

FOREWORD

The sixth volume of the scientific journal issued by RTU Research Centre for Engineering History (RCEH) is published in the year of 160th Anniversary of RTU and is dedicated to this important anniversary. RTU, the oldest technical university in the Baltic Governorates, has developed from a private university in the 19th century to an internationally recognized state university in the 21st century. Several generations of faculty and students have changed; the study process and programs have also changed and improved. Scientists continue learning about the life of the university, discovering novelties, interesting and less known facts about the oldest and not so ancient periods of its existence.

Seven scientific articles have been published in the scientific journal, reflecting the results of research their authors reported at the international scientific conferences organized by RTU. The authors of the studies are Latvian and Estonian scientists, historians of science, and academic staff of the universities, who introduce the journal's readers to the aspects of academic life, trends in the development of the study programs, and the lifestyle of graduates and faculty of RTU's predecessor, Riga Polytechnic Institute (RPI).

The journal opens with the research by *Māris Baltiņš*, Professor of the University of Latvia (UL), Director of the State Language Centre. Based on the archival documents and library collections, the paper reports on the topical aspects of academic life – *venia legendi* and the status of a *Private Docent* at the University of Latvia (1919–1944), also mentioning RPI graduates and faculty. It is a continuation of the study published in 2021 in the scientific journal of RTU RCEH on *venia legendi* and the status of *Private Docent* in the world and at Riga Polytechnicum (RP) until the end of the 19th century.

The next two articles are dedicated to the life and contribution of the graduates of RTU's predecessor – RPI – in Estonia and Latvia. In her research, Estonian architectural historian Professor Karin Hallas-Murula emphasized the main features of the buildings designed by well-known Estonian architects Eugen Habermann (1884–1944) and Herbert Johanson (1884–1964) and reflects on their place in the modern architecture. Both architects graduated from RPI at the beginning of the 20th century and were the founders of the Estonian Association of Architects (1921) and its chairmen. Their achievements have been little known in Latvia until now, and in the year of 160th anniversary of RTU, we can once again confirm that the graduates of the oldest technical

university in Latvia and the Baltic Governorates have made a significant contribution to the architecture of several countries, including Estonia.

A historian from *Madona, Indulis Zvirgzdiņš*, has researched the pedagogical activities of *Pēteris Sauleskalns* (1876–1975), a graduate (1908) of the Department of Agriculture of RPI, in the agricultural secondary schools in *Priekule* and *Malnava*, as well as his political activities, representing the Latvian Farmers' Union, the People's Council and the Constitutional Assembly of Latvia.

A UL Researcher *Svetlana Kovaļčuka* has been researching and looking for new data about a specialist in electrical engineering *Nikolai Ozmidoff* (*Николай Озмидов*; 1850–1938), who worked as a member of academic staff at RP / RPI (1884–1918) for several years. Engineer N. Ozmidoff's life was connected with Switzerland, Russia, and Latvia, and the author of this study has highlighted essential aspects in each of the phases of the professor's life, as well as outlined the progress of his family's successors.

For the fourth year in a row, an article about our contemporary – a graduate of the university – has been published in the scientific journal of RTU RCEH. This time it is an engineer and orienteer *Rodrigo Slaviņš*. A UL Lecturer *Ērika Lanka* and an engineer, orienteer, RPI graduate (1964) *Arno Līcis* interviewed *R. Slaviņš* and listened to the memories of his contemporaries on the former President of the Latvian Orienteering Federation (1965–1982; 1986–1999). In the second half of the 20th century, *R. Slaviņš* achieved excellent results in orienteering gaining prize-winning places. He continues practicing this sport today, participating in veteran orienteering sports competitions not only in Latvia but also abroad. The study, like other articles published in this collection, is supplemented with rich photographic material.

The history of RTU is closely related not only to the history of engineering but also to the history of culture, which has always been part of university life from the second half of the 19th century until the 21st century. Wood is one of Latvia's traditional materials characterized by the versatility of its uses. Despite the introduction of various new tools into home, work, and study, traditional woodworking hand tools are still used today and play their role in design. The authors of the sixth article *Ilze Gūtmane, Silvija Kukle, Jānis Kalniņš, Inga Zotova, and Artūrs Ķīsis* in detail discuss the use of traditional woodworking hand tools in product design studies at the Institute of Design Technologies of RTU Faculty of Materials Science and Applied Chemistry.

The Master's study program «Digital Humanities» implemented by the Faculty of E-Learning Technologies and Humanities is among the newest study programs offered by RTU. It was launched in 2018 and has already become part of the history of not only the faculty but also

RTU and Latvian universities. The research on its recent origins has been carried out by the Leading Researcher of the UL *Sanita Reinsone*, RTU Professor *Marina Platonova*, Associate Professor *Tatjana Smirnova*, and Lecturer and researcher *Zane Senko*. Research on a study program is published for the first time in the scientific journal, and it is a significant testimony of the age.

Academic year 2021/2022 brought mournful messages – *Vera Brunere*, *Pēteris Broks*, *Vladimirs Čuvičins*, *Juris Emsiņš*, *Sandra Dreibergera*, *Valdis Kampars*, *Olga Maksimova*, *Vadims Ņikitins*, *Inta Pelčere*, *Mihails Pudžs*, *Dmitrijs Puriševs*, *Rolands Rikards*, *Francis Sudnieks*, *Viktors Valgums*, *Inta Vītiņa*, as well as an Honorary Doctor of RTU *Jānis Bubenko*, a long-term employee, the Head of the previous RTU Intellectual Property Protection Unit *Māra Baltvilka*, the founder and long-time Head of the RTU Men's Choir «*Gaudeamus*», Honorary Chief Conductor of the Nationwide Latvian Song and Dance Festival *Edgars Račevskis*, an RTU graduate, President of RTU Student Parliament (2005–2007) *Liene Aleksandra Batare*, and a geography teacher of RTU Engineering High School *Agra Lipsberga* passed away. Their obituaries are also published in the scientific journal.

This issue of the journal is concluded with the chronology of the key events that happened at Riga Technical University in academic year 2021/2022 (1 Sept 2021–31 Aug 2022).

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

PRIEKŠVārds

RTU Inženierzinātņu vēstures pētniecības centra (IVPC) sagatavotais sestais zinātniskais žurnāls iznāk RTU 160. jubilejas gadā un ir veltīts šai nozīmīgajai gadskārtai. RTU, senākā tehniskā augstskola Baltijas guberņās, attīstījusies no privātas augstskolas 19. gadsimtā līdz starptautiski atzītai valsts augstskolai 21. gadsimtā. Notikusi vairākkārtēja mācībspēku un studentu paaudžu maiņa, mainījies un pilnveidojies studiju process un programmas. Zinātnieki turpina izzināt augstskolas dzīvi, atklājot novitātes, interesantus un mazāk zināmus faktus senākos un ne tik senos tās pastāvēšanas periodos.

Zinātniskajā žurnālā publicēti septiņi zinātniskie raksti, un to autori ziņojuši par tiem RTU starptautiskajās zinātniskajās konferencēs. Pētījumu autori ir Latvijas un Igaunijas zinātnieki, zinātņu vēsturnieki un augstskolu mācībspēki, kuri žurnāla lasītājus iepazīstina ar akadēmiskās dzīves aspektiem, tendencēm studiju programmās un RTU priekšteča, Rīgas Politehniskā institūta (RPI), absolventu un mācībspēka dzīvesdarbību.

Žurnālu ievada Latvijas Universitātes (LU) profesora, Valsts valodas centra direktora Māra Baltiņa arhīvu dokumentos un bibliotēku krājumos balstīts pētījums par aktuāliem akadēmiskās dzīves aspektiem – *venia legendi* un privātdocenta statusu Latvijas Universitātē (1919–1944), minot arī RPI absolventus un mācībspēkus. Tas ir 2021. gadā RTU IVPC zinātniskajā žurnālā publicētā pētījuma par *venia legendi* un privātdocenta statusu pasaulē un Rīgas Politehnikumā (RP) līdz 19. gadsimta beigām turpinājums.

Nākamie divi pētījumi ir par RTU priekšteča – RPI – absolventu dzīvesdarbību un veikumu Igaunijā un Latvijā. Igaunijas arhitektūras vēsturniece profesore Karīna Hallas-Murula (*Karin Hallas-Murula*) pētījumā akcentējusi pazīstamo igauņu arhitektu Eižena Habermana (*Eugen Habermann*; 1884–1944) un Herberta Johansona (*Herbert Johanson*; 1884–1964) projektēto ēku galvenās iezīmes, to vietu mūsdienu arhitektūrā. Abi arhitekti 20. gadsimta sākumā absolvējuši RPI, bijuši Igaunijas Arhitektu savienības dibinātāji (1921) un tās priekšsēdētāji. Latvijā viņu veikums līdz šim bijis maz zināms, un RTU 160. gadu jubilejas gadā atkal varam pārlicināties, ka senākās tehniskās augstskolas Latvijā un Baltijas guberņās absolventi ir devuši nozīmīgu ieguldījumu vairāku valstu, tostarp Igaunijas, arhitektūrā.

Vēsturnieks madonietis Indulis Zvirgzdiņš izpētījis novadnieka, RPI Lauksaimniecības nodaļas absolventa (1908) Pētera Sauleskalna (1876–1975) pedagogisko darbību lauksaimniecības vidusskolās Priekuļos un Malnavā, politisko darbību, pārstāvot Latviešu zemnieku savienību, Tautas padomē un Latvijas Satversmes sapulcē.

LU pētniece Svetlana Kovaļčuka vairākus gadus pētījusi un meklējusi jaunus datus par elektrotehnikas speciālistu Nikolaju Ozmidovu (*Николай Озмидов*; 1850–1938), kurš strādāja par mācībspēku RP / RPI (1884–1918). Inženiera N. Ozmidova dzīve saistīta ar Šveici, Krieviju un Latviju, un publicētā pētījuma autore izcēlusi būtisko katrā no profesora dzīves posmiem, kā arī ieskicējusi viņa dzimtas turpinātāju gaitas.

Jau ceturto gadu RTU IVPC zinātniskajā žurnālā tiek publicēts raksts par kādu laikabiedru, augstskolas absolventu. Šoreiz tas ir inženieris un orientierists Rodrigo Slaviņš. LU lektore Ērika Lanka un inženieris, orientierists, RPI absolvents (1964) Arno Līcis intervēja R. Slaviņu un ieklausījās arī viņa laikabiedru vērtējumā par bijušo Latvijas Orientēšanās federācijas prezidentu (1965–1982; 1986–1999). Orientēšanās sportā R. Slaviņš sasniedzis izcilus rezultātus 20. gadsimta otrajā pusē, izcīnot godalgotas vietas, un turpina ar šo sporta veidu nodarboties joprojām, piedaloties veterānu orientēšanās sporta sacensībās ne tikai Latvijā, bet arī ārpus tās. Pētījumu, tāpat kā citus šajā krājumā publicētos rakstus, papildina bagātīgs fotomateriāls.

RTU vēsture cieši saistīta ne tikai ar inženierzinātņu, bet arī kultūras vēsturi, kas augstskolai seko līdz kopš 19. gadsimta otrās puses un nu nonākusi arī 21. gadsimtā. Viens no Latvijas tradicionālajiem materiāliem ar dažādu lietojumu ir koks. Neraugoties uz dažādu jaunu instrumentu ienākšanu sadzīvē, darbā un studijās, joprojām tiek lietoti tradicionālie kokapstrādes rokas instrumenti, un tiem ir sava loma dizainā. Par to runā sestā pētījuma par tradicionālo kokapstrādes rokas instrumentu lietojuma piemēru produktu dizaina studijās autori, RTU Materiālzinātnes un lietīšķās ķīmijas fakultātes Dizaina tehnoloģiju institūta mācībspēki Ilze Gūtmane, Silvija Kukle, Jānis Kalniņš, Inga Zotova un Artūrs Ķīsis.

RTU jaunāko studiju programmu vidū ir E-tehnoloģiju un humanitāro zinātņu fakultātes maģistra studiju programma «Digitālās humanitārās zinātnes», ko sāka realizēt 2018. gadā, un tā jau iegājusi ne tikai fakultātes, bet arī RTU un Latvijas augstskolu vēsturē. Par tās pirmsākumiem nesenajā pagātnē pētījumu veikušas LU vadošā pētniece Sanita Reinsone, RTU profesore Marina Platonova, asociētā profesore Tatjana Smirnova un lektore un pētniece Zane Senko.

Pētījumi par studiju programmām zinātniskajā žurnālā tiek publicēti pirmo reizi, un tā ir laikmeta nozīmīga liecība.

2021. un 2022. gadā mūžībā devušies RPI / RTU mācībspēki – Vera Brunere, Pēteris Broks, Vladimirs Čuvičins, Juris Emsiņš, Sandra Dreiberģa, Valdis Kampars, Olga Maksimova, Vadims Ņikitins, Inta Pelčere, Mihails Pudžs, Dmitrijs Puriševs, Rolands Rikards, Francis Sudnieks, Viktors Valgums, Inta Vītiņa, kā arī RTU Goda doktors Jānis Bubenko, ilggadējā darbiniece, Intelektuālā īpašuma aizsardzības daļas bijusī vadītāja Māra Baltvilka, RTU vīru kora «Gaudeamus» dibinātājs un ilggadējs vadītājs, Vispārējo latviešu Dziesmu un deju svētku Goda virsdiriģents, profesors un komponists Edgars Račevskis, RTU absolvente, RTU Studentu parlamenta prezidente (2005–2007) Liene Aleksandra Batare un RTU Inženierzinātņu vidusskolas ģeogrāfijas skolotāja Agra Lipsberģa. Žurnālā lasāmi viņu nekroloģi.

Zinātnisko rakstu krājumu noslēdz RTU 2021./2022. studiju gada nozīmīgāko notikumu hronoloģija (01.09.2021–31.08.2022).

Galvenā redaktore asociētā profesore *Dr. psych.* Airisa Šteinberģa

SOME PREVIOUSLY RELEVANT ASPECTS OF ACADEMIC LIFE: *VENIA LEGENDI* AND THE STATUS OF A *PRIVATE DOCENT* AT THE UNIVERSITY OF LATVIA (1919–1944)

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Summary. The article presents the results of the research on *venia legendi* (the right to deliver lectures at the university) and the status of *private docent* at the University of Latvia (UL) until 1944. The term «*private docent*» was used worldwide in the 18th century; it is still in use in Germany, Austria and Switzerland. In Latvia, it was introduced in the 1860s at the first higher education institution established in the current territory of Latvia – Riga Polytechnicum. The terms «*private docent*» and «*venia legendi*» were used in Latvia until the end of World War II. In the present study, the author explains how these terms were used at the UL during the interwar period and during World War II considering the empirical data obtained in the course of research of archival documents and library collections. The article provides an overview of the *private docents* working at the UL from 1919 to 1944 and their activities in this period.

Keywords: *venia legendi*, status of *private docent*, habilitation, University of Latvia.

Introduction

In his research into the history of higher education in Latvia, the author has focused on the comprehensive study of academic traditions. Their origins can be traced back to the world of academia, however, the concept of «*venia legendi*», or the right to deliver lectures at a university,

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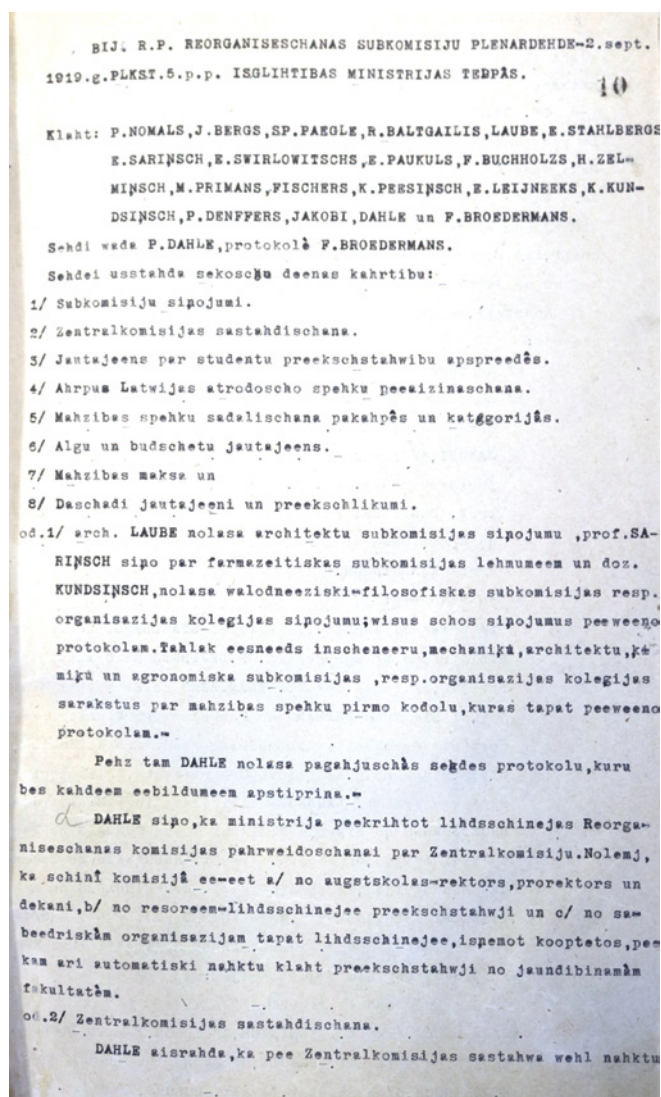
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and the status of a *private docent*, are intrinsically connected with the development of the academic traditions of the European cultural space. These traditions were greatly influenced by the order established in the German universities, which also significantly affected the institutional framework of higher education in the Russian Empire and also in Latvia, including the oldest university in Latvia – Riga Polytechnicum, which was established in 1862 and is now known as Riga Technical University. The study on the emergence of the concept of *venia legendi* and the position of the *private docent* in the world and their introduction and use at Riga Polytechnicum (1862–1896) was published in the 5th issue of the journal «History of Engineering Sciences and Institutions of Higher Education» in 2021 [1]. Both these terms were commonly used in Latvia until the end of World War II. Given that these terms are often misunderstood, the author has studied their use at the UL (until 1923 – the Latvian Higher School (LHS); UL – 1923–1940; 1941–1942; the State University of Latvia (SUL) – 1940–1941; the University of Riga – 1942–1944). It may be argued that a dedicated model of the institution of the *private docent* was developed at the UL. At present in Latvia, the title «*private docent*» and the term «*venia legendi*» are used only with the reference to the activities and traditions of higher education institutions in the 19th and 20th centuries, and they are considered historical artifacts. Only a few European countries (Austria, Germany, and Switzerland) have sustained these traditions and *private docents* still make a real group of academic staff.

Private Docents at the University of Latvia: Establishment and Further Development of the Institution of Private Docents

The idea that *private docents* would be needed at the newly established national university was expressed at the meeting of the Council of the Latvian Higher School on 2 September 1919, when it was decided to single out several categories of academic staff, but no decision was made at that time [2]. In academic year 1919/1920, only *Pēteris Sniķers* (1875–1944) (Faculty of Medicine) was considered *private docent*; he had obtained this status at the University of Tartu in 1917 and had not yet begun his academic career [3]. It was not until the spring of 1920 that the issue of attracting academic staff to the university on a freelance basis was brought up again regarding the persons receiving a full salary at another employer [4].

Figure 1.
Fragment of
the minutes of
the meeting of
the Council of
the LHS (2 Sep
1919).



At the initiative of the Dean of the Faculty of Medicine *Roberts Krimbergs* (1874–1941), on 4 October 1920, the Deans' Council discussed the possibility of entrusting delivery of some study courses to *private docents* who would receive remuneration without taking positions of the heads of departments. In turn, *Kārlis Kundziņš* (1883–1967) suggested introducing a clause that this status should necessarily imply the granting of *venia legendi*. At the next meeting on 11 October, it was additionally stipulated that candidates should deliver two demonstration lectures [5; pp. 85–89]. The first *private docents* were

elected in 1920/1921, in addition, a number of candidates who had been nominated by the faculty for the position of *private docents* (such as Philipp Schweinfurt (1887–1954), an art historian) were approved by the Council of the LHS as assistant professors. It should be emphasized that until the spring of 1923, most persons who had acquired the right of a *private docent* were freelance academic staff who taught only a few hours a week.

In the Constitution of the University of Latvia approved by the *Saeima* on 23 March 1923, four articles of Chapter IV «Teaching Staff and Additional Scientific and Pedagogical Staff» were dedicated to the status of the *private docent* [6]:

- «67. In addition to the teaching staff, who are directly employed by the University, *private docents* may be allowed to deliver lectures upon request.
- 68. Candidates for the demonstration lecture shall be selected by the faculty: the election takes place at the University Council with more than half of the votes of the present members. The requirements regarding the necessary degrees provided for in Articles 60 and 61 shall apply to *private docents*.
- 69. Faculty may also entrust the delivery of the compulsory courses provided in the curriculum to the *private docents*. In that case, they shall receive appropriate remuneration from the University.
- 70. *Private docents* who have not delivered lectures for 2 semesters, except in case of illness and scientific business trips, lose the title of the *private docent*».

Changes in the practice of employing *private docents* were initiated by Rector (1923–1925) *Jānis Ruberts* (1874–1934) at the meeting of the Deans' Council on 1 October 1923. *J. Ruberts* suggested paying more attention to the institution of *private docents* in connection with assistants – «the procedure would be as follows: an assistant who has been declared worthy of promotion should submit an article *pro venia legendi* to the faculty. If the faculty accepts the article, the assistant will be awarded the title of a *private docent* after conducting one or two demonstration lectures (one on a topic of their choice, the other – on the topic assigned by the faculty at its own discretion). [...] If the candidate demonstrates the required pedagogical abilities, then, when the vacancy opens, after a certain period one can be elected an assistant professor, and then professor» [7; pp. 118–119]. A few weeks later, *Alfrēds Petrikalns* (1887–1948), a lecturer and assistant at the Faculty of Chemistry, was appointed a *private docent* by the University Council. In the course of discussion of such a procedure for nominating *private docents* at the University Council in early 1924, a representative of the Faculty

of Mechanics supported it in principle with regard to the lecturers delivering the theoretical courses and the promotion of existing assistants, but at the same time emphasized that the candidates with the long-term practical experience in the respective industry should have been elected to deliver specialised courses [8; pp. 179–184].

The first report on the UL activities, which covered five academic years (until the end of academic year 1923/1924), contained the regulations on the habilitation procedure of only two faculties (Faculty of Mathematics and Natural Sciences and Faculty of Mechanics), while the requirements for obtaining a doctorate were laid down for most faculties, although application of these requirements was less relevant than the granting of the status of a *private docent*. The regulations of the Faculty of Mathematics and Natural Sciences emphasized that the habilitation paper must «demonstrate the inherent features of independent research» and present «new research results or application of new methods», therefore, neither surveys or reviews of the previous works nor textbooks could be submitted unless they contained the original author's data. In these regulations, it was specified that the topics of both demonstration lectures should have been suggested by the applicant, whereas the faculty would inform the applicant which of them would be delivered 15 minutes before the meeting. Moreover, if the lecture had been considered not sufficiently good, the applicant should have repeatedly proposed two new topics [9; pp. 221–261].

The Faculty of Mechanics required the habilitation paper be independent in nature, allowing it to be a fully developed project in case the candidate was to be elected to deliver technical subjects. In this case, however, the candidate should have met an additional condition for obtaining the status of a *private docent* – to have at least five years of successful work experience in the field of specialisation. No formal examinations were required, but an option for the selection board to examine the candidates in the form of a colloquium was reserved [9; pp. 83–119]. The report of the Faculty of Medicine, on the other hand, comprised a brief explanation that only the persons holding *Dr. med.* degree could have obtained the status of a *private docent*. The candidates had to submit their research papers for evaluation (rather than a specific habilitation paper) and deliver two demonstration lectures [9; pp. 176–209].

Prior to the adoption of the joint regulation, many cases involving the awarding of the title of a *private docent* had to be considered individually. For example, in the autumn of 1925, *Jānis Miķelsons* (1888–1952), a Senior Assistant at the Faculty of Medicine, applied for the status of a *private docent*, requesting that his recently defended doctoral dissertation be considered a *venia legendi* paper [7; pp. 231–233]. Although the

decision was made in favour of *J. Mīkēlsons*, it was agreed that a separate regulation on habilitation papers was needed to rule such a possibility out in future. In the autumn of 1925, the Deans' Council suggested that «the titles of professors, assistant professors, and *private docents* in Latvia may be used only by the persons who have actually held or are holding these positions in the Latvian state higher education institutions» [7; pp. 234–236]. In practice, however, some individuals, including a neurologist *Dr. med. Hermanis Īdelsons* (1869–1944) and a historian of philosophy *Marks Vaintrobs* (1895–1941), used the title of the *private docent* obtained at the Russian universities in signing their publications.

The draft Regulation on Habilitation was developed by the lecturers of the Faculty of Chemistry, it was sent for consideration to the other faculties in December 1925 [7; pp. 237–239]. In order to reconcile the differing opinions on the document, the Conciliation Committee was established on 17 January 1927. The Committee included *Roberts Akmentiņš* (1880–1956), Paul von Denffer (1871–1959) and *Ludvigs Kundziņš* (1855–1940) and was chaired by *R. Krimbergs* [7; pp. 279–280]. Habilitation Regulation was approved by the University Council on 4 May 1927 [8; pp. 23–27].

Article 3 of the Regulation stipulates that the habilitation paper must demonstrate the features of an independent research (in technical disciplines, a scientific and technical project or a work of art accompanied by a theoretical explanation may also be recognized as *pro venia legendi*). A committee consisting of three persons should have been established to evaluate the paper submitted to the faculty and it should have provided its opinion on the applicant within three months (Article 4). After getting acquainted with the Committee's report, the Faculty Council should have voted whether the work could be considered sufficient *pro venia legendi* (Article 5), thus, the viva voce of the thesis (as opposed to the doctoral dissertation) was not envisaged. In case of a positive vote, the faculty determined the time and topic of the applicant's demonstration lecture (Article 6), which should have taken place within two weeks. The lecture was supposed to last 45 minutes, after that the participants in the lecture could ask questions about both the lecture and the habilitation paper (Article 7). If the Faculty Council deemed it necessary, it could request the applicant to deliver the second lecture on the topic of their choice at the next meeting. The decision on granting the right to the title of the *private docent* was made by the faculty by secret ballot by a simple majority of votes.

Although most *private docents* delivered non-compulsory study courses, in many cases, due to the excessive workload of the senior lecturers of the faculty, they were also asked to teach important basic

courses that made an essential core of the entire study process. For example, the Faculty of Mathematics and Natural Sciences planned that in academic year 1928/1929, *Kārlis Ābele* (1896–1961), *Pauls Galenieks* (1891–1962), *Marģeris Gūtmanis* (1885–1959), *Arvīds Lūsis* (1900–1969), *Marija Tīlmane* (1889–1975), *Nikolai von Transehe* (1886–1969), and *Aleksandrs Zāmelis* (1897–1943) would teach compulsory study courses receiving remuneration according to the assistant professor rate [10; pp. 125–131].

By analogy with the Russian and German universities, *private docents* of the UL were not considered full-fledged members of the faculty, since only full-time professors and assistant professors were considered the members of permanent staff [10; pp. 196–201]. However, the Constitution of the UL provided for the representation of freelance lecturers (including *private docents*) both at the University Council (one person from all freelance professors, assistant professors, *private docents* and lecturers) and at the faculty councils (one delegate from freelance lecturers and assistants, if the total number was from 1 to 10 and two if their number exceeded 10) [6].

