exhibition, the company [90] received the first place in the soft drinks category [91]. The award was received by Simone Anna Maria Arnal – wife of Rolf Ludvig Eugen Arnal. Information about the award-winning place also appeared in the

company's 1925 advertisement in the newspaper «Viesnīcas Dzīve» and the newspaper «Zemgales Balss» [92, 93].



Figure 27. Company advertisement in the newspaper «Zemgales Balss». 1925.

In 1929, the largest anti-alcohol exhibition was held in Riga, in Vērmanes Garden, from 22 to 29 September [94]. The company won an award for the soft drinks it produced [95].

In 1932, the Latvian Products Exhibition was held, where the company won a gold medal, presenting seltzer, soda water, lemonades, and fruit drinks [96]. The authors of the paper have been unable to find information about the company's participation in other exhibitions.

## The Arnal Family

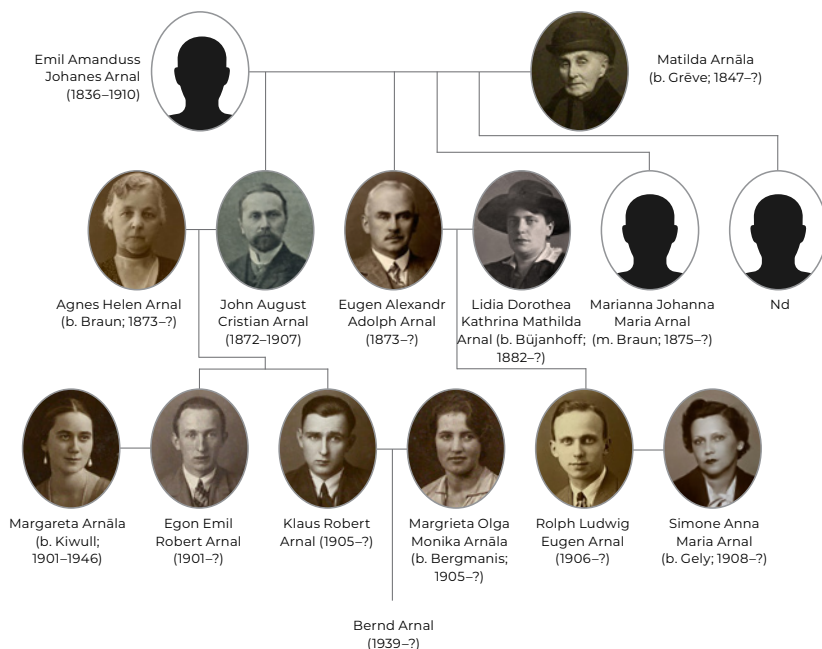


Figure 28. The Arnal family tree.

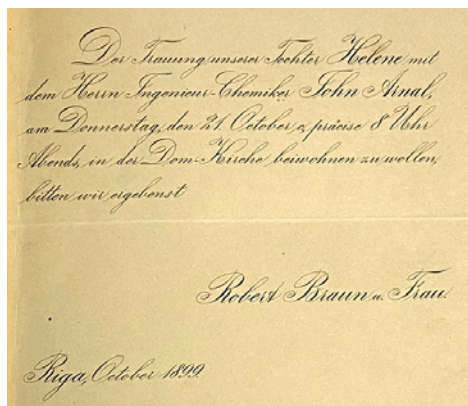
**Emil Amandus Johannes Arnal** (1836–1910) arrived in Riga from Hamburg in the early 1860s, founded the company «E. Arnal», and in 1871 married Matilda Grēve (1847–?) [97]. He donated both money and the company's products to the city of Riga on several occasions. He died in Hamburg in 1910 at the age of 74 [98]. He was a representative of the Riga Rowing Club [99].

E. A. J. Arnal's wife **Matilda Arnāla** (b. Grēve) was born on 6 May 1847 in Hamburg. She lived in Riga, 3 Stacijas Square, apt. 26 (1921); in Majori, 12 Jūras Street, apt. 6/7 (1923) and 12 Jūras Street, apt. 26 (1924); in Riga, 55 Ēbeļmuižas Street, apt. 21 (1927) [100]. E. A. J. Arnal and M. Arnāla had two sons – John August Christian Arnal (1872–1907) and Eugen Alexander Adolph Arnal (1873–?).

E. A. J. Arnal's eldest son, **John August Christian Arnal** (1872–1907), was born on 8 February 1872 in Riga. He obtained his education at Riga City Gymnasium, and after graduating in the fall of 1891, he entered Riga Polytechnicum to study chemistry. He graduated from Riga Polytechnic Institute (1897), obtaining a diploma in chemical engineering. During his studies, he joined the corporation «Fraternitas Baltica». He also worked at Riga Technical Society. After a long study trip to Germany, France, Switzerland, and Italy, he joined his father E. A. J. Arnal's business in the autumn of 1898. Together with his brother E. A. A. Arnal, he joined his father's company as a partner in January 1900. A year later, after his father resigned as the company's manager, he and his brother took over the well-known mineral water factory. Despite the difficult times, thanks to the brothers' tireless diligence and constant enthusiasm for their work, the business continued to expand and prosper [101]. In 1903, J. A. C. Arnal was elected a Fellow of the Natural History Society [102]. Unfortunately, on 7 March 1907, J. A. C. Arnal died in an accident, probably due to negligence [103, 104]. While attending a factory test of a new machine, he was caught in a transmission shaft [105]. J. A. C. Arnal married **Agnes Helen Braun** (1873–?) in 1899 [106].

**Figure 29.** Obituary of the engineer chemist J. A. C. Arnal in the newspaper «Rihische Zeitung», 1907.





**Figure 30.** J. A. C. Arnal and A. H. Braun's wedding invitation, signed by Agnes' parents. 1898.

Agnes Helen Braun was born on 20 February 1873 in Riga. She lived in Riga, 4 Elizabetes Street, apt. 1 (1914, 1920, 1937) [107; 18., 85., 86. p.]; in Jūrmala, 12 Lienes Street (1921) [108]. A. H. Arnal owned a summer house in Jūrmala, 12 Jūras Street [109], opposite the Benjamiņi summer house. The building has not survived to this day. Together with her sister Ģertrūde Grīna (Gertrud Grün), she owned property in Majori [110, 111]. She was a member of the German Theatre Society [112].

In 1937, she travelled to Magdeburg, later to Dresden. On 22 November 1939, A. H. Arnal's request to renounce Latvian citizenship was approved [113]. She was a member of the German Cemetery Commission and took care of unkempt graves, collecting donations [114].

From the marriage of J. A. C. Arnal and A. H. Arnal, two sons – Egon Emil Robert Arnal (1901–?) and Klaus Robert Arnal (1905–?) – were born.

J. A. C. Arnal's first son, **Egon Emil Robert Arnal**, was born on 14 July 1901 [115]. He was educated at the City German Secondary School in Riga, after graduating from which he entered the Faculty of Chemistry of the Latvian Higher School in 1921 [116]. In the academic year 1922/1923, he studied at the Faculty of Mathematics and Natural Sciences of the University of Hamburg.

E. E. R. Arnal lived for some time in Riga, 4 Elizabetes Street, apt. 1 (1920, 1924) [107; p. 9] together with his mother A. H. Arnal; in Riga, 1 Alberta Street, apt. 17 (1937, 1938) [117; pp. 283, 312]. He travelled a lot in the 1930s.

Egon Emil Robert Arnal married **Margareta Kivulis** (also Kivulis (Kiwull); 1901–1946) on 17 November 1929 [118, 119].

Margarete Arnāla was the daughter of Otto Voldemar Kiwull (1866–1932), a gymnastics teacher at Riga City Gymnasium and a promoter of sports, especially swimming, and an active lifestyle. He promoted the introduction of swimming as a sport and recreation in Latvia and, in 1903, established a swimming school in Majori, soon after founded the sports

organisation «I Baltic Swimming Association and Swimming School». He actively participated in the work of the Latvian Olympic Committee and the Latvian Swimming Union. On 16 November 1932, he was awarded the Order of the Three Stars [120].

M. Arnāla lived in Majori (Jūrmala); Riga: 1 Alberta Street, apt. 17 (1927); 12 Lienes Street, apt. 26 (1928); 12 Lienes Street; apt. 3 (1929), 16 Dzirnāvu Street, apt. 3 (1930); 1 Alberta Street, apt. 17 (1937) [121]. In the early 1930s, she travelled outside Latvia. In 1939, E. E. R. Arnal and his wife M. Arnāla lived in 1 Alberta Street, apt. 17. On 11 November of the same year, the family's request to renounce Latvian citizenship was approved [122].

J. A. C. Arnal's second son, **Klaus Robert Arnal**, was born on 26 January 1905. K. R. Arnal lived in various places in Riga: 4 Elizabetes Street, apt. 1 (1929); 4 Elizabetes Street, apt. 10 (1930s) [123]; 13 Pulkveža Brieža Street, apt. 23 [124; pp. 136, 137]. He emigrated from Latvia at the end of the 1930s.

On 6 April 1935, he married **Margrieta Olga Monika Bergmane** (also Bergmanis; 1905–?), born on 30 October 1905. M. O. M. Arnāla lived in Melluži, 10 Kalpaka Street, apt. 10 (1927) [125], 12 Žubītes Street (1928); in Riga, 13 Pulkveža Brieža Street, apt. 9 (1933), 13 Pulkveža Brieža Street, apt. 23 (1935) [126].

From the marriage of K. R. Arnal and M. O. M. Arnāla, the son, Bernd Arnal (1939–?), was born on 5 April 1939 [126]. On 10 November 1939, at the request of M. O. M. Arnāla, approval was granted for both her and her son to renounce Latvian citizenship, and K. R. Arnal received notification of this on 23 November 1939.

The younger brother of the chemical engineer J. A. C. Arnal, **Eugen Alexander Adolph Arnal** (1873–?), was born on 9 June 1873. E. A. A. Arnal lived in Riga, 16 Dzirnāvu Street, apt. 1 (1928, 1929, 1930, 1933, 1935, 1937) [127] and 13 Elizabetes Street, apt. 8 [128; p. 82]. He was a major businessman and member of various organisations, one of the founders of the zoological joint-stock company «Latvijas sudrablapsu ferma» [129], and a Member of Riga Zoo Society [130]. In 1917, representing the Board of the aforementioned Society, he convened a general meeting in his apartment at 16 Dzirnāvu Street, where he addressed issues regarding animal feeding during the war [131]. In the late 1920s and early 1930s, he travelled extensively to Europe (e.g., Estonia, Lithuania, Poland, and Germany). He also visited the city zoo in Berlin, possibly to expand his knowledge [132, 133, 134]. He visited also Belgium [135]. During the interwar period, he was a Member of the Riga City Council [136, 137, 138], and a Member of the Philatelists' Audit Commission [139]. He served on the Board of Directors of the Riga Bourse Committee [140], the Board of the Great Guild [141], the Freemason Lodge [142], and the Board of the

Shipping Joint-Stock Company «A. Augsburg» [143]. On 6 November 1939, E. A. A. Arnal's request to renounce Latvian citizenship was approved [144].

In 1905, E. A. A. Arnal married **Lidia Dorothea Kathrina Mathilda Būjanhoff** (1882–?) [145]. L. D. K. M. Būjanhoff was born on 2 December 1882 [146]. She lived in Riga, 16 Dzirnavu Street, apt. 1 (1921, 1928, 1935) and 13 Elizabetes Street, apt. 8 (1937) [147]. On 13 February 1906, a son, **Rolf Ludwig Eugen Arnal** (1906–?), was born to Eugen and Lidia.

R. L. E. Arnal lived in Riga, at 16 Dzirnavu Street, apt. 1 (1921, 1928, 1929, 1931, 1935) [148, 149, 150, 151], 7 Kalpaka Boulevard, apt. 9 (1931) [152], 13 Elizabetes Street, apt. 8 (1937) [128; p. 83] and 14 Rūpniecības Street, apt. 12 (1937, 1939) [153]. Like his father, he travelled a lot in the late 1920s and 1930s (both to Northern Europe, for example, to Helsinki in 1937, and to Germany, for example, to the Berlin Zoo in 1938, possibly together with his father, etc.), and in 1938 also to Switzerland [154]. On 16 September 1939, he applied to the Foreign Passport Department of the Ministry of the Interior for permission to travel abroad on company matters. He went to Germany to meet with representatives of the following companies in Berlin: «J. F. Eisfeld G. M. B. H.», «Durener Metallwerker», «Zeis Ikon-Goerzwerk». The permit was issued on 22 September [155; p. 3]. On 12 December 1939, his request to renounce Latvian citizenship was approved.

In 1928, together with businessman Ernests Edvīns Ratteramanis (1902–?), he founded the company «E. E. Rattermanis un Biedrs», which was located at 15 Kaļķu Street. The company was engaged in the sale and distribution of typewriters, bookkeeping machines, 10-key calculating machines, calculating machines, postage stamp deposit machines, and index cards [155; p. 1], representing such companies as «Underwood-Elliot-Fisher Company, U. S. A.», «Sundstrand», «Mercedes-Büromaschinen-Werke A. G.», «Triumphator Werk Heer und Co.», etc. On 15 December 1939, the company, along with its assets and liabilities, was sold to AS «KOTA», located at 88/40 Blaumaņa Street, for 56 394.83 lats [156].



Figure 31. Rolf Ludwig Eugen Arnal's company letterhead. 1930s.

In 1937, R. L. E. Arnal married Simone Anna Maria Gely (1908–?) [151, 157], born on 15 September 1908. S. A. M. Arnal lived in Liepāja, 66 Uliha Street, apt. 4 (1931, 1934); in Riga, 63 Tērbatas Street, apt. 9 (1932) and 27/31 Karlīnes Street, apt. 3 (1933) [158]; in Liepāja, 11 Labrenča Street,

apt. 3 (1933); in Riga, 2 Dzirnavu Street, apt. 2 (1935) and 14 Rūpniecības Street, apt. 12 (1937, 1938, 1939) [159, 160].

She travelled a lot with her husband in the 1930s. In 1938, she was in Paris; in 1939 – in Belgium [160]. From 1938 to 1939, she repeatedly asked the Foreign Passport Department of the Ministry of the Interior to allow her to travel abroad to her relatives, her father in France [161]. On 12 December 1939, she received a summons confirming her request to renounce her Latvian citizenship. Information about Simone and Rolf can be found on the website that compiles Holocaust survivors in France [162].

During the course of the research, it has been found that in the marriage of E. A. J. Arnal to M. Arnāla, in addition to the sons – John and Eugene –, there were at least two more daughters. One – Marianna Johanna Maria Arnal (m. Braun; 1875–?) was born on 2 January 1875 [163].

## Conclusions

When starting the research, the authors have had no idea of the amount of information that can be obtained about the Arnal family and their industry, as well as their contribution to the Latvian economy. It was only known that the Beverage Factory «Veldze», known in the Latvian SSR and Latvia, was established on the basis of companies nationalized in 1940, including the company «Arnāla dēli». After studying more than 160 literary sources, even more illustrations available in periodicals, and documents from the Latvian State Archives, the result is quite impressive – the Arnal family's company operated in Latvia for 75 years, experiencing the 1905 revolution, World War I, and the economic crisis of the 1930s, continuing to expand the business that began as a wine trade. The family-owned company at the time offered a very wide range of products – from several dozen types of mineral water, lemonade, fruit juice, mustard, table vinegar to shoe polish, typewriters, stamps, hygiene products, and bathroom accessories. In addition, the company's products were also used in construction and furnace construction. The family's wealth is also evidenced by their participation in various associations and advertising on the front pages of major newspapers of the time, frequent trips abroad, as well as the development of a huge territory at the intersection of Strēlnieku and Dzirnavu streets – both residential buildings and a factory. One can only imagine how the family business would have developed if World War II had not broken out. However, the family was forced to emigrate, and all that is known about the post-war years is that a certain Klaus Arnal advertised alcoholic beverage production in the German town of Wilshofen am Donau in the 1950s and 1960s.

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The Arnal Family of «Polytechnicians» and Entrepreneurs and Their Contribution to the Economy of Latvia

*Ilze Gudro, Jānis Kalniņš*

### **«Politehniķu» un uzņēmēju Arnālu dzimta un tās devums Latvijas tautsaimniecībai**

Pētījums atklāj iepriekš nezināmus faktus par Arnālu dzimtu, kas 19. gadsimta beigās un 20. gadsimta sākumā bija pazīstami uzņēmēji un dzērienu ražotāji, un tās ieguldījumu Latvijas tautsaimniecībā – minerālūdens, augļu pulveru, rakstāmpiederumu (tintes, rakstāmmašīnas u. tml.), sinepju, galda etiķa un daudzu citu produkciju ražošanā, kā arī tās reklamēšanu presē un izstādēs. Arnālu dzimtas atvases studēja Rīgas Politehnikumā / Rīgas Politehniskajā institūtā. Ir apkopoti dzimtas dati, atklātas jaunas un līdz šim nezināmas personības Latvijas vēsturē un fakti par dzimtu, kas Latvijā dzīvojuši līdz 1940. gadam, kad vācbaltiešu Arnālu dzimta izceļoja.