Remuneration for the academic work performed by the *private docents* to a large extent depended on the financial capacity of the university, therefore, it decreased sharply during the economic crisis (from 1929 to 1933). On the other hand, when the economic situation in the country improved, 18 000 lats of the university budget were allocated for covering the expenses of the study courses delivered by the *private docents* in academic year 1936/1937. The money was supposed to be distributed to the faculties in accordance with the following principles – «To cover expenses of the compulsory and elective courses, but in some cases also of the non-compulsory courses, the expediency of which is sufficiently motivated. Specific proposals shall be considered at the beginning of the following semester based on the same allocation principle, so that each faculty would be able to fund one such course delivered by the *private docent*, determining the amount of remuneration according to the rates of assistant professors or assistants depending on the material condition of the candidate [11; pp. 33–39].

At the end of 1939, when the amount of available funds decreased due to World War II, it was decided to stop paying compensation for the optional courses delivered by the *private docents* in both semesters of 1940. The courses delivered by the psychiatrist *Verners Kraulis* (1904–1944) and *Fricis Blumbahs* (1864–1949) (see Table 1; pp. 19–21), for whom the money he earned at the university was an essential source of subsistence, were an exception [12; pp. 134–141].

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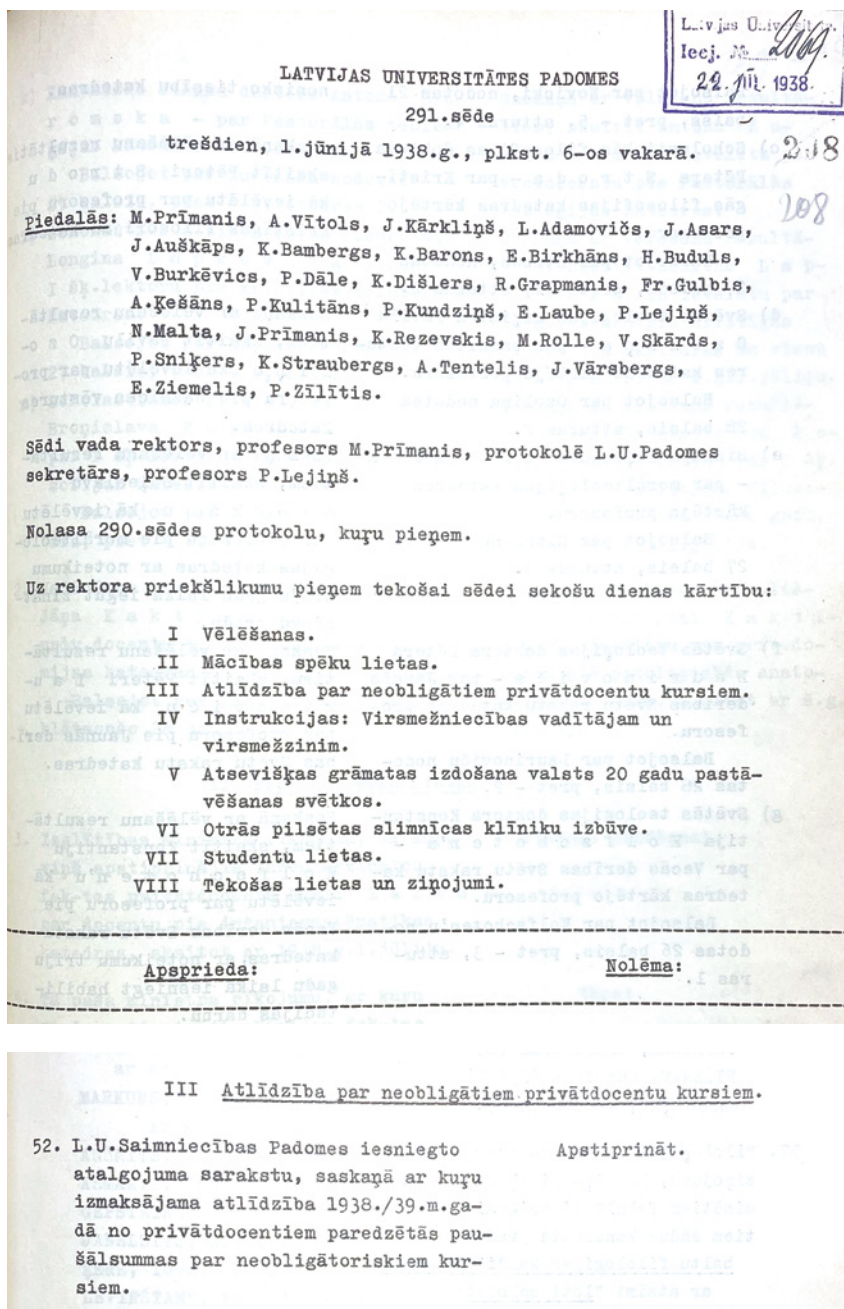


Figure 2. Title page and Paragraph 52 of the Minutes of the 291st meeting of the Council of the UL (1938).

Table 1

Titular (special) *private docents* at the University of Latvia

No.	Name, Surname	Faculty	Field or delivered course	Date of election	Notes
1.	<i>Pēteris Sņikers</i> (1875–1944)	Medicine	Did not deliver lectures, participated in the establishment of the Faculty of Medicine	Was a member of the Sub-Committee of the Faculty from 28 Aug 1919	Status was determined in acad. year 1919/1920 based on the title of the <i>Private Docent</i> obtained from the University of Dorpat in 1917; <i>Private Docent</i> until 1921, then Assistant Professor, since 1923 – Professor.
2.	Karl von Loewis of Menar (1855–1930)	Philology and Philosophy	Archaeology, auxiliary disciplines of history	5 Oct 1921	A person without completed academic education, but a recognised researcher, worked until 1 Jul 1925.
3.	<i>Andrejs Skuja</i> (1866–1950)	Medicine	«Internal Diseases»	12 Oct 1921	Due to the lack of teaching staff, he was offered the position in his capacity of the Head of the Department of Riga 1st City Hospital, worked until the end of 1938; in 15 May 1925, his <i>pro venia legendi</i> paper «Septic Diseases and their Treatment» was accepted.
4.	Kurt Hach (1881–1964)	Medicine	«Internal Diseases»	12 Oct 1921	Due to the lack of teaching staff, he was offered the position in his capacity of the Head of the Department of Riga 1st City Hospital; delivered lectures only in acad. year 1921/1922, was formally considered a member of academic staff until the end of 1922.
5.	Ivan Ostromislensky (Иван Остроми́сленский; 1880–1939)	Chemistry	«Chemotherapeutic Preparations» and «Synthesis of Rubber»	16 Nov 1921	Member of academic staff at several Moscow universities; delivered lectures without remuneration, released on 1 Jul 1922 (moved to the USA).

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6.	Nikolai von Ozmidoff (1850–1938)	Mechanics	«Theoretical Foundations of Electrical Engineering» (optional course)	22 Dec 1922	Retired RPI Professor; there is no evidence that he actually delivered lectures. He was nominated to teach in Russian for three years, but he was over 70 years old and it was necessary to find out whether the position of a <i>Private Docent</i> was considered public service.
7.	Gustavs Reinhardts (1868–1937)	Medicine	Special courses on various eye diseases	17 Jan 1923	Worked in the Sub-Committee of the Faculty and in the Council of the LHS; until then, he was an Assistant Professor delivering classes on ophthalmology. When <i>J. Ruberts</i> moved and was appointed the Head of the Department, there were no other vacancies for a professor or assistant professor; election as a <i>Private Docent</i> defined his status at the UL.
8.	Anatoly Ugryumov (Анатолій Угрюмов; 1872–1929)	National Economics and Law	«Military Criminal Law»	17 Oct 1923	From 1920 to 1923, he worked in the Latvian Military Courts Administration, then at the Ministry of Justice; received remuneration acc. to the rate of the junior assistant professor; delivered lectures until his demise on 25 Sept 1929.
9.	Nikolajs Kohanovskis (Николай Кохановский; 1870–1966)	National Economics and Law	«National Economic Theory» and «History of the National Economics»	23 Jan 1924	Former Professor at the University of the Far East; remuneration acc. to the professor's rate; delivered lectures until the spring of 1929, not re-elected because of the inability to switch to lecturing in the state language.

10.	Boris Vipper (<i>Борис Буннеп</i> ; 1888–1967)	Architecture / Philology and Philosophy	Taught various courses in art history and art theory	08 Oct 1924	Former member of academic staff at Moscow University; since 1924 he also taught at the Latvian Academy of Arts; at the same time he delivered lectures at the Faculty of Philology and Philosophy, which he joined in 1930. Since 1931 – Assistant Professor at the UL, since 1932 – Professor.
11.	Alexander Kruglevsky (<i>Александр Круглевский</i> ; 1886–1964)	National Economics and Law	Delivered courses in criminal policy and criminal law theory	22 Oct 1924	Former Professor at Tomsk University; remuneration acc. to the rate of a freelance professor; <i>Private Docent</i> until 1940, as well as from 1941 to 1944; Professor in acad. year 1940/1941 and from 1944 to 1948.
12.	Adam Oehrlein (1892–1935)	Medicine	Delivered various courses in orthodontics and dental prosthetics	05 Nov 1925	<i>Private Docent</i> at the University of Heidelberg, invited to the UL after feedback on the works; delivered lectures until his demise on 11 August 1935.
13.	Eugen Weber (1875–1947)	Medicine	Radiology	14 Dec 1927	Former Professor at Kiev University; taught compulsory course on radiology as a <i>Private Docent</i> until 1939, from 1940 to 1944 – Professor.
14.	Pauls Sakss (1878–1966)	Theology	Orthodox church music and singing	02 Feb 1938	Professor of the Latvian Conservatory; invited to deliver lectures in acad. year 1937/1938 in the newly opened Department of Orthodox Theology of the Faculty of Theology.
15.	Fricis Blumbahs (1864–1949)	Mathematics and Natural Sciences	Special and elective courses in physics	24.05.1939	After returning from the United Kingdom in the spring of 1939, confirmed with four paid lecture hours per week; <i>Private Docent</i> until 1944, then – Professor of the SUL from 1944 to 1949.

Some Previously
Relevant Aspects
of Academic Life:
Venia Legendi and
the Status of a
Private Docent at
the University of
Latvia (1919–1944)

The traditions established during the period of the Russian Empire still influenced the awarding of the status of the *private docent* at various faculties, therefore, at several, i. e. the «old» faculties of the university (especially the Faculty of Philology and Philosophy and the Faculty of National Economics and Law), many difficult examinations were envisioned for the candidates for habilitation, which were at least partially comparable to the examinations of Master's degree candidates. Such traditions were less strictly observed at the Faculty of Mathematics and Natural Sciences, where the main attention was paid to the novelty of the submitted work, as well as at the technical faculties. The Faculty of Medicine, on the other hand, adhered to the same procedure as in the Tsarist times, requesting that only persons holding a doctoral degree who had previously passed difficult and prolonged examinations could have become *private docents* [13].

The Faculty of National Economics and Law decided that starting from academic year 1938/1939, the title of the *private docent* would be awarded only to the applicants who both had submitted a paper *pro venia legendi* and passed the oral doctoral examinations, while persons who had already passed the examinations required for habilitation would not be required to repeat them before obtaining a doctoral degree [11; pp. 208–217]. This decision eliminated the need for double examinations, but created a situation when the habilitation paper accepted by the faculty alone did not allow the applicant to become a *private docent*. Therefore, the number of habilitation theses accepted at this faculty exceeded the number of persons who obtained the status of the *private docent* [14].

For a long time, the UL did not have a procedure for storing *pro venia legendi* papers, many of which were handwritten in some copies, at the library making them available to all interested parties. By analogy with the requirements for doctoral dissertations of 1937 [15], on the initiative of the Rector, the University Council ruled on 26 April 1939 that the habilitation theses should be submitted in four copies, one of which should have remained at the faculty library (the other three should have been sent to the reviewers), and it should have been available at the Faculty Registry Office 14 days before the decision of the faculty council [12; pp. 37–43].

From the point of view of spelling, the question how to properly abbreviate the long word «*private docent*» in the press or encyclopaedic publications was discussed several times in the linguistic circles. Professor Jānis Endzelīns pointed out that the common abbreviation *priv. doc.* was misleading from a linguistic point of view, as it suggests that the full form consists of two words rather than a compound word (in Latvian) [16]. He recommended using *privdoc.* or *priv.-doc.*, however,

from the point of view of the modern language practice, this type of hyphenation is not desirable, therefore, *privdoc.* or even *privātdoc.* (in Latvian) should be used.

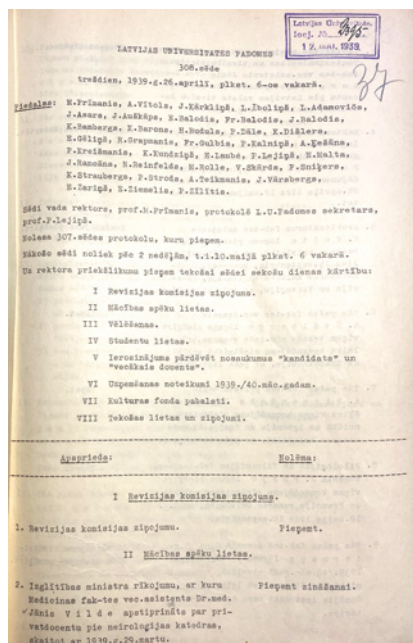


Figure 3. Title page and Paragraph 42 of the Minutes of the 308th meeting of the Council of the UL (1939).

Dynamics of the Number of *Private Docents* and Groups

Although the title of the persons who had acquired the right for *venia legendi* was the same, the group of persons holding this title was quite heterogeneous both in terms of their real academic workload and remuneration, and in terms of legal ties with the university. According to their type of activity, it has already been proposed to classify *private docents* into two groups [13]:

- 1) classical *private docents* (they could be considered real freelance lecturers, but such a designation would be inaccurate, because in addition to these *private docents* there were some freelance professors and assistant professors, as well as lecturers, assistants and instructors), who worked in other, often well-paid places. Their only connection with the university was the fact that they were delivering certain (more often elective) lecture courses, so they

corresponded most closely to the *private docents* of the German or Russian Empire by the nature of their activities;

- 2) *private docents*, who at the time of habilitation were also staff assistants and, among other duties, had acquired the right to deliver an elective lecture course in their specialty. Habilitation procedure was the only aspect these persons had in common with classical *private docents*, as their main place of work was university. In order not to confuse them with the first group, both components should be mentioned in the description of their academic status, such as *private docent* and Senior Assistant *Eduards Rencis* (1898–1962). If a vacancy of a senior lecturer opened, these persons were most often the main candidates for the position of an assistant professor or professor.

Sometimes the status of a *private docent* could change, most often if the person resigned from the position of an assistant, preserving the rights of a *private docent*, therefore the affiliation to one or another group can be determined more precisely by the relationship with the university at the time of habilitation. In relative terms, most *private docents* in the classical understanding of the term worked at the faculties (Philology and Philosophy, Theology), where the list of staff provided for a very small number of assistants. At the Faculty of Medicine, on the other hand, a part of the classical *private docents* were its former assistants, who had temporarily stopped working at the university after obtaining a doctoral degree. At the technical faculties, there were relatively few *private docents* who were involved in teaching only certain study courses for a long time. Among them were *Jānis Leimanis* (1881–1967), a railway construction specialist at the Faculty of Engineering, who worked as a *private docent* from 1925 to 1944 (in academic year 1940/1941 as an assistant professor on an hourly basis docents), and *Arturs Dinbergs* (1887–1969), rubber production technologist at the Faculty of Chemistry (taught from 1939 to 1944), *Ādolfs Vickopfs* (1878–1967), wood processing technologist at the Faculty of Mechanics (taught from 1935 to 1944).

The distribution of all UL *private docents* according to their affiliation with the faculty and compliance with one of the groups is summarized in Table 2 (pp. 25–27), which contains information on 259 persons. The table presents information on the persons who acquired this status after the spring of 1939 and about whom no information can be found in the twentieth anniversary edition of the UL. It can be seen that this number is significantly higher than the number of persons who acquired *venia legendi* (177) indicated by *L. Adamovičs* by the spring of 1939 [17].

Table 2

Private docents at the University of Latvia

Faculty	Classic <i>private docents</i>	Assistants with the right of a <i>private docents</i>	Titular <i>private docents</i>	Total
Architecture	–	3 (including <i>Jānis Rutmanis</i> who became <i>private docent</i> in acad. year 1943/1944)	1 (meaning art historian <i>Boriss Vipers</i> , who was attached to this faculty from 1924 to 1930, and then to the Faculty of Philology and Philosophy)	4
Philology and Philosophy	23 (including <i>Valdis Ģinters</i> , <i>Edīte Hauzenberga-Šturma</i> and <i>Kārlis Plukšs</i> who became <i>private docents</i> in acad. year 1941/1942; and <i>Lūcija Berziņa</i> who became <i>private docent</i> in acad. year 1943/1944)	1	1	25
Engineering	5 (including <i>Jānis Kurzēns</i> and <i>Pēteris Stakle</i> who became <i>private docents</i> in acad. year 1939/1940)	14 (including <i>Jānis Ātrēns</i> , <i>Jūlijs Baumanis</i> and <i>Viktors Freijs</i> who became <i>private docents</i> in acad. year 1939/1940; and <i>Alfrēds Jumiķis</i> who became <i>private docent</i> in acad. year 1941/1942)	–	19
Chemistry	3	18 (including <i>Valdemārs Stāls</i> who became <i>private docent</i> in acad. year 1942/1943; and <i>Laimonis Bojārs</i> who became <i>private docent</i> in acad. year 1943/1944)	1	22

Agricultural (until the establishment of JAA)	3	23	-	26 ¹
Mathematics and Natural Sciences	10 (including <i>Kārlis Princis</i> who became <i>private docent</i> in acad. year 1939/1940; and <i>Jānis Vitiņš</i> who became <i>private docent</i> in acad. year 1941/1942)	29 (including <i>Arvids Apinis</i> and <i>Nikolajs Brāzma</i> who became <i>private docents</i> in acad. year 1939/1940; <i>Aleksis Dreimanis</i> and <i>Valdemārs Murevskis</i> who became <i>private docents</i> in acad. year 1941/1942; <i>Ludvigs Jansons</i> , <i>Anna Kroge</i> and <i>Jānis Rutkis</i> who became <i>private docents</i> in acad. year 1942/1943)	1	40
Medicine	18 (including <i>Jānis Alfrēds Skuja</i> , <i>Nikolajs Vētra</i> and <i>Teodors Vītols</i> who became <i>private docents</i> in acad. year 1939/1940; <i>Osvālds Mačs</i> who became <i>private docent</i> in acad. year 1941/1942; <i>Viktors Kalniņš</i> , <i>Raimunds Pavašars</i> who became <i>private docents</i> in acad. year 1942/1943; and <i>Jēkabs Nīmanis</i> who became <i>private docent</i> in acad. year 1943/1944)	27 (including <i>Jānis Āboliņš</i> , <i>Arveds Alksnis</i> and <i>Marta Vīgante</i> who became <i>private docents</i> in acad. year 1939/1940; <i>Jānis Arnolds Eglītis</i> , <i>Teodors Upners</i> and <i>Pēteris Vēgers</i> who became <i>private docents</i> in acad. year 1941/1942)	6	51

¹ From the autumn of 1939 to the summer of 1944, at least nine other lecturers underwent habilitation at Jelgava Academy of Agriculture (JAA).

Mechanics	5	21 (including <i>Jānis Bubenko</i> and <i>Jānis Inveiss</i> who became <i>private docents</i> in acad. year 1939/1940; <i>Jānis Muižnieks</i> who became <i>private docent</i> in acad. year 1942/1943)	1	27
National Economics and Law	7 (including <i>Hugo Vītols</i> who became <i>private docent</i> in acad. year 1942/1943)	12 (including <i>Jānis Pagasts</i> who became <i>private docent</i> in acad. year 1939/1940; and <i>Kārlis Ziverts</i> who became <i>private docent</i> in acad. year 1943/1944)	3	22
Veterinary medicine	1	8 (including <i>Aleksejs Ilukēvičs</i> , who possibly became <i>private docent</i> in acad. year 1942/1943)	-	9
Theology	10 (including <i>Haralds Biezais</i> who became <i>private docent</i> in acad. year 1939/1940; <i>Edmunds Šmits</i> who became <i>private docent</i> in acad. year 1943/1944)	2	1	13
Roman Catholic Theology	1	-	-	1
	87	157	15	259

Some Previously Relevant Aspects of Academic Life: *Venia Legendi* and the Status of a *Private Docent* at the University of Latvia (1919–1944)

In many cases, the institute of *private docent* and the related habilitation were considered as a logical next stage after the scholarship holder was allowed to remain at the faculty to start scientific work [18]. Not all faculties considered the selection of scholarship holders to be the most successful model, therefore, at the Faculty of Engineering and Agriculture, the first step to academic work was the status of a sub-assistant at a certain department already during their studies. As Professor *Gustavs Klaustiņš* (1880–1937) emphasized in the discussions of the second half of the 1930s, there was no shortage of promising lecturers in the technical fields, there was a typical professional advancement of the teaching staff from a sub-assistant to an assistant, then a senior assistant and a *private docent* to an assistant professor or professor [19].

In contrast, at the faculties, including the Faculty of National Economics and Law and the Faculty of Philology and Philosophy, where there were already few assistantships on the staff lists, scholarships were more widely used. The uncertainty of positions and careers of the *private docents* as described by Max Weber was characterised in the student press of academic year 1940/1941, where the conversation of the head of the department with his student was reported [20], «You are now receiving the Morberg Foundation scholarship .., but what will you do when you have obtained the title of the *private docent* and lose the right to receive a scholarship?». An economist *Benjamiņš Treijs* (1914–2002) also reflected upon this episode, describing it as part of his personal experience in some other words [21].

Thus, it can be stated with certainty that the model established by the UL, which was based on the gradual advancement of assistants to the position of *private docents*, was quite different from the prevailing order in the German or Russian universities, where most representatives of this group of university staff really worked only on the freelance basis. Respectively, they were classical *private docents*. Such differences can be explained both by the material difficulties of the society after World War I, which prevented the formation of a large group of classical *private docents*, with the exception of gymnasium teachers, who delivered individual courses at the Faculty of Philology and Philosophy and the Faculty of Mathematics and Natural Sciences, and a small number of experienced doctors holding a doctorate, and with limited career opportunities in a small country with one university.

In addition to the two groups of *private docents* already discussed, Table 2 (pp. 25–27) highlights the third group, which the author proposes to call «titular (or special) *private docents*». It was formed by quite different persons in terms of age, academic experience and involvement in the study work at the UL, who had a common title of a

private docent and were united by a special status related to certain privileges, as well as different election and remuneration procedures. Most of these titles had been awarded at the stage of university formation, but in some cases they were granted also later, most often when a new department had to be established or a field of study had to be strengthened with the previously unexplored field of science. A total of 15 people can be included in this group, most of whom were affiliated with the Faculty of Medicine and National Economics and Law. It is worth discussing this group in more detail, so its comprehensive description can be found in Table 1 (pp. 19–21).

Analysing the number of *private docents*, two aspects should be clearly distinguished, namely, how many active *private docents* worked at the university in each academic year, distinguishing *private docents* who were also staff assistants from others, and how many persons had acquired this status in the given academic year. Answering the first question, the news in the anniversary editions of the UL may be analysed, which indicate that the number of *private docents* working at the same time was increasing: from 10 (academic year 1920/1921) to 37 (academic year 1938/1939), steadily exceeding 30 throughout 1930s [17]. On the other hand, in the 1920s, the status of the *private docent* was acquired by an average of about 10 people, but in the 1930s, it increased to 15, reaching the highest number (23) in academic year 1938/1939. Active changes were also happening in academic year 1939/1940, when after emigration of the Baltic-Germans, several faculties had to significantly reorganize their curricula and attract new lecturers.

Another interesting issue is the persons who had applied for the status of the *private docent* but did not obtain it. Due to the limited number of surviving minutes of the meetings of the faculty councils (preferably the Faculty of Philology and Philosophy, Medicine, National Economics and Law, as well as the Faculty of Mechanics), it is difficult to get a comprehensive picture of the habilitation papers rejected by reviewers at the application stage. The Faculty of National Economics and Law seems to have been the most severe, as its minutes from 16 February 1928 to 23 February 1939 [22] contain information on three habilitation papers in economics and nine in law that were rejected as non-compliant. Taking into account that in this period 13 persons (six at the Department of National Economics, seven at the Department of Law) became *private docents* and nine more *pro venia legendi* papers were accepted, but the process of habilitation of applicants had not been completed yet, the proportion of rejected works was very high. In comparison, at a similar stage, 10 persons obtained the status of the *private docent* at the Faculty of Philology and Philosophy and one

habilitation was rejected [23], while at the Faculty of Mechanics – 18 papers were accepted and four were rejected [24].

In some cases, when the habilitation paper was accepted, demonstration lectures were positively evaluated and elections were held at the faculty council, the candidate for the status of a *private docent* was not approved by the University Council. Thus, *Teodors Hermanovskis* (1883–1964), a candidate who applied for delivery of the course on traffic policy at the Faculty of Engineering, was not elected in 1921. *Jānis Straubergs* (1886–1952), who was supposed to deliver an elective course «Aviation», was not elected by the Faculty of Mechanics in 1926. The voting for the status of the *private docent* for the engineering mathematician *Nikolajs Bomovskis* (1880–1942) was negative at the University Council in both the spring and autumn of 1929, he only obtained this status at the third attempt in the autumn of 1932.

UL *Private Docents* after the Loss of State Independence

In the autumn of 1940, when the university was reorganized to adapt to the Soviet system, the status of all remaining *private docents* was changed. In the absence of opportunities to be an assistant and a senior assistant professor at the same time, most of the academic staff with this status were appointed as assistant professors or acting assistant professors from 1 October 1940. On the other hand, the question of the adequacy of habilitation papers and the possible individual compliance with the degree system of the Union of Soviet Socialist Republics (USSR) was not raised at that time.

After the change of occupation power in the summer of 1941, all transfers in the previous academic year were revoked and the situation as of the spring of 1940 was restored. In order to expand the range of lecturers, several lecturers from the Faculty of Philology and Philosophy and the Faculty of Mathematics and Natural Sciences were approved as *private docents* in the autumn of 1941, they were joined by several doctors in 1942 (see notes in Table 2, pp. 25–27). *Viktors Freijs* (1906–1998) and *Alfreds Jumikis* (1907–1989), two lecturers of the Faculty of Engineering, obtained the title of the *private docent* in the spring of 1942. In 1943, *Jānis Muižnieks* (1911–1990), a specialist in aviation engines at the Faculty of Mechanics, and *Voldemārs Štāls* (1889–1979) at the Faculty of Chemistry obtained the status of the *private docent*. In 1944, *Laimonis Bajārs* (1908–1996) and *Jānis Rutmanis* (1894–1978) obtained the status of the *private docent* at the Faculty of Architecture. It is believed that the small number of representatives of technical faculties who became *private docents* during the German occupation (six out of 27 in total) was

due to the intensive habilitation of representatives of these fields in the late 1930s, so there was a lack of the candidates capable to develop more comprehensive papers.

During the war, the number of young *private docents* decreased every year due to wartime difficulties and uncertainties about the future of several research areas (such as the Latvian law or history), as well as the objections of the occupation authorities against certain candidates. As the then Vice-Rector (1940) of the UL *Kārlis Straubergs* (1890–1962) wrote in his memoirs, it was planned to deprive the university of the right to grant habilitation [25], therefore, in the last two academic years this case had to be discussed separately at the Dean's Council. In order not to differ significantly from the German universities, the issue whether the doctoral degree or at least a doctoral examination should have been required from all applicants was discussed again, however, in most cases it was decided to stick to the procedure that was in place at that time.

The fate of the *private docents* who remained in their homeland and their academic activities after the second Soviet occupation is a topic worth of special research. At least in some cases, for example, the habilitation papers of a physicist *Ludvigs Jansons* (1909–1958) and a mathematician *Nikolajs Brāzma* (1913–1981) became the basis for the USSR Supreme Attestation Commission to award them both the degree of the Candidate of Science and the scientific title of the Assistant Professor.

Evaluation of the UL Institution of *Private Docents*

In the publications on the history of the UL, the issue of the institution of the *private docent* is mostly discussed in connection with the training of new lecturers. *Jānis Hugo Inveiss* (1896–1981) acknowledged that the procedure for training lecturers established by the UL, which provided for habilitation and the acquisition of the right for the title of a *private docent*, is one of the biggest advantages of a democratically managed (self-regulating) university compared to the administrative bureaucratic universities of the USA [26]. It can be stated that he saw a successful synthesis of the career models of the German and American lecturers described by M. Weber in the UL practice (*J. H. Inveiss* underwent habilitation at the Faculty of Mechanics of the UL in the spring of 1940 after obtaining a doctorate). *Edgars Dunsdorfs* (1904–2002) also acknowledged that the requirements of the UL for new teachers were generally stricter than in the Anglo-Saxon countries [27]. *Nikolajs Balabkins* also wrote about the acquisition of *venia legendi* as an essential element of the European higher education system, considering

its absence to be a significant shortcoming in the higher education institutions of the USA [28]. At the end of his life, *Benjamiņš Treijs* (1914–2002) also praised the institution of the *private docents* as a logical stage on the way to an academic career. He had the opportunity to compare the advantages and disadvantages of the UL and the Soviet system [29]. Thus, it can be assumed that the model of the institution of the *private docent* in Latvia in the interwar period was appropriate for its time and sufficiently effective to ensure the change of the academic staff.

Conclusions

In the interwar period, the UL developed a peculiar model of the institution of the *private docents*, which at many faculties was created as a way for professional advancement for the junior academic staff.

Most of the *private docents* at the UL were junior members of academic staff, in contrast to the prevailing principles of employing *private docents* at the German and Russian universities, which focused on attracting persons working outside the university to academic work.

In the course of further research, it is necessary to collect information about the habilitation papers of all *private docents* of the UL (and applicants for this status) and their availability in the libraries.

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SOURCES OF ILLUSTRATIONS

Figure 1. Latvijas Augstskolas Organizācijas padomes sēdes protokola fragments. 02.09.1919. LNA LVVA 7427. f., 6. apr., 1. l., 10. lp.

Figure 2. Latvijas Universitātes Padomes sēžu protokoli, 1938. g. LNA LVVA 7427. f., 6. apr., 5. l., 208. lp.

Figure 3. Latvijas Universitātes Padomes sēžu protokoli, 1939. g. LNA LVVA 7427. f., 6. apr., 6. l., 37. lp.



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Māris Baltiņš

Daži agrāk aktuāli akadēmiskās dzīves aspekti: *venia legendi* un privātdocenta statuss Latvijas Universitātē (1919–1944)

Rakstā atspoguļoti autora pētījuma par *venia legendi* (tiesības lasīt lekcijas augstskolā) un privātdocenta statusu Latvijas Universitātē (LU) rezultāti. Jēdzienu «privātdocents» pasaulē lietoja jau 18. gadsimtā, un tas joprojām sastopams Vācijā, Austrijā un Šveicē. Latvijā tas tika ieviests 19. gadsimta 60. gados pirmajā augstskolā – Rīgas Politehnikumā. Apzīmējumu «privātdocents» un jēdzienu «*venia legendi*» Latvijā lietoja līdz Otrā pasaules kara beigām. Pētījumā autors ar piemēriem skaidrojis to lietošanu LU starpkaru laikā un Otrā pasaules kara laikā, balstoties arhīva dokumentu un bibliotēku krājumu izpētē. Tajā sniegts pārskats par augstskolas privātdocentiem un to darbību no 1919. līdz 1944. gadam.

Atslēgas vārdi: *venia legendi*, privātdocenta statuss, habilitācija, Latvijas Universitāte.

EUGEN HABERMANN (1884–1944) AND HERBERT JOHANSON (1884–1964) – FROM STUDIES AT RIGA POLYTECHNIC INSTITUTE TO THE TOP OF ESTONIAN ARCHITECTURE

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Arhit Ltd., Estonia

Summary. Graduates of Riga Polytechnic Institute Eugen Habermann (1884–1944) and Herbert Johanson (1884–1964) became the most active architects in Estonia in the 1920s and 1930s. E. Habermann was the City Planning Architect of Tallinn (1914–1923), at the same time, he headed the Construction Board of the Ministry of the Interior (1919–1923). H. Johanson led the project bureau of the City Architect of Tallinn (1924–1944). From 1935, he also ran the Tallinn Municipal Architecture Office. Both architects were the founders of the Estonian Association of Architects (1921) and its chairmen, E. Habermann – from 1921 to 1936 and H. Johanson – in the 1930s.

The extensive list of projects of E. Habermann and H. Johanson consists of around 200 projects, including buildings of nearly all types. The article aims to characterize E. Habermann and H. Johanson as personalities based on the memories of their fellows, it also reflects on the main features and stylistic development of their architecture.

Keywords: RPI, Estonian architects, the 1920s and 1930s, Eugen Habermann, Herbert Johanson.

Introduction

Riga Polytechnicum (RP) / Riga Polytechnic Institute (RPI) or, as it was titled in a publication by the member of the academic staff of his *Alma Mater* Otto Conrad Ernst Hoffmann (1866–1919) – the Baltic Institute [1], had an immense influence on the Estonian architecture. Between 1862

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and 1915, more than 1250 students from the territory of contemporary Estonia studied there, about 460 of them were of Estonian nationality, the others being Baltic-Germans or Russians [2; p. 453]. Among the architecture students there were E. Habermann, H. Johanson, Erich Jacoby (1885–1941), Anton Soans (1885–1966), Ernst Gustav Kühnert (1885–1961), Waldemar Lemm (1881–1965), Artur Perna (1881–1940), Anton Uesson (1879–1942), Franz de Vries (1890–1938), Edgar Johan Kuusik (1888–1974), Hanno Kompus (1890–1974) and many others [3]. Alfred Ernst Rosenberg (1893–1946), the later Head of the Third Reich Ministry for the Occupied Eastern Territories (1941–1945) from Tallinn also studied architecture at RPI.

E. J. Kuusik had written an entire chapter in his diary about his student years at RPI, characterizing Wilhelm von Stryk (1864–1928), Eduard Kupffer (1873–1919), *Eižens Laube* (1880–1967), and other professors [4; pp. 318–330]. Eduard Kupffer (1873–1919) was an Adjunct-Professor at RPI. He graduated from RPI in 1901, then worked in Vienna and became a Lecturer at RPI in 1904, becoming an Adjunct Professor in 1907. In 1914, E. Kupffer published the book «Guidelines for the Design and Construction of Modern Housing» (*Купффер, Э. Жилой дом: Руководство для проектирования и возведения современных жилищ. СПб., Москва: изд. М. О. Вольф, 1914. 345 стр.*). E. Laube was a well-known master of Latvian *Art Nouveau* architecture, Associate Professor of RPI, one of the founders and the first Chairman of the Latvian Association of Architects from 1924 to 1926. In 1944, he emigrated to Germany and in 1950 – to the USA [5; p. 452].

A young architecture student H. Kompus also evaluated RPI teachers in his private letter in 1909 – «I like Kupffer, Meder, Laube and Rosen most of all» [6; p. 14]. Alfred Meder (1873–1944) was a Docent of Mathematics at RPI (1897–1918) [4; p. 717]. Gerhard Rosen (1856–1927) from Wesenberg (Rakvere), Estonia, was a teacher of drawing at RPI. From 1911 he was an Adjunct-Professor [4; p. 717].

It was common for the graduates of RPI to become members of the Riga Architects' Association (*Architektenverein zu Riga*, founded in 1889). Jacques Rosenbaum (1878–1944), Arved Eichhorn (1878–1922), Alfred Jung (1875–1945) and H. Johanson were the members of the Association from Estonia [7].

It is worth mentioning that the stairs of the building of RPI (1866–1869) at 19 *Raiņa* Boulevard (by Gustav Ferdinand Alexander Hilbig (1822–1887)) were made of the Estonian Vasalemma «marble» (specific kind of limestone), the same material was also widely used in constructing several Riga monuments. The decorative reliefs in the Aula of the building repeated those in the main hall of the palace at 6 *Kohtu* Street in Tallinn (1865, now the Academy of Sciences of Estonia), which was designed by a German architect Martin Gropius (1824–1880).



Figure 1. H. Johanson (early 20th century).



Figure 2. E. Habermann (early 20th century).

Eugen Habermann (1884–1944) and Herbert Johanson (1884–1964) – from Studies at Riga Polytechnic Institute to the Top of Estonian Architecture

Graduates of RPI H. Johanson (see Figure 1) and E. Habermann (see Figure 2) became the most active architects in the 1920s and 1930s in Estonia. It would be difficult to find anybody equal to them in terms of creative productivity in architecture and urban planning.

E. Habermann was the City Planning Architect of Tallinn (1914–1923), at the same time, he headed the Construction Board of the Ministry of the Interior (1919–1923). H. Johanson led the Project Office of the City Architect of Tallinn (1924–1944), and from 1935 he also run the Tallinn Municipal Architecture Department. E. Habermann and H. Johanson both were the founders of the Estonian Association of Architects (established in 1921) and its chairmen, E. Habermann – from 1921 to 1936 and H. Johanson – in the 1930s. They drafted the regulation concerning architects' fees, represented the Association in numerous committees and organizations, and participated as members in the juries of numerous architecture competitions, thus influencing the quality of competition results.

Similar Curricula

Eugen Reinhold Habermann and Herbert Voldemar Johanson were born in the same year – 1884. E. Habermann was born on 19 October 1884 in the family of a locksmith working at the Luther Factory in Tallinn. H. Johanson was born on 10 September 1884 in Haljala, Virumaa, in the family of a pastor. Both studied at Peter's School of Science in Tallinn (*Revaler Petri-Realschule*, now Tallinn Secondary School of

Science), which E. Habermann finished in 1902 and H. Johanson – in 1904. A. Soans, E. Jacoby, and Karl Tarvas (then Treumann; 1885–1975) also graduated from this school in 1904, all of them also later became architects [8, 9].

E. Habermann started studying at RPI at the Department of Mechanics (1902–1905) and then he moved to the Department of Architecture (1905–1906). H. Johanson studied architecture at RPI from 1904 to 1905 and from 1908 to 1910. Commencing his studies in 1902, E. Habermann immediately joined the Estonian corporation «Vironia», which had been operating in Riga since 1900, but for some reason already in 1903 he left «Vironia». H. Johanson essentially was not a «corporation person», he rather preferred to be a member of the professional union – Riga Architects' Association.

After RPI, E. Habermann continued his studies at *Königlich Sächsische Technische Hochschule* in Dresden, Germany (1906–1912). At the same time, H. Johanson studied at *Technische Hochschule zu Darmstadt* in Germany (1905–1907). H. Johanson continued his studies in Riga and graduated in 1910 with *cum laude* (see Figure 3).



Figure 3. Copy of H. Johanson's RPI diploma (1910).

During his studies in 1909, E. Habermann started working in the office of a well-known German architect, Professor Fritz Schumacher (1869–1947), and participated in the planning of the Hamburg City Park (1909–1921). In the winter of 1909/1910, he worked with the Dresden branch of «Dyckerhoff & Widmann», a German concrete construction company. From 1910 to 1911, E. Habermann worked in the office of Paul Carl August Demme (1857–1919) in *Liepāja* and then in Riga,

assisting *E. Laube* and later Wilhelm Rössler (Roessler; 1878–1949). P. C. A. Demme came from Friedrichstadt (currently *Jaunjelgava*, a city in *Aizkraukle* Municipality in Latvia). He studied architecture at RPI from 1874 to 1883. From 1884 to 1885, he worked as a freelance architect; from 1885 to 1889, he worked at the bureau of architect Heinrich Karl Scheel (1829–1909) in Riga and from 1889 – at the bureau of Robert Julius Klein (1858–1924) in Moscow. From 1896, he was a freelance architect in Libau (*Liepāja*) [4; p. 573]. W. Rössler came from Riga. He studied architecture at RPI from 1898 to 1904. From 1904 to 1906, he worked at the bureau of an RP graduate (1882), a Latvian architect *Augusts Reinbergs* (1860–1908). From 1907, he maintained his own practice [4; p. 432].

H. Johanson also lived in Latvia at that time: he underwent military service in *Liepāja* in 1910–1911, then worked in P. C. A. Demme's office. Together with P. C. A. Demme, H. Johanson participated in the competition for the construction of two kiosks in Wöhrmann park in 1911. The project was published in *«Jahrbuch der bildenden Kunst in den Ostseeprovinzen»* (Eastern Provinces Yearbook of Fine Arts) [10; p. 91]. Later he worked at *E. Laube's* bureau and in 1911–1913 – at W. Rössler's bureau. Led by W. Rössler and together with Eugen Zörrer (1884 – after 1926), H. Johanson won the first place in the competition for the building of the Valga Loan Bank in 1912 (tender project *«Plejaden»* [11; p. 138], the bank was built in Valga, at 12 *Kesk* Street) and a city quarter of Riga *«Vorbürg»* [9; pp. 86–89] built in 1912–1914 between *Vašingtona* Square, *Ausekļa*, *Sakaru*, and *Eksporta* Streets. The villa of Robert Vegesack in *Cēsis* (1912, 11 *Palasta* Street, at present – Art School) was designed by W. Rössler, H. Johanson also contributed to the project [9; p. 140]. While working at W. Rössler's bureau in 1913, H. Johanson also participated in the tender for the construction of Riga-Dünasche Loan Bank & Apartment House at the corner of *Kaļķu* and *Valņu* Street by Edgar Hartmann (1869–1925) and Viktor Unverhau (1874–1936), (I and III prizes) and in designing the project for the villa of Robert Broederich in *Labrags* (at present – *Ventspils* Municipality, *Kurzeme*, Latvia) [12; pp. 128, 131].

E. Habermann received his diploma in architecture in Dresden in 1912. He presented two research works to the Examination Committee – *«Planning of Ancient Towns»* (*«Die Grundrissgestaltung der Antiken Stadt»*) and *«Problems of Traffic in the Modern City»* (*«Die Verkehrsanstalten in ihren Beziehungen zu den Aufgaben des modernen Städtebaues»*). In 1910–1912, he was commissioned by the Royal Archives of Dresden (*Denkmalsarchiv*) to design the reconstruction of the Piritā Monastery in Tallinn. When he returned to Tallinn in 1913, E. Habermann worked as a building manager on the construction of the Estonia Theatre and Concert Hall. After that, he was hired by a newly

Eugen Habermann
(1884–1944) and
Herbert Johanson
(1884–1964) –
from Studies at
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Architecture

established office of the City Planning Architect of Tallinn Municipality, and started to implement Eliel Saarinen's (1873–1950) plan of «Greater-Tallinn» (1913).

H. Johanson married Latvian-born Pauline Klare (Clare-Carola) Fridrichs (1888–?) in Riga in 1913. Their first child, Lorenz Herbert Johanson (1914–1984) was born in Riga, later he also became an architect. E. Habermann married in 1923 in Tallinn to Jenny Margarethe Fernanda von Ruckteschell (1895–?).

In his memories, E. J. Kuusik wrote about E. Habermann, «One fine day, a light-blonde man with an imposing figure and a friendly attitude sat at the table, his regular face expressed self-awareness and perhaps also irony. He was wearing some kind of black party suit at the time. A fine golden chain hung on his chest, which was said to have a lorgnette on it, alas Johan never saw it. The cigarettes were taken from a pocket somewhere deep inside the suit, the movements being light, fast and elegant. The face was dominated by a forehead and a beautifully shaped nose. As Johan had learned to distinguish certain nuances of social interaction, he soon noticed what a skilful conversation partner he was. [4; pp. 525–526]»

«There are few people in Tallinn who do not know this imposing person, already in the early spring and late autumn, without a hat, wearing only a jacket, rushing through the narrow streets of Tallinn. Only during heavy rain, or in the very cold, he carries an old-fashioned umbrella or wears a light coat. The man who takes so little care of himself and his body is the caretaker of Tallinn and the people of Tallinn. The most important buildings of Tallinn in recent times, starting with the *Riigikogu* Building, have been built either under Haberman's leadership or with his help,» – so the newspaper «*Vaba Maa*» wrote in 1934 on the occasion of E. Habermann's 50th anniversary [13].

E. Habermann died on 22 September 1944: the ship «*Moero*», which he embarked trying to emigrate to Germany, sank in the Gulf of Gdansk. His archive has not survived.



Figure 4. From the left: E. Habermann, unknown person and H. Johanson (1930s).

While E. Habermann was a «light-blonde man with an imposing figure and a nice attitude», H. Johanson, as a contrast, was «short, stocky and fatty, with not very impressive face except high forehead, and not too eloquent,» as described by E. J. Kuusik [4; p. 527] (see Figure 4, p. 40). «His clothes were original, worn with a certain care, and he moved slowly bearing his body with dignity. However, he looked constantly amused and his smile was somewhat ironic, and that made people keep distance from him. He was a family man who loved comfort, eating and drinking well, smoking a pipe, and doing nothing [4; p. 527].» Having admitted this, E. J. Kuusik rated architect H. Johanson as one of the most remarkable architects in Estonia and admired the agility of his creative thinking.

Collaboration of Two Creative Architects

Designs by E. Habermann and H. Johanson have been well researched and reflected in the publications in Estonian [14–23]. A concise Habermann-Johanson exhibition was displayed in the Museum of Estonian Architecture in 2010, and a booklet was published [19]. Based on these previous research works, the author will further provide an overview of the most important projects implemented on the path of stylistic development of both architects.

The first breakthrough work by E. Habermann and H. Johanson was the building of the Parliament (*Riigikogu*) (1922) [24, 25] (see Figure 5). Built on the site of the former convent building in the courtyard of Toompea Castle, it was the most important building in Estonia, a national symbol of power. It has been frequently wondered how so young architects were entrusted to design the *Riigikogu* Building, however, it should be remembered that for E. Habermann as the Head of the Ministry of the Interior's Construction Board, it was a direct working task. The main designer here was H. Johanson.



Figure 5. The building of the Estonian Parliament in Tallinn (*Riigikogu*, 1922).

The design of the *Riigikogu* Building was developed in the period when German post-World War I architecture experienced a brief influence of Expressionism. Expressionism was inspired by spirituality, it ascribed symbolic meanings to architecture. In the *Riigikogu* Building, the interiors with an unexpected colour scheme and a special ceiling of the auditorium demonstrate the influence of Expressionism. The elements of Expressionism on the façade include dark window frames and a cornice.

The post-war apartment crisis required quick and cheap housing solutions. In the 1920s, both E. Habermann and H. Johanson were involved in the building of social houses. Together they designed the houses of the construction company «*Oma Kolle*» at 3–25 and 6–32 *Kolde Blvd.* (see Figure 6). Standards used for the houses in *Pelgulinn* can be found in Germany, but at that time it did not really bother anyone. Quite direct use of the German examples seemed just normal, as the architects had studied in Germany. In 1924–1925, E. Habermann designed two residential blocks at 45 and 47 *Veerenni Street* and 1, 2, 4 *Õilme Street*, and a larger block of houses at *Vaikne Street*. They were single-storey wooden houses with high roofs and consisted of small apartments. The masters of Luther's Furniture Factory got their houses on *Vana-Lõuna Street* (all designed in 1923–1924). A big apartment house with expressionistic dark facade decor was built for teachers at 4 *Raua Street*.



Figure 6. Houses of «*Oma Kolle*» building company (1922–1925) on *Kolde Boulevard* in Tallinn.

In the 1920s, both architects were also involved in the reconstruction of the buildings in the Old Town. Jointly E. Habermann and H. Johanson designed houses at 11 *Harju Street* (1920, destroyed), 4 *Lühike Jalg*

Street (1921), 4 *Suur-Karja* Street (1923), 3 *Väike-Karja* Street (1925), and many others. At the beginning of the 1920s, the Old Town was not yet considered a valuable object of architectural heritage by Estonians, historically it was a Baltic-German living milieu. In addition, E. Habermann and H. Johanson added several storeys to the houses in the Old Town. As many as three storeys were added to the house at 4 *Suur-Karja* Street, which nowadays would be completely unacceptable from a heritage protection perspective. It may be argued that bold interference across the Old Town in Tallinn plan by E. Habermann (1921) revealed his low esteem of the Old Town heritage, but eventually, this plan was not realized. The mentality started to change after 1925 with the adoption of the Ancient Heritage Protection Act in Estonia. The rebuilding of the houses at 38 *Lai* Street designed by E. Habermann and Ernst Gustav Kühnert (1885–1961) (1928), and of Kopf's House at 27 *Pikk* / 2 *Hobusepea* Street by E. Habermann (1928) already reflect a sense of piety towards the medieval Old Tallinn.

In 1923, E. Habermann quite suddenly decided to leave both employments – ministerial and municipal – and became a freelance architect. He designed several industrial buildings (factory «*Rauaniit*» at 7 *Põhja* Blvd. in 1928 (now reconstructed for the needs of Estonian Art Academy) and a power turbine plant, switch building and boiler house at 27 *Põhja* Blvd., which also were clearly influenced by German architecture of the time, easily accessible due to availability of German architecture magazines «*Moderne Bauformen*» (Modern Building Forms), «*The Bauwelt*» (Construction World), and others.

In the second half of the 1920s, the largest apartment buildings of housing associations came from H. Johanson's desk: 2–4 *R. Faehlmanni* / 17–19 *Fr. R. Kreutzwaldi* Street (1925, 1932, see Figure 7) and 3–9 *Ed. Viiralti* Street (1924, 1930).



Figure 7. Apartment building at 2–4 *R. Faehlmanni* / 17–19 *Fr. R. Kreutzwaldi* Street in Tallinn (built – 1925).

Until the end of the 1920s, German traditionalism dominated in H. Johanson's architecture of private houses, including his own house at 9 *Wismari* Street (1924), villas in 47 *J. Poska* Street (1925) and 18 *Väike-Ameerika* Street (1929). At the end of the 1920s, H. Johanson completed the first school building in *Pelgulinna* Primary School (1929, see Figure 8), and kindergartens at 104 *Kopli* Street (1928) and 2 *J. Pärna* Street (1930). Later he designed all major school buildings in Tallinn.



Figure 8. *Pelgulinna* Primary School in Tallinn (built – 1929).

The 1930s, Advent of Functionalism

H. Johanson's flat-roofed small house at 6 *Toompuiestee* Blvd. (1929, see Figure 9) is considered a breakthrough in functionalism in Estonia. Its completion caused controversy in the Estonian press over the flat roof typical of Germany [26; pp. 134–138]. H. Kompus, an architect and architecture critic, introduced new functionalist architecture in his article «With or without a roof» depicting the villa by H. Johanson.



Figure 9. H. Johanson's own house at 6 *Toompuiestee* Boulevard in Tallinn (built – 1929).

Although the building of *Lasnamäe* School by H. Johanson at 2 *Majaka* Street (1934) already revealed laconism of forms characteristic of functionalism, the first entirely functionalist school was Elfriede Lender's Gymnasium at 25 *Fr. R. Kreutzwaldi* Street (1935, see Figure 10). It has an effective glass tower with a spiral staircase, which actually accommodates only a staircase of an emergency exit. Such a modernist element referring to machine aesthetics is unique for Estonian schools. Features of functionalism can also be noticed in the window rows separated by dark-painted parts, which had to imitate a ribbon window.



Figure 10. Elfriede Lender's Gymnasium at 25 *Fr. R. Kreutzwaldi* Street in Tallinn (built – 1935).

H. Johanson's building of the French Lyceum at 3 *Hariduse* Street (1937) also reveals functionalist features, such as the semi-circular bay, and not much decor – only small balls on the triangular consoles above the big windows of the hall.

E. Habermann's projects remained more influenced by German traditionalist architecture, which yielded good results in the reconstruction of the houses in the Old Town. But gradually the features of functionalism also appeared in his projects. It was manifested in his design of the legendary cinema *BiBaBo* built on the site of the last medieval merchant house on *Viru* Street in the Old Town of Tallinn (project 1931, completed in 1932, not preserved, see Figure 11, p. 46). The rectangular vertical of the symmetrical façade was articulated by three rows of striped windows with contrasting dark frames. The curved display case windows were located on either side of the main entrance to the cinema. The cinema rooms were furnished with modern tubular furniture and the lobby had an eye-catching glass ceiling.



Figure 11. Cinema *BiBaBo* at 11 Viru Street in Tallinn (1932).

BiBaBo was followed by Jaan Urla's house belonging to the top buildings of Estonian Functionalism at 6 *Pärnu* Road (1933, see Figure 12). E. Habermann gave interviews about the project already before construction began. The press proudly declared the 7-storey building a skyscraper. In terms of its two-level courtyard and new construction technology, it was similar to E. Saarinen's Quarter at 10 *Pärnu* Road (1912), which also has a multi-level courtyard and business premises around it.



Figure 12. Jaan Urla's apartment house at 6 *Pärnu* Road in Tallinn (1933).

The last building that was jointly planned by E. Habermann and H. Johanson (further they continued to design separately) was the building of *Eesti Pank* at 11 Estonia Blvd. (with the participation of an engineer, RPI graduate (1918) Ferdinand Adoff (1890–1938, see Figure 13)). The tender took place in 1933, the building was completed in 1935. It still had a flat roof, but during the construction, it got a decorative main entrance and vertically stressed windows. A large operating hall sized 20 x 33 x 7 m extends through two floors. The new bank building was advertised as the largest and most rationally arranged bank building in the Baltics [29, 30]. However, when the bank was opened in 1935, the new head of the state Konstantin Päts (1874–1956) considered its architecture too modern. Functionalist architecture did not fit well with K. Päts' new architecture politics.

Eugen Habermann
(1884–1944) and
Herbert Johanson
(1884–1964) –
from Studies at
Riga Polytechnic
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Figure 13.
The building
of *Eesti Pank*
at 11 Estonia
Blvd. in Tallinn
(1934).



Estonia's State Politics in Architecture of the Second Half of the 1930s

In 1934, there had been an overturn in both Estonian state politics and its architecture. K. Päts, who had taken authoritarian power, set out to rebuild Tallinn into a representative capital. He became passionate about architecture and began to control it personally, as did Adolf Hitler (1889–1945) in Germany or Benito Mussolini (1883–1945) in Italy. «Building a facade» for the state became a frequent expression in K. Päts' rhetoric [30].

In 1935, K. Päts issued a decree providing for the government's right to start organizing the architectural appearance of central Tallinn (instead of the previous municipal power). Based on this decree, projects for the spatial influence of Tallinn streets and squares were commissioned. They determined the construction lines, the heights, the number of storeys in the houses, the type of construction, and the outer appearance of the facades. K. Päts began to confirm facade drawings personally.

The concept of spatial influence was taken over from Germany where in 1928, the German planner Gustav Langen (1878–1959) introduced the term *Raumplanung*. The same year the term «spatial effect» appeared in the context of Estonian planning, in the documents of the tender for the design of the Freedom Square. In 1935–1939, about 40 spatial projects were designed for many streets in the centre of Tallinn. They were developed by the city's Construction Department headed by H. Johanson. Almost all spatial projects were signed by H. Johanson [30].