**Atslēgvārdi:** Rīgas Politehnikums, Rīgas Politehniskais institūts, inženieri, minerālūdens, rūpniecība, tautsaimniecība, Arnālu dzimta.

# PERSONAL CHARACTERISTICS OF STUDENTS AND FACULTY OF RIGA POLYTECHNIC INSTITUTE (1958–1988). HISTORICAL LEXICAL ASPECT

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**Summary.** One of the documents from the Soviet era that reflected information about a specific person's skills, experience, and personal qualities was a personal characteristic. It was issued upon graduation from educational institutions, including eight-year schools, secondary schools, technical schools, and universities. Each graduate of Riga Polytechnic Institute (RPI) had at least two characteristics, which are stored in the student's personal file in the archives of Riga Technical University (RTU). The number of characteristics was not limited, and some students also had other characteristics, such as recommendations for trips abroad.

Personal files of faculty members had several characteristics in their personal files; they had been with RPI significantly longer than students, some even 30 years or more. Some of them had more than ten personal characteristics. Each time when faculty members were re-elected to positions, recommended for admission to postgraduate studies or for trips abroad, a characteristic was required, signed by the university administration, the leaders of the party or Komsomol organization, or the trade union committee. With the beginning of the Awakening and Latvia gaining independence, such a document was no longer required in universities.

Nowadays, when applying for a job, a recommendation or letter of recommendation is often requested, which is, to some extent, comparable to the former characteristic. Research has shown that positive characteristics of people also contain elements of laudatio texts.

**Keywords:** personal characteristics, Riga Polytechnic Institute, personal files, students, faculty, 1958 to 1988, lexicon.

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## Introduction

During Soviet rule, personal characteristics were recorded for all students and faculty, and these records are still available in personnel files today. A personal statement (characteristics) – a description of a person's actions, character, and personality traits, as well as an assessment – was an official document. Although there were no official typographically printed forms, the descriptions were certified with signatures by their authors and the heads of educational institutions or structural units, the party, and trade unions. The original personal characteristics were adorned with the official seal of the institution. To date, no research has been conducted on personal characteristics – one of the Soviet-era documents in Latvia.

Brief descriptions of individuals, including university students and faculty, have been known since the existence of this type of higher education institution and can be found, for example, in letters of recommendation. Applying this fact to the Baltic provinces, especially Riga, several examples can be found. In one of them, a letter from Carl Schmidt (1822–1894), a chemist and Professor at the University of Dorpat (now Tartu), to the Director of Riga Polytechnicum, dated 20 November 1881, one can read that his colleague, private docent Wilhelm Ostwald (1853–1932), is a very skilled and agile experimenter, mechanic, glassblower, etc., who possesses tireless energy and excellent oral and written communication skills, and his communication is clear, concise, logical, and suitable for a wide audience. Furthermore, Professor C. Schmidt wrote that he and his colleagues would like to see W. Ostwald in a decent job [1], one where he would be appreciated and have all the conditions for growth.

Personal descriptions of the interwar period are found only in some of the personal files of university faculty, and in this research, they help to obtain more information about specific individuals and provide a more comprehensive characterization. University faculty are honoured by being elected Honorary Members of a higher education institution. For example, in 1944, Mārtiņš Bīmanis (1864–1946), a graduate (1891) of Riga Polytechnicum, Professor (1920–1944) and Rector (1931–1933) of the University of Latvia (UL), also received such an honour – he was elected UL Honorary Member in 1944. The honorary member's diploma recorded the professor's merits, praising his achievements – outstanding work in science and technology, the education of young scientists and academic citizens, and «vigorous organizational activities, especially at the University of Latvia» [2].

As the political system and university traditions changed in the 20th century, during the Soviet era, some *laudatio* texts disappeared (diplomas of Honorary Members, as Honorary Members were not elected

at universities). New documents were introduced, and one of the most common was the personal characteristics.

This study was created as part of the consolidation project «Historical Development of Laudatio Texts in Latvian: Influence of Other Languages and Traditions, Linguistic Specificity and Situationality in the Academic Community», which is being implemented from autumn 2024 to November 2025. The author has researched the personal files of 15 engineering students and 45 faculty staff. All 60 individuals are associated with the oldest technical university in Riga and the Baltic provinces. It resumed its activities in 1958, when the engineering faculties were separated from the State University of Latvia (SUL). Engineers were trained at the university for almost 40 years (1919–1958). In order to preserve the confidentiality of personal data, the article only mentions those persons who have already passed away. During the research, attention was paid not only to the lexicon used in the person's descriptions, but also to their content, reasons and purposes, why, when, and under what circumstances they were written.

This study did not examine negative personal characteristics. It is likely that some of them were issued, for example, to law enforcement agencies for serious violations (consumption of alcohol in public places, causing bodily harm to other persons).

## Personal Characteristics of Students

The first profile of students was from their previous educational institutions and was attached to students' personal files. The descriptions were written by teachers, usually the class teacher or the teacher of the pupils who completed either a seven-year or an eight-year school or secondary school. When enrolling to study further at a vocational school, technical school, or university, these personal characteristics, along with diplomas from educational institutions and applications expressing the desire to study at the institution and in the speciality, were the mandatory documents to be submitted for admission to the aforementioned institutions.

There were no standards or rules for what a person's characteristics should be in the 1940s and 1950s. Teachers received guidance at various professional conferences, and educators exchanged experiences with their colleagues. From time to time, discussions have arisen in the educational press expressing concern that a person's description does not objectively reflect the person's abilities, interests, and skills. In the second half of the 1950s, the Ministry of Education of the Latvian Soviet Socialist Republic (LSSR) issued an order stating that secondary school graduates must have

an objective personal description (characteristics) with an indication of their interests in the studied professional field. Universities felt and still feel this, because it is only after some time that students understand whether the speciality they have chosen is suitable for them and whether they are interested in it. Some students left universities because they were not interested. This was the case at Daugavpils Pedagogical Institute [3] and not only there. Some students also complained that teachers did not delve into the psychology of students, and professional orientation was not always at the proper level [4].

Personal descriptions were written in both Latvian and Russian, depending on the school the young people had graduated from. There were no major differences in the text structure between the Russian and Latvian descriptions, which included birth data, party affiliation, character traits, hobbies or areas of interest of the young people. The lexicon and scope of the description, as well as other details, were each teacher's individual choice. Teachers wrote what they considered essential and important. Some of the profiles contain information about the length of study at a particular educational institution, the social background or the workplace of the parents. In other cases, when reading the profiles, it is clear that the young person is not an orphan; his parents take care of him and take an interest in his studies. Such an example can be found in a personal statement dated 25 June 1975, written by a teacher and class teacher from Vidzeme: «...parents are interested in their son's academic work and behaviour. The class teacher has always had contact with the pupil's parents» [5].

Another personal profile, published on 28 June 1975 in Riga, states that the secondary school graduate's father is a collective farm foreman, while his mother is a pensioner. The characterization contains both praise and criticism about the school graduate – he lacks dedication, systematic work, values personal interests highly, fits into the «worst part» of the class, and also has a desire to «leave a good impression of himself», which does not always succeed, because he has been tactless and has formally fulfilled his duties of the culture leader of his class. The personal profile acknowledged that the pupil's achievements were good and mediocre, and he even participated in a Riga City Olympiad, winning a prize. It must be assumed that both the young man himself and his parents were worried that such a characteristic, upon entering RPI, could be a reason for not being admitted to the university. Although the guy passed the entrance exams, in the event of equal scores, both personal characteristics and practical work experience could be taken into account. It should be remembered that preference for admission to universities was given to those who had two years of work experience. This young man did not have that much work experience, but for nine months during his summer vacations he

worked on a collective farm in Pierīga and received a short, positive description from the chairman of the collective farm, the secretary of the party organization, and the chairwoman of the trade union committee, in which the young man was described as a disciplined, conscientious, and diligent performer of the assigned tasks, who fit in well with the working collective and also participated in the collective farm's physical education activities. The second description was written less than a month later – on 18 July 1975 [6].

It is difficult for the author of the study to assess the objectivity of the school's personal description, but the issue existed in many schools. Teachers lacked time; not all of them conducted a pedagogical analysis of pupils at the end of each school year, recording changes. There was bias in some of the descriptions submitted to universities, not mentioning shortcomings, difficulties in performing certain tasks, or negative character traits. In particular, excellent people, diligent performers of public service, were idealized, often exaggerating their character traits and achievements. In 1969, the Ministry of Education of the Latvian SSR issued an order stating that all descriptions must be typewritten or neatly handwritten. At that time, not all teachers had access to typewriters, so many continued to write by hand, as evidenced in the descriptions submitted to RPI in 1975 [5] and 1980 [7]. It must be acknowledged that teachers wanted their pupils to enter universities, thereby increasing the school's prestige and the teachers' work.

The main parts of the personal description were determined by the aforementioned order of the Ministry of Education of the LSSR, defining that the description must include:

- general information about the pupil (name, father's name, surname, year of birth, membership in the Komsomol organization, brief information about the parents, health status);
- information about the pupil's academic work (general characteristics of success, attitude towards studies, characteristics of intellectual activity, language culture);
- information about the pupil's personality traits – social activity, behaviour, character, and traits of will [8].

When reviewing the personal files of 15 engineering students, the personal profiles issued by the school did not mention any health conditions; only some had information about their parents' names, surnames, and workplaces and positions held. However, it was recorded, for example, that «political knowledge is good. Reads newspapers. Treats socialist property with care» [5]. This description of the person was written in 1975.

Another characterization was placed in the students' personal files, which was written after their studies – for graduates to submit to the

State Distribution Commission. This applied to all graduates of all higher education institutions, including RPI. At that time, all full-time students studied free of charge, funded from the state budget, and they were obliged to work for three years after graduation in a workplace where specialists were needed and to which they were assigned by the State Distribution Commission. It coordinated the entry of young engineers into the job market. Student lists were created, offering them jobs in order of rank according to their performance. Additionally, the marital status of the new specialist was taken into account – new mothers were exempted from the mandatory distribution, as well as graduates whose spouses were already working or had been assigned to work in a city, trying to send the family member to the same city. The personal description was secondary, but not to be ignored. For example, one description stated that an RPI graduate had a category 3 concrete worker qualification, and if the company was engaged in concrete work, it was an advantage for both the graduate and the company. Those who were sent to study by companies, even paying scholarships, after their studies ended up working for those companies and were not subject to the state distribution. Representatives from potential workplaces were also invited to the State Distribution Commission to distribute future jobs.

The personal characteristics of the new specialists – university graduates – differed from the characteristics that were issued to future students. They were in the language of communication of the inhabitants of the Soviet Union – Russian. Some graduates chose to work outside Latvia in one of the companies of the vast Soviet Union, and then the descriptions did not have to be translated. It should be noted that studies at RPI were conducted in both Russian and Latvian – study groups were formed not only by speciality, but also by language of instruction. These descriptions also indicated nationality, marital status, qualifications obtained, briefly describing the period of study, sometimes also noting reprimands and their reasons, public duties, theoretical and practical training in the chosen profession, internships, and awards.

There are more than two personal descriptions in the files of former RPI students who have gone abroad for internships, tourism trips, or as members of artistic groups, mainly to socialist countries. Then the description included such phrases as «morally stable», «politically educated», which actually meant that the person was not anti-state, and therefore loyal to the Soviet regime. What really happened was known only to the people being profiled themselves, but such was the requirement, and, as eyewitnesses of the time recount in individual conversations, the writers of the profiles had no choice but to make such statements in order to recommend the people for trips abroad. It was also a «guarantee» that the person would return to the Soviet Union and not

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seek asylum in another country. It must be admitted that there were very few such cases where individuals sought asylum and remained living abroad. In such cases, the «guarantors» were threatened with negotiations with Cheka officers, the university administration, and the leadership of the Communist Party. A 1983 profile of a student who went to the Czechoslovak Socialist Republic as a member of a student construction unit states that he was «practically healthy» [7].

A personal profile was also issued to some of those who discontinued their studies for some reason. In the 1980s, the RPI printing house had a special form printed in Russian for such cases, in which the necessary information could be entered in Latvian, as can be seen in Figure 1. This description indicated the former student's name, father's name, surname, year of birth, nationality, membership in the Komsomol organization, reason for expulsion (of his own free will), breaks in studies (the student had taken an academic leave due to health), and public duties. If the student had had any reprimands or academic debts, they would have been recorded. The column regarding class attendance was also left blank. The personal description was signed on 9 November 1987 by Deputy Dean for Academic Affairs of the Faculty of Architecture and Civil Engineering, Oļģerts Buka (1925–2010) [7].

**ХАРАКТЕРИСТИКА**  
на студента, представленного к отчислению из РПИ

*Remmerts Vello Kārlis d. Tehnikstapa*  
*na tehniskos fakultātes studēs* (Имя, фамилия, отчество)

Год рождения *1960* Национальность *латыш* Партийность *КПЗСР-88*  
(курс, факультет, специальность, вид отчисления, за какой период)

Причины отчисления (подробно) *по своей воле!*

Академическая задолженность \_\_\_\_\_  
(знамен, лист, дисциплина, за какой курс)

Посещаемость занятий \_\_\_\_\_  
(число пропущенных занятий в период отчисления)

Оставался ли на повторный курс обучения *1986 по 13.06 - 13.06.87*  
*№ 01-697/25.06.86 на стр. №13080 д. 017*  
(дата, по какой причине, на какой курс)

Отчислялся ли ранее из института \_\_\_\_\_  
(дата, на каком курсе, причина)

Поощрения за период учебы в институте \_\_\_\_\_  
(дата поощрения, когда, за что)

Взыскания за период учебы в институте \_\_\_\_\_  
(дата взыскания, когда, за что)

Краткая характеристика общественной деятельности за период пребывания в институте  
*нет. Общ. деят.*

Примечание. При отчислении студента за недостойное поведение прилагается объяснительная записка отчисляемого студента.

*09.11.1987.* Декан факультета *Оļģerts Buka*

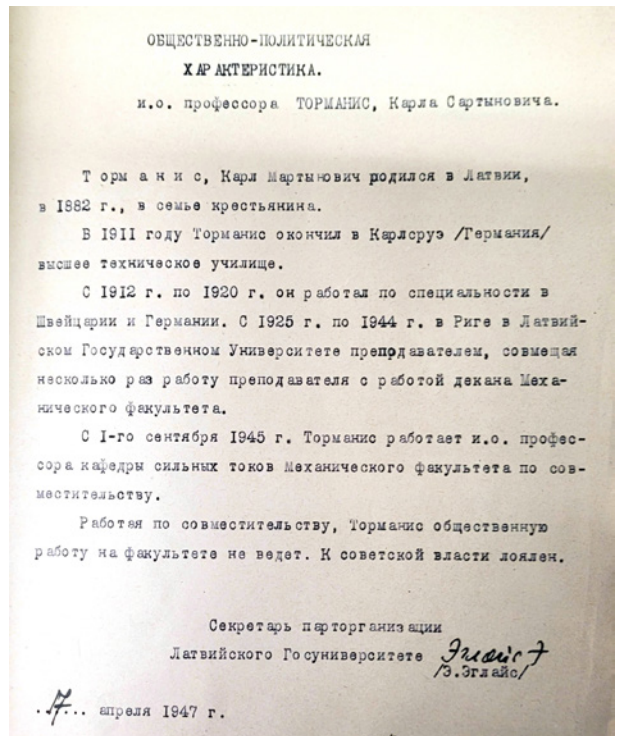
Figure 1. A personal description of Vello Remmerts (1960–2001), who left RPI of his own free will. 09.11.1987.

## Personal Characteristics of Faculty and Rectors

All RPI rectors were also professors who taught various study courses, and they also had personal characteristics, many more than lecturers or senior lecturers. Similar to students, the characteristics of faculty were also written during the Soviet period, that is, immediately after World War II.

Most of the personal descriptions of the faculty were in Russian, even though the native language of some of their writers and signers was Latvian; all of these descriptions were typewritten. In the 1940s and 1950s, it was common to issue socio-political profiles. They were shorter in length and indicated the attitude towards the Soviet system. Only those whose profiles stated that they were loyal to the Soviet regime were allowed to continue their teaching and scientific work [9].

Personal Characteristics of Students and Faculty of Riga Polytechnic Institute (1958–1988). Historical Lexical Aspect



**Figure 2.** Socio-political characterization of Kārlis Tormanis, acting Professor at the State University of Latvia. 07.04.1947.

When examining the personal files of 45 faculty members, it was found that all personal descriptions were typewritten and their number was large for long-term lecturers, for example, for RPI Lecturer (1958–1985) and Rector Aleksandrs Veiss (1918–1985) there were 46, of which 16 were issued before trips abroad [10]; for Assistant Professor Arvīds Kanbergs

(1934–2025) – 12 [11]. A. Kanbergs also travelled abroad several times. His contemporary and colleague, Assistant Professor Kārlis Timmermanis (1931–2025), travelled abroad eight times [12]. The personnel files mainly contain copies of personal characteristics, some without dates, some in two or three copies, also without signatures. Their size ranges from one to three typewritten pages. Comparing the person's characteristics, it is evident that previously issued characteristics were often rewritten, adding current information – changes in the position held, a different addressee. Of the 46 characteristics of the Rector, Professor A. Veiss, several are characteristics-recommendations [10].