The aim of the spatial projects was to design architecturally uniform streets. The curve of *Pärnu Road* was the most evenly built streetscape, among others E. Habermann's apartment house at 32 *Pärnu Road* (1937, see Figure 14).



Figure 14. Apartment house at 32 *Pärnu Road* in Tallinn (on the left; 1937).

In the second half of the 1930s, E. Habermann designed several larger apartment buildings: at 8 *Kopli Street* (1935), 11 *Hariduse Street* (1937), 13 *Koidula Street* (1937), 8 *Roosikrantsi Street* (1939) and others, that

remained functionalist in volumes but were covered with solid dark terracotta plaster.

Eugen Habermann
(1884–1944) and
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Representative Public Buildings by H. Johanson

The Estonian State had a lot to build, and private companies were also active in building. «Tallinn in the fever of construction», «Extraordinary rise in construction activity», «Houses are rising through the night» and similar headlines were abundant in the Estonian press of the second half of the 1930s. Significant public buildings, schools, medical institutions etc. were built at that time. Conservatism prevailed both in politics and architecture.

In 1938, the competition for construction of the Estonian Embassy in Riga was held. Estonian Ambassador Hans Rebane (1882–1961) chose a plot of land in the representative district of Riga on the corner of *Pumpura* and *Antonijas* Streets. The program of the competition foresaw representation rooms, including a spacious lobby, a 100 m² hall and an 80 m² dining hall for 36 people. The city of Riga did not set strong restrictions regarding the exterior design, except that natural stone was recommended for the facades, the height was limited, and the volume of the building could not exceed 6500m³. 27 projects from Estonia, Latvia, Finland, and Germany participated in the tender. The first prize was awarded to E. Jacoby and Herman Berg (1894–1943?). H. Johanson and his son L. H. Johanson (later Haljak) won the second prize. The third prize went to Elmar Lohk (1901–1963). All projects, including H. Johanson's one, proposed a dignified design, inclined to monumentalism and classics. The member of the jury Konstantin Bõlau (1899–1959) said that the projects showed an energetic turn from all kinds of modernist «-isms» and revealed a transition towards the so-called «pathetic architecture» [31; p. 13]. The Embassy went unbuilt because of the complicated financial situation [32].

In the second half of the 1930s, H. Johanson began to use local limestone, first in construction of *Lasnamäe* School (1935), then in the chapels at the *Liiva* Cemetery (1935, see Figure 15, p. 50) and the Forest Cemetery (1936). The same material appeared on the facades of the school at 12/14 *Tõnismägi* Street (1936–1937). This group of H. Johanson's buildings have been labelled «limestone-functionalism», a definition that should, however, be treated with great caution [33; pp. 83–84].



Figure 15. *Liiva Cemetery Chapel* in Tallinn (1935).

The most powerful example of H. Johanson's limestone architecture is an impressive Fire Depot on Raua Street (the project of 1936, completed in 1939, see Figure 16). The monumentality of the Fire Depot, the symmetry in the facades of lower wings, the upright windows with heavy frames, and the extensive use of hand-carved stones – all these features are far from the principles of functionalism. Rather, a direct influence of German monumental architecture is observed here. As it is widely known, A. Hitler favoured stone buildings of the monumental natural and used cheap prisoners' labour in the concentration camps for carving stones [34; p. 20]. In 1937, the prison was established in *Vasalemma* Quarry also in Estonia. The facade stones of the Fire Depot were also wrought by prisoners.



Figure 16. The building of the Fire Depot at 2 *Raua Street* in Tallinn (1939).

The representative architecture of the second half of the 1930s turned its back on functionalism, architectural forms became massive, horizontality was replaced by verticality and solid materials appeared on the facades. Representativeness became a programmatic requirement, national ornaments, cornices, and framed frames started to appear in architecture.

The last H. Johanson's building in Estonia – City Hospital at 18/20 Ravi Street – was the biggest public undertaking in Estonia of the late 1930s. It started with the architecture competition in 1937, which was won by Ernst Kesa (1910–1994), but the final project was developed by H. Johanson. Vertical windows, accentuated cornices, a limestone plinth, and individual decorative details point at the turn toward representativity. The central building was completed in 1939, the whole hospital complex was finished after World War II in 1947.

After the *coup d'état* in June 1940, H. Johanson continued working in the Tallinn Municipality, even during the German occupation. In 1944, he emigrated to Sweden. His emigration passport stated Swedish citizenship. In Sweden, H. Johanson worked at the bureau of Gustaf Birch-Lindgren (1892–1969) in Gothenburg, which was headed by E. Lohk. In 1951, E. Lohk won the third prize in the competition for the projects of Gothenburg University of Medicine. H. Johanson was also mentioned as his collaborator [35]. In 1954, the bureau was successful in the design competition of Sahlgrenska Hospital. Next came the 15-storey Uddevalla Hospital in West Sweden. In 1964, H. Johanson visited Estonia and decided to return to his homeland. He started to prepare the documents, however, he died on 24 November of that year in Gothenburg.

Conclusions

When E. Habermann and H. Johanson celebrated their 50th anniversary together in the fall of 1934, a fellow architect Roman Koolmar (1904–1971) wrote, «One of them makes building regulations while the other ignores them; one repels space and the other embraces it; one provides the servants with a wide space, while the other forces the servants to sleep standing. One is constantly demolishing, while the other is constantly building [5; p. 529].»

R. Koolmar referred to E. Habermann as a demolisher, for he had been involved in planning, while H. Johanson, who had built a number of large houses, was the «constant builder».

E. Habermann and H. Johanson were both incredibly productive: there are over two hundred projects on the list of their projects, excluding smaller reconstruction works. All these projects were born in

just 20 years. They designed buildings of almost all possible typology – administrative buildings, schools, hospitals, apartment houses and private dwellings, fire depot, industrial buildings, etc.

Their architecture reflects the style preferences of that time from the traditionalism of the 1920s to the functionalism of the early 1930s and finally, the representative architecture of the second half of the 1930s. Studies at Riga Polytechnic Institute that were continued in Germany to a large extent determined the general orientation of the architectural style of both architects – the German influences dominated in both decades, perhaps even more than one might like to admit.

While E. Habermann as an architect and planner was more active in the 1920s, H. Johanson's heyday fell into the 1930s. It was then that he designed representative public buildings and made spatial projects for the streets and squares of Tallinn. The pace of Estonian construction in the second half of the 1930s was unprecedented, H. Johanson's load was heavy and one can only wonder how he managed it all. Still, it should be noted that he had assistants and that the projects were not as detailed as they are today.

A bolder turn to functionalism and then an idiosyncratic limestone architecture speak of H. Johanson as a more dynamic and radical, in comparison to E. Habermann. Not underestimating the contribution of Edgar Johan Kuusik (1888–1974), Elmar Lohk (1901–1963), Erich Jacoby (1885–1941), Eugen Sacharias (1906–2002), Olev Siinmaa (1881–1948) and other Estonian architects of that time, it can be said with certainty that it was E. Habermann and H. Johanson who were the most influential architects as well as moderators of the Estonian architectural culture in the 1920s and 1930s, both creatively and administratively.

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SOURCES OF ILLUSTRATIONS

Figure 1. Estonian Museum of Architecture.

Figure 2. Estonian Museum of Architecture, photo donated by Merike Komendant Phillips and G. Jüri Komendant.

Figure 3. Estonian Museum of Architecture.

Figure 4. Estonian Museum of Architecture.

Figure 5. Estonian Museum of Architecture, photographer Martin Siplane.

Figure 6. Period photo, Estonian Museum of Architecture.

Figure 7. Estonian Museum of Architecture, photographer Martin Siplane.

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Figure 13. Period photo, author's collection.

Figure 14. Period photo, author's collection.

Figure 15. Estonian Museum of Architecture, photographer Martin Siplane.

Figure 16. Estonian Museum of Architecture, photographer Martin Siplane.



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Karin Hallas-Murula

Eižens Habermanis (1884–1944) un Herberts Johansons (1884–1964) – no studijām Rīgas Politehniskajā institūtā līdz Igaunijas arhitektūras virsotnēm

Rīgas Politehniskā institūta absolventi Eižens Habermanis (*Eugen Habermann*; 1884–1944) un Herberts Johansons (*Herbert Johanson*; 1884–1964) kļuva par 20. gadsimta 20. un 30. gadu Igaunijas redzamākajiem arhitektiem. E. Habermanis bija Tallinas pilsētplānošanas arhitekts (1914–1923) un Iekšlietu ministrijas Būvvaldes vadītājs (1919–1923). H. Johansons vadīja Tallinas pilsētas arhitekta projektu biroju (1924–1944), savukārt jau no 1935. gada – pašvaldības arhitektūras biroju. Abi arhitekti bija Igaunijas Arhitektu savienības dibinātāji (1921) un tās priekšsēdētāji – E. Habermanis no 1921. līdz 1936. gadam, H. Johansons – 20. gadsimta 30. gados.

E. Habermaņa un H. Johansona darbu sarakstā ir ap 200 projektu, kas aptver gandrīz visas ēku tipoloģijas. Rakstā, izmantojot laikabiedru atmiņas, raksturotas E. Habermaņa un H. Johansona personības un izceltas viņu veidotās arhitektūras galvenās iezīmes un stilistiskā attīstība.

Atslēgas vārdi: RPI, igauņu arhitekti, 20. gadsimta 20. un 30. gadi, Eižens Habermanis, Herberts Johansons.

PEDAGOGICAL AND POLITICAL ACTIVITY OF PĒTERIS SAULESKALNS (1876–1975), A GRADUATE (1908) OF RIGA POLYTECHNIC INSTITUTE

INDULIS ZVIRGZDIŅŠ*

Latvian Association for the History of Science

Summary. In the study dedicated to *Pēteris Sauleskalns* (1876–1975), a graduate of Riga Polytechnic Institute (RPI), an agronomist, pedagogue, and teacher, the author used archival and library materials describing the family of *Sauleskalns* and the childhood of his son *Pēteris*, his study and work life, and pedagogical activities at *Priekuļi* (1912–1918) and *Latgale* (1921–1936) / *Malnava* (1936–1940) Agricultural Secondary Schools, evaluating his contribution to the establishment and management of the *Malnava* Agricultural Secondary School. The teacher with a long-term experience, *P. Sauleskalns* also participated in political life – he represented the Latvian Farmers' Union at the Latvian Constitutional Assembly (1920–1922). For his successful work in the area of agricultural education, he was twice awarded the highest Latvian state award – the Order of the Three Stars. After World War II, he lived in exile in the United States.

Keywords: *Pēteris Sauleskalns*, Riga Polytechnic Institute, Latvian Constitutional Assembly, agricultural schools.

School Years of *P. Sauleskalns*

Pēteris Sauleskalns was born on 17 December 1876 [1] in the family of *Jānis* and *Ede Sauleskalns*, the owners of «*Aizjošnieki*» House, *Odziēna* Parish, *Vidzeme* Governorate. He was the third son in the family. In the second half of the 19th century, there were two parishes of *Odziēna* in the *Cēsis* County. They were established on the land of two different manors, *Odsen* (*Ļaudona* Congregation) and *Odensee* (*Vietalva* Congregation), respectively, so the exact congregation was usually

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mentioned to distinguish between them. During the period of the First Republic of Latvia, *Ļaudona-Odziena* Parish, where *P. Sauleskalns* was born, was renamed *Mētriena* Parish. *Andžs Sauleskalns* (1866–1931), the eldest son of the *Sauleskalns* family, inherited the 34.93-hectare «*Aizjošnieki*» farm [2]. The youngest son, *Pēteirs*, chose the education path.

After three winters in *Odziņa* Parish School and two in *Ļaudona* Lutheran Congregation School, *P. Sauleskalns* entered *Gorki* Agricultural School (*Горы-горецкая земледельческая школа*) in 1891. This educational institution was opened in Mogilev Governorate, Russia, in 1840. The University of Agriculture was later established on its basis, the University was relocated to St. Petersburg in 1864. There was also a class of surveyors-appraisers at the Agricultural Secondary School in *Gorki*. Several later RPI students studied at this educational institution, including *Hugo Celmiņš* (1877–1941), *Pēteris Delle* (1877–1946), and *Augusts Kalniņš* (1876–1940), who were contemporaries of *P. Sauleskalns*. This educational institution was a model for the later Latvian agricultural schools. In the spring of 1897, two Latvians graduated from *Gorki* School – *Pēteris Kandars* (?–?) and *P. Sauleskalns* [3].

The First Years of Work of *P. Sauleskalns*

After graduating from the agricultural school, a boy from «*Aizjošnieki*» House *P. Sauleskalns* worked in manors in Tver Governorate, Russia, and later in Mogilev Governorate, present-day Belarus. From 13 December 1900 to October 1903, he was a teacher at Mainov Agricultural School in Chernihiv Governorate, Ukraine, which was opened in 1891 [4]. Even before *P. Sauleskalns*, another graduate of *Gorki* School, *Ernests Celmiņš* (1872–1937), a teacher from *Lubāna*, worked there. In future, he became *P. Sauleskalns*' colleague – they later worked together in *Priekulji*.

After graduating from *Gorki* Agricultural School, *P. Sauleskalns* managed to earn some funds, so that he could start studying at the RPI Department of Agriculture in the autumn of 1903 [5].

RPI mostly educated and trained the specialists in the industrial sectors, which might be even called urban sectors. However, apart from the Departments of Chemistry, Engineers and Manufacturers (which existed for two years), the Department of Agriculture was among the first units of the Institute. The Departments of Mechanics, Trade, Architecture and Land Surveying (operated for 20 years) were established later. During the existence of RPI until 1919, the graduates of

the Department of Agriculture accounted for 12.4 % of the total number of graduates [6]. An agronomist *P. Sauleskalns* was one of them – a public and political figure, whose greatest merits were related to Latvia's agricultural education.

During his studies, *P. Sauleskalns* became involved in public life, especially in the area of agriculture. In 1903, *P. Sauleskalns* joined the Latvian Student Corporation «*Talavija*» [7]. On 9 January 1905, at the annual meeting of *Ļaudona* Agricultural Society, *P. Sauleskalns* spoke about the possibilities of establishing an agricultural school. He referred to his experience in the Russian schools, compared these schools with similar institutions in France and Germany, and suggested organizing such a school in *Ļaudona* as well [8]. However, further interest in this enterprise waned because of the government demand of the time to use Russian as the mandatory language of instruction. *Arvīds Bremers* (1871–1941), the owner of «*Glāznieki*» House in *Ļaudona*, was elected the Head of the Agricultural Society at this meeting. He held this position for many years, participating in many events outside *Ļaudona*, also in cooperation with *P. Sauleskalns*. With the participation of *A. Bremers*, the two-year agricultural school in *Ļaudona* started working later, in 1924.

A student *P. Sauleskalns* worked in the Riga Branch of the Imperial Russian Horticultural Society [9]. In September 1906, he was elected a record keeper of the Board of the newly established Riga Dairy Farmers' Society [10], he was also a lecturer in the dairy farming courses. The Dairy Farmers' Society, on the other hand, soon became part of the Riga Central Agricultural Association (RCAA), which was established around the same time. A year and a half later, he resigned from the position of the record keeper in order to further assist the RCAA, where he was elected a member of the Audit Committee. At the invitation of the *Vecpiebalga* Agricultural Society, a meeting on the possibility of establishing an agricultural school in *Vidzeme* was held on 25 September 1906 [11]. *P. Sauleskalns*, together with the pastor and the Head of the *Vecpiebalga* Agricultural Society *Pauls Gailītis* (1869–1943), a farmer and member of societies *Hermanis Enzeliņš* (1867–1953), *A. Brēmers* and the cultural technician *Jānis Laursons* (1870–1951) were included in the school curriculum development committee. The author of the article has concluded that *P. Sauleskalns* had the most extensive experience in this field. At that time, a possibility to establish a three-year school was discussed. It was envisioned that applicants would be able to enrol in this school after at least two classes in the parish school and that its program would be similar to those of the Russian schools to make the approval process easier. The developers of the school curriculum believed that the language of instruction must be Latvian. It was decided to ask the government for permission to hold special longer winter

courses in which existing farmers could be educated. *P. Sauleskalns* was also nominated to participate in the work of the committee to raise funds for the school to be established. *Vainiži* Manor near *Limbaži* in *Valmiera* County was mentioned as its possible place at the beginning, but later another place was chosen – in *Priekulī* near *Cēsis*.

Pedagogical and
Political Activity of
Pēteris Sauleskalns
(1876–1975), a
Graduate (1908) of
Riga Polytechnic
Institute



Figure 1. Students of the RPI Department of Agriculture. From left: the second – *J. Vārsbergs*, the third – *P. Sauleskalns* (1906).

After graduating from the university in the spring of 1908, *P. Sauleskalns* again started working as a manor manager, this time in the Podolsk Governorate, in the western part of present-day Ukraine. In the following autumn, he was recruited as a teacher of special subjects at the newly opened Voronezh Agricultural School. It was located in the Vilnius Governorate (northwest of the present-day Republic of Belarus near the Lithuanian border). *Arvīds Valdmanis* (1890–1942), a graduate of the RPI Department of Agriculture, also worked at this three-year educational institution [12].

Since the time of his studies, *P. Sauleskalns* focused on animal husbandry, which involved working in the Riga Dairy Farmers' Society. In 1911, a brochure compiled by *P. Sauleskalns* entitled «*Barības normas ar pielikumu par liellopu, zirgu un cūku dzīvsvara noteikšanu caur mērišanu*» (Feed Standards with an Appendix on Determining the Live Weight of Cattle, Horses, and Pigs by Measurement) was published in Riga. *P. Sauleskalns* used the works of Oskar Kellner (1851–1911), a German professor, agro-chemist, and animal nutrition specialist, on animal nutrition, water, protein, and protein composition in various types of feed. An agronomist with newly acquired education explained how livestock productivity could be increased by changing the feed.

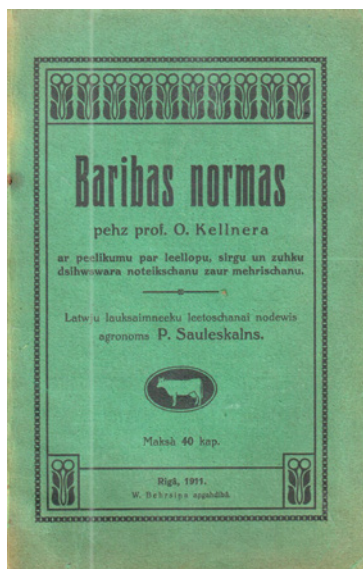


Figure 2. Cover of the brochure on animal nutrition compiled by *P. Sauleskalns* (1911).

Pedagogical Activity in *Priekuļi*

In the autumn of 1912, *P. Sauleskalns* moved to the *Priekuļi* Agricultural School. Before that, *Jānis Mazvērsītis* (1866–1943), a graduate (1890) of the Department of Agriculture of Riga Polytechnicum, and *Edgars Zemels* (1874–1941) were mentioned among the possible supervisors of the RCAA as other candidates [13]. The latter was approved in office, while *J. Mazvērsītis* was the principal of an agricultural school in *Jelgava*. *E. Zemels*, *P. Sauleskalns*, and *Jānis Bickis* (1877–1933), a graduate of the RPI Department of Agriculture, worked as teachers in *Priekuļi*. He was the head of the courses, which existed even before school, shortly before the start of the career of *E. Zemels* as the principal in 1911. The already mentioned *E. Celmiņš*, *Ernests Gaujēns* (1877–?), and others also taught at the courses. Former students of the RPI Department of Agriculture, *Jānis Blumbergs* (1886–1941), *Pāvils Kvelde* (until 1940 – *Kreišmanis*; 1885–1971), *Viļums Skubiņš* (1876–1971) and graduates *Hugo Celmiņš* (graduate of 1903; 1877–1941), *Jānis Lūke* (graduate of 1905; 1876–1942), *Jānis Vārsbergs* (graduate of 1908; 1879–1961) worked nearby in the *Priekuļi* Farm and its pilot station, as well as at the Farmers' Winter Courses. Some of these men were also among the founders of the Latvian Farmers' Union in 1917.

In August 1913, the first students graduated from the *Priekuļi* Agricultural School, including *Pēteris Upītis* (1896–1976), who later

became a prominent breeder. A few weeks before the end of the school year, misunderstandings between pupils and teachers became public [14]. Senior pupils felt that during their studies too little attention was paid to practice and that they were not sufficiently introduced to the use of machinery in the work of a farmer. The last test was organised on 4 August, and pupils hoped to be shown something more important in the remaining few weeks before the graduation ceremony on 17 August [15, 16]. On 8 August, teacher *E. Zemels*, whose work received the most criticism from the pupils, was in Riga, while teacher *P. Sauleskalns* promised to organise a study trip to get acquainted with the work of *Matīši Dairy*. However, the next day the teachers announced that the planned trip would not happen because it was not foreseen within the school curriculum. Already in winter pupils suggested organizing some question-and-answer sessions making an emphasis on agriculture rather than on political matters. They were particularly interested in the work of agricultural cooperation. However, teacher *P. Sauleskalns* said that he had not had to deal with such pupil wishes anywhere in Russia before. The newspaper «*Latviešu Avīzes*» published the opinions of both parties – the pedagogical council and the pupils [17]. The author has concluded that the conflict forced the agronomist *P. Sauleskalns* to change his mind, because later, during his work at *Malnava School*, his position was different.

The educator's work in *Priekule* continued during World War I and after the proclamation of the Republic of Latvia. *P. Sauleskalns* emphasized the need for farmers to receive education and not to rely solely on the experience of their grandfathers. Therefore, the courses for the farmers were organized and *P. Sauleskalns* became the head of these courses [18]. The purchase of 42.5 desetina (46.43 ha) farm – «*Lielrubeņu Jānis Nr. 16*» in *Jaunrauna* from *Andrejs Karnītis* (?–?) in March 1917 [19] can be considered evidence that *P. Sauleskalns* wanted to connect his future life with farming.



Figure 3. *P. Sauleskalns* (1920s).

It may be assumed that the agronomist lived in the purchased property with his wife *Lucija Johanna Ērgle-Sauleskalne* (1884–1933). The daughter of the couple *Laima Sauleskalne* (later – *Vanaga-Bērziņa*) was born in *Jaunrauna* in 1920. It may also be assumed that tenants worked there for the next 20 years, until *Laima*, the daughter of *Pēteris* and *Lucija Sauleskalns*, moved there in 1937 after graduating from the State *Latgale* Agricultural Secondary School. At the end of 1934, the name of the house was changed, it was renamed «*Saulkalni*» [19].

In the autumn of 1916, the RCAA conducted even more heated discussions on agricultural education, as the Ministry of Agriculture planned to expand the network of agricultural schools. *J. Bickis* was the keynote speaker, he elaborated his report together with *P. Sauleskalns*. The spring of 1917 brought major political changes in Russia. On 19 March 1917, reports on the most important recent events were delivered in the hall of *Priekuļi* Agricultural School. An agronomist *P. Sauleskalns* compared the current events with the manifestations of 1905 after the February Revolution [20]. He took part in the reorganization of the life in *Cēsis* County after the February Revolution, he worked in the agrarian administration of the County. When the Latvian Farmers' Union (LFU) started to emerge, *P. Sauleskalns* from *Priekuļi* was mentioned as one of the persons who could be interested in these issues [21]. At the founding meeting of the LFU in *Valka* in the spring of 1917, he was elected to the Party Council (the Board of the LFU consisted of five members, the Council comprised 15 members) [22]. In February 1919, the *Cēsis* County Revolutionary Tribunal opened an investigation against the arrested *P. Sauleskalns*, who was accused of counter-revolutionary activities. On the last day of the month, however, the tribunal found the allegations to be insufficiently substantiated and closed the case [23].

Political Activity

Representing the LFU, *P. Sauleskalns* served in the committees on agrarian reform, education, national affairs and public work of the People's Council. He was a substitute for a member of the People's Council, that is, a substitute for a permanent member in his absence. In total, there were 35 members and 10 substitutes at the LFU People's Council. In the summer of 1919, after the return of the Provisional Government to Riga, an agronomist *P. Sauleskalns* participated in the meetings of the Ministry of Agriculture to discuss agricultural education and the establishment of the Faculty of Agriculture at the Latvian Higher School. In August 1919, he became inspector of the state lands

of Cēsis County [24]. *P. Sauleskalns* also chaired the election committee of the Constitutional Assembly of the County in 1919 [25], although he was included in the list of the *Latgale* Farmers' Party (LFP) in these elections [26]. There were only three of 21 candidates who were not born in the Latvian part of Vitebsk Governorate – an agronomists *H. Celmiņš* and *P. Sauleskalns* from its border, as well as a teacher *Pēteris Zvagulis* (1886–1957) born in *Kurzeme*, who was working in *Varakļāni, Rēzekne* County at the time. All of them were elected. The LFP won 17 seats in the Constitutional Assembly, it cooperated with LFU. Both agronomists mentioned above were LFP activists since its foundation and had remained members of this party. *P. Sauleskalns* worked in the Education Committee of the Constitutional Assembly, was the main developer of the Law on Agricultural Schools [27]. The law was passed on 17 September 1920 [28].

Work at the Agricultural Secondary School in *Malnava*

At the beginning of 1921, it was decided to establish a state agricultural secondary school in *Latgale*. Such educational institutions existed in *Cēsis* and *Jelgava* at that time, but they operated as schools ran by societies. The organizers planned that the graduates of such four-year schools would be ready for work on their own farms, would help others with their knowledge, and that the secondary education they obtained would allow them to continue their studies at the university. After inspecting several possible locations for the school, *Malnava* Manor in *Kārsava* Parish near the Russian border was selected. The decision was made by the Central Land Development Committee at its meeting on 2 February [29]. It was partly related to the proposal made at the Constitutional Assembly at that time regarding the envisioned administrative-territorial changes, especially in *Latgale*. It was planned to change the borders of the existing *Daugavpils*, *Ludza*, and *Rēzekne* counties [30]. It was also planned to add several parishes of the *Ilūkste* County located on the left bank of the River *Daugava* to the *Daugavpils* County, to add nine parishes of the *Ludza* County and *Ludza* itself to the *Rēzekne* County, to relocate the district institutions to *Kārsava*, then the school would be situated next to the district centre. However, these intentions were not realized. On 15 February 1921, agronomist *P. Sauleskalns* was appointed the organizer of the school [31]. Until 1922, he continued working at the Latvian Constitutional Assembly, but on 28 September 1921, he resigned from the Education Committee. He was granted a vacation leave on 7 October at the sitting of the Constitutional Assembly. Later, the school principal maintained that

his experience at the Constitutional Assembly and the observations he made contemplating the work of the Saeima made him doubt that the principles of parliamentary democracy had ever been observed, since the members of the parliament had first considered the interests of their party and their allies, rather than the interests of the state. Therefore, the mutual opposition among the parties often hindered practical solution of various issues.

In the spring of 1921, *Malnava* Manor was not ready to operate as an educational institution. The buildings were worn, and they were largely occupied by the people who hoped to set up their new farms there during the agrarian reform. 930 ha of land together with the buildings were handed over to the planned school, which caused dissatisfaction among some local people. The principal had to overcome these challenges, he had to organize the repair and refurbishment of the buildings and take care of the land [32]. In June 1921, the newspaper «*Valdības Vēstnesis*» published an invitation from the Principal of *Latgale* Agricultural School, agronomist *P. Sauleskalns*, addressed to the future pupils to apply for studies at school. «Preferably, [we expect] those with a tendency and interest in agriculture in general or in certain farming sectors: agriculture, animal husbandry, horticulture, households, etc., and who have already worked on the farm at home [33].» A similar appeal was repeated in the newspaper a month and a half later, it was also published in the Monthly Bulletin of the Ministry of Education «*Izglītības Ministrijas Mēnešraksts*». However, the articles in the newspapers «*Latgalīts*» and «*Latgolas Lauksaimņiks*» were more directly addressed to potential pupils. In September 1921, entrance examinations were held, testing the knowledge at the level of elementary school, and on 10 October, the school started working. There were 22 pupils in the first grade at that time. The ceremonial address of *H. Celmiņš*, Deputy Minister of Agriculture, a graduate of the RPI Department of Agriculture (in the spring when *P. Sauleskalns* was appointed, he was the Minister), at the opening ceremony was a significant event. *H. Celmiņš* emphasized that there were not many mineral resources in Latvia, but arable land was the main value of the country, which farmers and the whole country should have used to obtain private and public wealth. He stressed that agriculture formed both economic and political basis of Latvia. In *Latgale*, rural productivity was relatively lower. He noted that knowledge was the only way to improve productivity, and an agricultural school was supposed to provide that knowledge [34].



Figure 4. *Latgale Agricultural Secondary School Orchestra (c. 1926). From left in the second row: third – singing teacher and orchestra leader *Nikolajs Zakrevskis* (1881–?), fourth – School Principal *P. Sauleskalns*, third in the third row – later the conductor of the school orchestra *Jānis Ģēģeris*.*

Subsequently, the number of newly enrolled pupils increased, as well as their total number, exceeding two hundred in some years. Pupils were admitted to the school from the age of 14; at that age pupils generally completed a six-grade primary school, but older pupils also started their studies. There were cases when some pupils entered secondary school after graduating from a two-year agricultural school. In addition to subjects of general education, there were also special subjects in *Malnava*: agriculture; animal husbandry; gardening; agricultural economics addressing such issues as cooperation and accounting; economy; agricultural machinery; land reclamation and surveying; construction; forestry; economic geography; hygiene; housekeeping with handicrafts and crafts [35]. The first 18 pupils graduated in August 1925. During the term of office of *P. Sauleskalns* from 1925 to the summer of 1940, the total number of graduates was 541. Agricultural Secondary School was mainly intended for young people from *Latgale*, but pupils came also from *Vidzeme*, *Zemgale*, fewer from *Kurzeme*. For example, during academic year 1932/1932 there were pupils from 13 counties: *Bauska* – two; *Cēsis* – six; *Daugavpils* – 20; *Ilūkste* – five; *Jaunlatgale* – 25; *Jēkabpils* – 10; *Kuldīga* – one; *Ludza* – 25; *Madona* – 31; *Rēzekne* – 26; *Rīga* – seven; *Valka* – six; *Valmiera* – four; a total of 108 boys and

60 girls. In the 1930s, there were similar schools in *Kazdanga*, *Mežotne* (formerly *Jelgava*), and *Priekuli*, but *Malnava* was the largest in terms of number of pupils. It should be noted that in 1935, the Latvian secondary schools, including agricultural ones, switched to five-year education. The future course of the graduates was different – practical agriculture, teaching, various positions of agricultural and housekeeping instructors, agronomic duties after graduation, also career in agricultural science. There were graduates who connected their life with the army. A graduate of 1937, Lieutenant *Roberts Rubenis* (1917–1944) is the most frequently mentioned example. He joined the military unit of the Latvian Army headed by General *Jānis Kurelis* (1882–1954), affiliated with the Central Council of Latvia in 1944 and commanded a unit of soldiers in *Kurzeme* in the fight against a German penal unit.

Almost all pupils lived in a boarding school. In addition to classrooms, the school also had dormitories for boys and girls, a dining room and a kitchen, and the manor house also housed individual apartments for employees. Already in the first half of the 1920s, the school premises were expanded. One, then the other three-storey wing was added to the two-storey building of the manor. Later, a separate house was built for the teachers, and the *Sauleskalni* family also moved there. It was an established procedure that the management of the Agricultural School was implemented and it was supervised by its principal, the Pedagogical Council and the School Council. All teachers were included in the Pedagogical Council, meetings were held at least once a month. Representatives of parents and an employee of the Ministry of Agriculture also served on the School Council, and meetings were held at least once a quarter. The head of the school (principal) managed the school and its farm, managed the accounts, supervised the co-administration, recruited and dismissed the staff, monitored its activities, chaired the Pedagogical Council and convened the School Council [36].

It was desirable that the teachers of the Agricultural School had higher education. Several teachers with a university degree in agronomy also taught some subjects of general education, such as science. In addition to teaching animal husbandry, agricultural economics, and other subjects, *P. Sauleskalns* also taught chemistry. In the autumn of 1925, his work record as an agricultural school teacher included only the work in *Malnava* from 15 February 1921, his pedagogical work in *Priekuli* and schools in Russia was not included [37]. The length of service affected the pay – the longer it was, the higher was the salary, so everyone was interested to have their length of service longer and all years of service to be taken into account. In the second half of the 1920s, some staff, graduates of Russian agricultural schools, were transferred

from *Malnava* School to two-year agricultural schools or elsewhere. However, *Jānis Ģēģeris* (1909–1946?), a graduate (1927) of *Latgale* Agricultural Secondary School, who as a pupil conducted the school choir and orchestra, in 1929 was accepted as a gardener. From 1931 to 1939, he taught singing, drawing and gymnastics (he supplemented his knowledge with special courses). *J. Ģēģeris* stated that his focus on music was strongly supported by Principal *P. Sauleskalns* [38].



Figure 5. The fourth graduation of *Latgale* Agricultural Secondary School (1928).



Figure 6. The seventh graduation of *Latgale* Agricultural Secondary School (1931).

On the recommendation of the principal, a cooperative was set up at school, it was mainly active in the distribution of teaching aids and the promotion of general operational skills [39]. Extracurricular activities were also organized for the pupils. There were various organizations at school – *Latvijas Vanagi*, *Latvian Scouts Central Organization*, *Latvian Waits Central Organization*, *Latvian Regiments*, and *Latvian Guards Organization*. *P. Sauleskalns* was the Head of the 16th *Malnava* District of the *Latvijas Vanagi* (Latvian Hawks) Society and one of the few who received the highest award of this organization – a Badge of Honour in 1930, the Order of the Hawks of the First Class in 1934 and the title of the Chief of the Hawks in 1938. The organization organized sports events, including theatre performances, and concerts for the pupils with a nationally patriotic orientation. In 1927, the Social Democrat newspaper «*Sociāldemokrāts*» published several publications criticizing *P. Sauleskalns* for involving the pupils of the agricultural school in various organizations, but not supporting the leftist ideas, not allowing the newspaper to be read. One of the texts was even entitled «*Malnavas lauksaimniecības skola – mūsmāju fašistu ligzda*» (*Malnava Agricultural School – the Nest of Today's Fascists*) [40]. Two weeks later, a letter rejecting the allegations was printed, signed by 162 pupils of the school [41]. The Order of the Three Stars of the IV class awarded to the principal of *Latgale* Agricultural Secondary School in November 1927 was another sign of recognition. Four years later, in 1931, *P. Sauleskalns* was awarded the Order of the III Class [42]. The agronomist welcomed the establishment of the authoritarian regime of *Kārlis Ulmanis* (1877–1942). In 1936, *Latgale* Agricultural School was renamed *Malnava* Agricultural School, and *P. Sauleskalns* continued running it. In 1936, the school celebrated its 15th anniversary [43]. On 1 April 1937, at a meeting of staff of the schools subordinate to the Ministry of Agriculture, the Principal of *Malnava* School reported on the management of the farm. *P. Sauleskalns* presented an album about all Latvian agricultural schools to *K. Ulmanis* on behalf of the people participating in the meeting [44]. *P. Sauleskalns* once used to work together with *K. Ulmanis* at winter courses in *Priekule*.

Conclusions

After Latvia's accession to the Soviet Union in the summer and autumn of 1940, the administration of many schools changed. Some resigned, not willing to serve the Soviets, and some were fired. In August, 16 principals of agricultural schools were dismissed (officially at their own request) [45]. *P. Sauleskalns* allegedly retired and moved

to «Saulkalni» in Jaunruna. In the autumn of 1944, he fled to Kurzeme as a refugee with his daughter and her children. His son-in-law was summoned to the Latvian Legion, where he fell. The family later moved from Liepāja to Mecklenburg, Germany, in the Soviet occupation zone. From there, they managed to go to Berlin and move to the American occupation zone. P. Sauleskalns worked as a teacher at the Latvian school in the Zehlendorf refugee camp, where about 250 Latvians lived in the spring of 1946 [46]. Later, together with his daughter and grandchildren, the old man went to Bavaria, Germany, and arrived at the Latvian refugee camp in Valka (Latvians chose Latvian place names for the names of the camps). During this time, P. Sauleskalns contacted the former students of Malnava Agricultural School. He sent Indulis Kažociņš (1917–2000), a graduate of 1937, a 50-page manuscript «Celsim cilvēci dzīvi» (Let's Build a Human Life) written in 1949 – judgments about how, according to P. Sauleskalns, Latvia should develop [47]. For example, he considered that it should be a presidential, not a parliamentary republic. In November 1951, the family moved to Mississippi, USA [48]. With the support of Pastor Pāvils Ķirsons (1913–1965), the family initially lived in the house of the Latvian Congregation in Senatobia, and the former agronomist became a hen farmer. Half a year later, his family moved to Tennessee, his daughter Laima worked as a cleaner and a cook for an American family, and her father took care of the house's exterior. In the summer and autumn of 1952, he was a teacher at the Latvian youth courses and a children's summer camp organized by P. Ķirsons. In 1961, the family moved to Pittsburgh, where on 15 September 1975, Pēteris Sauleskalns demised at the age of 98.

Although agronomist P. Sauleskalns is generally considered a politician, he was a teacher for most of his working life and dedicated more than 30 years to educating and training the new generations. Under his leadership, several hundred educated farmers were trained in Malnava during the interwar period, who made their contribution to Latvia as an agricultural country.

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Figure 1. Tāļa Pumpuriņa privātarhīvs.

Figure 2. Latvijas Lauksaimniecības muzejs.

Figure 3. Igora Pliča privātarhīvs. J. Alibera foto.

Figure 4. Madonas novadpētniecības un mākslas muzejs (turpmāk – MNM), inv. Nr. 33983:2.

Figure 5. MNM, inv. Nr. 28836. J. Alibera foto.

Figure 6. Igara Pliča privātarhīvs. J. Alibera foto.



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Indulis Zvirgzdiņš

Rīgas Politehniskā institūta absolventa (1908) Pētera Sauleskalna (1876–1975) pedagoģiskā un politiskā darbība

Pētījumā par Rīgas Politehniskā institūta (RPI) absolventu agronomu, pedagogu un skolotāju Pēteri Sauleskalnu (1876–1975) autors izmantojis arhīvu un bibliotēku materiālus, raksturojot Sauleskalnu dzimtu un tās dēla Pētera bērnību, studiju un darba dzīvi, pedagoģisko darbību Priekuļi (1912–1918) un Latgales (1921–1936) / Malnavas (1936–1940) Lauksaimniecības vidusskolās, izvērtējot viņa ieguldījumu Malnavas Lauksaimniecības vidusskolas izveidē un vadībā. Ilggadīgais skolotājs P. Sauleskalns darbojies arī politikā – pārstāvējis Latviešu zemnieku savienību Latvijas Satversmes sapulcē (1920–1922). Par sekmīgu darbu lauksaimniecības izglītībā viņš ir divreiz apbalvots ar augstāko Latvijas valsts apbalvojumu – Triju Zvaigžņu ordeni. Pēc Otrā pasaules kara dzīvoja emigrācijā, ASV.

Atslēgas vārdi: Pēteris Sauleskalns, Rīgas Politehniskais institūts, Latvijas Satversmes sapulce, lauksaimniecības skolas.

LIFE AND CONTRIBUTION OF ELECTRICAL ENGINEERING SPECIALIST NIKOLAI OZMIDOFF (1850–1938) TO THE FIELD OF ENGINEERING

SVETLANA KOVAĽČUKA*

University of Latvia

Summary. The research covers the multi-faceted activities of Nikolai Ozmidoff (*Николай Озмидов*; 1850–1938), a specialist in electrical engineering, member of academic staff (1884–1918) of Riga Polytechnicum (RP) / Riga Polytechnic Institute (RPI), professor (1906), in various positions – working on the railway in Switzerland and Germany, in geodesy, surveying, electrical engineering in Riga, as well as his pedagogical and scientific activities at RP / RPI and Ivanovo-Voznesensk Polytechnic Institute in Russia. Developing the article, the author used archival documents, scientific literature, and publications in the press.

Keywords: Riga Polytechnic Institute, Nikolai Ozmidoff, electrical engineering.

The Ozmidoff Family, N. Ozmidoff's Childhood and Youth

The family of a specialist in electrical engineering Nikolai Ozmidoff was related to the noblemen Ozmidoffs from the governorates of Bessarabia, Mogilev, Yekaterinoslavl, and Kherson in the Russian Empire. A modern Ukrainian historian Viktor Zaruba (*Віктор Заруба*) has discovered that N. Ozmidoff's father was a nobleman from Yekaterinoslavl Governorate, who moved to Bessarabia [1]. It may be assumed that Nikolai's father came from the German-speaking lands, Switzerland or Poland. The influx of German settlers to the Black Sea and Caucasus Region in the early 19th century was caused by the Manifesto of the 20 February 1804 issued by the Russian Tsar Alexander I Romanov (*Александр I Павлович Романов*; 1777–1825) [2]. A German

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colony was soon established in the Bessarabian city Akkerman (now Bilhorod-Dnistrovskyi; *Білгород-Дністровський*), Ukraine. Relatives of N. Ozmidoff residing in Moscow, Russia, whom the electrical engineer, RPI / RTU Professor *Kārlis Tabaks* (1920–1997) corresponded with, also had little information about the genealogy of the Ozmidoff family. In order to commemorate the 140th anniversary of Professor N. Ozmidoff, *K. Tabaks* published an article about him in the journal «*Электричество*» (Electricity) published in Russia [3]. It is known that Ozmidoff was a relatively widespread surname in the Russian Empire, for example, such persons as Mikhail Ozmidoff (*Михаил Озмидов*; 1837–1897), a newspaper publisher and editor in Odessa, a Customs Officer in *Liepāja* and many others can be mentioned [4]. The author has not been able to find out whether they are relatives of N. Ozmidoff or not.

N. Ozmidoff was born on 27 December 1850 in Akkerman. He was baptized in the city church of Saint George. It is known that his father Maxim Ozmidoff (*Максим Озмидов*; ?–?), a nobleman by origin, had a technical education, which later allowed him to work in the railway department [5]. Unfortunately, there is not much precise information about the Ozmidoff family available in the Latvian State Historical Archive of the National Archives of Latvia, for example, in the personal file of a member of RPI academic staff N. Ozmidoff [6], as well as in the documents that were submitted by N. Ozmidoff when he applied for the Latvian citizenship.

Looking for a job where he could apply his technical knowledge, Maxim Ozmidoff changed his place of residence. In 1862, he and his family moved from Akkerman to Vitebsk, while in 1863, M. Ozmidoff, Nikolai's father, was transferred to *Dünaburg* (the name of the city *Daugavpils* until 1893, *Dvinsk* from 1893 to 1920). In the late 1850s and early 1860s, the railway network rapidly developed in the Baltic governorates and Vitebsk Governorate: the St. Petersburg–Warsaw Line was built to pass through *Rēzekne* and *Dvinsk*, and in 1861, the Riga–*Dvinsk* Line was opened.

In 1868, N. Ozmidoff graduated from the gymnasium in *Dünaburg* and successfully entered the Faculty of Physics and Mathematics of St. Petersburg University. In 1869, he changed his plans and went to Switzerland to continue his studies at Zurich Polytechnic School (*Eidgenössische Polytechnische Schule Zuerich*), also called the Polytechnicum. The university founded in 1855 is now known as the Swiss Federal Institute of Technology in Zürich (*Eidgenössische Technische Hochschule Zuerich*). N. Ozmidoff attended the lectures of prominent scientists: the founder of graphic statics, engineer and mathematician, bridge design and structural engineer Carl Culmann (1821–1881), a mechanical engineering engineer, «father» of kinetics

Franz Reuleaux (1829–1906), an architect, art critic Gottfried Semper (1803–1879) and others. N. Ozmidoff received his university diploma in 1874[7].

In Railway Service in Switzerland and Germany

Having received an engineering diploma, N. Ozmidoff started working as an Engineer's Assistant in the Swiss North-East Railway Company in 1874. The young engineer found a job in the railway service in order to gain experience and later be able to work independently. At that time, in the early 1870s, a railway construction project was started in Switzerland, which was important for the country's economy. The grandiose technical project became a symbol of the unity and cohesion of the Swiss nation. The railway connected the neighbouring countries, and its construction was quite complicated, as a tunnel under the mountains was also built. The construction of the Swiss railway became a pan-European project with the general aim to connect Germany with Italy. In 1875, N. Ozmidoff became the Construction Manager in the construction of the Baden–Niederglatt Railway Line in Switzerland. In 1878, he started working as a bridge designer on the railway line Magdeburg–Halberstadt in Germany [6; p. 12, 13].

Work in Geodesy, Surveying, and Electrical Engineering in Riga

After gaining his first practical experience, the young engineer returned to Russia, taking his wife and son with him. He chose to live in Riga, probably because the German culture and language widespread in Riga were close to his wife and it was easier for her to settle in her new life.

On 4 March 1879, the Riga City Board made a decision on the establishment of the City Construction Board, which would also include the Surveying Office. According to the documents, engineer N. Ozmidoff started working in the office on 17 March, occupying the position of the City Surveyor. His task was to collect the existing surveying materials, control surveying works and drawing plans. The creation of the first triangulation network (1880–1882) and the surveying of the territory were led by the RP professors, Switzers Alexander Beck (1847–1926) and Heinrich Malcher (1848–1927), who also worked in this committee [8]. N. Ozmidoff's practical work in surveying the city was highly

appreciated – in 1882, he was awarded a First-Class Diploma at the All-Russian Industrial and Art Exhibition in Moscow.

Soon, he was fascinated by the new area of scientific and practical work and began installing electrical equipment in Riga's public buildings and major industrial enterprises. The young engineer proved to be talented in the new field of work. The knowledge and experience gained in Switzerland, Germany, and Riga were important factors in his career – in May 1896, the Riga Stock Exchange Committee appointed him as an Electrical Engineering Expert at the All-Russian Industrial and Art Exhibition in Nizhny Novgorod.

N. Ozmidoff became one of the first electrical engineering specialists who was given the opportunity to use his knowledge for the benefit of the people of Riga, restoring the 1st Riga City (German) Theatre (currently the building of the Latvian National Opera and Ballet) after the fire from 1882 to 1887. The first power station in Riga was opened at the theatre building in 1885 [9], according to other sources – in 1887 [10; p. 5], and its installation was led by engineer N. Ozmidoff. Another project was related to the mentioned theatre building, and Eduard Lindwart (1856–1920), a graduate (1879) of RP, took part in its realization. He worked as a mechanical engineer of the City of Riga, got acquainted with the work of power plants abroad. On his recommendation, a battery was installed in the power plant near the theatre building in 1891, so that the spare electricity could also be purchased by the residents of the immediate vicinity [10; p. 5]. In addition, N. Ozmidoff participated in the creation of electrical equipment in the largest industrial enterprises in Riga: A. Wolf Schmidt Distillery (*Brennerei A. Wolf Schmidt*), C. von Stritzky Beer and Porter Brewery (*Bier-und Porterbrauerei, Malzfabrik C. Stritzky*), Malt Factory, Russian-French Rubber Production Factory «Prowodnik», *Strazdumuiža* Cotton Factory (*Strasdenhofer Baumwollen-Manufactur*) and others. As the demand for electricity grew, in 1900 the Riga City Council started considering an opportunity to build a power plant and in October 1901 made a decision that the issues of construction and operation would be under its control. In November, the first funds were allocated to the new project. On 14 May 1905, the Riga City Electricity Supply Company opened the first large power station in *Andrejosta* [11]. The commissioning of the power plant equipment from the companies was completed only in November 1905. The city appointed experts – RPI professors N. Ozmidoff and Paul Denffer (1871–1959) [10, 11]. Engineer N. Ozmidoff also made sure that at Christmas 1888, the pupils of St. Peter's Church School would have their Christmas tree decorated with electric bulbs [12], which was a big event back then and brought joy to children and adults alike.



Figure 1. The chimney of the first power plant in the Baltic governorates near the building of the Latvian National Opera and Ballet Theatre in Riga (2022).

N. Ozmidoff was invited to participate in a grandiose project of modernization of the port of Riga and expansion of the railway network [13]. Historian *L. Malahovska* has stated that «significant expansion of the Russian railway network in the 19th century in the conditions of the rapid industrial boom of the 1890s was one of the causes that promoted the development of the shipping conditions in the port of Riga meeting the requirements of the world's largest ports. Riga Port ranked among the most modern ports in Europe» [14]. All transformation, expansion, and deepening measures carried out in the port of Riga in the 1890s were ambitious tasks undertaken to achieve this goal. N. Ozmidoff participated in the projects related to the construction works of the Riga–Oryol railway line in *Andrejosta* direction.

Faculty Career at Riga Polytechnicum / Riga Polytechnic Institute (1884–1918)

Pedagogical career of Nikolay Ozmidoff at RP began in the fall of 1884. On the recommendation of the Polytechnicum Council, he was appointed an Assistant Professor of the engineering encyclopaedia course. In academic year 1886/1887, RP Assistant Professor Engelbert Arnold (1856–1911) started teaching a course on electrical engineering for the first time in Latvia. In 1891, E. Arnold left Riga, and the course he delivered was taken over by N. Ozmidoff. From 1892, the course on electrical engineering was divided into two parts, one of them was

taught by Assistant Professor Richard Hennig (1861–1922) and the second – by a practicing electrical engineering N. Ozmidoff [15].

In the second half of the 1880s, the language policy began to change in the Russian Empire. The new Russification policy affected the Baltic governorates and their educational institutions. By the order of 29 September 1892, the government demanded to start teaching in the Russian language. Negotiations began between the representatives of the Russian Ministry of Public Enlightenment and RP. The lectures were partially switched to the Russian language; however, the academic staff could still continue teaching in the German language. RP experienced significant changes in 1896 when its status changed – from a private university, RP became the state highest educational institution with rights and obligations similar to technical education institutions in Russia.

From 1 September 1898, N. Ozmidoff was already an Associate Professor of electrical engineering, from 1 July 1906 – a Professor of the Department of Electrical Engineering, and from 1 September 1909 – a Professor Emeritus [6]. He headed the Electrotechnical Laboratory established by E. Arnold in 1887, which was located in the RP building at 19 *Troņmantņiekas* (currently – *Raiņa*) Boulevard, and at the beginning occupied an area of 78 m². In 1911, on the initiative of N. Ozmidoff, the laboratory was expanded, and its area was expanded to reach 365 m² [16]. Alexander Didebulidze (1882–1951), a graduate (1911) of the Department of Mechanics of RPI [17], later an Academician of the Georgian Academy of Sciences, was assistant to N. Ozmidoff (from 1911 to 1915). Assistant (1905–1908) Ludwig Hunchen (1880–1950), a graduate (1908) of the Department of Mechanics of RPI, also worked together with Professor N. Ozmidoff. After obtaining the diploma of the engineering technologist, he worked as an Assistant (1909–1913) and Assistant Professor (1913–1918) at RPI and Electrotechnical Laboratory of RPI [18].



Figure 2. A fragment of the assignment completed by RPI student *Konstantīns Mellups* (1891–1980) in the RPI Electrotechnical Laboratory (16 October 1914).

He retired as a Full Professor in 1914, but was rehired by RPI for five more years in August of the same year. Exactly one year later, when the front of World War I was approaching, Professor N. Ozmidoff with his family and colleagues from RPI evacuated to Russia, Moscow. Studies continued – RPI had 2559 students on 1 January 1916, but only 1538 on 1 January 1917 due to the conscription of students to military service [19; p. 39]. N. Ozmidoff was a Meritorious Professor since 1 September 1909, and the Russian Ministry of People's Enlightenment allowed him to work for another five years as he reached retirement age [6; p. 18], in 1914 such permission was given for the second time. He continued working as a Visiting Professor [19; p. 5] and in addition to his salary received a pension of 3000 gold rubbles per year from the Russian government from 1 September 1914 to 1 October 1918 [20; p. 2].



Figure 3. Nikolai Ozmidoff in Moscow (1915).

N. Ozmidoff's textbook for the course on electrical engineering was published at the beginning of the 20th century in Riga [21]. In 1890, he published an article on the distribution of current in the electrical network in one of the first special journals dedicated to the issues of electrical energy «*Электричество*» (Electricity), published in Russia since 1880 [22]. N. Ozmidoff presented a report on some facts from his practice in working with transformers at the meeting of the Russian Technical Society on 3 March 1889. The report was published in a separate brochure in St. Petersburg [23]. The professor's work was appreciated with high awards in the Tsarist Russia: the 2nd and 3rd Class Orders of St. Anna, the 2nd Class Order of St. Stanislaus, the 4th Class Order of Saint Prince Vladimir.

Responsibilities of a Members of Academic Staff at Ivanovo-Voznesensk Polytechnic Institute, Russia

The activity of RPI in Moscow continued until April 1918, then part of the academic staff and students returned to Riga, which at that time was occupied by the Germans. At the same time, the idea to establish the Polytechnic Institute (IVPI) in Ivanovo-Voznesensk (at present – Ivanovo) on the basis of RPI emerged. On 6 August 1918, a decree on the establishment of the IVPI was issued [24]. Among the professors of the newly established higher education institution there were also former members of academic staff of RPI: N. Ozmidoff (Department of Electrical Engineering), Vsevolod Keldych (*Всеволод Келдыш*; 1878–1965) (Department of Construction Mechanics) and others. RPI Professor Mikhail Berlov (*Михаил Берлов*; 1867–1935) was elected the first Rector of IVPI (1918–1921). N. Ozmidoff was also a member of the IVPI Council Presidium and Deputy Dean of the Faculty of Mechanical Engineering.



Figure 4. Academic staff of Ivanovo-Voznesensk Polytechnic Institute. From left: in the second row, Stepan Shimansky (*Степан Шиманский*; 1868–1931); third N. Ozmidoff; fourth M. Berlov; ninth in the third row – Vsevolod Ozmidoff (*Всеволод Озмидов*; 1881–1938?) (1921/1922).

However, living and working conditions in the Soviet Russia were not easy, so in 1921 N. Ozmidoff's colleague Professor M. Berlov returned to Riga. Professors N. Ozmidoff [25] and S. Shimansky followed him in 1922.

Nikolai Ozmidoff's Family

Life and
Contribution
of Electrical
Engineering
Specialist Nikolai
Ozmidoff (1850–
1938) to the Field
of Engineering

N. Ozmidoff married a Swiss citizen, Catholic Armida Paulina Ozmidoff, b. Dorer (1855–1923). While living in Riga, both N. Ozmidoff's wife and he himself had made friends with the Switzer Alexander Beck, who was a lecturer (1873–1899) at RP / RPI, as well as other Switzers who lived in Riga [26]. The Ozmidoffs also had no language barrier in their conversations with the Swiss.

A. P. Ozmidoff passed away at the age of 68 and was buried in the Orthodox cemetery – Pokrov Cemetery in Riga [27].

The Ozmidoff family had two sons and two daughters. The eldest son Maxim Ozmidoff (*Максим Озмидов*; 1879–1952) was a graduate (1908) of RPI, an architect [28]. After graduating he worked for a year in a private architectural bureau in Stuttgart, Germany. After that, he returned to Riga and in 1909 founded his architectural bureau. In 1910, he got married in Riga, evacuated during World War I and lived in Voronezh, Russia. In the 1920s and 1930s, he lived in Riga and designed various buildings, including residential houses [29]. In 1941, M. Ozmidoff moved to Germany, where he died in 1952.