If an already working faculty member, upon re-election to a position, had his/her personal characteristics written earlier, he/she could be issued a job description that did not include personal data [11].

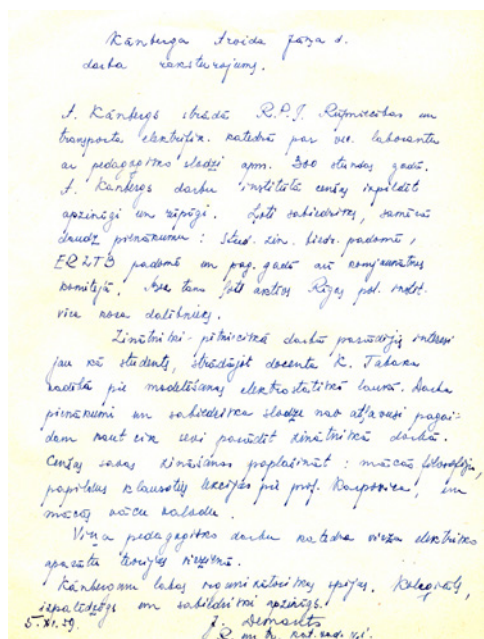


Figure 3. Description of the work of Assistant Professor Arvīds Kanbergs. 05.11.1959.

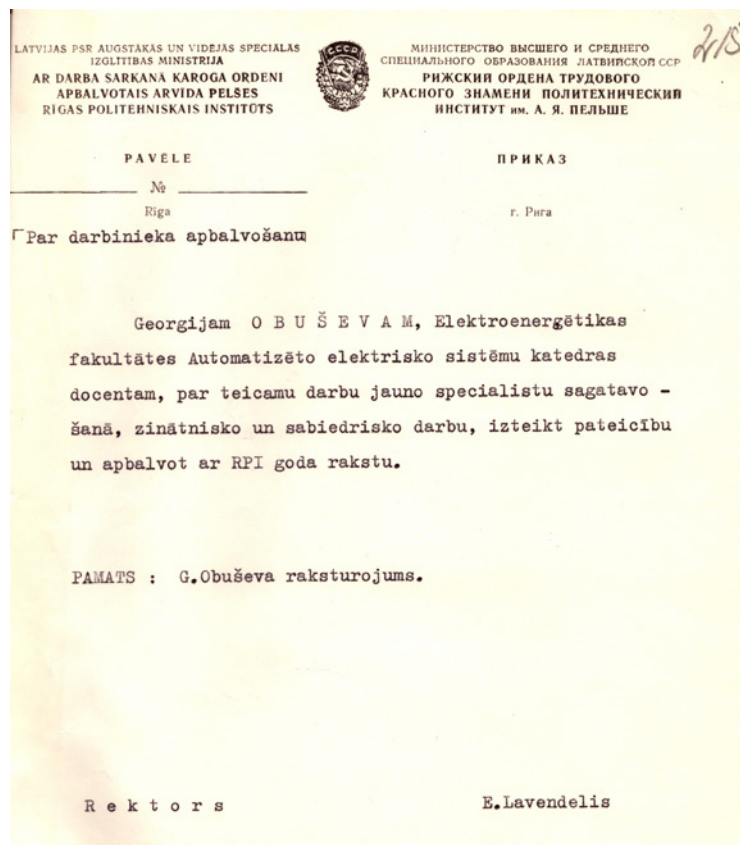
Personal characteristics for RPI faculty were compiled in the following cases:

- admission to postgraduate studies;
- defence of a dissertation for a candidate of technical sciences;
- election and re-election to office;
- travelling abroad;
- nomination for an award;
- nomination for a candidate for deputy.

Individual faculty members were issued personal characteristics, recommending them for the title of Honour, for example, «Meritorious Worker of Science and Technology of the Latvian SSR», «Corresponding Member of the Academy of Sciences» (A. Veiss) [10].

A personal description was issued for a young lecturer for submission to the Military Commissariat, possibly to avoid being drafted into compulsory military service, since military training in universities took place during studies. In 1987, in anticipation of the RPI's 125th anniversary, a personal characteristic recommended to award Assistant Professor Georgijs Obuševs (1929–2020). The Rector's order in Latvian followed, with a characteristic in Russian attached [13].

Personal Characteristics of Students and Faculty of Riga Polytechnic Institute (1958–1988). Historical Lexical Aspect



**Figure 4.** Order of the RPI Rector Egons Lavendelis on awarding Georgijs Obuševs. Copy. 1987.

Personal profiles were actually also award sheets, recommending the awarding of state awards [10], and posters with information about parliamentary candidates and their profiles [14].



Figure 5. Latvian SSR Supreme Council election poster, calling for votes for deputy candidate Aleksandrs Veiss. 1985.

When examining the personal descriptions, it was concluded that their authors wrote both essential facts characterizing the person (personal data, including nationality and family status, education, work history and positions held, attitude towards work duties, character traits, organizational abilities, participation in public organizations and the Communist Party), as well as facts, which they knew about their colleagues (for example, the number of children and grandchildren) [13].

## Personal Characteristics' Lexicon

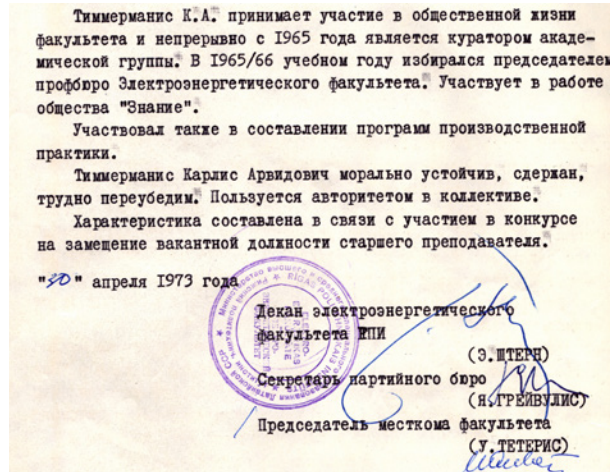
When analyzing the lexicon used in personal descriptions, the author paid attention to the praise of persons and the terms used. Not all personal descriptions can be included in the *laudatio* text. Translated from Latin, *laudatio* is a solemn speech in which a person is honoured at an award ceremony [15], a eulogy, not a statement of fact. *Laudatio* texts, or eulogies, have been known since the time of Ancient Rome, and they were also used in funeral speeches. *Laudatio* is still written today, and they were also written in the 20th century, during the Soviet era.

The author of the study concluded that in the positive personal descriptions, at least some sentences are dedicated to praising the person, and the most frequent terms in the descriptions of both students and faculty are: collegial, helpful, conscientious, sociable, honest, morally

stable, helpful, modest [11]. Terms such as politically educated, has authority in the team, possesses organizational skills [12] are also often used. The personal descriptions are written in a business style.

Personal Characteristics of Students and Faculty of Riga Polytechnic Institute (1958–1988). Historical Lexical Aspect

Figure 6. Fragment of the personal description of Assistant Professor Kārlis Timmermanis. 30.04.1978.



There are also such descriptions of a person in which personal qualities are not indicated, for example, for Professor A. Veiss in the 1960s. It has been found that most descriptions of Rector A. Veiss do not contain the features of a laudatio text.

## Conclusions

The personal characteristics of the future student, as one of the basic documents upon entering a higher education institution, including RPI, differed from the characteristics of the student and the university graduate. The personal characteristics issued at the end of the studies emphasized the young engineers' abilities and skills to work in their profession, indicated practical skills, as well as nationality and family status. The personal characteristics of RPI faculty members also included information about specialization and practical activities, including scientific and pedagogical work experience, nationality, and family status.

Personal descriptions were written for both students and faculty when they went on internships, experience exchange experience, tourist trips or concerts abroad, indicating their political beliefs, or rather, loyalty to the Soviet regime. All descriptions were signed by the heads of the relevant structural units, party or Komsomol organizations, and trade unions, and the descriptions were in Russian.

The personal description was one of the documents of persons living during the Soviet period and provided comprehensive information about people's lives, including party affiliation, participation in various organizations, character traits, interests, and family status. The personal description is interesting for research in linguistics, history, political science, the history of pedagogy and universities, and future research could provide a valuable contribution to various branches of science. Although the personal description is not considered a laudatio text, it also used lexicon that was found and still is used in such texts, praising a person's achievements or character traits. It is part of the personal description.

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- [11] Docenta Arvīda Kanberga personāllieta. RTU arhīvs, 6046. lieta.
- [12] Docenta Kārļa Timmermaņa personāllieta. RTU arhīvs, OA 101–2. lieta.
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## SOURCES OF ILLUSTRATIONS

**Figure 1.** RTU arhīvs.

**Figure 2.** LNA LVVA 7427. f., 13. apr., 1782. l., 12. lp.

**Figure 3.** RTU arhīvs, 6046. lieta.

**Figure 4.** RTU arhīvs, 1442. lieta.

**Figure 5.** RTU IVPC.

**Figure 6.** RTU arhīvs, OA 101–2. lieta.



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### **Rīgas Politehniskā institūta studentu un docētāju personas raksturojums (1958–1988). Vēsturiskās leksikas aspekts**

Viens no padomju varas laika dokumentiem, kurā tika atspoguļota informācija par konkrētas personas prasmēm, pieredzi un personīgajām īpašībām, bija personas raksturojums. Tas tika izdots, absolvējot mācību iestādes – astoņgadīgās skolas, vidusskolas, tehnikumus un augstskolas, un katram Rīgas Politehniskā institūta (RPI) absolventam bija vismaz divi raksturojumi, kas glabājas studentu personāllietās Rīgas Tehniskās universitātes (RTU) arhīvā. Raksturojumu skaits nebija ierobežots, un daļai studentu bija arī vēl citi raksturojumi, piemēram, rekomendācijas braucieniem uz ārzemēm.

Vairāk raksturojumu ir docētāju personāllietās, viņi RPI pavadījuši arī daudz ilgāku laiku nekā studenti – pat 30 un vairāk gadu. Dažiem no viņiem personas raksturojumu skaits mērāms vairākos desmitos Docētājus pārvēlēja amatos, rekomendēja iestātei aspirantūrā, ārzemju braucieniem, un katru reizi bija nepieciešams raksturojums, ko parakstīja augstskolas administrācija, partijas

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vai komjaunatnes organizāciju, arodkomitejas vadītāji. Sākoties Atmodai un Latvijai iegūstot neatkarību, šāds dokuments augstskolās vairs netika prasīts. Mūsdienās, stājoties darbā, nereti tiek prasīta rekomendācija vai ieteikuma vēstule, kas zināmā mērā pielīdzināma kādreizējam raksturojumam. Veicot pētījumu, secināts, ka pozitīvos personu raksturojumos ir arī *laudatio* tekstu elementi.

**Atslēgvārdi:** personas raksturojums, Rīgas Politehniskais institūts, personāllietas, studenti, docētāji, 1958. līdz 1988. gads, leksika.

# CHRONOLOGY OF KEY EVENTS OF RIGA TECHNICAL UNIVERSITY IN STUDY YEAR 2024/2025

## 2024

### September 2

The traditional RTU Ringing Festival is taking place.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/jaunais-studiju-gads-rtu-saksies-2-septembri-ar-iezvanisanas-svetkiem-1>

RTU Engineering High School (EHS) is starting its 10th academic year in RTU Student Campus in Ķīpsala, 12 Āzenes Street.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskola-sak-desmit-macibu-gadu>

Students of the Maritime School of the RTU Maritime Academy begin their studies at the RTU Student Campus in Ķīpsala.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-latvijas-juras-akademijas-jurskolas-audzekni-sak-macibas-kipsala>

RTU International School of Science and Technology (ISST) begins work.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/darbu-uzsak-rtu-starptautiska-zinatnu-un-tehnologiju-skola>

### September 4

RTU Curiosity Centre «Futurimo Riga» is visited by teacher Armanda Begaj, spouse of the President of Albania Bajram Begaj, confirming that the Curiosity Centre is a good example of how to increase children's and young people's interest in STEAM (science, technology, engineering, arts, and mathematics) subjects.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/apliecinot-steam-izglitibas-nozimi-rtu-zinatkares-centra-futurimo-riga-viesojas-albanijas-prezidenta-dzivesbiedre-armanda-begaja>

RTU Institute of Architecture and Design (IAD) introduces a new tradition – a cycle of guest lectures on Wednesdays for students and academic staff. In the first introductory lecture of the cycle, IAD Director Māra Liepa-Zemeša introduces the new ideas and current events at the institute, Assistant Professor Baiba Vērpe informs about the planned guest lecture topics and program of events this semester, Assistant Professor Inga Zotova informs first-year students about the course of studies at the institute and answers students' questions.

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituts-atklas-tresdienu-vieslekciju-ciklu>

In the premises of RTU, the Minister of Education and Science of the Republic of Latvia Anda Čakša signs an important intergovernmental agreement with the government of the United States of America on cooperation in the field of science and technology, which marks a new stage in the relations between the two countries, promoting not only scientific progress, but also the development of the national economy and the strengthening of global innovation networks.

[https://www.izm.gov.lv/lv/jaunums/latvijas-un-asv-sadarbibas-noligums-zinatne-un-tehnologijas-paver-abpusejus-ieguvumus-un-nakotnes-perspektivas?fbclid=IwY2xjawFFdcFleHRuA2FlbQIxMAABHVVSQHkniQC07hCBwcO2VCF0dYfWFhnlp-EZIKUWzFZcu6FxFxHH2hhvcCvHA\\_aem\\_qcKnLdnQrt2rQeKBIHQGdg&utm\\_source=https%3A%2F%2Ffacebook.com%2F](https://www.izm.gov.lv/lv/jaunums/latvijas-un-asv-sadarbibas-noligums-zinatne-un-tehnologijas-paver-abpusejus-ieguvumus-un-nakotnes-perspektivas?fbclid=IwY2xjawFFdcFleHRuA2FlbQIxMAABHVVSQHkniQC07hCBwcO2VCF0dYfWFhnlp-EZIKUWzFZcu6FxFxHH2hhvcCvHA_aem_qcKnLdnQrt2rQeKBIHQGdg&utm_source=https%3A%2F%2Ffacebook.com%2F)

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvijas-un-asv-sadarbibas-noligums-paver-jaunas-perspektivas-augstakaja-izglitiba-un-zinatne>

## September 5

The President of Latvia, Edgars Rinkēvičs, presents the traveling award – the Big Owl – to the management of RTU EHS as a confirmation of the excellent performance of the pupils in the national and international subject Olympiads in the school year 2023/2024, for the ninth year in a row, it has won the first place in the school ranking compiled by the Atis Kronvalds Foundation in the small school group.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskola-sanem-lielo-puci-ka-aplicinajumu-skolenu-izcilajam-sniegumam-valsts-un-starptautiskajas-olimpiades>

Liene Briede, RTU Vice-Rector for Innovations, and Hiroyuki Suzuki, President of Advanced Telecommunication Research (ATR) Institute, signed a cooperation agreement to provide support to start-ups and the opportunity to join the ATR program in the Japanese market.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-sak-sadarboties-ar-japanas-advanced-telecommunications-research-institute-international>

<https://www.flickr.com/photos/rtu-lv/albums/72177720320099114/>

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Vladislavs Čuhovs, a graduate of RTU IAD study program «Material Technology and Design», wins the 3rd place in the international competition «Sustainability in architecture, construction, design in the Baltic States» in the «Most Sustainable Student Idea» category. IAD students are recognized by the competition jury: Alise Šteinberga; Anete Podniece; Jana Eglīte; Marta Elizabete Smilga; Olga Čerņavska; Zanda Seņkova and Oskars Ralfs Vanags.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituta-absolventi-un-studenti-gust-panakumus-starptautiskaja-konkursa-ilgtspēja-arhitektura-buvniecība-dizaina-baltija>*

### **September 6**

Ceremonial opening of RTU Latvian Maritime Academy premises at 6B Ķīpsala Street, presenting to those present with the work already done in strengthening maritime education and future plans.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-latvijas-juras-akademijas-parcelsanos-uz-kipsalu-simboliski-iezvana-ar-kuga-zvanu>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720320200453/>*

### **September 12**

In the IAD atrium, the exhibition of paintings by the artist Ingemāra Treja «Ceļojuma piezīmes» is opened.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituta-skatama-makslinieces-ingemaras-treijas-gleznu-izstade-ceļojuma-piezīmes>*

### **September 13**

The Ambassador Extraordinary and Plenipotentiary of Kenya, Angelina Kavindu Musili, visits RTU, meeting with the Vice-Rector for Academic Affairs Elīna Gaile-Sarkane, who introduced her to RTU, the faculties, the university's scientific excellence initiatives, and future goals, the representatives of the International Cooperation Department, who informed the Ambassador about Cooperation between RTU and Kenya in various projects and the Erasmus+ program, and visiting the RTU Curiosity Centre «Futurimo Riga».

*<https://www.flickr.com/photos/rtu-lv/albums/72177720320289522>*

### **September 13–15**

Having won the national hackathon, the RTU student team «NEAMO» starts in the European Union's 7th CASSINI space hackathon final, representing Latvia.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvijas-studenti-attista-augstas-pievienotas-vertibas-digitalizācijas-risinajumus>*

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### **September 14**

In a solemn ceremony taking place in Singapore, the legendary Latvian basketball player and graduate of our university, Riga Polytechnic Institute (RPI), Faculty of Civil Engineering (1970), Skaidrite Smildziņa-Budovska, was inducted into the FIBA Hall of Fame.

*<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/fiba-slavas-zale-uznemta-musu-augstskolas-absolvente-s-smildzina-budovska>*

### **September 17**

RTU New Employees' Day is taking place, where new colleagues have the opportunity to learn the most important information about essential aspects of daily work, RTU's strategy, values, and the organization of the work environment.

### **September 19**

The Smart Cities Conference is being held at the RTU Science and Innovation Centre (SIC) for the third year, bringing together representatives of municipalities, technology companies, and the academic field to discuss future mobility technologies and decide what are the opportunities and obstacles for testing them in the urban environment.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/diskutes-par-autonomu-mobilitates-risinajumu-testesanu-pilsetvide>*

The RTU Student Poetry Day «*Mīlas pilna sirds*» (Heart Full of Love) is held in the RTU Scientific Library.

*<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/aizvadita-rtu-studentu-dzejas-diena-milas-pilna-sirds>*

*<https://www.flickr.com/photos/kulturascentrs/albums/72177720320527821/with/54015721973/>*

### **September 24**

The second season of the program «Inovatīvu digitālu risinājumu radīšana HPC izaicinājumos» (Creating Innovative Digital Solutions in HPC Challenges) is solemnly opened.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/24-septembri-tiks-uzsakta-otra-hpc-izaicinajumu-programmas-sezona>*

### **September 25**

The new RTU Academic Reading season begins with the lecture «Kauls un nanoobjektu elektriskā funkcionalizācija bioloģiskajām vajadzībām» (Bone and Electrical Functionalization of Nano-Objects for Biological Needs) by Academician Jurijs Dehtjars.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ar-akademika-jurija-dehtjara-priekslasijumu-saksies-jauna-rtu-akademiku-lasijumu-sezona>*

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## September 26

The first innovation tennis match between RTU and the Embassy of the Czech Republic in Riga is taking place at the RTU Tennis Courts at 3 Kronvalda Boulevard, in which the Czech Ambassador to Latvia Martins Vīteks competes with RTU Vice-Rector for Innovations Liene Briede and a student, highlighting the exciting nature of innovation and supporting the implementation of various innovation-promoting activities, especially in the field of robotics.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/notiks-pirmais-inovaciju-tenisa-macs>

<https://www.flickr.com/photos/rtu-lv/albums/72177720320753481/>

## September 27

Scientists' Night events are held at RTU, offering a wide range of activities for those interested in robotics, drones, electronics, and computers, as well as for those who want to learn everything related to drinking water, construction of buildings, bridges, roads, sailing in wide seas, the formula building for speed competitions, energy efficiency, smart homes, smart biomaterials, various substances, and chemical processes in real life.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rekordliels-interesentu-skaitis-apmekle-zinatnieku-nakti-rtu>

## September 28–29

In the Latvian XXXV Universiade beach volleyball competition, RTU volleyball players Sandis Bērziņš (FCSITE, 3rd year student) and Bruno Bulgačs (FCSITE, 1st year student) won silver medals, Kristiāna Paula Kukša (FNST 2024 graduate) and Stefānija Krista Jaunzeme (FEEM, 4th year student) – bronze medals.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-pludmales-volejbolisti-no-universiades-majas-atved-sudraba-un-bronzas-medalas>

## September 30

FNST Professor Juris Blūms is re-elected as the Chairman of the RTU Senate at the Senate meeting.

The Senate decides (Minutes No. 685):

- based on the decision of the FCME Council of 17 September 2024 (Meeting Minutes No. 20), to award the RTU Honorary Doctor Diploma to Professor Lucio Tomaso De Paolis of the University of Salento (Italy);
- based on the decision of the FCME Council of 18 June 2024 (Meeting Minutes No. 14), award the honorary title of RTU Professor Emeritus to *Dr. sc. ing.* Arturs Lešinskis.

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### **In September**

At the end of the competition, the Directors of the Faculty of Civil and Mechanical Engineering (FCME) institutes were confirmed. The management of the Institute of High-Performance Materials and Structures is entrusted to Līva Pupure; Aleksejs Klokovs starts working as the Director of the Institute of Aeronautics, Space Engineering and Transport; Anatolijs Borodiņecs becomes the Director of the Institute of Sustainable Building Materials and Engineering Systems; for the Director of the Institute of Biomedical Engineering and Nanotechnologies – Artis Kromanis; for the Director of the Institute of Civil Engineering – Pēteris Druķis.

### **October 3**

The event «Startup Rocket Fuel», organized by RTU SIC is taking place, where startups and innovation enthusiasts have the opportunity to familiarize themselves with the support opportunities offered by RTU and the European Institute of Innovation & Technology for the development of startups.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-zinatnes-un-inovaciju-centrs-aicina-jaunuznemejus-uz-informativu-pasakumu-startup-rocket-fuel>*

IAD Lecturer Mg. arch. Anita Anteniške's solo exhibition of watercolors «Skices un gleznas – dabā un dejā» (Sketches and Paintings – in Nature and Dance) is opened at the premises of the Latvian Association of Architects at 11 Torņa Street.

*<https://www.latarh.lv/anitas-anteniskas-akvarelu-personalizstade-arhitektu-nama>*

### **October 4–6**

The first Baltic artificial intelligence hackathon «Baltic AI Hackathon» is taking place at RTU.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/norisinaties-vel-nebijis-baltijas-maksliga-intelekta-hakaton-baltic-ai-hackathon>*

### **October 9**

Minister Inga Bērziņa is visiting FEEM, meeting with faculty management and students, and introducing the current directions of activity and industry challenges of the Ministry of Smart Administration and Regional Development.

*<https://www.rtu.lv/lv/ievff/ievf-par-mums/ievf-zinas/atvert/ministre-inga-berzina-vieslekcija-iepazistina-rtu-ievf-studentus-ar-varam-aktualitatem>*

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## October 10

The eighth RTU History Day is taking place.

*<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/notiks-astota-rtu-vestures-diena-un-zinatniska-konference>*

## October 11

IAD students and graduates win prize-winning places in the «Dizaina arēna 2024» (Design Arena 2024) competition organized by the Latvian Designers' Society. In the category «Vides dizains» (Environmental Design) the 1st place is won by the 3rd year students of the Bachelor's Study Program «Materials Technology and Design» Marina Ļvova, Dmitrijs Jeršovs, Arina Domkova, Ksenija Kumareva, Diāna Vasiljeva for the developed vision of the RTU History Museum (supervisors I. Gudro, A. Broks); in the category «Lietu dizains» (Design Objects), the 1st place is won by Zanda Senkova, a graduate of the Bachelor's Study Program «Materials Technology and Design» with her Bachelor's Thesis – Modular Seating Furniture Collection With Hidden BDSM Function (supervisor I. Gūtmane); 3rd place in this category is won by graduate Oskars Ralfs Vanags for the «FikaStandart» coffee table, equipped with a rotating part of drawers and organizers (supervisor I. Gūtmane); in the category «Communication Design», the 3rd place goes to graduate Olga Čerņavska, who created a board game in chemistry «Chemistry Board Game for Grades 8–12 «Chemical elements»» (supervisor I. Gudro); in the «Design Research» category, Beatrise Santa, a graduate of the Bachelor's Professional Study Program «Clothing and Textile Technology», who developed a smart mattress for monitoring the condition of a sleeping patient, won the 3rd place (supervisor U. Briedis).

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituta-studenti-un-absolventi-pluc-laurus-latvijas-dizaineru-savienibas-organizetaja-konkursa-dizaina-arena-2024>*

## October 14

Celebrating the 162nd Anniversary of RTU, RTU awards are traditionally presented: the title «Scientist of the Year 2024» will be awarded to FNST Tenured Professor Sergejs Gaidukovs, «Young Scientist of the Year 2024» – FNST Researcher Oskars Platnieks, «Young Female Scientist of the Year 2024» – FNST Researcher and RTU Doctoral School Head Anda Gromova. This year, for the first time, the «RTU Scientific Article of the Year» Award is presented, it is received by FEEM Professor Inga Lapiņa and Researcher Gaļina Robertsons.

The Academic Excellence Award is traditionally presented to teaching staff who have demonstrated outstanding achievement in teaching work. In the «Best Lecturer» category, the award goes to FEEM Assistant Professor Uldis Kamols, FCME Leading Researcher and Assistant

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Professor Ernests Jansons is recognized as the best new teaching staff, FCSITE Associate Professor Aleksejs Jurenoks is awarded the award for promoting the excellence of the academic environment.

RTU also presents honorary doctora diplomas at the plenary session of the 65th International Scientific Conference. According to the decision of the RTU Senate of 30 September 2024 (Meeting Minutes No. 20), this year Professor Lucio Tommaso De Paoli of the University of Salento (Italy) receives it.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-gada-balvas-zinatne-sanem-materialzinatnieki>*

### **October 14–18**

During the week of RTU's birthday – from 14 to 18 October – the RTU International Teaching Week will be held for the first time, during which dozens of lecturers from our cooperating universities in Finland, Germany, Romania, the Czech Republic, Lithuania, France, Ukraine, Jordan, Kenya, Peru, Nigeria, Morocco, etc. will visit the university.

*[https://files.rtu.lv/public/SAD/InternationalWeek\\_Program.pdf](https://files.rtu.lv/public/SAD/InternationalWeek_Program.pdf)*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720321279496/>*

### **October 15**

During the week of RTU's 162nd anniversary, RTU management and family representatives traditionally honour the founders and former rectors of our university.

*<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/tradicionali-godinam-rtu-dibinatajus-un-bijusos-rektorus>*

### **October 16**

«Tomega» 3D printer island is opened in RTU SIC «SkyLAB» workshop.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/16-oktobri-rtu-atklas-tomega-3d-printeru-salu>*

### **October 17**

The IAD Advisory Board gathers for the first meeting.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/darbu-sak-rtu-arhitekturas-un-dizaina-instituta-padomnieku-konvents>*

### **October 21**

Katrīna Marta Peizuma, a graduate of the IAD Master's Study Program «Architecture», becomes the winner of the competition «BAUA Awards 2024» organized by the Baltic Architects Union Association (BAUA).

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-absolventes-katrinas-martas-peizumas-diplomprojekts-gust-uzvaru-baltijas-arhitekturas-skolu-konkursa>*

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### **October 23**

RTU and the Ministry of Education and Science signed an agreement on the introduction of institutional funding.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-izm-paraksta-ligumu-par-institucionala-finansejuma-ieviesanu-1>*

A new Chief Accountant, Baiba Stepanova, is starting work at the Accounting Department of RTU.

### **October 25**

In order to discuss possible cooperation in the field of drones and aviation, representatives of OSTIM Technical University (Turkey) visit RTU – Dean of the Faculty of Engineering Professor Dr. Hasan Erbay, Language Centre Director Hüsameddin Demir and Executive Secretary Ali Osman Karci. RTU Vice-Rector for Academic Affairs Elīna Gaile-Sarkane introduces the guests to RTU's goals, structure and various initiatives in science and innovation. The delegation visits the RTU Ķīpsala Student Campus and meets with FCME Vice-Dean Marina Čerpinska and Director of the Institute of Aeronautics, Space Engineering and Transport Aleksejs Klokovs.

### **October 28**

According to Articles 6 and 23.1 of the Senate Regulations (approved at the meeting of the RTU Constitutional Assembly on 31 August 2021; minutes No. 32) specified in sub-section; taking into account the re-election of the Chairman of the Senate and at the suggestion of the Chairman of the Senate, the RTU Senate elects Oskars Krievs as the Deputy Chairman (minutes No. 686).

### **October 30**

In the series of events «Readings by RTU Academicians», BFCME Professor, Academician Andrejs Krasņikovs reveals how to create a durable structure.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/akademikis-andrejs-krasnikovs-lekcija-atklas-ka-izveidot-ilgizturigu-konstrukciju>*

Professor Yordan Kyosev of the Technical University of Dresden is visiting RTU, visiting the RTU Personal Protective Equipment Laboratory and highly appreciating the performance of RTU scientists and the established laboratory for testing a wide range of personal protective equipment, textile materials, and textile products.

## **In October**

FEEM Professional Bachelor's and Master's Study Programs «Customs and Tax Administration» have been awarded the prestigious European Commission Recognition Certificate in the customs sector, confirming the high quality of the study programs.

*<https://www.rtu.lv/lv/ievf/ievf-par-mums/ievf-zinas/atvert/rtu-ievf-studiju-programmam-muitas-un-nodoklu-administresana-pieskirts-nozare-prestizais-ek-atzisanas-sertifikats>*

## **November 1**

An exhibition of products created by RTU's new designers opens in the exhibition space of innovation and scientific achievements, «Future Stop of RTU and Origo».

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ekspoziciju-telpa-rtu-un-origo-nakotnes-pietura-bus-apskatami-universitates-jauno-dizaineru-darbi>*

*<https://www.flickr.com/photos/rtuaf/albums/72177720321699680/with/54116743609>*

RTU Olaine College of Technology is celebrating its 60th anniversary.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-olaines-tehnologiju-koledza-60-jubilejas-svinibas-sanem-sirsnigus-pateicibas-vardus-un-laba-velejumas>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720321735589/>*

Sandra Eldmane, who was the Senior Project Manager until now, is taking over the duties of the Head of the Project Implementation and Coordination Unit (PICU). Marija Nikipelova, the former Head of PICU, will continue to lead RTU strategically important Consolidation Project.

## **November 2-3**

FEEM student Dāvis Pavlovs, competing in the second team of the Latvian National Team together with Arturs Rudņikovs and Artūrs Spalis, wins 3rd place in the «SynotTip» Baltic Table Tennis Championship.

## **November 4**

Laura Zaķe starts her work as the Director of the RTU Study Department.

## **November 7**

Royal Melbourne Institute of Technology (RMIT; Australia) Cyber Security Centre Director Matthew Warren and Deputy Director Laki Kondylas are visiting RTU to continue talks on expanding cooperation between RTU and RMIT.

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## November 8

RTU and LTD «Rīgas ūdens» sign a memorandum of cooperation, agreeing to cooperate in the development of education, science, and innovation, especially focusing on the preparation of young specialists for work in the company.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-paraksta-sadarbibas-memorandu-ar-sia-rigas-udens>

FCSITE Institute of Photonics, Electronics and Electronic Communications Leading Researcher Lilita Ģēģere receives an award from the engineer Jānis Linters Foundation for her merits in the development of Latvian electronic communications, student preparation, and investment in science.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-vadosa-petniece-lilita-gegere-sanem-lintera-fonda-apbalvojumu>

<https://www.olaine.lv/lv/jaunumi/rtu-docente-vadosa-petniece-lilita-gegere-sanem-lintera-fonda-apbalvojumu>

## November 9

The cycle of classes for pupils «Universitāte nākotnes inženieriem» (University for Future Engineers) or UNI in four content areas: architecture and design; natural sciences; engineering; economy and innovation are opened.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-atklas-nodarbibu-ciklu-skoleniem-universitate-nakotnes-inzenieriem>

## November 11

On Lāčplēšis Day, in a solemn event, remembering and commemorating the students and graduates of our university – participants in the Latvian War of Independence, on 6 A/B Ķīpsalas Street, 3rd floor, the renewed exhibition of RTU history and the express exhibition «160 Years for the Higher Education of Mechanical Engineers in Latvia» created by RTURCEH, was opened in cooperation with the colleagues of the Scientific Library.

<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/lacplesa-diena-notiks-astotas-rtu-vestures-dienas-pasakumi>

<https://www.rtu.lv/lv/muzejs/galerija-2/kategorija/atklata-rtu-vestures-ekspozicija-un-ekspresizstade-inzenieru-mehaniku-augstakajai-izglitiba-latvija>

## November 13

The European Space Agency Business Incubation Center is opening at the RTU Science and Innovation Center.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/atklas-eiropas-kosmosa-agenturas-biznesa-inkubatoru>

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### **November 14**

The conference «Digital Transformation in Public Administration and the Involvement of Universities in Its Implementation» is being held at the RTU Auditorium Centre «Domus auditorialis», the aim of which is to identify what has been achieved so far in the field of digital transformation in Latvian public administration, assess digital transformation plans and their implementation plans, analyse future perspectives and strategies for promoting digital transformation, emphasizing the role of universities in this process.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/konferences-digitala-transformacija-valsts-parvalde-un-universitasu-iesaiste-tas-istenosana-prezentacijas-un-video>*

RTU Rector Tālis Juhna and the CEO of the Latvian-Estonian defence technology company «Frankenburg Technologies», former State Secretary of the Estonian Ministry of Defence Kusti Salm sign an agreement on cooperation in promoting technical education in the field of missile technology, attracting and implementing international projects, as well as in the development of innovative products and the development of young talents.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-uznemums-frankenburger-technologie-liek-pamatus-gaisa-aizsardzibas-industrijai-baltija>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720321922231/>*

### **November 15**

The RTU Senate is holding a ceremonial meeting dedicated to the Proclamation Day of the Republic of Latvia in the RTU auditorium centre «Domus auditorialis». The recipients of RTU's highest award – the RTU Badge of Honour – are being honoured at the ceremonial event. For special merits to the university, the RTU Badge of Honour is being received by Professor Jānis Grundspenķis of the Faculty of Computer Science, Information Technology and Energy and long-time Dean of the Faculty of Mechanical Engineering, Transport and Aeronautics Ēriks Geriņš. The recipient of the title «RTU Honorary Alumni 2023» – Agnis Klans, Head of the engineering team of the company «RK Machinery» – is also being honoured at the event.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/cildina-rtu-goda-zimes-ieguvejus>*

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-goda-absolventu-pulkam-pievienojas-agnis-klans>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720322029501/>*

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## November 19

RTU, Liepāja Special Economic Zone Authority, Liepāja City Council, the Investment and Development Agency of Latvia (LIAA) and several large companies sign a statement on the establishment of the Liepāja Sustainable Industry Centre, bringing together several strategically important private investment projects based on green energy, smart manufacturing and innovation.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/paraksta-pazinojumu-par-liepajas-ilgtspejigas-industrijas-centra-izveidi>*

## November 20

Edīte Barkāne starts her work as Director of the Project Support Department.