Figure 5. RPI graduate, architect Maksim Ozmidoff (c. 1919).

The second son, Vsevolod Ozmidoff, also studied at the Department of Engineering of RPI [30] from 1902 to 1914, but did not finish his studies [31] due to the start of World War I. He was captured by the German troops at the very beginning of the war and was released only in November 1918. V. Ozmidoff decided to stay in Russia. In 1922, he completed his studies at IVPI and worked there as an Assistant in fine geometry, later – as an engineer in the textile industry. In the late 1930s, he was repressed by the Soviet authorities and is believed to have died in 1938. V. Ozmidoff's son Rostislav Ozmidoff (*Ростислав Озмидов*; 1928–1998) was a famous oceanologist, a corresponding member of the Russian Academy of Sciences (1991) [32].



Figure 6. Nikolai Ozmidoff's family (early 20th century).



Figure 7. Student of Riga City Gymnasium Vsevolod Ozmidoff (1902).

Professor's daughter Olga Ozmidoff (Ольга Озмидова; ?-?), married name Pikardt, lived with her family in Vienna, Austria. Professor N. Ozmidoff visited her several times (in 1928, 1929, 1930) [33] with his daughter Yevgenia Ozmidoff (Евгения Озмидова; 1880–after 1939), who did not start her own family and lived with her father. In 1929, Nikolai and Yevgenia spent several months in Bessarabia and Austria [34]. The Professor lived in Riga, at 15 *Raiņa* Boulevard. In November 1936, he moved to 38 *Brīvības* Street, where his son Maxim lived [35].

N. Ozmidoff also wanted to meet his youngest son Vsevolod, who lived in Russia. In 1926, documents were completed so that the son could visit his father with his family – his wife and a four-year-old daughter [36]. There is no news about Vsevolod's meeting with his father in later years. His daughter Yevgenija left for Germany in 1939 [37].

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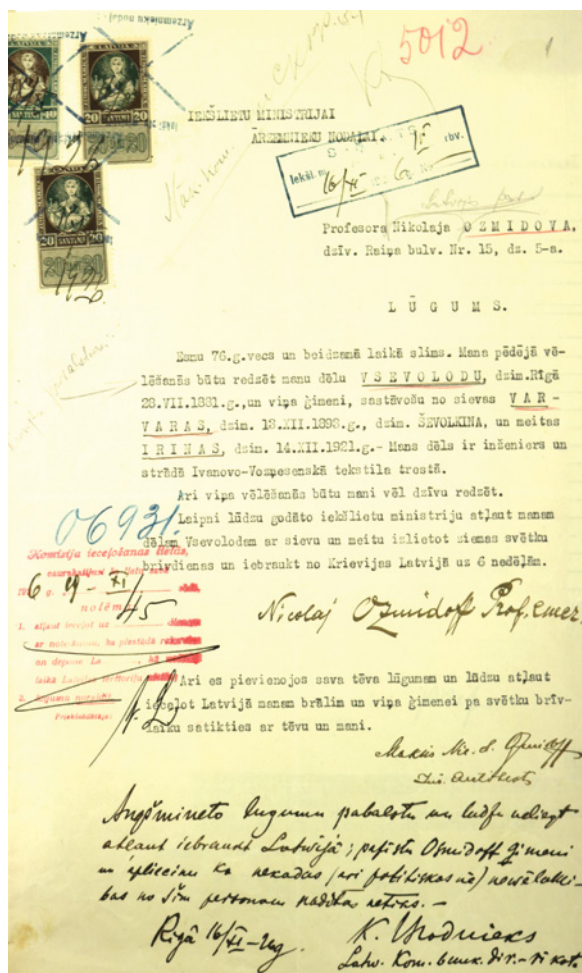


Figure 8. Nikolai Ozmidoff's request to the Department of Foreigners of the Ministry of Internal Affairs to allow his son Vsevolod Ozmidoff and his family to enter Latvia (1926).

2022/6

The Ozmidoff family was involved in charity, for example, at the end of 1926, they donated money to the Literary-Practical Society of Citizens. In the list of donors of the mentioned German organization, we find both Professor Emeritus N. Ozmidoff and his son, an architect M. Ozmidoff, as well as an engineer V. Ozmidoff from Ivanovo-Voznesensk [38].

End of Life in Latvia (1922-1938)

In 1922, N. Ozmidoff and his family returned to Riga from Ivanovo-Voznesensk. On 12 June 1922, he submitted a request to the Administrative Department of the Ministry of the Interior to admit him and his family to the Latvian citizenship [38]. The Professor did not speak the Latvian language, but, taking into account the fact that he had lived in Riga for a long time and had real estate in Latvia, he was accepted into the Latvian state by the decision of the Cabinet of Ministers on 5 October 1922. N. Ozmidoff knew four languages – French, Russian, Polish, and German.

leklīetu ministrijas ziņas līdz ar atsauksmi

Ministrijas prezidents Nikolajs Ozmidovs,
kura amatsvārds ilgums šīs ziņas līdz ar gaisi:
sveša Armida otz, meita Jevgenija Hg.v.

apņemtais Latvijas prezidents.

Ziņas:

- 1) Uzdevi, vārds un uzvārds: Ozmidovs, Nikolajs, Jhansima.
- 2) Dzīves vieta: Rīga, Aleksandra iela, № 38, dz. 5.
- 3) Kad un kur dzimis: 27. 1850g. Derababija.
- 4) Pasaules: bij. krievijas ministri.
- 5) Tautas: krievs.
- 6) Tautas: profesors, pārsvalda pānē vācu polu.
- 7) Iegūtais: profesors, pārsvalda pānē vācu polu.
- 8) Kad un kur dzimis: dzimis dzimis dzimis, no 1880 - 1885. Latvija.
- 9) no 1915. - 1922g. krievija un no 1922g. atvērta latvija.
- 10) Attiecības pret kara kļūdas: Nāc valdījis.
- 11) Gaisma stāvoklis: Sīvu un pērkšādigi tēmi.
- 12) Mācības stāvoklis un darbs, spēja tāt nodarbošanās: paltain atvērta bez nodar.
bromas bet ir atvērta ienērt profesora amatā Latvijas
angļuvali - amajam apmācīti.

Nodātas vadlājs

Atsauksme:

Šai gan vidējais nepārsvalda latviskās valodu,
bet nemot vērā ilgādas dzimstam latviskās,
ari to apstāvēt, ka vidējām šeit ir mēģināms
ipācāms, kas šeit ministrija neēl ierumu
pret uzņemšanu latvijas pavalstīcībā.

leklīetu ministra biedrs

Administratīvā departamenta vicedirektors

Figure 9. News of the Ministry of the Interior of the Republic of Latvia about N. Ozmidoff and his family (1922).

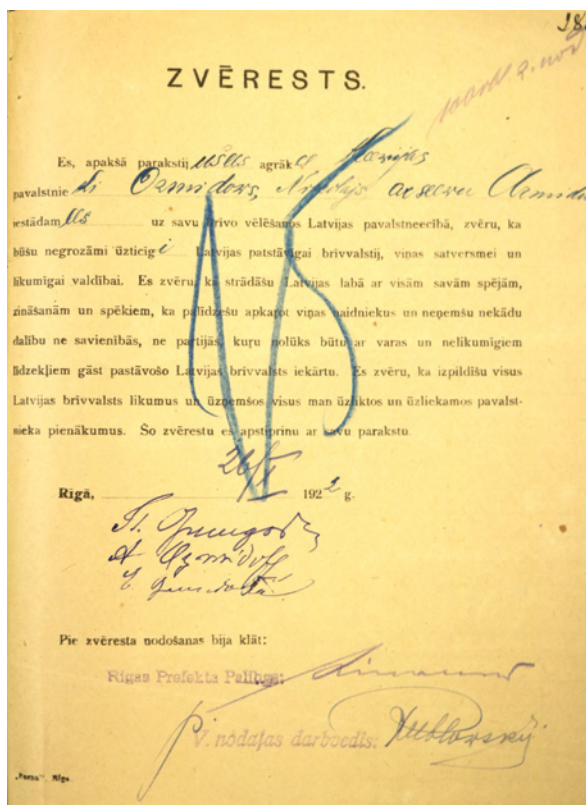


Figure 10.

N. Ozmidoff's oath to be loyal to the Latvian state after obtaining the Latvian citizenship (26 October 1922).

On 29 May 1920, the Faculty of Mechanics of the Latvian Higher School (LHS; from 1923 – University of Latvia (LU)) decided that it would ask the Organizational Council of LHS to invite IVPI Professor N. Ozmidoff as a specialist in the electrotechnical industry, as the one who had developed the plan for the relevant industry at RPI. After a long debate, on 9 June 1920, the Organizational Council of LHS decided to approach the Ministry of Foreign Affairs of the Republic of Latvia with a request to invite N. Ozmidoff to work at the newly established university in Riga [39]. On 29 November 1922, the newspaper «Students» (Student) reported that the Faculty of Mechanics had elected N. Ozmidoff as a Private Docent in the non-compulsory course «Teorētiskie elektrotehnikas pamati» (Theoretical Foundations of Electrical Engineering) [40], but apparently such a course was not taught. This is evidenced in a book published to commemorate the 10th anniversary of the University of Latvia, in which N. Ozmidoff was not mentioned as an academic staff [41]. In the Latvian State Historical Archive of the National Archives of Latvia, his personal file could not be found in the University of Latvia fund no. 7427 either. Also, when arranging for his pension in Latvia, it

was indicated that he was unemployed [20; p. 3]. Perhaps he was taking care of his sick wife and did not have time to prepare for lectures at the university. N. Ozmidoff had no official income in Latvia.

Darba ministrija.
Pensiju nodaļa.

REĢISTRACIJAS LISTE
par darba nespējīgo skolotāju pabalstiem.

Jautājumi	Atbildes.
1. <i>Amatsvārds</i> Skolotāja uzvārds, vārds un ūvā vārds.	<i>Ozmidoff Nikolaj Maksimā d.</i>
2. Kad un kur dzimis?	<i>14 dec. 1850 g. Beļaradija, Māgņozemē.</i>
3. Tagadējā dzīves vieta.	<i>Rīga, Ārminieku ielā, Nr. 18 dz. 16.</i>
a) Pavalstniecība.	<i>Latvijas</i>
b) no kādas iestādes, kad un zem kāda Nr. izdots Latvijas pases?	<i>no Rīgas prefektūras - 20 okt. 1922 g. Nr. 220436</i>
4. Tautība.	<i>Krievs.</i>
5. Izglītība.	<i>Augstskolas izglītība. Beidzis Rīgas Politehniskās skolas (Inženieru) kursu.</i>
6. <i>Amatsvārds</i> Skolotāja darbība: a) kādā stāvoklī, kur un no kura līdz kura laikam darbojies?	<i>Rīgas Politehniskās skolas un Rīgas politehniskās skolas Rīgas Politehniskās inženieru skolas skolotājs. no 1 sept. 1914 līdz 1 sept. 1915 g. - docents, no 1 sept. 1915 līdz 1 jūlijam 1916 g. - docents, no 1 jūlija 1916 līdz 1 jūlijam 1918 g. - profesors. No uzstādīta laika Rīgā - no 1 sept. 1918 līdz jūnijam 1919 g.</i>
b) ja darbinājis ir bijis pārtasdevums, uzturēt iemesla un nodarbošanās pārtasdevuma laikā.	
7. Ja agrāk saņemts pensija: a) no kādas iestādes? b) no kura līdz kura laikam? c) cik liela?	<i>a) no Beļaradijas valdības. b) no 1 sept. 1919 g. līdz 1 okt. 1922 g. c) 2000 zelta rubļu gadā.</i>
8. Vai ir (vai iemēdējis) šķiņķu vai reģistrācijas uz sociālā departamenta rīkojuma no novembra 1919 g. diņ pensijas no valsts: kad un kādā veidā?	<i>Nē.</i>
9. Tagadējā nodarbošanās un peļņa.	<i>Bez darba.</i>

Figure 11. Registration sheet for disabled scientific workers to receive benefits (1923).

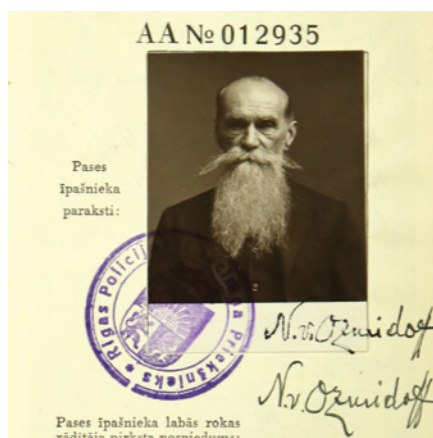
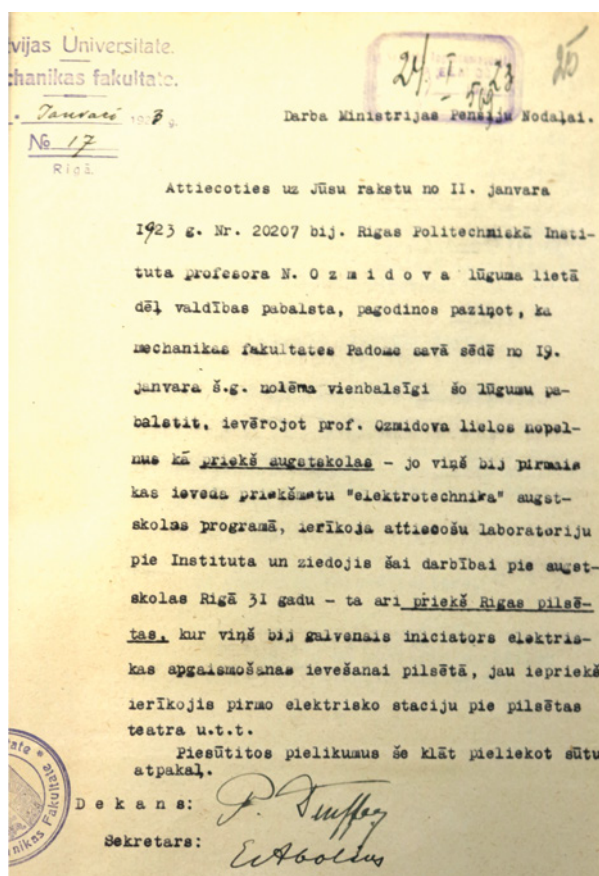


Figure 12. Fragment of N. Ozmidoff's Latvian passport with his photograph and signature (beginning of the 1920s).

He was granted a pension in Latvia only in 1925, and in the first couple of years after his arrival in Latvia, his financial situation was difficult. In January 1923, the Faculty of Mechanics of the UL asked the Pensions Department of the Ministry of Labour to grant a former RPI professor N. Ozmidoff an allowance for meritorious services for the university and the City of Riga [20; p. 25].

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Figure 13.
The request of
the Faculty of
Mechanics of the
UL to the Pensions
Department of the
Ministry of Labour to
grant N. Ozmidoff a
benefit (1923).



The professor read a lot and tried to attend the events of the Russian Student Corporation «*Fraternitas Arctica*». In this corporation, which was founded at RP in 1880, several persons worked along with N. Ozmidoff: RPI graduate (1914), engineer Mikhail Krivoshapkin (Михаил Кривошапкин; 1888–1943); graduate (1894), engineer, and pedagogue Alexander Momma (Александр Момма; 1869–1941), graduate (1895) S. Shimansky, former RPI students – architect Vladimir Shervinsky (Владимир Шервинский; 1894–1975), writer Mikhail Prishvin (Михаил Пришвин; 1873–1954) and others [42].

In 1930, Professor N. Ozmidoff's 85th birthday was celebrated in Riga. He was still cheerful, with a good memory. Anatoly Perov (Анатолий Перов; 1907–1977), a journalist of the newspaper «Сегодня» (Today), wrote in connection with the anniversary that the respected professor was still cheerful and looked younger than a man in his ninth decade, he also participated in the life of the Russian student corporation «*Fraternitas Arctica*» and was still informed about the latest findings in science [43].

N. Ozmidoff was fascinated by the world ice doctrine of the Austrian engineer Hans Hoerbiger (1860–1931) – a pseudoscientific cosmological doctrine of the eternal ice [44].

Nikolai Ozmidoff passed away on 30 July 1938 in *Bulduri, Jūrmala* [20; p. 70]. The Latvian press also reported about it – the Latvian, Russian [5] and German newspapers. Professor N. Ozmidoff was buried next to his wife at the Pokrov Cemetery in Riga.

Conclusions

Nikolai Ozmidoff belonged to the older generation of specialists in electrical engineering who started working in this field in Riga in the 1880s. Thanks to a good education and contacts with famous and well-known Western European scientists, he became a good specialist and promoted the development of electrical engineering in Latvia. He was one of the most prominent Latvian electricians, whose activity at RPI «is connected with the training of highly qualified electrical technicians and extensive scientific and technical activities» [45]. Until now, the facts about Professor N. Ozmidoff's activities in the Riga Swiss Society and the professor's friendship with other Swiss families in Riga was less known. The author has reflected upon N. Ozmidoff's professional activities, emphasizing also his extracurricular activities in this society and the student corporation, as well as the life and fate of Ozmidoff's family.

Students of Professor N. Ozmidoff contributed to the development of electrical engineering in Latvia and beyond. His student and colleague A. Didebulidze became a prominent scientist and pedagogue – he was one of the founders of the Odessa Polytechnic Institute in Ukraine (1918), then worked in Georgia, and was an Academician of the Georgian Academy of Sciences (1944). L. Hunchen, an educator of electrical engineers at the UL / State University of Latvia (SUL), Dean (1944–1946) of the Faculty of Mechanics of SUL, Director of the Institute of Energy and Mechanical Engineering of the Academy of Sciences of the Soviet Socialist Republic of Latvia (1946–1947) should also be mentioned.

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SOURCES OF ILLUSTRATIONS

Figure 1. S. Kovaļčukas personīgais arhīvs.

Figure 2. RTU IVPC.

Figure 3. S. Kovaļčukas personīgais arhīvs.

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Elektrotehnikas speciālista Nikolaja Ozmidova (1850–1938) dzīvesdarbība un devums inženierzinātnēs

Pētījumā atklāta elektrotehnikas speciālista, Rīgas Politehnikuma (RP) / Rīgas Politehniskā institūta (RPI) mācībspēka (1884–1918), profesora (1906) Nikolaja Ozmidova (*Nikolai Ozmidoff; Николай Озмидов*; 1850–1938) daudzpusīgā darbība dažādos amatos – uz dzelzceļa Šveicē un Vācijā, ģeodēzijā, mērniecībā, elektrotehnikā Rīgā, kā arī pedagogiskā un zinātniskā darbība RP / RPI un Ivanovovožņesenskas Politehniskajā institūtā Krievijā. Autore veidojusi rakstu, izmantojot arhīva dokumentus, zinātnisko literatūru un publikācijās presē.

Atslēgas vārdi: Rīgas Politehniskais institūts, Nikolajs Ozmidovs, elektrotehnika.

LIFE OF A GRADUATE OF RIGA POLYTECHNIC INSTITUTE RODRIGO SLAVIŅŠ, AN ENGINEER AND ORIENTEER, AND HIS CONTRIBUTION TO THE ORIENTEERING SPORT

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ARNO LĪCIS

Latvian Orienteering Federation

Summary. The article reflects on the achievements of *Rodrigo Slaviņš*, a graduate of the Faculty of Chemistry (1963) of Riga Polytechnic Institute (RPI), an engineer, the Officer of the Order of the Three Stars, three-time champion of the Union of Soviet Socialist Republics (USSR), Master of Sports in orienteering, in the development of orienteering sports traditions, his work at the Latvian Olympic Committee (LOC), as well as his activities as the Head of the Latvian Orienteering Federation (LOF). Special attention is paid to his merit in popularizing orienteering sports and his achievements in competitions of various scales. Developing this article, the authors interviewed *R. Slaviņš*. They used his personal archive, the documents of the Latvian National Archives of Latvian State Historical Archive and RTU Archive, the collection of the Latvian National Library, scientific literature, and publications in the press.

Keywords: Riga Polytechnic Institute, *Rodrigo Slaviņš*, orienteering sports.

Introduction

This study on one of the graduates of Riga Technical University, orienteer, and promoter of the orienteering sports in Latvia, *Rodrigo Slaviņš*, was conducted in anticipation of the 160th anniversary of Riga Technical University (RTU) in October 2022 and the 60th anniversary of LOF in February 2023. Orienteering gained popularity in the Baltics after

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World War II, and it ultimately became the main centre of development of orienteering in the USSR. In the late 1950s and early 1960s, students and teaching staff of RPI (from 1990 – RTU) also started to deal with orienteering. In the mid-1960s, about 5000 athletes, mostly students and graduates of RPI and the State University of Latvia, were engaged in orienteering sports in Latvia [1].

Not all enthusiasts of that time continued orienteering after graduating from the university, but for some, this discipline became a lifelong passion. Along with *R. Slaviņš*, among the long-time orienteers, there are RPI graduates *Līvija Blanka* (b. *Nātra*), *Anna Slaviņa* (b. *Znota*), *Arno Līcis*, *Gunārs Dukšte*, and many other old masters. Orienteering has been one of the most popular and widespread sports in Latvia since the second half of the 20th century, and its popularity has been promoted by RPI graduates, including *R. Slaviņš* and his family.

The authors of the study had the chance to get acquainted with the engineer, sportsman *R. Slaviņš* from a variety of perspectives while characterizing his professionalism, versatility, and entrepreneurial spirit.

Personality Development in Childhood and Youth

Rodrigo Slaviņš, in the birth certificate – *Rodrigo Kārlis Slaviņš*, was born in *Ventspils* on 2 April 1939 in the family of *Marta Līna Slaviņa* (b. *Veikmane*; 1915–2006) and *Kārlis Slaviņš* (1907–1994). After the wedding, the parents moved to *Ventspils* in the summer of 1935, where they lived at 31 *Pils* (later *J. Fabriciusa*) Street. The family lived in an apartment with a separate kitchen and a large yard, where they could meet the neighbours' children. *Rodrigo's* mother worked as a secretary-typist in various municipal institutions in *Ventspils* for many years; his father had learned the trade of a master shoemaker [2] and later was a stoker and cook on various watercrafts fairing in the water area of the *Ventspils* Port. The parents of *Rodrigo's* mother – farmers *Emīlija Veikmane* (1888–1965) and *Jānis Veikmanis* (1888–1954) managed «*Smildziņas*» House of *Lonaste* (*Kārļmuiža*), *Ances* Parish, *Ventspils* County. All that is known about his father's parents is that his father's father *Fricis* was a spinner [3]. *Rodrigo* spent all summers with his grandparents in «*Smildziņas*» House. It was possible to get there by a narrow-gauge train *Ventspils–Pope–Dundaga–Talsi*, getting off at *Lonaste* Station. *Rodrigo's* Grandfather bought this property in 1924, many years later, the property was inherited by *R. Slaviņš*.

Figure 1. Birth verification
letter of *Rodrigo Kārlis*
Slaviņš (5 Aug 1941).



Figure 2. The wedding of *Marta Līna* and *Kārlis Slaviņš* at «Smildziņas» House in *Lonaste (Kārļmuiža)*, *Ances Parish* (10 Jun 1935).



Figure 3. *R. Slaviņš* in
1944. The coat and the
hat are made from the
coat cloth woven by his
grandmother *Emilija*
Veikmanis (1944).

After the war, *R. Slaviņš* began studying at the 1st *Ventspils* Seven-Year School at *Saules Street*. Due to post-war hardships, in the junior grades, *Rodrigo* carried a school bag made of imitation leather by his father. There were no problems for *Rodrigo* in his studies – the boy only had to listen to what the teachers said in class, and he immediately remembered it.

During his elementary school years, his health was rather weak. *R. Slaviņš*, a resident of *Ventspils*, started playing sports regularly from the 5th grade – running, skiing, cycling, and hiking. Later, he entered the Basketball Department of the *Ventspils* Children's Sports School, graduating from it in 1957.



Figure 4. On the left: *R. Slaviņš*, a 6th-grade pupil of *J. Fabriciuss 1st Ventspils Seven-Year School*, receives a diploma of summer sports games (1953).



Figure 5. *R. Slaviņš*, a pupil of *J. Fabriciuss 1st Ventspils Secondary School* (c. 1956/1957).



Figure 6. *R. Slaviņš*, an 8th-grade pupil of *J. Fabriciuss 1st Ventspils Secondary School* in athletics competition (1955).



Figure 7. Pupils of *J. Fabriciuss 1st Ventspils Secondary School* in Riga at the Freedom Monument during the Spartakiad of the pupils of the LPSR. First on the left: *R. Slaviņš*. (c. 1957/1958).

Later, in the second half of the 1950s, he studied in the 1st *Ventspils* Secondary School named after *J. Fabriciuss* in a class with 13 boys and 10 girls. Some of the boys were older than *Rodrigo*. The first paid job played an important role in *R. Slaviņš's* life – while studying at the secondary school, he worked every day as a laboratory technician in the school's chemistry lab (later – also in the physics lab) with a salary of 30 roubles (1955–1958). It promoted independence. *Rodrigo* also earned money by taking pictures at various events. His spare time interests were various – photography (from the 5th grade and even now – true, as *R. Slaviņš* himself says, at the amateur level). His photographs, documenting the sports activities of RPI students, were published in the newspaper «*Jaunais Inženieris*» (Young Engineer) in 1961 [4]. At some moment in time, he was fond of fishing and crabbing. In the 5th grade, he joined the geography club. Later, while he was at the secondary school, the supervising teacher of his class *Alfrēds Ķepals* (1926–2010) was also a geography teacher [5]. *Juris Jansons*, an RPI graduate, engineer, passionate local researcher, and traveller was his schoolmate since the 8th grade and later his fellow student. They have maintained their friendship throughout their lives.



Figure 8. *R. Slaviņš*, a pupil of *J. Fabriciuss* 1st *Ventspils* Secondary School – laboratory assistant in the chemistry lab (1956).



Figure 9. Graduation of the *J. Fabriciuss* 1st *Ventspils* Secondary School. Eight in the last row from the right: *R. Slaviņš* (1958).

Parents raised *Rodrigo* so that he could be independent and hardworking, responsible, able to take care of his family. They succeeded in their efforts.

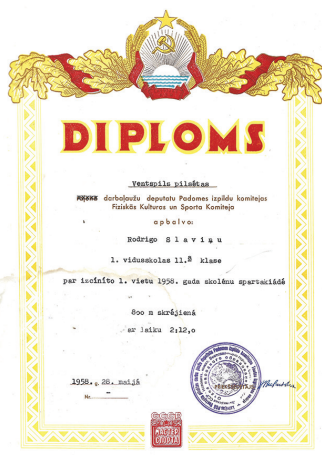


Figure 10. Diploma of *R. Slaviņš*, an 11th-grade pupil of *J. Fabriciuss* 1st Ventpils Secondary School for winning 1st place in the 800 m race in the sports games (1958).

Academic and Sports Life of *R. Slaviņš* at Riga Polytechnic Institute

After graduating from the secondary school in 1958, *R. Slaviņš* entered the re-established RPI to study chemistry. The competition at the Faculty of Chemistry was big that year – 12 people per study seat. *R. Slaviņš* came to RPI with the previous work experience at the secondary school chemistry lab and passed his entrance exams at RPI very successfully [5]. He entered the Day Department of the Faculty of Chemistry of RPI [6]. In the first years, the students went to collect the harvest for the collective farms in the autumn, and *R. Slaviņš* also got to know his group members first by doing physical work.