## November 21

Bringing together entrepreneurs, policymakers, scientists and students, the second international conference on future transport and mobility «Look at the Future of Mobility 2024» is taking place at the RTU auditorium centre «Domus auditorialis», with the agenda including innovations, safety and the railway infrastructure project «Rail Baltica». During the conference, RTU and the Ministry of Transport sign a memorandum of cooperation to promote the use of research results in the sustainable and competitive development of the transport sector.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/kalendars/atvert/konference-look-at-the-future-of-mobility-2024-innovations-collaboration-and-safety>*

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-satiksmes-ministrija-paraksta-sadarbibas-memorandu-par-petijumu-rezultatu-izmantosanu-transporta-nozare>*

The plenary meeting of the Latvian Academy of Sciences (LAS) elected new LAS academicians, corresponding members, foreign members and honorary members, among whom FNST Tenured Professor Dr. sc. ing. Sergejs Gaidukovs and FNST Professor Dr. phys. Gita Rēvalde were elected as full members (academicians) of the LAS, while FCSITE Tenured Professor Xiaodan Pang was elected as a foreign member of the LAS.

*<https://www.lza.lv/aktualitates/jaunumi/2089-latvijas-zinatnu-akademijas-2024-gada-jauno-loceklu-velesanu-rezultati>*

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/vairaki-rtu-profesori-ieveleti-par-lza-akademikiem>*

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### **November 22**

The Cēsis Concert Hall is hosting the TEDxRigaTechnicalUniversity event organized by the Estonian Institute of Technology, which this year is dedicated to the theme «YOU 2.0» and features 12 speakers, inspiring students not to be afraid of change.

*<https://www.rtu.lv/lv/ievf/ievf-par-mums/ievf-zinas/atvert/pasakuma-tedxrigatechnicaluniversity-sogad-runas-par-personigajam-parmainam>*  
*<https://www.flickr.com/photos/rtu-lv/albums/72177720322157916>*

### **November 23**

RTU Open Day.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-atverto-durvju-diena-toposie-studenti-uzzinas-aktualitates-studijas>*

### **November 27**

The Latvian Museum of Architecture and architect Jānis Lejnieks are opening an exhibition «Divi ģēniji», (Two Geniuses) in the IAD atrium, dedicated to two of the main architects of the city of Riga in the 20th century – Edgars Pučiņš (1924–2009) and Gunārs Asaris (1934–2023), both of whom are celebrating their anniversaries this year: Pučiņš – 100, Asaris – 90.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituta-skatama-izstade-divi-geniji>*

The RTU International School of Science and Technology Open Day is underway.

*<https://isst.rtu.lv/open-doors-day/>*

### **November 28**

Diplomas are being presented in the Portrait Hall of the Latvian Academy of Sciences to 27 national emeritus scientists who have made significant contributions to both theoretical and applied sciences during their lives and have obtained the status of emeritus scientist in 2024. Among them are also RTU scientists Gundars Mežinskis, Antans Sauļus Sauhats, Ruta Švinka and Visvaldis Švinka.

*<https://www.lza.lv/aktualitates/jaunumi/2092-notiks-diplomu-pasniegsana-valsts-emeritetajiem-zinatniekiem>*

### **November 29**

RTU is being visited by the University of Technology Sydney's Vice-Chancellor for Research, Christian Turney, and the Dean of the Graduate Research School, Héléne de Burgh-Woodman, to discuss potential areas of cooperation and agree on concrete steps to initiate a closer partnership.

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RTU students win first place in the European startup program «JumpStarter».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-studenti-iegust-pirmo-vietu-eiropas-jaunuznemumu-konkursa-jumpstarter>

### **In November**

LTD «Mikrotīkls» donates 1.5 million euros to RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/sia-mikrotikls-rtu-ziedo-1-5-miljonus-eiro>

Competition of the Chancellery of the President of Latvia for 5th to 12th pupils in which young people were invited to imagine themselves in the position of the President of the State and to prepare a festive address to the nation on 8 November, in group 10th to 12th grade, the 11th-grade student of RTU EHS Ilja Polis wins the competition.

<https://www.president.lv/lv/jaunums/noskaidroti-latvijas-republikas-proklamesanas-106-gadadienai-veltita-skolenu-radoso-darbu-konkursa-laureati>

To strengthen the Latvian innovation ecosystem, the European Institute of Innovation and Technology (EIT) is opening a second «EIT Community RIS Hub Latvia» office at the premises of RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/eiropas-inovaciju-un-tehnologiju-instituts-eit-paplasina-savu-parstavniecibu-atverot-jaunu-eit-ris-hub-latvia-biroju-rtu>

### **December 3**

Marking the International Day of Persons with Disabilities, highlighting environmental accessibility issues and promoting the formation of an inclusive society, an international conference «Universal Design in Architecture and Urban Environment» is taking place in the IAD atrium, organized by VAS «Valsts nekustamie īpašumi» together with the public organization «Apeiron» and RTU.

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/starptautiska-konference-universalais-dizains-arhitektura-un-pilsetvide-aktualizes-vides-pieejamibas-dazados-aspektus-un-diskutes-par-ieklausosas-sabiedribas-veidosanu>

A meeting of microchip initiative partners is taking place at RTU, where several large foreign companies or their subsidiaries in Latvia will join the national microchip initiative by signing an agreement.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvijas-mikrocipu-iniciativai-pievienojas-starptautiski-uznemumi>

### **December 5**

RTU Tenured Professor Oskars Ozoliņš talks about innovative and energy-efficient data transmission solutions in his academic lecture «High-speed modulators for short-range optical communications».

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### **December 6**

RTU swimmers win prizes at the Latvian XXXV Universiade swimming competition, which takes place in the swimming pool of the Sports House of the Latvian University of Biosciences and Technology. In the overall standings, RTU swimmers win 1st place in the men's competition, and RTU female athletes – 3rd place.

*<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-sportisti-izcina-godalgotas-vietas-latvijas-xxxv-universiade-peldesana>*

### **December 7-8**

FEEM student luge racer Anda Upīte and her partner Zane Kaluma win a bronze medal at the second stage of the Eberspächer World Cup in Innsbruck (Austria).

*<https://kamanas.lv/lv/articles/1585-latvijas-kamaninu-sportistes-anda-upite-un-zane-kaluma-izcina-bronzas-medalu-pasaules-kausa-posma-insbruka>*

### **December 9**

RTU, together with partners, is launching a two-year cybersecurity education project, during which students will gain practical knowledge in the digital security sector and invest their skills in strengthening the cybersecurity of companies in the regions of Latvia.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-ar-partneriem-kiberdrosiba-izglitos-studentus-un-latvijas-regionu-institucijas-un-uznemumus>*

RTU publishes its first report on climate impact and progress towards achieving climate neutrality – climate impact reduced by 17 % in one year.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-publice-pirmo-zinojumu-par-klimatneitralitates-progresu-samazina-ietekmi-uz-klimatu-par-17>*

### **December 12**

The unique silicon photonics technology created by scientists at the FCSITE Institute of Photonics, Electronics and Electronic Communications, which ensures fast and energy-efficient data connections in future communication networks, wins first place in the «Competitive and Smart Europe» category of the «Regional Star 2024» competition. The ceremonial award ceremony takes place in the «Spīdola» chamber hall of the VEF quarter, symbolically marking Latvia's 20th anniversary in the European Union.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-zinatnieku-veikums-fotonikas-attistiba-klust-par-regionu-zvaigzni-2024>*

*<https://www.fm.gov.lv/lv/jaunums/godina-izcilakos-es-fondu-projektus-pasakuma-regionu-zvaigznes-2024>*

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### **December 13**

The Latvian Academy of Sciences presents the Annual Awards to outstanding scientists in the energy sector. The Latvenergo and LAS Professor Alfrēdis Vītols Annual Award for Outstanding Contribution to Energy is received by FCME Professor Egils Dzelzītis, the Annual Award for Significant Contribution to Energy is received by FCSITE Leading Researcher Deniss Stepins, and the award for young scientists is received by RTU Young Researcher Roberts Lazdiņš and RTU graduate Kārlis Gičevskis.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/gada-balva-par-izcilu-devumu-energetika-pieskirta-rtu-profesoram-egilam-dzelzitim>

<https://www.lza.lv/aktualitates/jaunumi/2105-as-latvenergo-un-lza-gada-balva-par-nozimigu-devumu-energetika-dr-sc-ing-sofja-negrejevai>

<https://www.flickr.com/photos/rtu-lv/albums/72177720322565944/>

### **December 15**

At the XXXV Latvian Universiade table tennis competitions, RTU athletes won 2nd place in both the women's and men's overall standings.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-galda-tenisisti-izcina-2-vietu-latvijas-xxxv-universiades-kopvertejuma>

<https://www.tt.esit.lv/#/competition-group/284>

<https://www.tt.esit.lv/#/competition-group/284>

### **December 18**

The student innovation festival «UNICORN» is underway.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/18-decembri-notiks-studentu-inovaciju-festivals-unicorn>

<https://www.rtu.lv/lv/aeef/par-mums-aeef/aeef-aktualitates/atvert/ka-ar-hpc-un-citiem-digitaliem-rikiem-risinat-nozimigus-uznemumu-izaicinajumus-studenti-iepazistina-ar-saviem-risinajumiem>

### **December 21**

Students, along with faculty and staff, gather for the RTU Winter Ball «Starry Night», which takes place at the BT1 Ķīpsala Exhibition Hall.

<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/21-decembri-notiks-rtu-ziemas-balle-zvaigznata-nakts>

### **In December**

In the green policy and sustainability ranking «GreenMetric World University Rankings 2024», RTU ranks 40th in the world.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-kluvusi-par-40-zalako-universitati-pasaule-licina-greenmetric-reitings>

### **January 4-5**

First-year student of the Faculty of Engineering Economics and Management (FEEM) luger Marta Robežniece and her partner Kitija Bogdanova won the bronze medal at the fourth stage of the «Eberspächer» World Cup, which is taking place in Sigulda.

*<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-kamaninu-sportiste-marta-robezniece-ar-parinieci-izcina-bronzas-medalu-eberspacher-pasaules-kausa-ceturtaja-posma-sigulda>*

### **January 6**

The sketch exhibition «4D6V» is opened in the atrium of the Institute of Architecture and Design (IAD), featuring works by the Institut's students, faculty, and art enthusiasts.

*<https://www.rtu.lv/lv/adi/par-mums/kalendars-2/atvert/izstades-4-d-6v-atklasana>*

Judīte Andersone-Svara starts working as the Head of the Occupational Safety Unit of the Human Resources Department.

### **January 11**

The graduation of the RTU Latvian Maritime Academy (RTU LMA) is taking place at the RTU Auditorium Centre «Domus auditorialis», where 58 graduates receive diplomas.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-latvijas-juras-akademijas-diplomus-par-jurniecibas-izglitibas-iegusanu-sanems-58-absolventi>*

### **January 12**

FEEM first-year student luger Marta Robežniece, together with teammates Kitija Bogdanova, Kendija Aparjoda, Mārtiņš Bots, Roberts Plūme and Kristers Aparjods, wins the gold medal in the team relay at the fifth stage of the Luge World Cup, which is taking place in Altenberg (Germany).

*<https://sports.tv3.lv/ziemas-sports/kamaninu-sports/latvijas-kamaninu-izlase-izcina-zeltu-altenbergas-komandu-stafete/>*

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## January 14

In order to promote more effective and modern assessment of the quality of higher education, based on the best practices of the European Higher Education Area, the Government of the Republic of Latvia approves the conceptual report developed by the Ministry of Education and Science (MES) on the transition to cyclical accreditation of higher education institutions and colleges – a new model of cyclical accreditation of higher education institutions and colleges. The model will be gradually implemented from 2025 to 2027.

*<https://www.researchlatvia.gov.lv/lv/plano-ieviest-musdienigu-akreditacijas-modeli-augstakas-izglitibas-kvalitates-uzlabosana>*

In order to promote the preparation of new doctors of science oriented towards excellence, as well as to continue to develop the previous successful cooperation in the development of science and innovation, RTU and the Latvian Institute of Organic Synthesis sign a cooperation agreement on the implementation of doctoral studies.

## January 15

The opening event of the «Zināšanu pārneses barometrs» (Knowledge Transfer Barometer) is taking place in the «The Moon» space, where RTU and the Employers' Confederation of Latvia (LDDK) present the first-ever study conducted in Latvia on cooperation between universities and companies.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/zinasanu-parneses-barometrs-aplicina-universitatu-un-industrijas-gatavibu-intensivak-sadarboties-zinatne-un-inovacijas>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720323204748/with/54267122327/>*

## January 17

Ieva Ose, the Head of the RTU Culture Centre, begins to fulfill the duties of the Director of the RTU Sports Centre, combining both positions in the future.

## January 18–19

First-year student of the FEEM Marta Robežniece and her partner Kitija Bogdanova won a silver medal at the European U-23 Championship, which is also the sixth stage of the «Eberspächer» World Cup and takes place in Winterberg (Germany).

*<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-kamaninu-sportiste-marta-robezniece-ar-parinieci-izcina-sudraba-medalu-eiropas-u-23-cempionata>*

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### **January 20**

The new building of the Baltic Biomaterials Centre of Excellence (BBCE) in Ķīpsala, 3, k-1 Paula Valdena Street, is being ceremonially opened, where scientists will research and synthesize biomaterials for bone regeneration, facial, oral and maxillofacial surgery, orthopedics and other fields. During the event, the RTU Honorary Doctorate diploma is being presented to Professor Mauro Alini, Emeritus Scientific Advisor of the AO Research Institute, and Professor Aldo Roberto Boccaccini, Director of the Biomaterials Centre at the Friedrich-Alexander University of Erlangen-Nürnberg in Germany, for their significant contribution to the development of RTU and the creation of scientific capacity, as well as their active participation in the establishment of BBCE at RTU.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/svinigi-ver-durvis-baltijas-biomaterialu-ekselences-centra-jaunajai-ekai>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720323292041>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720323185022/>*

### **January 21**

Bringing together RTU colleagues who have joined the university family relatively recently, the Human Resources Department organizes the RTU New Employee Day, which provides the most important information about aspects important in daily work, RTU's strategy, values, as well as the organization of the work environment.

### **January 23**

To inspire students for master's level studies, the first event of the cycle «A Bachelor's Degree is not Enough» – the brunch «Taste Master's Studies at RTU FCSITE» – is being held at «The Moon» by RTU and the RTU Alumni Association.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/notiks-pasakumu-cikls-kapec-ar-bakalauru-nepietiek>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720323366068>*

### **January 24**

Upon the end of the probationary period, Chief Accountant Baiba Stepanova will terminate her employment with RTU. Until a new Director of the Accounting Department is found through a competitive process, the department's daily processes will be managed by Deputy Chief Accountants Ilze Zinberga and Edgars Liepiņš.

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## January 25

The dances created by the Artistic Director and Choreographer of the RTU Folk Dance Ensemble «Vektors» Dagmāra Bārbale have won awards at the XXIV Creative Dance Competition, which is taking place in Valmiera. «Vektors» performance in Group A won 1st place, two 2nd places, and 3rd place, while the dance school «Dzirnas» performance in Group B won 1st place and 2nd place.

<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/vektora-horeografei-panakumi-jaunrades-deju-konkursa>

## January 30

The Ministry of Education and Science, RTU and Rezekne Academy of Technologies (RAT) sign a cooperation agreement on the inclusion of RAT into the RTU ecosystem.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rezeknes-tehnologiju-akademijas-ieklaušanas-rtu-stiprinās-studijas-zinatni-un-inovācijas-latgale>

<https://www.flickr.com/photos/rtu-lv/albums/72177720323510950>

Ahmed Adel Sobhy, Ambassador Extraordinary and Plenipotentiary of the Arab Republic of Egypt to Latvia, is visiting RTU, meeting with employees of the International Cooperation Department, and discussing future cooperation opportunities.

## In January

In the latest «Eduniversal» business school reputation assessment, RTU Faculty of Engineering Economics and Management (FEEM) and RTU Riga Business School (RBS) receive the highest rating in Latvia, entering the four-palm league in the global ranking of the most prestigious business schools.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-dubultpanakums-prestizaja-biznesa-skolu-reitinga>

The Latvian Academy of Sciences (LAS) has named a high-speed data transmission system with directly modulated quantum cascade laser technology for long-infrared free-space optical communications, developed by a team of scientists from the Faculty of Computer Science, Information Technology and Energy (FCSITE) in collaboration with foreign partners, as a significant achievement of applied science in 2024.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/starp-nozimigakjiem-latvijas-zinatnes-sasniegumiem-2024-gada-rtu-veikums>

<https://www.lza.lv/aktualitates/medijiem/2116-latvijas-zinatnu-akademijas-nosauc-2024-gada-nozimigakos-sasniegumus-latvijas-zinatne>

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The Ministry of Education and Science is publishing the calendar «Zinātne Latvijai 2025» (Science for Latvia 2025), in which 12 outstanding scientists from Latvian universities present their work, including Sergejs Gaidukovs, Tenured Professor at the Faculty of Natural Sciences and Technology (FNST) of RTU.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-tenurprofesors-sergejs-gaidukovs-savu-darbu-prezente-kalendara-zinatne-latvijai-2025>*

### **February 2**

FEEM graduate (2021) Poļina Rožkova, together with Agris Lasmanis, wins second place in the wheelchair curling tournament in Italy – the final preparation stage for the Latvian pairs team before the 2025 World Championships in Scotland.

*[https://www.leta.lv/news/para\\_sports/BDA74D83-873F%E2%80%914498-A325-20E924%2009FF9F/](https://www.leta.lv/news/para_sports/BDA74D83-873F%E2%80%914498-A325-20E924%2009FF9F/)*

### **February 3**

Japanese Ambassador to Latvia Kensuke Yoshida is visiting RTU, meeting with RTU Rector Tālis Juhna and Vice-Rector for Academic Affairs Elīna Gaile-Sarkane and discussing the current cooperation between Latvia and Japan in technology development, student mobility, and the new exchange program, which will soon allow students and graduates of specific fields to gain experience in Japan.

*[https://www.lv.emb-japan.go.jp/itpr\\_ja/11\\_000001\\_00429.html](https://www.lv.emb-japan.go.jp/itpr_ja/11_000001_00429.html)*  
*<https://www.flickr.com/photos/rtu-lv/albums/72177720323621599/>*

Zane Aumale will temporarily assume the duties of Director of the Personnel Management Department, and will also continue to head the Labour Relations Management Department.

The RTU management team is joined by Operational Director Inga Bratēna, who is responsible for quality management, risk management, and sustainability, with special attention to strategic human resources management and talent development.

### **February 4**

Inese Muzikante is confirmed as the Director of RTU Riga Business School.

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## February 5

To strengthen the connection between science and business, the Science and Innovation Center (SIC) organizes an informative breakfast, «Life Sciences Breakfast», which is organized as a satellite event of the start-up and technology conference «TechChill».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/informativas-brokastis-life-sciences-breakfast-stiprinas-saikni-starp-zinatni-un-uznemejdarbibu>

The event «Cooperation Opportunities with RTU» is taking place in the SIC space «The Moon», where company representatives can learn about various cooperation opportunities with the RTU Career Centre, RTU Alumni Association, RTU Development Fund, and RTU SIC and go on excursions to RTU laboratories to learn how to more effectively support students, get involved in hackathons or implement new ideas together with RTU scientists and students.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-uznenumus-vel-aktivak-sadarboties-ar-universitati>

## February 6

To get acquainted with RTU and discuss cooperation opportunities, Matthew Hulver, Vice President of Knowledge Enterprise Initiatives at Arizona State University in the USA, and Brian MacCraith, Senior Advisor to the President of the University of Arizona, are visiting RTU, meeting with Acting Vice-Rector for Research Gatis Bažbauers, Director of the FCSITE Institute of Information Technology Jānis Grabis, and Head of the International Partnership Unit Laura Štāle.

<https://www.flickr.com/photos/rtu-lv/albums/72177720323738888/with/54318722435>

## February 11

As part of the event series «Readings by RTU Academicians», a lecture by Andris Šutka, Academician of the Latvian Academy of Sciences (LAS) and Tenured Professor at the Faculty of Physics, is held, providing an insight into triboelectrification

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/akademikis-andris-sutka-akademiskaja-lasijuma-sniegs-ieskatu-triboelektrizacija>

## February 12

To introduce pupils and their parents to the learning opportunities offered by the RTU International School of Science and Technology (ISST), an Open-Door Day is organized.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-skolenus-un-vinu-vecakus-uz-starptautiskas-zinatnu-un-tehnologiju-skolas-atverto-durvju-dienu-1>

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### **February 13**

Representatives of the Nicolaus Copernicus Academy (Poland) are visiting RTU, introducing the RTU management and students to the contribution of the well-known astronomer N. Copernicus (1473–1543) to the science of astronomy and opening the exhibition «Nicolaus Copernicus. Pilgrimage to the Stars» at 6B Ķīpsalas Street, 1st floor lobby. At the end of the visit, a cooperation agreement between the two institutions was signed.

*<https://www.rtu.lv/en/university/for-mass-media/news/open/rtu-signs-cooperation-agreement-with-the-nicolaus-copernicus-academy>  
<https://www.flickr.com/photos/rtu-lv/albums/72177720323945103/>*

### **February 14**

IAD is hosting a high-level expert forum «Quality of the Living Environment and Housing Accessibility for Climate Neutrality and Competitiveness of Cities. Future Outlook and Possible Scenarios», which brings together experts from various fields – scientists, architects, urban planners, social anthropologists, financiers, entrepreneurs, local government representatives, and politicians.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/augsta-limena-ekspertu-foruma-diskutes-par-majoklu-pieejamibu-un-dzivojamas-vides-kvalitates-uzlabosanu-1>*

A seminar, «Drone Technologies,» is taking place in the SIC Hall, «The Moon,» presenting the achievements and future plans of RTU scientists.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/industrijas-parstavjus-petniekus-un-studentus-aicina-uz-seminaru-par-dronu-tehnologijam>*

### **February 19**

Minister of Smart Administration and Regional Development Inga Bērziņa is visiting RTU, praising RTU's achievements in the field of high technology.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/viedas-administracijas-un-regionalas-attistibas-ministre-atzinigi-noverte-rtu-sasniedzumus-augsto-tehnologiju-joma>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720323934712/>*

### **February 20**

The exhibition «Housing Accessibility and Improving the Quality of the Living Environment in Large-Scale Residential Areas in Latvia» is opened at the IAD atrium.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/atklas-izstadi-majoklu-pieejamiba-un-dzivojamas-vides-kvalitates-uzlabosana-lielmeroga-dzivojamos-rajonos-latvija>*

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## February 21–23

The international education exhibition «School 2025» is taking place at the International Exhibition Centre in Ķīpsala, where RTU students and RTU Student Parliament activists are waiting for visitors at the RTU stand to introduce them to study opportunities at RTU and its structural units in Olaine, Liepāja, and Rēzekne.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-visus-studetgribetajus-apmeklet-rtu-stendu-izstade-skola-2025-1>

## February 25

The SIC Hall «The Moon» is hosting a brunch «Why is a bachelor's degree not enough?», in which Anda Penka, a graduate of the FEEM master's study program and co-owner of the company «Fermentful», shares the experience that motivated her to pursue higher-level studies at RTU and how it helped her develop personally and professionally.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/turpinas-pasakumu-cikls-kapec-ar-bakalauru-nepietiek-25-februari-inzenierekonomikas-un-vadibas-fakultate>

## February 26

Celebrating the 10th anniversary of the RTU Engineering High School (EHS), an EHS appreciation dinner is being held.

<https://www.flickr.com/photos/rtu-lv/albums/72177720324141099>

## February 27

RTU presents an adaptive mathematics learning platform for high school students «ALEKS PPL» (Assessment and Learning in Knowledge Spaces for Preparation, Placement and Learning), which uses artificial intelligence algorithms to adapt learning content to each user who is ready for a self-guided learning process.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-piedava-adaptivo-matematikas-macibu-platformu-ka-risinajumu-matematikas-papildu-apguvei-vidusskoleniem>

<https://www.flickr.com/photos/rtu-lv/albums/72177720324103336/>

## February 27–March 2

FEEM first-year student lugger Marta Robežniece and her partner Kitija Bogdanova won the gold medal at the Junior World Cup stage, which is taking place in Sigulda.

<https://kamanas.lv/lv/articles/1629-latvijas-tresais-zelts-sigulda-robezniece-un-bogdanova-triumfe-junioru-pasaules-kausa-posma>

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## February 28

RTU scientists receive awards for the most significant scientific achievements of 2024.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-zinatnieki-sanem-balvas-par-2024-gada-nozimigakajiem-zinatnes-sasniegumiem>

In order to promote knowledge exchange between the financial industry and academia, as well as to promote cooperation in the fields of academic research, innovation, and technology development, SEB Bank is entering into a five-year cooperation agreement with RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-seb-banka-apvieno-spekus-inovaciju-un-petniecibas-attistibai>  
<https://www.flickr.com/photos/rtu-lv/albums/72177720324102396/>

RTU Student Parliament (SP) receives awards in six nominations of the Student Union of Latvia (SUL) «Annual Awards 2024», including two main awards – «Best Student Self-Government of the Year» and «Most Socially Responsible Self-Government of the Year». The award in the nomination «Annual Contribution to Promoting Social Life» is won by the campaign «Augšup!» (Up!) created by the RTU Development Fund; FCSITE graduate and Research Assistant Aija Monika Vainiņa receives the «Young Scientist of the Year» award; the event «Guide to Opportunities and Inspirations" organized by the Head of the Department of Studies Laima Adijāne was recognized as the «Annual Contribution to Promoting Academic Life»; the congratulatory video created by RTU SP in 2024 on International Women's Day receives the award in the nomination «Visual Material of the Year». The award ceremony takes place simultaneously with the 30th Anniversary celebrations of the SUL.

<https://www.lsa.lv/sakusies-balsosana-par-latvijas-studentu-apvienibas-gada-balva-2024-nominantiem/>

## In February

Professor Mārtiņš Vīlnītis of the Institute of Civil Engineering at the FCME has been elected to the Administrative Council of the European Civil Engineering Education and Training Association (EUCEET) for the period until 2027.

RTU design program students win awards in the Association of Textile Universities (AUTEX) souvenir ideas competition. IAD study program «Clothing and Textile Technologies» students Alina Sivak and Kateryna Shushura win 2nd place in the competition category «Bag Design». In the open category, 2nd place is shared by FCME study program »Industrial Design» student Ernests Liepiņš and World University of Design student

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Pourush Jindal. IAD study program «Materials Technology and Design» students Daniela Neila Lopenova and Jana Bulatova win 3rd place in this category.

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-dizaina-studentu-idejas-atzinigi-novertetas-tekstila-universitatu-asociacijas-izsludinataja-suveniru-ideju-konkursa>

RTU Children and Youth University is launching classes called «Little Engineers», offering an introduction to the STEAM field for the youngest – kindergarteners.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/kekava-sakas-rtu-nodarbibas-mazie-inzenieri-bernudarznikiem>

### **March 7**

IAD is holding an architectural graduation ceremony and opening an exhibition of diploma projects «re: generate», where one can get acquainted with the handwriting and creative ideas of young architects.

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/jaunie-arhitekti-rtu-absolventi-sanem-magistra-diplomus-un-apskatei-piedava-savus-diplomprojektus>

RTU scientists receive the Latvian Security and Defence Industry Annual Award in the «Research» nomination, the award ceremony takes place at the XII Latvian Members' Meeting of the Federation of Security and Defence Industries of Latvia. RTU Vice-Rector for Innovations Liene Briede is elected to the Federation Council.

<https://www.lza.lv/aktualitates/jaunumi/2176-pasniegtas-latvijas-drosibas-un-aizsardzibas-industriju-federacijas-gada-balvas-2025>

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-zinatniekiem-pasniedz-latvijas-aizsardzibas-un-drosibas-industriju-gada-balvu>

### **March 8**

The RTU STEAM exhibition «From Curiosity to Inventions: Interest-Based Education for the Whole Family» opens in the exhibition space «RTU and Origo Future Stop».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/pirmo-reizi-notiks-rtu-steam-jomas-izstade-visai-gimenei>

### **March 10–14**

An event for pupils «Follow the Student!» is taking place, giving them the opportunity to get to know the RTU study environment, learn how studies are conducted, participate in laboratory work, and attend lectures, the RTU Scientific Library, the official hotel, the sports complex, and see the Student Campus in Ķīpsala.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/norisinaties-aktivitate-seko-studentam-lai-skoleni-uzzinatu-par-studijam-un-dzivi-rtu>

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An exciting and educational STEAM day camp, «Journey into Engineering», is taking place at the RTU Curiosity Centre «Futurimo Riga» during the school holidays to inspire and educate young technology enthusiasts, giving them the opportunity to explore various fields of technology and science in an exciting and interactive way.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/skolenu-brivlaika-rtu-zinatkares-centra-futurimo-riga-norisinaties-steam-jomas-nometne>*

The «FCME Open Lab Week» is taking place, where pupils can get to know the practical working environment of scientists and meet experts.

### **March 11**

As part of the event series «Readings by RTU Academicians», a lecture «How to Measure Time?» by LAS Academician and FNST Professor Dr. phys. Gita Rēvalde is taking place, in which the Academician explains the basic principles of atomic clocks in popular scientific language and reveals the role of precise spectroscopic measurements in understanding the structure of atoms and the world.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-profesore-gita-revalde-akademiskaja-lasijuma-stastis-par-kvantu-standartiem-un-precizu-spektroskopisku-merijumu-nozimi>*

FCSITE Assistant Professor and Leading Researcher Academician Andris Ozols receives a Certificate of Appreciation from the LAS Senate for active participation in the work of the Senate and a creative approach to the events of the Department of Physics and Technical Sciences and their organization.

*<https://www.lza.lv/aktualitates/jaunumi/2177-pasniedz-lza-senata-atzinibas-rakstus>*

### **March 14**

The largest career development event, RTU Career Day, is taking place for the 22nd time at the International Exhibition Hall in Ķīpsala

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-apmeklet-lielako-studentiem-veltito-karjeras-izaugsmes-pasakumu-karjeras-dienu-2025>*

### **March 20**

The SIC hall, «The Moon», is hosting a networking event for researchers and industry «BioPhoT radar» to jointly develop innovative products and create new collaboration ideas.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/notiks-petnieku-un-industrija-tiklošanas-pasakums-biophot-radars>*

RTU Vice-Rector for Development and Finance Artūrs Zeps has been elected to the Council of the Employers' Confederation of Latvia, where his term of office will be three years.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-attistibas-un-finansu-prorektors-arturs-zeps-ievelets-lddk-padome>*

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## March 25

Laura Kalniņa starts work as the Director of the RTU Human Resources Department.

To inspire students to pursue a master's degree at FCME, a branch called «A bachelor's degree is not enough!» is being held, in which Kaspars Rimkus, the founder and CEO of the company «WEMPS», shares his experience.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/tiekoties-branca-rtu-iespeja-uzzinat-par-bmf-magistra-studiju-programmam>

Representatives of the State Space Agency of Ukraine are visiting RTU, meeting with Rector Tālis Juhna, Vice-Dean for Innovation at FCME Ivo Vaicis, and Director of the Aeronautics, Space Engineering, and Transport Institute Aleksejs Klokovs, and planning cooperation in the field of space technology research.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-ukraina-varetu-sadarboties-kosmosa-tehnologiju-petnieciba-un-izstrade>

## In March

The Professor Ivars Srautmanis (1932–2017) Latvian Regional Architecture Scholarship is awarded to IAD graduate (2025) young architect Tabita Ozoliņa for her master's thesis «Adaptive Reuse and Circular Economy in the Revitalization of Industrial Heritage: Regeneration of the Limbaži Felt Factory Territory».

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/profesora-ivara-strautmana-latvijas-regionalas-arhitekturas-stipendiju-sogad-ieguvusi-jauna-arhitekta-tabita-ozolina>

IAD 4th year student, aspiring product designer Elīza Vilciņa wins 1st place in the «Business Sketches» competition group of universities organized by the «Swedbank». E. Vilciņa's «DéPôt» furniture collection with a deposit storage function also receives the «Caffeine LV» sympathy award for the development of the most sustainable product.

<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/toposas-produktu-dizaineres-elizas-vilcinas-ideja-atzita-par-labako-swedbank-organizetaja-konkursa-biznesa-skices>

## April 1

Developing studies, innovations and science in the Latgale region, Rēzekne Academy of Technologies joins RTU, while maintaining its autonomy and characteristic study areas. The new name of the university is RTU Rēzekne Academy.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/stiprinot-latgale-izglitibas-un-inovaciju-jomu-rezeknes-tehnologiju-akademija-1-aprili-pievienosies-rtu>

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## April 2

Ieva Jāgere, Director of the Investment and Development Agency of Latvia, is visiting RTU to discuss RTU's role in the development of the innovation ecosystem and a knowledge-intensive economy.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-viesojas-liaa-direktore>*

## April 3

At the spring plenary session of the LAS, the LAS presents the LAS honorary awards to several young scientists from RTU; FNST researcher Kristaps Valkovskis receives the Award named by Emīlija Gudriniece in chemistry, FCME Researcher Jaymin Vrajlal Sanchaniya receives the Award named by Vitauts Tamužs in mechanics, and the Award named by Edvīns Vedējs in chemistry goes to Anna Lielpētere, who received her doctorate at RTU.