Figure 11. RPI Faculty of Chemistry students after working on a collective farm (1958).



Figure 12. Students of the 1st and 2nd groups of the RPI Faculty of Chemistry on the collective farm. From the left: second *R. Slaviņš* (c. 1959).



Figure 13. Students of the 1st group of the RPI Faculty of Chemistry in *Valmiera* before working on the collective farm (around 1958/1959).



Figure 14. 1st and 2nd students of the RPI Faculty of Chemistry on the collective farm. *R. Slaviņš* with forks (c. 1960).

The Faculty of Chemistry of RPI was located at 4 *Kronvalda* Boulevard. The two internships of the chem students had to undergo were interesting. In September 1962, under the leadership of the Dean (1962–1965) *Vladimirs Karlivāns* (1928–2005), four students from the Faculty of Chemistry and four from the Faculty of Mechanics went to the German Democratic Republic (GDR), where they spent a month and a half at various factories. The second – the pre-diploma practice – was organised in the winter of 1963. Student *R. Slaviņš* was sent to the 2nd Assembly Plant in Moscow, Russia, where the most exciting impression for him was living in the same dormitory room with two Chinese students for one month. During his studies, *R. Slaviņš* was a diligent and successful student [6], except for the first session – he did not pass the exam in physics at the first attempt. He even received an enhanced scholarship for one semester in the last study year – 1962/1963. *R. Slaviņš* introduced a self-help fund for the chemists who lived in dormitory, then his fellow chemist students established an association «*Hula-Hup*», it even had its flag! He did not attend the mandatory physical education classes, because he participated in the training of various sports sections of RPI [5]. Sometimes he played basketball with the faculty laboratory assistant *Guna Karlsona*, a player on the TTT team. *R. Slaviņš* was elected the person responsible for sports activities at the faculty. On 26 March 1961, many students participated in the friendly competition of RPI and SUL in orienteering in *Langstiņi*.

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Figure 15. RPI student team in *Babīte* before starting the closed route distance. From the left: *R. Slaviņš*, *Dzintars Ģērics*, *Vanda Nagliņa*, *Juris Jansons* (1958).



Figure 16. An RPI Faculty of Chemistry student *R. Slaviņš* at the lecture (c. 1960).

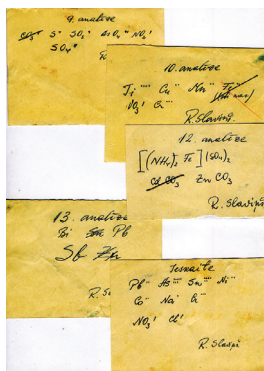


Figure 17. Notes in analytical chemistry made by *R. Slaviņš*, a student of the RPI Faculty of Chemistry, called «collected articles» by the course mates (c. 1960).



Figure 18. An RPI Faculty of Chemistry student *R. Slaviņš* at the «Daugava» Stadium in the 800 m running distance (1962).



Figure 19. A student of the RPI Faculty of Chemistry *R. Slaviņš* works at the dormitory construction site at 2a *Laimdotas* Street, Riga (c. 1961).

During his studies, *R. Slaviņš* lived in a student dormitory. He also participated in the construction of the dormitory building at 2a *Laimdotas* Street in Riga. The building was put into operation at the end of 1961 [7].

When starting his studies at RPI, *R. Slaviņš* first joined the skiing section. Its sports base was located in the bicycle track in *Leņina* (at present – *Brīvības*) Street near the VEF Factory. From there, RPI students ran along the sandy streets of the *Teika* Neighbourhood to the *Bīķernieki*



Figure 20. The team of the RPI Faculty of Chemistry before the start of the tourism competition at the obstacle course. From the left: *Visvaldis Švinka, Aivars Teikmanis, Juris Vilnītis, R. Slaviņš* (1962).



Figure 21. An RPI Faculty of Chemistry student *R. Slaviņš* in his dormitory room at 2a *Laimdotas* Street (c. 1961/1962).

Forest. The coach *Laimonis Kvēps* (1928–1975) rode along on a bicycle. When the snow set, skiing lessons began (led by RPI coaches *Jānis Lodītis* and *Gunārs Krastiņš* (1936–2003)). Then followed October 1958 with a start on the closed route of the Riga Tourists and Alpinists' Club, which became the starting point of the path *R. Slaviņš* made in orienteering. He and his associates founded the RPI orienteering group, which was led by a student of the RPI Faculty of Civil Engineering *Juris Jansons*. Students participated in various competitions showing remarkable results. For exam participated in the IX (1960) and X (1961) gathering of the USSR tourists in the Sverdlovsk Region of Russia, participating in the competition which was held during the gathering. The participants of the RPI Tourism and Orienteering Sports Section not only went on hikes, but also participated in different types of orienteering competitions (at first – winter orienteering and classical orienteering) and were among the best athletes in tourism and orienteering in Latvia. This success was forged also by *R. Slaviņš* [8]. At the beginning of 1962, the RPI team won 1st place in the overall team ranking in the winter orienteering competition (skiing competition with a map and compass) at the XI tourist gathering of the USSR. With more than 600 athletes competing, the RTU men's team won 1st place, the women's team won 8th place [9]. The then RPI Director *Kristaps Neilands* (1899–1960) and the Head (1959–1978) of the RPI Department of Physical Education and Sports *Vera Molčanova* (1918–2005) was very supportive of athletic students.

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Figure 22. The RPI student team at the gathering in the Urals before the start of the orientation team competition at the border of Europe and Asia. From the left: *Andrejs Vasilis, Juris Jansons, Viktors Zālītis, R. Slaviņš* (1960).



Figure 23. The RPI student team before the start of the orientation team competition at the border of Europe and Asia in the Urals. In the middle: *R. Slaviņš* (1961).



Figure 24. Diploma granted to *R. Slaviņš* for winning 1st place in a closed route competition (1961).

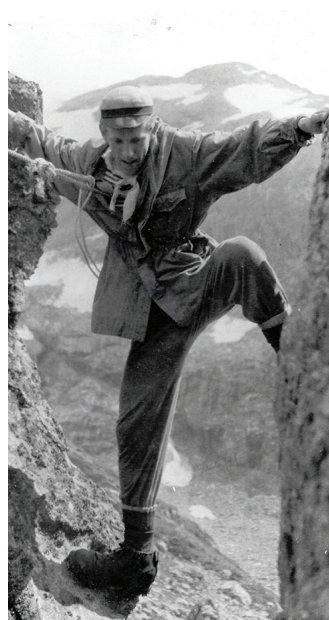


Figure 25. An RPI student *R. Slaviņš* in the mountains (1960).

R. Slaviņš intensively participated in the joint trainings and, as far as possible, took part in all competitions with orienteering as one of the disciplines. The RPI athletes and orienteers managed to create an amiable atmosphere. On 11 November 1962, they participated in the competition dedicated to the 100th Anniversary of RPI [10]. RPI

orienteers were highly recognized in Latvia for many years, taking award-winning places as members of the Latvian National Team. For example, *R. Slaviņš's* teammate, a graduate (1964) of the RPI Faculty of Mechanics, *Arno Līcis*, won a silver medal in the 1st All-Union Competition in Uzhhorod in 1963 during his study year at RPI [11]. *R. Slaviņš* course mates *Helmutš Guļevskis* (1937–2019), *Anna Znota*, *Imants Pelns* (1939–1965), *Māris Bļodons*, *Aivars Teikmanis*, *Jānis Klētnieks* (1940–2014), *Feliks Apinis* and others were also actively engaged in orienteering at that time.

Figure 26. Students of the RPI Faculty of Chemistry. Third from the left in the first row: *R. Slaviņš* (c. 1959).



Students from other faculties of RPI competed along with the students of the Faculty of Chemistry *R. Slaviņš* and *Anna Znota* (m. *Slaviņa*). *Rūdolfs Ābols* (Faculty of Electroenergetics), *Lilija Barisa* (m. *Metuma*; Faculty of Mechanics and Machine Engineering), *Māra Bieziņa* m. *Ābola*), *Līvija Nātra* (m. *Blanka*) and *Māris Blanks* (Faculty of Mechanics), as well as *Ināra Ģipsle* and *Gunārs Dukšte* (Faculty of Civil Engineering) as the members of the team of the sports association «*Daugava*» and the Latvian national teams for many years were the winners in team rankings at the USSR scale. Mutual friendship, genuine joy for each other's success and support in every little matter was the valid key to success. During their studies, students-athletes became a family where trust and responsiveness, keeping one's word and honour were and still are the central values [5].



Figure 27. RPI chemists in the Caucasus Mestia. From the left: *Fēlikss Grunsbērgs, Aldis Zeibots, Uldis Mīkstais, Visvaldis Švinka, Romualds Lavrinovičs, Jānis Meškova, Juris Vilnītis* (1962).



Figure 28. Singers of the men's choir of RPI «*Gaudeamus*» on tour. From the left: *R. Slaviņš, Aldis Zeibots, Valdis Tolmanis* (c. 1960).

R. Slaviņš was also a member of the men's choir of RPI «*Gaudeamus*», but later his interest for sports prevailed.

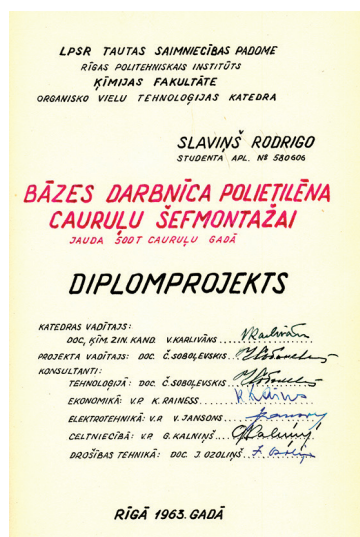


Figure 29. Title page of *R. Slaviņš's* diploma project (1963).

R. Slaviņš developed the diploma project «Base Workshop for Master Assembly of Polyethylene Pipes. The Capacity of 500 t of Pipes per Year» (Assistant Professor *Česlavs Soboļevskis* (1907–?) was the supervisor of this project). Having successfully defended the diploma project, *R. Slaviņš* graduated from the Faculty of Chemistry of RPI on 28 June 1963, obtaining the qualification of an engineering technologist in the specialty «Plastics Technology» [6]. Fellow students keep meeting each other and are still friends.

Figure 30.
Students and
academic staff of
the RPI Faculty
of Chemistry at
the graduation
ceremony
(1963).



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Figure 31.
Diploma of
R. Slaviņš, a
graduate of the
RPI Faculty of
Chemistry (28
Jun 1963).



Figure 32.
Graduates of the
group of 1963 of
the RPI Faculty
of Chemistry at a
reunion meeting
(c. 2015).



At that time, work placement of new specialists in the USSR was mandatory for the graduates of the day department. During the placement to the new workplaces, the best students were the first to choose. *R. Slaviņš* was an excellent student in the last semester, he had an enhanced scholarship, so he opted to stay to work in Riga.

Work and Family

After obtaining an engineer's diploma, *R. Slaviņš* was assigned to work as a foreman of a galvanic workshop in a state company called «p/k 211». It was located in Riga and later became a «*Komutators*» Factory. He soon took the position of a department's engineer-technologist. In 1966, engineer *R. Slaviņš* changed his job and by 1990, he had built a career from an instructor to the Head of the Self-Employed Tourism Department at the Latvian Republican Council of Tourism and Excursions. In 1990, his workplace became the External Economic Relations Department of the Council of Ministers of the Republic of Latvia, where the engineer started working as the chief specialist of the Tourism Department [12]. Two years later, in 1992, *R. Slaviņš* began working as a chief specialist in the Tourism Department of the Ministry of Transport, then – in the Latvian Tourism Council of the Ministry of Environmental Protection and Regional Development. Two years later, in 1994, *R. Slaviņš* joined the insurance joint-stock company «*Balta*», where he performed the duties of a personnel manager, then – the Head of the Personnel Department. It was his last job, and he worked there until his retirement in 2009 [5].



Figure 33. *R. Slaviņš* with his son *Ģirts* on Mont Blanc (1999).



Figure 34. *R. Slaviņš* with his wife *Anna* in Cēsis (2015).

On 22 May 1965, after long-time friendship during their studies at RPI and many hikes they made together, *R. Slaviņš* started a family with *Anna Znota*, a graduate (1964) of the Faculty of Chemistry, who also played sports. She was among the five best RPI athletes in 1961 in athletics (100 m, 200 m, and 400 m running) [13]. The family has a son, *Ģirts*, who currently is a successful entrepreneur. Grandchildren of the couple – *Krišs*, *Zīle*, and *Māra* – are also engaged in orienteering sports.

Figure 35. *R. Slaviņš* with his family on the day of their Golden Wedding in *Vidriži* Parish. From the left: *R. Slaviņš*, his daughter-in-law *Laura Slaviņa*, holding *Māra Slaviņa*, standing *Zīle Slaviņa*, *Anna Slaviņa* (2015).



Work in the Latvian Orienteering Federation and Sports Activities

R. Slaviņš retained his passion for orienteering sports that he developed in his study years. Sports ranks in the Latvian orienteering started to be awarded in 1962. Since 1966, athletes could win the title of Master of Sports of the USSR. The summer of 1966 was significant for orienteering sports, when orienteering competitions were held in the Russian Soviet Federative Socialist Republic, where for the first time in the history of this sport, 10 athletes won the title of USSR Master of Sports. Six of them were Latvian athletes, including three RPI graduates – *Lilija Barisa*, *Līvija Nātra*, and *Jānis Klētnieks* [14]. *R. Slaviņš* became the USSR Master of Sports in orienteering in 1967.

R. Slaviņš has won many and various medals both in the championships of the USSR and in international competitions from 1965 to 1975. He participated in international competitions as a member of the USSR National Team. For various reasons, the composition of the varsity team was not always approved. For example, in 1973, the composition of the USSR National Team had long been confirmed, but suddenly its executive secretary Yevgeniy Ivanov (*Евгений Иванов*; 1937–2020) was summoned by some official who categorically forbade him

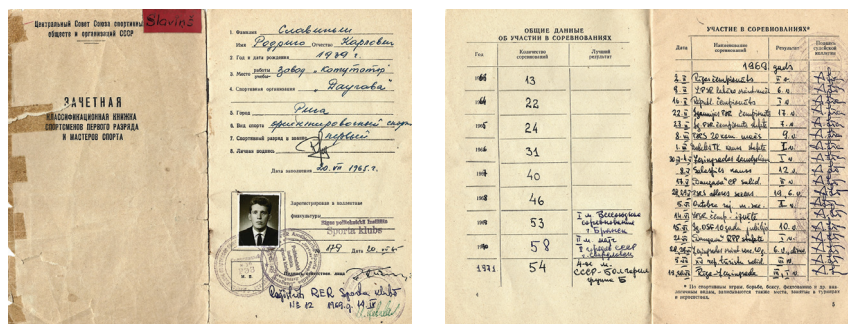
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to start with this strong team, because five of the six members were ... Latvians. Some of the team members had to be replaced in order for the team to be able to compete [15; pp. 129–130]. In the times of the USSR, Latvians also managed to compete and win large-scale competitions. Thus, in the fourth All-Union Competition in the Bryansk Region of Russia in 1969, the men's team won first place, and the women's team won third place. The representative of Latvia *R. Slaviņš* became the Champion of the USSR for the first time [16].

The Latvian Orienteering Federation was founded on 7 February 1963 [17]. *R. Slaviņš* became its third president in 1965. He served as the LOF President for the longest time (1965–1982; 1986–1999), and none of the nine presidents has led the federation for so long. *R. Slaviņš* took part in orienteering competitions in Latvia, the USSR and abroad. In this sport, as *R. Slaviņš* admitted in an interview to journalist and writer *Juris Brežģis* (1935–2002) in 1967, one must have the ability to read the map accurately, and navigate the surroundings both day and night in all seasons and in any weather conditions. An athlete must be endowed with strength, endurance and dexterity [18].



Figure 36. The National Team of the USSR at the orienteering competition in the GDR. From the left in the 1st row: first *Lilija Barisa*, third *Līvija Blanka*; in the 2nd row: second *R. Slaviņš* (1969).



President of LOF *R. Slaviņš* asked an engineer and orienteer, the Head of the Orientation Section of the Riga City Council of the Voluntary Trade Union Sports Society «*Daugava*» *A. Līcis* to create a competition form for the working people and athletes to be used on weekday evenings, which would be suitable for different age and skill groups. Analysing the experience of orienteering sports in the world, including the massive engagement in orienteering in Sweden, *A. Līcis* proposed and organized the orienteering competition «*Magnēts-69*» [19], which was scheduled for ten Wednesday evenings from 4 pm to 7 pm. Participants could choose a distance appropriate to their skill and age. The number of participants in the competitions increased and they became famous and massive. In the following years, about 20 cities, regions organised similar competitions. On one of the Wednesdays in 1980 in Riga, the number of participants in «*Magnēts*» reached as many as 2400. In 1987, 2484 participants were registered in one round [20]. Representatives of the International Orienteering Federation came to Latvia to familiarize themselves with the achievements, and they expressed their appreciation that nowhere in the world such a large number of people dealt with orienteering on weekday evenings as in the Latvian competitions. The world's leading athletes from Scandinavia had also visited Latvia several times and were delighted with the achievements of the Latvian orienteers. In 2019, «*Magnēts*» celebrated its 50th anniversary.



PSRS SPORTA MEISTARA KANDIDĀTS
KALŅU TŪRISMĀ
RODRIGO SLAVIŅŠ

Figure 38. *R. Slaviņš* (c. 1970).

R. Slaviņš's life motto is «Achieve the goal with your actions!» [21] accompanies him throughout his life and is manifested in the way he deals with the organization and management of sports. In

addition, he has coached orienteers and advised beginners in the sport of orienteering. One of them, UL Professor *Sarmīte Tūbele* (b. *Lūse*) remembers, «I met *Rodrigo Slaviņš* (everyone called him *Rodža*) for the first time in the fall of 1973, when in *Olaine* (at one of the chemical factories), besides getting to know life after the university, I started doing some orienteering. *Rodža's* wife *Anna Slaviņa* (called *Aņķe*) took it upon herself to train us, and then both running and reading the map became everyday. I liked everything – in the forest, in the gym, even on skis in winter. Already in December 1973, there was the first competition that sparked excitement (the first earned diploma for third place). Then, also after other competitions, the situations, the choice of forest paths, the technique of marking points and everything else were analysed. Sometimes we listened to *Rodža's* suggestions; and one of his most memorable sayings was «Orienteering is a sport in which you will never stop marvelling at your stupidity until you grow old!». It seemed strange, especially after the first successes in the forest paths, but then there were times when it was impossible to finish the distance. And then you remember the wise words about orienteering. Then everything gets into the right place and the next times are full of success again, the joy and vigour have not been lost, because even great men do not always succeed in everything. However, with such an admirer's view – because *Rodža* mostly succeeded in everything, at least it seemed so to me» [22].

The name of *R. Slaviņš* was well known in the USSR, he was not only an athlete and a three-time Champion of the USSR. *R. Slaviņš's* still has the skills of an organizer. He has also worked in the office of the Central Orientation Section of the USSR [15; p. 261], was a judge of the All-Union category [15; p. 262].

R. Slaviņš still participates in the work of the Historical Commission of LOF. He has also worked in the Latvian Olympic Committee (LOC) – he has been a member of it for many years since its restoration in 1988 [23], participated in the work of the International Olympic Committee (IOC).

Looking back on *R. Slaviņš's* activity in the orienteering sport over the period of over 50 years, it must be said that he criss-crossed the territory of the former USSR, spent time in Europe, Asia, and America, participated in many hikes and also represented the USSR Team in mountain tourism, promoted orienteering sport in Latvia to world-class success.

In 2008, *R. Slaviņš* won the bronze medal in the Seniors Competition in Portugal. In 2009, at the World Veterans Orienteering Championship in the M 70 age group in Sydney, Australia he became World Champion and won the gold medal. In 2015, he won the bronze medal at the World Veterans Orienteering Championship in Gothenburg [24], he participated in the rogaining match of Grand Canaria in Spain.



Figure 39. The team that won the place in the USSR Championship in the mountain tourism trekking group in the Pamir Mountains. From the left: third *R. Slaviņš* (1981).

Figures 40–41. *R. Slaviņš's* mandate for participation in the session of the General Assembly of LOC (2004) and membership card at the LOC renewal conference (1988).

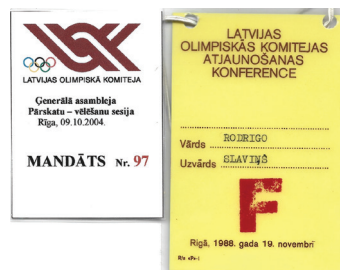


Figure 42. *R. Slaviņš's* certificate for participation in the work of the IOC Assembly in honour of its centenary (1994).



Figure 43. *R. Slaviņš* at the World Veterans Orienteering Championship in Australia with the gold medal in the 70-year-old age group (2009).



Figure 44. *R. Slaviņš* – the 3rd place winner in Gothenburg at the World Veterans Orienteering Championship (2015).

Orienteering competitions, veteran sports matches, photography, driving a car on country roads, spending time with his family, and meeting with friends and fellow students are part of *R. Slaviņš* everyday life, which brings satisfaction and joy to himself and others.



Figure 45. *R. Slaviņš* at the rogaining match of Grand Canaria (c. 2015).

Conclusions

In 2006, *R. Slaviņš* was awarded the Letter of Recognition of the Cabinet of Ministers of the Republic of Latvia for his commitment and success in working for the Latvian state. In 2011, for his contribution to the management and development of Latvian orienteering sports, he was awarded with the Order of Three Stars of the V Class [25]. Riga Technical University (RTU), the heir of RPI's traditions and work, can be genuinely proud of its graduates who have contributed to the development of Latvia and popularized the orienteering sport. An RPI graduate, orienteer, orienteering sports leader and organizer contributed to promoting the popularity of this sport in Latvia. In the second half of the 20th century, orienteering became a popular mass sport and in the 21st century it still attracts many people. This is also evidenced by the fact that in 2005 orienteering was recognised as the most popular sports discipline in Latvia. In 2006, it was still the most popular sport [26], and many RPI / RTU graduates deserve credit for making it so widely recognised, including *R. Slaviņš*. Mass orientation competition «*Magnēts*» is also still organised. Perhaps, it is attractive because, as a journalist *Vija Paikena* (b. *Romanovska*, m. *Vāvere*; 1951–2020) wrote in 1983, it is more intimate than all other sports disciplines, because «you come to the forest, put on your training clothes and run» [26].

Honestly and conscientiously fulfilling his duties, *R. Slaviņš* has fascinated not only his descendants with orienteering. This sport is still massive, exciting, and available to anyone who wants it.



Figure 46. From the left: *R. Slaviņš* with the President of Latvia (2007–2011) *Valdis Zatlers* in the Riga Palace, receiving the Order of the Three Stars (2011).

Orienteering is recognised as one of the most popular sports in Latvia, so it might be useful to know not only its history, supplementing the research of the History Commission of LOF, but also the stories of

other RPI students and graduates who contributed to its development and popularized it. In the private archives of the old masters of the orienteering sports, there are many photographs in which sporty students are seen studying, working and taking their moments of rest, and it is an essential historical testimony about the life and achievements in sports of the engineers educated and trained by RPI / RTU.

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Life of a Graduate of Riga Polytechnic Institute
Rodrigo Slaviņš, an Engineer and Orienteer, and his Contribution to the Orienteering Sport

SOURCES OF ILLUSTRATIONS

Figures 1–35, 37–46. R. Slaviņa privātais arhīvs.

Figure 36. A. Līča privātais arhīvs.



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ARNO LĪCIS graduated from Riga Polytechnic Institute. From 1964, he was an engineer, an inventor, an athlete (the Master of Sports of the USSR in orienteering), the coordinator and organizer of the Latvian sports life, and one of the founders of the mass sports event «*Magnēts*» (which has been running already for 50 years), as well the patriot of Riga Technical University.

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Ērika Lanka, Arno Līcis

Rīgas Politehniskā institūta absolventa, inženiera un orientierista Rodrigo Slaviņa dzīvesdarbība un ieguldījums orientēšanas sportā

Rakstā atspoguļots Rīgas Politehniskā institūta (RPI) Ķīmijas fakultātes absolventa (1963), inženiera, Triju Zvaigžņu ordeņa virsnieka, trīskārtēja Padomju Sociālistisko Republiku Savienības (PSRS) čempiona, sporta meistara orientēšanās sportā Rodrigo Slaviņa veikums orientēšanās sporta tradīciju veidošanā, Latvijas Olimpiskajā komitejā (LOK), kā arī raksturota viņa darbība Latvijas Orientēšanās federācijas (LOF) vadītāja amatā, izvērtēti viņa nopelni orientēšanās sporta popularizēšanā un sasniegumi dažāda mēroga sacensībās. Veidojot rakstu, autori intervējuši R. Slaviņu un izmantojuši viņa personīgo arhīvu, Latvijas Nacionālā arhīva Latvijas Valsts vēstures arhīva un RTU arhīva dokumentus, Latvijas Nacionālās bibliotēkas krājumu, zinātnisko literatūru, publikācijās presē.

Atslēgas vārdi: Rīgas Politehniskais institūts, Rodrigo Slaviņš, orientēšanās sports.

AN EXAMPLE OF THE USE OF TRADITIONAL WOODWORKING HAND TOOLS IN PRODUCT DESIGN STUDIES AT THE INSTITUTE OF DESIGN TECHNOLOGIES OF THE FACULTY OF MATERIALS SCIENCE AND APPLIED CHEMISTRY OF RIGA TECHNICAL UNIVERSITY

**ILZE GŪTMANE*, SILVIJA KUKLE, JĀNIS KALNIŅŠ,
INGA ZOTOVA, ARTŪRS ĶĪSIS**

Riga Technical University

Summary. Initially, hand tools were created to facilitate the processing of materials in manufacturing utility items. Tool design, technology, and ergonomics evolved along with the growing human ability to process new materials. The tool range has expanded to meet more diverse needs of the woodworking industry, adapting the tools for both universal use and specific functions.

Understanding of the functionalities of woodworking hand tools is essential for observing the sequence of material processing and practical processing operations, as well as in building awareness of the properties of the wood material. This is ensured by the interaction between the operator, the tool, and the workpiece. An important aspect in raising awareness is the relatively low processing speed and the processing of the material with human-controlled movements.

Treatment of wood with craft methods and tools reveals the characteristic properties of the material, including specifics of wood grain direction, the difference in the density of earlywood and latewood, and the difference in the longitudinal and transverse grain direction. It also allows understanding the most typical wood defects.

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To make the process of learning a wood material meaningful in the study process, it is integrated with product manufacturing, making students create a wooden puzzle. This process implies running a sequential crafting process from a solid pine board to a finished and functional product – a puzzle. Students have to make it following a uniform design drawing showing the proportions of the pieces and joints.

While making a wooden puzzle, students choose the most appropriate tools for each processing stage. In the process, it is necessary to check, measure, mark, and cut the workpiece. The result is a three-dimensional product that may be assembled and disassembled. The assembly and disassembly process allows appreciating the role of processing accuracy in the course of work and its impact on the end result.

Keywords: traditional woodworking hand tools, craft, wood processing, product design, education.

Introduction

While educating and training future engineers at Riga Technical University (RTU), right from the very start the focus has always been made on combining the knowledge about materials, technologies, and constructions. Studying at RTU Institute of Design Technologies, apart from various modern technological manufacturing possibilities students also acquire skills for making handcrafted products. Product development is a complex process involving a wide range of considerations. Practical hands-on work with the material is one of the most important aspects in the development of tangible prototypes and products, which allows students to fully understand the inherent properties, as well as processing possibilities, limitations and specifics of the material.