*<https://www.lza.lv/aktualitates/jaunumi/2195-ivars-kalvins-lza-apzinas-savu-misiju-augstakas-izglitiba-zinatnes-un-inovaciju-attistibas-veicinasana>*

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-jaunie-zinatnieki-sanem-lza-vardbalvas>*

## April 4

The final events of the «Climate Days in Schools» competition are taking place at the «Domus auditorialis» auditorium center – the first Climate Festival for pupils, in which 130 pupils' teams from 26 Riga municipality schools are participating.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/4-aprili-notiks-pirmais-klimata-festivals-skoleniem>*

The annual career education event for pupils «Shadow Day» is taking place.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/kalendars/atvert/enu-diena-2025>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720324939639/with/54434781427>*

## April 5

The XXVI Latvian Student Theatre Day, organized by the RTU Culture Centre, is taking place at the E. Smiļģis Theatre Museum. This year's theme is «Beyond the Frames». The best production of the year was recognized as «Unghost Me» by the RTU International Theatre Group «Whimsical Players».

*<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/krasni-aizvadita-latvijas-studentu-teatra-diena>*

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The new SP President and Board were elected at the RTU Student Parliament General Meeting. President – Kārlis Sīmanis (FCSITE, 3rd year); Head of the Academic and Social Department – Ando Paļeļunass (FCME, 2nd year), Deputy Head – Marija Ausmane (FNST, 2nd year); Head of the Foreign Affairs Department – Alise Āboliņa (FCSITE, 2nd year); Head of the Culture and Sports Department – Katrīna Austrīņa (FEEM, 2nd year), Deputy Head – Deniss Jakovļevs (FCME, 3rd year); Head of the Marketing Department – Sanija Linde (IAD, 2nd year), Deputy Head – Žaklīna Ločmele (FEEM, 2nd year); Head of the Self-Government Coordination Department – Kristis Mīlenbergs (FCSITE, 2nd year); Head of the Science and Innovation Department – Ralfs Aizsils (FCSITE, 2nd year). The newly elected SP board will begin work on 1 May.

### **April 7**

Discussing current issues in the fields of research, education and start-ups and the involvement of European Innovation Council (EIC) ambassadors in solving various challenges, RTU Vice-Rector for Innovations and EIC Ambassador Liene Briede meets with European Commission Commissioner for Start-ups, Research and Innovation Ekaterina Zaharieva.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inovaciju-prorektore-liene-briede-tiekas-ar-eiropas-komisijas-jaunuznemumu-petniecibas-un-inovaciju-komisari-ekaterinu-zaharijevu>*

### **April 8**

As part of the event series «Readings by RTU Academicians», RTU Leading Researcher Academician Andris Ozols introduces holographic grating spectroscopy.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-vadosais-petnieks-andris-ozols-akademiskaja-lasijuma-iepazistinas-ar-holografisko-rezgu-spektroskopiju>*

### **April 9–11**

An International Advisory Board (IAB) is visiting RTU, evaluating RTU's scientific performance and achievements.

*<https://www.flickr.com/photos/rtu-lv/albums/72177720325093887/>*

### **April 10**

Minister for Foreign Affairs of Latvia Baiba Braže is visiting RTU to learn about RTU's performance in science and international cooperation.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/arlietu-ministre-baiba-braze-iepazistas-ar-rtu-sniegumu-zinatne-un-starptautiskaja-sadarbiba>*

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The award ceremony of the 66th National Chemistry Olympiad, which this year takes place both at the Faculty of Natural Sciences and Technology of RTU and the University of Latvia, is taking place at RTU. Seven RTU EHS pupils are among the laureates.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-izv-skoleni-iegust-godalgotas-vietas-66-valsts-kimijas-olimpiade>

<https://www.flickr.com/photos/rtu-lv/albums/72177720324993975>

<https://www.flickr.com/photos/rtu-lv/albums/72177720325083783>

### **April 11**

Minister of Education and Science Dace Melbārde is visiting RTU, learning about scientific excellence, strategic development plans, and discussing state support for strengthening science and innovation on an international scale.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-iepazistina-izglitibas-ministri-ar-strategiskas-attistibas-planiem>

The International Children and Youth University Day is celebrated with a creative activity by the RTU Children and Youth University, which takes place in the exhibition space «RTU and Origo Future Stop» on the 2nd floor of the shopping centre «Origo».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/radosajas-darbnicas-11-aprili-rtu-svines-starptautisko-bernu-un-jauniesu-universitatu-dienu>

<https://www.flickr.com/photos/rtu-lv/albums/72177720325064660/>

### **April 14**

To promote the effective exchange of good practices, the use of digital tools and the introduction of innovations in the construction industry, RTU, VAS «Valsts nekustamie īpašumi» and SIA «Latvijas standarts» (LVS) are signing a memorandum of cooperation on the creation of a new construction competition «Digital Construction Excellence Award 2025».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-vni-un-latvijas-standarts-sadarbosies-buvniecibas-digitalizacijas-sekmesana>

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## **April 24**

The RTU Council adopts Decision No. 53 on the future of the RTU Olaine College of Technology (OCT), providing that the first-level professional higher education (college) programs of OCT will be taken over by RTU, the professional secondary education programs by the Riga State Technical School, while the OCT building will be taken over by the Olaine Regional Municipality, which plans to use it for educational purposes. The reorganization is planned to be carried out by 1 September 2026.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-padome-pienem-lemumu-par-olaines-tehnologiju-koledzas-nakotni>*

## **April 24-25**

With the participation of a wide range of leading local and international experts, the «Baltic Wood Construction Forum 2025» is taking place at the RTU auditorium centre «Domus auditorialis», the motto of which this year is the competitiveness and sustainability of wood construction.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/24-un-25-aprili-rtu-notiks-sestais-baltijas-koka-buvniecibas-forums>*

## **April 25**

The traditional RTU Student Parliament Annual Award ceremony is taking place.

*<https://www.rtu.lv/lv/rtusp/sp-projekti/ks-projekti/parlamenta-gada-balva>*

## **April 26**

Caring for environmentally friendly development and a clean and green Ķīpsala, the RTU family participates in the Latvian Great Clean-up.

## **April 26-27**

By opening the co-creation workshop «Makerspace» and offering a special program for children, the RTU Curiosity Centre «Futurimo Riga» celebrates its second birthday.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/atklajot-koprades-darbnicu-un-piedavajot-ipasu-programmu-berniem-otro-dzimsanas-dienu-svines-rtu-zinatkares-centrs-futurimo-riga>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720326208076/>*

## **April 28**

The traditional fashion show of RTU students – future clothing designers – is taking place in the IAD atrium. This year, the works are united by a common theme – «Time».

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-toposas-apperbudizaineres-modes-skate-piedavas-musdienigas-un-ilgtspejigas-terpu-kolekcijas>*

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### **April 29**

The Indian Ambassador to Latvia is visiting RTU.

*<https://www.flickr.com/photos/rtu-lv/albums/72177720325683446/with/54484559554/>*

To inspire master's level studies at FNST, the RTU auditorium centre «Domus auditorialis» is hosting a branch «Why is a bachelor's degree not enough?», in which the head of the «Kinetics» Science Foundation, Dr. sc. ing. Zane Grigale-Soročina, and graduates of master's degree programs share an inspiring story about their path from studies to a leading position in cosmetic chemistry, and share the experience that has encouraged them to choose master's level studies in such areas as chemistry, chemical technology, materials science, environmental engineering, circular bioeconomy, climate neutrality, and sustainability management.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/tiekoties-branca-rtu-iespeja-uzzinat-par-dtf-magistra-studiju-programmam>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720325692197/>*

### **April 30**

The final of the Baltic Biomaterials Centre of Excellence (BBCE) erudition competition for students «BIO-GO-Higher» is taking place at the RTU Scientific Library. The winners of the competition are pupils from Sigulda State Gymnasium, who will receive a trip to Switzerland as a prize, where the students will visit one of the world's leading biomaterials research centres – the AO Research Institute in Davos – and get involved in the biomaterials development process.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/siguldas-valsts-gimnazijas-skoleni-biomaterialos-eruditakie-latvija>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720325933806/with/54501838512/>*

### **May 1**

Maira Indrikova begins her work as RTU Vice-Rector for Research.

### **May 4**

On the Day of the Restoration of Independence of the Republic of Latvia, the President of the Republic of Latvia Edgars Rinkēvičs presents the country's highest awards at the Riga Castle. Among the awardees is also RTU Assistant Professor and Director of the Riga Art Nouveau Centre, architect Agrita Tipāne, who receives the Order of the Three Stars for her merits in culture, significant contribution to architectural education, and the preservation and popularization of Latvia's architectural heritage.

*<https://nra.lv/latvija/riga/490102-sodien-tiks-pasniegti-valsts-augstakie-apbalvojumi-zinams-kuras-personas-tos-sanems.htm>*

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## May 6

The traditional cycle «Readings by RTU Academicians» feature an academic reading by academician and FCSITE Professor Jānis Grabis «Information Technology: Horizontals and Verticals». The reading could also be followed online.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/notiks-profesora-jana-grabja-akademiskais-lasijums-informacijas-tehnologija-horizontales-un-vertikales>

## May 8

*Evita Ķiršone starts working as the Chief Accountant at RTU.*

## May 7

For her significant contribution to the implementation of the strategic goals and objectives of the State Fire and Rescue Service, as well as to the promotion of its development and prestige, FCME Professor Inga Dāboliņa receives the SFRS award «Jubilee Badge of Honour «For the Latvian Fire Service – 160»».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/vugd-apbalvo-rtu-profesori-ingu-dabolinu-par-nopelniem-dienesta-laba>

## May 9

RTU is hosting a guest lecture «European Union Economic Changes and Their Impact on Latvia», which is held at the IAD. The EU Commissioner for Economy and Productivity, Implementation and Simplification, as well as a graduate of the RTU Faculty of Engineering Economics (1995, 2007) and patron of the Talent Program, Valdis Dombrovskis, is visiting.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/eiropas-dienai-veltitaja-lekcija-eiromomisars-valdis-dombrovskis-iezime-aktualos-es-izaugsmes-aspektus>

<https://www.flickr.com/photos/rtu-lv/albums/72177720325981140/>

Romanian Ambassador to Latvia Sergiu Nistor is visiting RTU, meeting with Rector Tālis Juhna and IAD Director Māra Liepa-Zemeša.

<https://www.flickr.com/photos/rtu-lv/albums/72177720326010724/>

## May 9–11

For the first time in Latvia, the defence industry hackathon «EUDIS Defence Hackathon 2025», organized by the RTU Science and Innovation Centre, is taking place at the RTU Rēzekne Academy to promote the development of innovations in the defence sector, focusing on the creation of innovative equipment and software solutions for defence needs, thus strengthening European defence capabilities.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvija-pirmo-reizi-norisinasies-aizsardzibas-industrijas-hakatons-eudis-defence-hackathon-2025>

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RTU EHS 12th grade pupil Līva Eglīte wins 1st place in the 31st Baltic Chemistry Olympiad, where the 20 best young chemists from Latvia, Lithuania, and Estonia compete in knowledge and which takes place in Vilnius (Lithuania).

<https://www.facebook.com/VIAA.LV/posts/-latvijas-skolniece-izcīna-uzvaru-baltijas-ķīmijas-olimpiādē-viļņāno-9-līdz-1-1-m/1094188309405897/>

### **May 10**

The RTU male choir «Gaudeamus» celebrates the 65th anniversary with a concert in Angārs at the Tallinn quarter.

<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/gaudeamus-ar-verienu-nosvin-65-jubileju>

<https://www.flickr.com/photos/kulturascenrs/albums/72177720326041235>

### **May 11**

FCME 1st year student Daniils Zamkovojs wins 3rd place in the Latvian Junior Epee Fencing Championship, which is taking place in Daugavpils.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-students-daniils-zamkovojs-izcina-3-vietu-latvijas-čempionats-paukosana-ar-spagu>

### **May 13**

The government decides to delegate the right to award doctorate degrees in physics and astronomy at RTU.

<https://www.tvnet.lv/8248177/>

[rigas-tehniska-universitate-pieskirs-doktora-gradus-fizika-un-astronomija](https://www.rtu.lv/lv/tehniska-universitate-pieskirs-doktora-gradus-fizika-un-astronomija)

### **May 15**

RTU Liepāja Maritime College Director Jānis Džeriņš receives a Certificate of Appreciation from the Ministry of Transport for significant professional contribution, strategic leadership, and active participation in the development of maritime education.

<https://ljk.lv/par-koledzu/aktualitates/>

[koledzas-direktoram-janim-dzerinam-pieskirts-satiksmes-ministrijas-atzinibas-raksts](https://www.rtu.lv/lv/direktoram-janim-dzerinam-pieskirts-satiksmes-ministrijas-atzinibas-raksts)

### **May 15-16**

The largest deep technology conference in the Baltics, «Deep Tech Atelier 2025», is taking place, where conference participants discuss innovations and challenges in space and defense technologies, and which is co-organized by RTU SIC.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-zinatnes-un-inovaciju-centrs-aicina-iepazit-kosmosa-un-aizsardzibas-tehnologiju-inovacijas-konference-deep-tech-atelier-2025>

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## May 16

RTU, Tallinn University of Technology (TalTech) and Kaunas University of Technology (KTU) sign a memorandum on strategic cooperation in defence and security research and innovation.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/baltijas-tehnologiju-universitates-vienojas-sadarboties-aizsardzibas-tehnologiju-attistiba>

<https://www.flickr.com/photos/rtu-lv/albums/72177720326149716/>

A delegation from the Polish National Research and Development Centre is visiting RTU.

<https://www.flickr.com/photos/rtu-lv/albums/72177720326295293/with/54535929398/>

## May 17

The closing event of the RTU educational program «Universitātes nākotnes inženieriem» (Universities for Future Engineers; UNI) is taking place.

<https://www.flickr.com/photos/rtu-lv/albums/72177720326234799/>

## May 19

The traditional event «Robotics and Electronics Day 2025» organized by the Latvian Electrical Engineering and Electronics Industry Association (LETERA) and FCSITE is taking place, which includes several activities: the electronics competition «New Electronician 2025» for children and young people, the final stage of the Latvian Robotics Championship – RTU Robotics Championship, as well as a professional competence development seminar and practical training for teachers.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/jaunie-elektronikas-un-robotikas-talanti-pulcesies-pasakuma-robotikas-un-elektronikas-diena-2025>

## May 21–23

For the first time, RTU is organizing the international scientific conference «CompTest2025», bringing together internationally renowned composite materials researchers and industry leaders.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvija-pulcesies-pasaules-vadosie-kompozitmaterialu-petnieki-un-nozares-uznemumi>

<https://www.flickr.com/photos/rtu-lv/albums/72177720326637640/with/54569285163/>

## May 23

The RTU New Employee Day is taking place in the conference hall of the RTU Scientific Library, where colleagues who have recently joined the RTU family can learn the most important information about aspects important in daily work, RTU's strategy, values, work environment organization, and other issues in an informal atmosphere.

By solemnly signing a memorandum of cooperation with Riga Technical University (RTU), VSIA «Latvijas Valsts ceļi», the Latvian Concrete Union, and the Association «Latvijas ceļu būvētājs» conclude a memorandum of cooperation for the development of road construction innovations, which will help RTU develop progressive and sustainable concrete and asphalt technologies and materials that meet market needs.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/progresivu-betona-un-asfalta-tehnologiju-un-materialu-izstrade-zinatnieki-sadarbosies-ar-industriju>*

In accordance with the decision of the RTU Council of 23 August 2022 (minutes No. 8) «On the distribution of powers of the Council and the Rector in the formation of the structure of Riga Technical University» and the decision of 24 April 2025 (minutes No. 53) «On the reorganization of structural units», by the order of the Rector No. 01000-1.3-e/16 «On the reorganization of the Vice-Rector for Academic Affairs Office», structural changes have been made to the Vice-Rector for Academic Affairs Office, establishing new structural units from 1 June 2025 – the Lifelong Learning Department and the Welfare and Career Support Centre, eliminating the Continuing Education Unit and the Career Support and Services Unit.

In accordance with the decision of the RTU Council of 23 August 2022 (minutes No. 8) «On the distribution of powers of the Council and the Rector in the formation of the structure of Riga Technical University» and the decision of 24 April 2025 (minutes No. 53) «On the reorganization of structural units», by the order of the Rector No. 01000-1.3-e/15 «On the reorganization of the Vice-Rector for Innovation Office», structural changes have been made to the Vice-Rector for Innovation Office, establishing a new structural unit – the Defence Technology Centre – under the Innovative Product Development Department from 1 June 2025; the existing Sports Technology Centre and Space Technology Centre will be transferred under the Innovative Product Development Department.

## May 24

The RTU women's choir «Delta» celebrates its 65th anniversary with a festive concert «Deltas laiks» in the IAD atrium.

*<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/sieviesu-koris-delta-aicina-uz-65-jubilejas-svetkiem>*

*<https://www.flickr.com/photos/kulturascentrs/albums/72177720326543249>*

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## May 28

Celebrating one year since the founding of the Drone Coalition, the Ministry of Defence, in collaboration with RTU, is organizing an international defence innovation summit «Drone Summit 2025», bringing together high-level political leaders, military experts, scientists, and industry representatives from Drone Coalition member states to discuss global security issues and the challenges of modern warfare.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-kopa-ar-aizsardzibas-ministriju-organize-dronu-samitu>*

In the SIC room, «The Moon», exhibits from the RTU History Museum – the RTU Life-Time Book and the Micromuseum, created in collaboration with the RTU Research Centre for Engineering History by IAD students under the guidance of Assistant Professor Ilze Gudro, is opened.

*<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/telpa-the-moon-atklaj-rtu-vestures-muzeja-eksponatus>*

## June 1

In accordance with the RTU Rector's Order No. 01000–1.3-e/17 of 28 May 2025, by reorganizing the Infrastructure Development Department, the Infrastructure Department, the Service Hotels Department and the Property Investment Department, a new structural unit has been established under the Administrative Director's Office – the Infrastructure Management and Development Department, including the Service Hotels Department, the Operation and Energy Efficiency Department and the Infrastructure Maintenance and Development Department.

## June 2

Valters Šteinbergs starts his work as the Head of the Procurement and Order Centre at RTU.

## June 5

At a ceremonial event in the «Sporta 2» quarter, the winners of the «Latvian Design Award 2025» are announced; in the category «Young Designer», the winner is Zanda Senkova, a student of the Institute of Architecture and Design, with her diploma project «Modular seating furniture collection with a hidden BDSM function «Randevu»». The work was created in the study program «Materials Technology and Design», supervisor – Ilze Gūtmane.

*<https://dizainabalva.lv/darbi/modularu-sedmebelu-kolekcija-ar-sleptu-bdsm-funkciju-randevu/>*

*<https://jauns.lv/raksts/zinas/658199-foto-apbalvo-latvijas-dizaina-gadabalvas-2025-ieguvejus>*

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### **June 5–6**

Starting a new tradition and gaining their first experience in sailing in open waters, eight young helmsmen from RTU Liepāja Maritime College are embarking on a 30-hour voyage on the sailboat «Libava» from Liepāja to Riga, which allows future shipmasters and ship mechanics to complete part of their internship and get acquainted with the specifics of a sailor's work in real conditions.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-liepajas-jurniecibas-koledzas-studenti-gust-praksi-merojot-juras-celu-no-liepajas-uz-rigu>*

*<https://www.liepajniekiem.lv/zinas/sabiedriba/foto-un-video-libavai-lidz-rigai-vel-paris-stundas/>*

### **June 7**

The RTU Employees' Active Recreation Day is taking place at the RTU Stadium in Riga, where the combined FCME and IAD team wins, competing in various sports and entertainment activities.

*<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/aizvadits-rtu-darbinieku-aktivas-atputas-festivals>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720326755577/>*

### **June 9–13**

RTU is hosting an Open HPC Week, where anyone interested can learn how to use HPC in their work or studies.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/atvertaja-hpc-nedela-vares-uzzinat-superdatora-sniegtas-iespejas>*

### **June 11–13**

STEM teachers from Latvia, Lithuania, and Denmark are meeting at the Curiosity Centre «Futurimo Riga» in a creative camp, organized by the Zemgale Regional Competence Development Centre in cooperation with the RTU Curiosity Centre «Futurimo Riga» within the «Nordplus» project, bringing together a total of 31 educators.

*<https://futurimo.lv/futurimo-riga-radosaja-nometne-uznem-stem-jomas-skolotaju/>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720328480788/>*

### **June 12**

Ministers and experts of education from the Baltic States meet at RTU, agreeing on common priorities in the development of artificial intelligence and strengthening closer cooperation in the fields of education, science, and innovation.

*<https://www.flickr.com/photos/rtu-lv/albums/72177720326823861/>*

*<https://lvportals.lv/dienaskartiba/377394-baltijas-valstu-izglitibas-ministri-riga-vienojas-par-kopigam-prioritatem-maksliga-intelekta-un-profesionalas-izglitibas-attistiba-2025>*

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## June 17

The final branch of this academic year, «Why is a Bachelor's Degree Not Enough?», is being held in the hall «The Moon», organized by RTU and the RTU Alumni Association, in which Rūdolfis Cīrulis, a graduate of the master's study program «Design Engineering», choreographer, actor and event producer, as well as young architects and graduates of the master's study program «Architecture», talk about the advantages of a master's degree in architecture and design.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/tiekoties-branca-rtu-iespeja-uzzinat-par-rtu-arhitekturas-un-dizaina-instituta-magistra-studiju-programmam>

<https://www.flickr.com/photos/rtu-lv/albums/72177720326962127/>

Representatives of the US Embassy in Latvia are visiting the RTU International School of Science and Technology, also visiting several RTU laboratories and getting to know the school's unique educational approach.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/asv-vestniecibas-parstaviesojas-rtu-starptautiskaja-zinatnu-un-tehnologiju-skola>

## June 18

By engaging in thematic activities and performing a Midsummer performance based on the motifs of R. Blaumanis' «Skroderdienas Silmačos», the RTU family celebrates Midsummer in Ķīpsala Square.

<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/rtu-vadiba-un-vektors-gatavojas-rtu-janu-uzvedumam>

<https://www.flickr.com/photos/kulturascentrs/albums/72177720326947025/>

Riga City Council approves changes to the local planning of the Ķīpsala complex, which will allow RTU to expand its infrastructure to achieve the goals set in the development strategy – to provide new knowledge and innovations for the Latvian economy.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rigas-dome-apstiprina-izmainas-kipsalas-lokalplanojuma-laujot-rtu-attistit-infrastrukturu>

## June 20–21

For the second year, visitors to the RTU Conversation Festival «Lampa» are invited to climb onto the floating stage «Innovation Bridge» in the pond of Cēsis Castle Park, giving them the opportunity to visit several floating tents or innovation bubbles, which transform into thematic discussion spaces during the event.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-jau-otro-gadu-sarunu-festivala-lampa-sevi-piesaka-ar-skatuvi-uz-udens>

<https://www.flickr.com/photos/rtu-lv/albums/72177720327008732/>

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RTU student brass orchestra «SPO», participating in the 26th International Brass Orchestra Festival, which takes place in Prague (Czech Republic), becomes the best performer of the compulsory piece and wins the highest category brass orchestra group.

*<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/musu-puteju-orkestrim-uzvara-festivala-praga>*

*<https://www.flickr.com/photos/kulturascentrs/albums/72177720327292007>*

### **June 28**

The ninth RTU Grand Graduation is taking place in Ķīpsala, at the BT1 International Exhibition Centre.

*<https://www.rtu.lv/lv/studijas/izlaidums>*

### **June 27–29**

23 representatives of RTU management and Student Parliament participate in the XXV Estonian Student Summer Sports Games, which take place in the village of Kääriku, Valga County, winning two prize-winning places.

*<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/>*

*[rtu-vadibas-un-studentu-komanda-piedalas-igaunijas-studentu-vasaras-sporta-speles](https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-vadibas-un-studentu-komanda-piedalas-igaunijas-studentu-vasaras-sporta-speles)*

### **June 30**

The RTU Senate decides (minutes No. 694):

- based on the decision No. 10 of the RTU Liepāja Academy (LA) Council meeting of 17 June 2025, to establish the Promotion Council of the Linguistics and Literary Studies «RTU P-20» and approve its regulations; RTU LA professor Dr. paed. Diāna Laiveniece is approved as the permanent Chairperson of the Promotion Council «RTU P-20», her deputy – RTU LA Professor Dr. philol. Zanda Gūtmane;
- based on the decision No. 01443–2.2-e/27 of the RTU Student Parliament General Meeting of 26 June 2025 (minutes No. 01443–2.1-e/9, §7), to approve the Regulations on study group elders.

### **In June**

In the international ranking of RTU «QS World University Rankings 2026», RTU repeatedly receives the highest rating in Latvia and this year ranks 761–770th place. RTU's reputation from the perspective of employers and the ratio of academic staff to students were rated the highest in Latvia.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/>*

*[rtu-saglaba-lideribu-latvija-prestizaja-qs-world-university-rankings-2026](https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-saglaba-lideribu-latvija-prestizaja-qs-world-university-rankings-2026)*

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Assessing RTU's performance in implementing the United Nations Sustainable Development Goals (SDGs) 17 cooperation program, the international ranking «The Times Higher Education Impact Rankings 2025» highly evaluated RTU's contribution to renewable energy, ranking it 72nd in the world. Overall, RTU ranks 401–600th place in the ranking.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-ilgtspejas-reitinga-the-impact-rankings-2025-ieklust-pirmaja-simtnieka-atjaunojamas-energijas-nodrosinajuma-vertejuma>

The international foundation «Falling Walls» includes the head of the Design Factory of the RTU Science and Innovation Centre Elīna Miķelsone and the startup «SUBmerge Baltic», created at RTU, among the finalists of the annual competition «The Science Breakthrough of the Year».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/starptautisks-fonds-rtu-ieklauj-starp-pasaules-daudzsolosakajiem-novatoriem>

### **July 3**

A webinar «I want to start at RTU!» is taking place, where prospective students can learn everything related to admission to RTU on the Zoom platform.

<https://www.rtu.lv/lv/adi/par-mums/kalendars-2/atvert/gribu-startet-rtu-viss-kas-jazina-par-uznemsanu>

### **July 4**

The eighth graduation ceremony of RTU EHS is taking place.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskolu-absolve-jaunie-eksakto-un-dabaszinatnu-talanti>

### **July 5–14**

RTU EHS 2025 graduates Līva Eglīte and Matīss Gercāns win bronze medals at the International Chemistry Olympiad, which takes place in Dubai (United Arab Emirates).

<https://www.viaa.gov.lv/lv/jaunums/latvijas-skoleni-izcina-divas-bronzas-medalas-starptautiskaja-kimijas-olimpiade-dubaija>

<https://www.apollo.lv/8288136/latvijas-skoleni-izcina-divas-bronzas-medalas-starptautiskaja-kimijas-olimpiade-dubaija>

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## July 10

The forum «Women in Architecture, Construction, Design», organized annually by the Building Design and Construction Council, honors women who inspire and develop architecture, design and construction with their work, creating a sustainable environment. This year, several RTU colleagues are among the laureates – IAD Lecturer Elīna Elere, Practical Assistant Professor Anna Kalnāja, and Assistant Ilze Gūtmane receive the award «For contribution in 2024. A woman is a promoter of design»; FCME Deputy Nelda Elsiņa – «For contribution in 2024. A woman is a promoter of construction», Assistant Professor Sanita Rubene – «For significant achievements in 2024. A woman is a promoter of construction».

<https://www.rtu.lv/lv/bmf/par-mums-bmf/jaunumi-3/atvert/forums-sieviete-arhitektura-buvnieciba-dizaina-2025>

<https://www.buvniekupadome.lv/konkurss/tris-legendas-foruma-sieviete-arhitektura-buvnieciba-dizaina-2024-nosleguma-ceremonija/>

## July 14–20

RTU EHS 10th grade pupil Kitija Kampaņa wins a bronze medal at the prestigious European Girls' Olympiad in Informatics (EGOI 2025), which is taking place in Bonn (Germany).

<https://www.viaa.gov.lv/lv/jaunums/lavijas-skolnieces-izcina-tris-medalas-eiropas-meitenu-informatikas-olimpiade-2025>

## July 20–27

RTU EHS 2025 graduate Līga Blumfelde wins a silver medal at the 36th International Biology Olympiad, which is attended by 77 countries and is taking place in Quezon City (Philippines).

<https://www.viaa.gov.lv/lv/jaunums/cetras-medalas-latvijai-pasaules-biologijas-olimpiade-lidz-sim-labakais-rezultats>

## July 26–August 1

RTU EHS 2025 graduate Jānis Liepiņš wins a bronze medal at the 21st World Geography Olympiad, which is attended by 179 participants from 46 countries and is taking place in Bangkok (Thailand).

<https://www.viaa.gov.lv/lv/jaunums/lavijas-komanda-atgriezas-no-pasaules-geografijas-olimpiades-ar-tris-medalam>

## In July

In the 2024/2025 TOP list compiled by the career portal Prakse.lv, RTU ranks 1st among the higher education institutions in Latvia most often recommended by employers.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/darba-deveji-tradicionali-rtu-ierindo-ieteiktako-augstskolu-pasa-spice>

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Anita Straujuma, Executive Director of the RTU Development Fund, has been elected as the Head of the Northern Europe District Cabinet of the education support organization «The Council for Advancement and Support of Education». This is the first time this prestigious position has been entrusted to a representative from the Baltic States, confirming RTU's professional experience and contribution to the development of the education sector, attracting donations and building relationships with alumni.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-attistibas-fonda-izpildidirektore-anita-straujuma-ieveleta-par-globalas-izglitibas-atbalsta-organizacijas-ziemeleiropas-padomes-vaditaju>*

### **August 11-21**

RTU EHS 10th grade pupil Aleksandrs Jesiļevskis wins a bronze medal at the 18th International Olympiad in Astronomy and Astrophysics (IOAA), which is taking place in Mumbai (India) and in which 288 pupils from 63 countries participate.

*<https://eztf.lu.lv/par-mums/zinas/zina/t/104844/>*

### **August 15-17**

The first-year seminar «Ķīpsala Air Force» organized by the RTU Student Parliament is taking place.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/pirmkursniekiem-bus-iespeja-piedalities-tradicionalaja-jauno-studentu-nometne>*

### **August 16**

Offering educational and exciting STEAM activities, RTU participates in the Riga Festival event «Alternative Riga», which takes place in Victory Park.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/piedavajot-steam-jomas-radosas-aktivitates-rtu-piedaliesies-rigas-svetkos>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720328458715/>*

### **August 19-20**

For the third year, «Junior Achievement Latvia», an educational inspiration conference «Growth Code» organized by the Investment and Development Agency of Latvia, the Bank of Latvia Money School and RTU, is taking place at the RTU Campus in Ķīpsala, bringing together 700 teachers, school principals, representatives of education boards, and industry experts.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/gada-lielaka-izglitibas-iedvesmas-konference-izaugsmes-kods-rtu-pulce-700-skolotajus-un-izglitibas-nozares-parstavjus>*

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### **August 20**

The 22nd meeting of the Foreign Economic Policy Coordination Council is taking place at RTU, chaired by Minister of Foreign Affairs Baiba Braže and attended by Minister of Economics Viktors Valainis. The meeting focuses on cooperation to promote economic growth, emphasizing issues of science and new technologies and the promotion of their commercialization potential, as well as current events in the Latvian space industry.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-notiks-arejas-ekonomiskas-koordinacijas-padomes-sede>*

*<https://www.flickr.com/photos/rtu-lv/albums/72177720328502884/>*

### **August 21**

US Congressman Andrew Harris, during visits RTU. His visit included a meeting with Rector Tālis Juhna, during which he learned about the achievements of RTU scientists in the fields of innovative data transmission, photonics, digital twins, robotic simulation, and biomedicine.

*<https://www.flickr.com/photos/rtu-lv/albums/72177720328509997>*

### **August 28**

The event «Startēšu RTU» is taking place at the RTU Auditorium Centre, «Domus auditorialis», and live on the RTU Facebook platform, where first-year students will gain useful information about the study process, scientific, practical, and extracurricular activities at the university.

### **August 29**

The traditional meeting of the RTU family with the rector, starting the new academic year, and the first session of the newly elected RTU Constitutional Assembly, during which the Chairman, Deputy Chairman, and Secretary of the RTU Constitutional Assembly are elected, are taking place in the RTU Auditorium Centre «Domus auditorialis». FCME Professor Juris Smirnovs has been elected Chairman of the Constitutional Assembly, with IAD Professor Sandra Treija as his Deputy, and Evija Stūrmane, Head of the Document Management Department, as Secretary.

RTU is visited by the Deputy Prime Minister of Montenegro for Foreign and European Affairs, Filip Ivanović.

*<https://www.flickr.com/photos/rtu-lv/albums/72177720328755058/with/54757337342/>*

AD Director Māra Liepa-Zemeša has been elected to the Council of the European Association for Architectural Education.

*<https://www.rtu.lv/lv/adi/par-mums/af-zinas/atvert/rtu-arhitekturas-un-dizaina-instituta-direktore-mara-liepa-zemesa-ieveleta-eiropas-arhitekturas-izglitiba-asociacijas-padome>*

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### **In August**

Confirming the excellence of the education offered, RTU EHS has maintained its leading position for the 10th year in the Latvian school ranking created by the Atis Kronvalds Foundation, which evaluates the success of Latvian school pupils in the national subject Olympiads, national open Olympiads, and the pupils' scientific research conference held in the past academic year.

*<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskola-labaka-maza-skola-latvija-jau-desmito-gadu>*