The equipment available for conducting the work is a significant aspect of material processing and product manufacturing opportunities. Based on the specifics of the prototype or product to be developed, it determines the quantity, sequence, and time of manufacturing operations.

The relative order and interaction of these aspects provide the basic understanding of the process of prototyping and product manufacturing from a definite material. Therefore, it is necessary to learn the above-mentioned aspects both theoretically and practically.

Learning the material and the tool by doing allows feeling and getting to know them and gaining experience. Doing clearly connects the theoretically acquired knowledge of materials and their properties with the appropriate choice of woodworking hand tools and time consumption, as well as allows appreciating the role of work performance accuracy both in the making process and in the end result.

The purpose of the developed task is to integrate the use of traditional woodworking hand tools and solid wood processing with the acquisition of knowledge and skills by practically making a product.

As a result, a practical task was developed and approved. In the course of its performance, students gain knowledge about the material and tools, develop an understanding of the processing processes, their sequence, and product manufacturing. The experience gained enables students to analogically transfer learning outcomes from one context to another, where the tool or a processing/treatment process can be applied to a different material or operation in a different context.

Woodworking Hand Tools

Initially, the need for woodworking hand tools emerged along with the need to process wood to produce the items necessary for survival, including housing, fences, weapons, household items, various auxiliary tools, etc. Their production quality increased with the development of skills and tools [1, 2].

In the beginning, raw forms and natural materials such as stone and wood served as tools for wood processing. Over time, as long as the human ability to process existing materials and obtain new materials grew, the shape of tools was perfected, which promoted the development of a more comfortable grasp of the tools and ensured their more efficient use. Improved construction ensured a longer service life and suitability for specific types of processing and promoted development of new manufacturing techniques, later also manufacturing technologies [2, 3, 4].

Expanding the range of tools, they were adapted to more diverse and specific woodworking needs, keeping both universal-use tools and developing tools designed for a specific function, until the variety of known woodworking hand tools as currently offered by tool manufacturers and distributors has been developed.

Considering the wide variety of woodworking hand tools and information about them in various sources, it appears expedient to collect information about the tools and classify the tools based on their similar features. Organized information makes it easier to perceive, remember and compare. Tools can be grouped by different selection criteria based on the function to be performed, the materials used to make the tool, and attribution to certain woodworking trades, such as tools used in carpentry, cooper tools, joiner tools, etc., as well as according to tool construction type [5].

The most comprehensive tool grouping technique is the one based on tool functions, distinguishing measuring, marking, cutting, and auxiliary functions as subgroups of the first level of grouping. The listed functions are associated with the preparation of solid wood for technological processing or its technological processing with hand tools. In turn, the tools included in the subgroups of the next levels are grouped based on common characteristics related to the specifics and sequence of work execution according to the basic tasks and core requirements of the professions of carpenter, joiner, and woodcarver. In this case, the chosen professions have been selected due to their interdisciplinary connection with product designers, who most often entrust the design of solid wood products to the representatives of the aforementioned professions. Starting from the second level subgroup, the tools are grouped depending on the exact professions that use these tools in wood processing, the essential functions they perform, and the construction of the tools. As a result, 7 second-level subgroups of measuring tools, 11 marking tools, 9 cutting tools, and 4 auxiliary tools were obtained (see Figure 1, p. 121) [6, 7, 8].

It should be noted that hand tools have served as a basis for the further development of technological woodworking processes, as a result, electric hand tools, position-type machinery, and industrial machinery have been developed. They are used for the mechanized processing of solid wood, accordingly reducing the amount of manual labour in the production processes.

Even though nowadays products are mainly manufactured using machinery, which allows for faster material processing, woodworking hand tools are still used in the development of individual products, new or improved products, prototypes, or specific products. They are most often used in cases when thinking through making is essential or when due to product's specificity it is impossible to process or adapt them for treatment with machine tools. Hand tools are also still used to preserve craft traditions and culture, as well as in the learning process [7].

Woodworking hand tools play a vital role in helping students understand the principles of material processing and learning the properties of the processed wood. It is possible thanks to the interaction among the worker, the tool, and the processed material. A relatively low material processing speed and human-controlled material processing process can be considered important aspects for promoting awareness of materials and methods.

An Example of the Use of Traditional Woodworking Hand Tools in Product Design Studies at the Institute of Design Technologies of the Faculty of Materials Science and Applied Chemistry of Riga Technical University

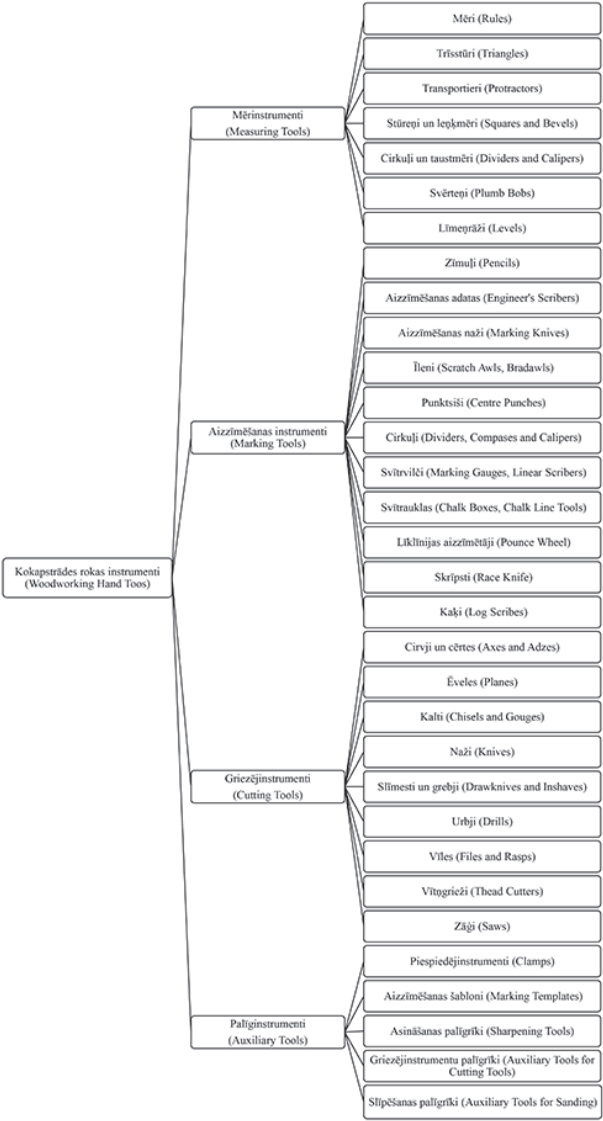


Figure 1. Division of woodworking hand tools into the first and second subgroup levels.

Material Processing

In order to turn a naturally growing round tree stem into wooden products suitable for human needs, it is necessary to process the material. Trees growing in the forest are first transformed by processing them into timber (planks, laths, veneer, etc.), then timber is further processed into wooden objects. The operations performed by the

joiner and carpenter play an essential role in this multifaceted material processing cycle. At this stage, the wood material undergoes the greatest transformations, which result in creation of a product. Joiners and carpenters need craft skills and a wide variety of tools – they should be familiar with them, they should know how they work, and they should also be able to use them appropriately in the processing of the material to ensure a high-quality result [9].

The wide use of wood has been conditioned by its appearance, lightness and at the same time relatively high strength, as well as other properties that are essential in the production of furniture, construction, and the manufacture of wooden products. It is also important to be aware of wood defects, such as swelling or shrinking, cracking and warping due to changes in wood moisture content. There are also defects of biological origin, such as knots, grain defects for conifers – resin ducts, etc. These shortcomings can be eliminated mainly by choosing optimal product manufacturing technologies, which include drying the wood, its mechanical processing, gluing, forming various connections, and other operations [4].

In product design, the choice of materials tends to be complex, as it depends on several interrelated and significant factors, such as functional requirements, manufacturing constraints, life cycle aspects, aesthetic material properties, as well as cultural and representative meanings [10]. Thus, the choice of materials affects how the product will be made, how it will work and how users will interact with it – perceive and use it. On the other hand, in relation to the user experience, the visual and tactile properties of the materials used are of primary importance [11]. Objective sensory properties include, for example, colour and texture that exist physically and are measurable. Subjective sensory properties refer to the fact that the perceived properties of a material also depend on individual human factors, such as the individual's previous experiences, memories, associations, emotions, cultural background, etc. Therefore, the meaning of material is constructed based on the properties of the material, the product in which the material is embodied, the interaction between the user and the product, and the context in which the interaction occurs [10, 12, 13].

On the other hand, while acquiring knowledge and skills, it is important to interact with physical materials and their samples, so that students get direct experience in working with them. Material samples facilitate designer understanding of material properties through direct sensory exposure. Such direct experience is also important because it allows one to visually get to know and evaluate materials in different lighting conditions and from different viewing angles, to feel the smell of

materials, to feel the properties and textures of the surface, to feel the weight of the material and appreciate other properties [14].

Material knowledge (know-how) includes an understanding of material processing, its sequence, and knowledge of the tools and techniques used in material treatment. Hands-on work with the material provides significant skill and experience, allowing to find out what wood can offer in the course of processing. Knowledge of materials allows predicting the behaviour of a material in different contexts without relying solely on a trial-and-error approach. Understanding the influence of all relevant factors, the designer is able to choose the most appropriate materials, their cross-sections, and construction, so that it is appropriate in the given context [11].

Solid wood processing with craft methods and tools reveals the characteristic properties and specifics of the processed material. Processing the material, one can get to know the physical, mechanical, and technological properties of wood, as well as get an insight into the most characteristic defects of timber. Processing of material is essential not only in building awareness of the properties of timber, but also in learning wood processing operations, promoting understanding of the sequence of solid wood processing and the processing time in product development.

Importance of Making in the Product Design Study Process

Thinking includes collecting, documenting, mapping, analysing, reflecting, translating, synthesizing, and concluding. It manifests itself not only with the text but also with everything we create – make. It includes designing subjects, organizing activities, telling stories, and designing systems and experiences. All these areas can be fields of knowledge that are expressed not only in words [15].

Thinking-through-making is a process in which making and thinking constantly interact and enrich each other. Reflection on what has been done creates knowledge and insights. Creation and reflection go hand in hand – the relationship between making and thinking opens up the possibility of expressing knowledge through the manufactured product. It is related to such concepts as thinking with hands and learning by doing. By combining thinking and making, new types of logic and new solutions emerge [15].

Handcrafting means interacting with an object, and this interaction is shaped by many emotions and experiences. Making products by hand

enriches the social and material world with a variety and complexity that cannot be achieved by industrial production methods [16].

Making brings together cognitive and physical abilities in a sensory interaction with the world around us. Every interaction results in change and learning is embedded in that change. It is the emotional and intellectual transformation that occurs as a result of the process of making. The human need to transform and create acts as a conduit between the learning we do with our hands and our cognitive development. The ability to conceive and create an object from start to finish, to analyse and adapt during the making process makes the making a transformative learning process [16, 17].

In order to make the learning of material handling with hand tools meaningful, it is integrated into the production of a product – a wooden puzzle, which includes the learning of the tool and material and the process of making the product from a live edge plank of solid pine into a functional wooden puzzle. It is made on the basis of a dimensional drawing, which shows proportions of all pieces and placement of the notches.

Wooden Puzzle

Wooden burr puzzles or brain teasers are one of the most common types of wooden puzzles today. These are three-dimensional puzzles consisting of wooden pieces with joints that can be assembled and disassembled several times. The six-piece burr puzzle is best known among all wooden puzzles (see Figure 2). Notches are located in the central part of these wooden puzzle pieces, which form detachable cross joints during the assembly process that are fixed with the closing piece without notches [18].



Figure 2. Wooden burr puzzle from six pieces.

The first written evidence about wooden puzzles dates back to 1803 in Germany – it was mentioned in the catalogue of Georg Hieronimus Bestelmeier (1764–1829), but it is assumed that they were known in Europe and Asia earlier [18]. For example, a drawing (1698) by Sébastien Leclerc I (1637–1714) in the British Museum of the Academy of Sciences and Fine Arts shows a similarly shaped object in the lower left part of the drawing [18].

Puzzles of this type are also called Chinese puzzles, because at the beginning of the 20th century, their mass production and import to Europe and America started in China. It is not precisely known and proven where and when the first puzzles of this type were created, but there is a remarkable similarity between the design of these puzzles and the detachable wooden joints used in traditional Chinese carpentry in furniture and household items (see Figure 3) [19, 20].



Figure 3. Chopsticks holder with detachable joints (19th/20th century).

In general, several versions of wooden puzzles are produced, but the oldest patent for a six-piece wooden puzzle is patent No. 1 225 760 by Oscar W. Brown (?-?) in the United States, filed on 27 June 1916. It was followed by several other patents registering even more unusual puzzles, whose shape was modified by adding decorativeness, the pieces and notches were modified resulting in the changes in the assembly/disassembly process, for example, adding hidden pins, rotating parts, interlocking pieces, and other modifications [19, 21, 22].

Six-piece burr puzzles can include three types of parts: puzzles with no embedded notches, puzzles with relatively simple notches in three side surfaces of the piece, and puzzles with complex joints in all side surfaces of the pieces. The pieces are most often of equal length with a square cross-section, where the length of the piece is equal to or at least three times their width. They are symmetrically arranged in three perpendicular pairs. The size of the square cross-section of the pieces is half the depth of all notches. All joint points are embedded in the intersection area of the pieces – in the inner core of the puzzle. The six-piece wooden burr puzzle takes an outwardly symmetrical shape when assembled. In addition, there may be different variations of shapes in parts of pieces that do not have embedded joints, for example, 3D geometric shapes (see Figure 4) [19, 20].



Figure 4. Shape of puzzle pieces with geometric elements (19th/20th century).

Variations of the six-piece burr puzzle make a wide family of designs, the maker having the choice of how to notch each piece. Puzzle analysts led by Bill Cutler (?-?) have defined 59 types of pieces (including the pieces without joints), of which 25 pieces can be used in puzzles where assembly does not create internal voids (see Figure 5, p. 127). The pieces can be chosen in sets of six and assembled in a total of 314 different ways, as well as assembled in several levels of difficulty [22].

Creating a six-piece puzzle requires a wide range of skills. They can be learned and applied from the theoretical to the practical skills and from the mathematical to the artistic level. On the practical level, manufacturing a complex, precisely made wooden puzzle can be a challenging project for both the student and the skilled woodworking professional. People are also interested in the geometric shapes and decorative design associated with polyhedra, as well as the psycho-aesthetics of puzzle design [22].

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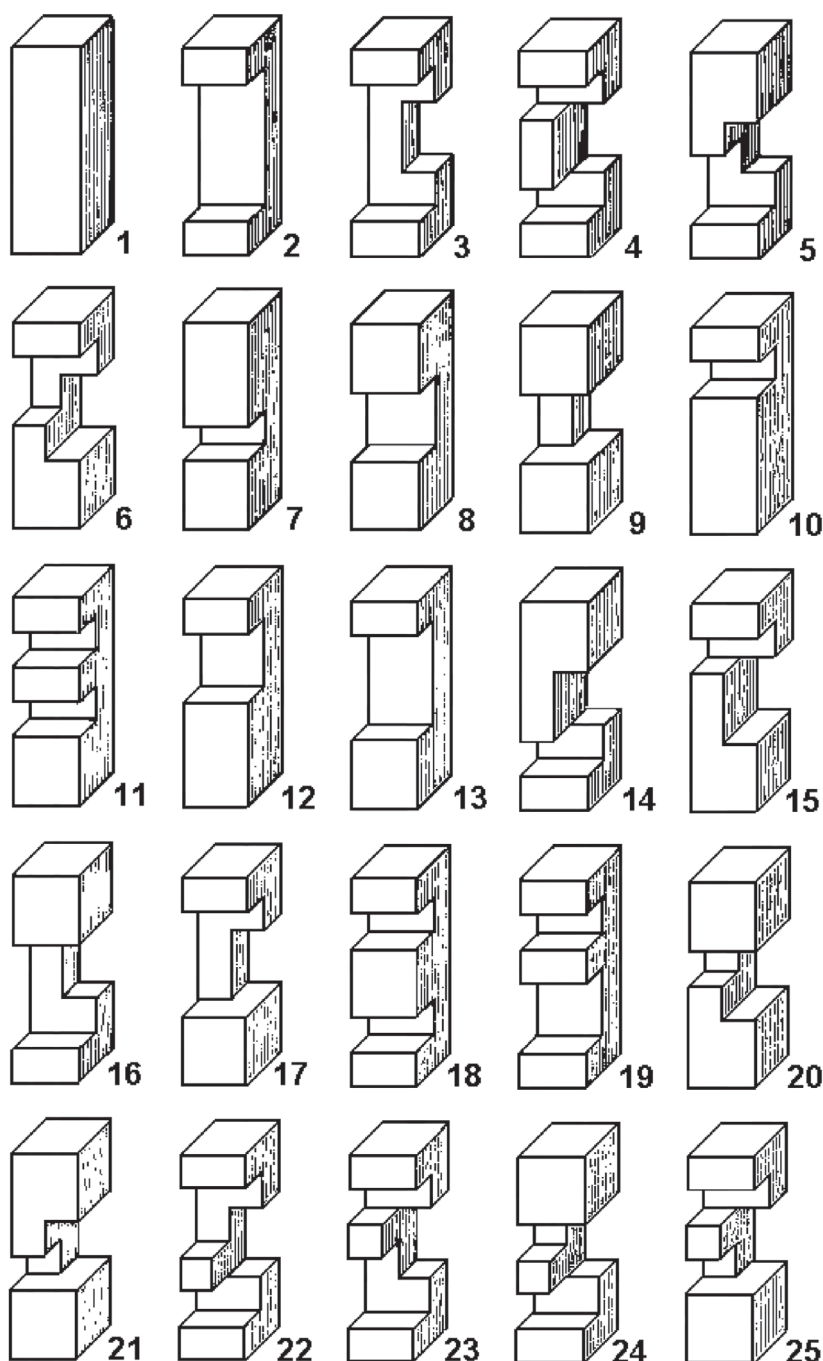


Figure 5. Types of puzzle pieces.

Use of Tools in Product Design Practice

The task was developed taking into account the experience of the students, the selected material to be processed for the execution of the work, and the specifics of the manufactured product, mainly the number of details, complexity of the shape and size, as well as the time resources available during the study process.

In the course of implementing the practical task, there is an interaction between the student or the work performer, the tool, and the material, which results in a manufactured product.

The task is performed by first-year students mostly without previous knowledge of woodworking. Before starting the execution process, students acquire theoretical knowledge closely related to the task, including the variety and applications of woodworking tools, work techniques, and work safety, as well as the most important information about solid wood, its properties, and processing specifics. Making a wooden puzzle is one of the several tasks to be done during the semester. It focuses on kinetic and visual perception, getting to know the material practically, and processing it with woodworking hand tools.

The cross-section of the puzzle pieces is relatively small, in this case it does not exceed 24 mm (taking into account the 26 mm thickness of the material – pine solid wood board). Therefore, the production of the product requires woodworking tools suitable for precise work with small workpieces.

It should be noted that when starting the work, the solid wood blank is larger than the details obtained as a result of the work. Therefore, the choice of tools at different stages of product readiness may differ not only in type, but also in size. This affects the worker's control over the tool. A tool that is too large will be difficult to control, while one that is too small will not be able to handle the full length, width or depth of the workpiece. In both variants, processing precision and the quality of the processed surface are compromised.

The sequence of material processing during puzzle production is affected by the dimensions of the puzzle pieces, so before processing, a step-by-step puzzle production sequence was developed (see Figure 6, p. 129) to ensure the possibility of processing workpieces and obtaining an accurate result according to the students' skills.

The process of making a puzzle mainly includes inspection of workpieces, measuring, marking, cutting, resulting in a three-dimensional product that can be disassembled and reassembled. In the assembly and disassembly process, it is possible to assess the role of processing accuracy in the course of work and its impact on the end result with regard to both each separate piece and the assembled product.

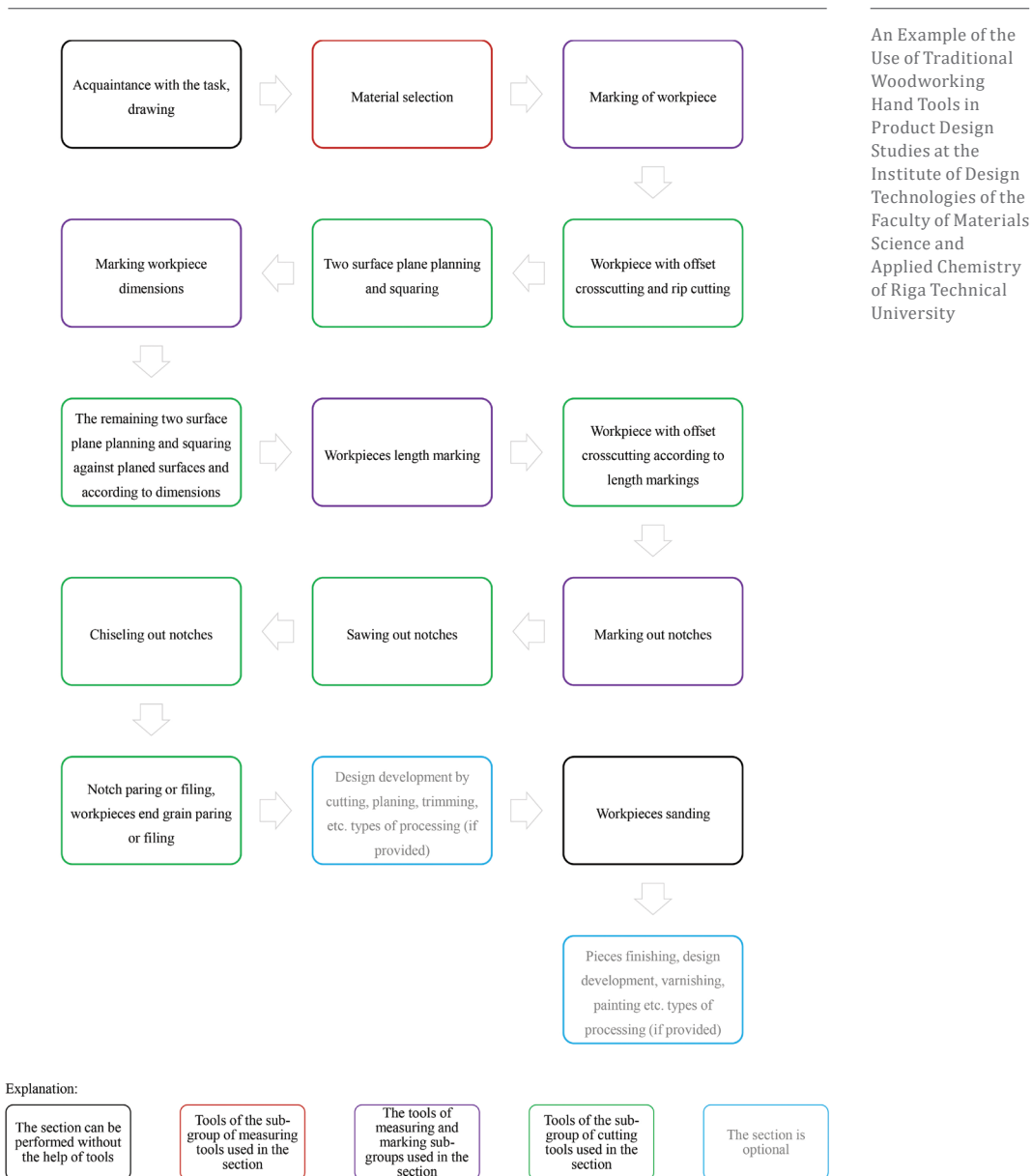


Figure 6. Stages of making a puzzle.

Content of the Task Assigned to the Students

In order for students to fully develop a wooden puzzle, the purpose of the task was defined – to make a wooden puzzle with hand tools using various woodworking methods. Students are also offered a description of the work to be done: a wooden puzzle consisting of six pieces. They are made with various woodworking tools, measuring, marking, sawing, planing, paring (chiselling) filing, and sanding. Using these woodworking techniques, joints are made in the pieces as indicated in the dimension drawing (see Figure 7), so that the resulting puzzle can be assembled. The joints must be made tight and precise enough to hold the puzzle together, and they must also allow the puzzle to be disassembled. Processing the material, it is necessary to ensure high quality of the pieces.

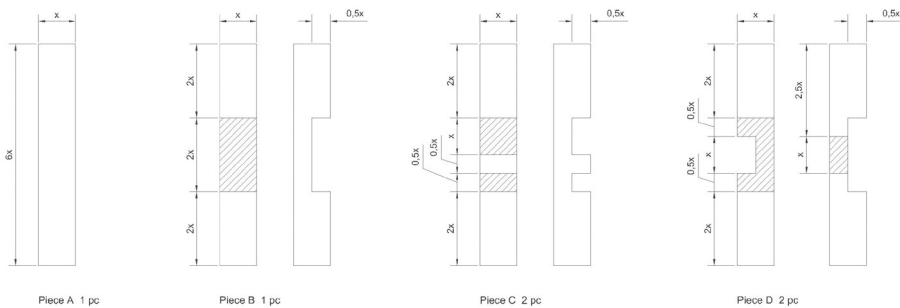


Figure 7. A dimension drawing of the puzzle pieces.

Puzzle manufacturing technology:

- 1) acquaintance with the task, drawing;
- 2) material selection;
- 3) marking of the workpiece;
- 4) workpiece with offset crosscutting and rip cutting;
- 5) two surface plane planing and squaring;
- 6) marking workpiece dimensions;
- 7) planing of the remaining two surfaces and squaring against planed surfaces and according to dimensions;
- 8) marking of the workpiece length;
- 9) workpiece with offset crosscutting according to length markings;
- 10) marking out the notches;
- 11) sawing out the notches;
- 12) chiselling out the notches;
- 13) notch paring or filing, workpieces end grain paring or filing;
- 14) design development by cutting, planing, trimming, and other types of processing (if envisioned);

- 15) sanding of the workpieces;
- 16) finishing the pieces, design development, varnishing, painting and other types of processing (if envisioned).

Skills to be learned:

- selection and evaluation of the material;
- setting and marking dimensions;
- rip cutting;
- crosscutting;
- planing;
- chiselling (paring);
- filing;
- sanding;
- applying finishing material or creating a design.

Evaluation criteria:

- 1) conformity of each piece of the puzzle to the dimension drawing;
- 2) accuracy and quality of finished pieces and notches obtained in material processing with hand tools;
- 3) mutual compatibility of pieces and joints – fit and precision, so that the puzzle can be assembled, hold together, be further disassembled and reassembled;
- 4) added value – design development, decoration (if envisioned).

Task Execution Process

Before starting the execution process, the task, its content, and purpose are explained to the students. The material processing operations to be performed sequentially are demonstrated and explained, consultations are provided during the work.

The task is performed in person in the woodworking laboratory at the workbenches. It is carried out in accordance with the content of the assignment following the established work procedure. The evaluation criteria are known previously.

1. Acquaintance with the task, drawing. After a verbal explanation, students receive the description of the task that specifies the sequence of technological processing of the puzzle and a dimension drawing of the puzzle pieces.

2. Material selection. First of all, a visual assessment of the selected live edge plank should be performed, identifying wood defects that could negatively affect the subsequent processing of the material and the finished product. It is essential to notice cracks, knots and resin ducts in the wood. After that, it is necessary to choose the part of the live edge plank to place the expected workpieces with an offset so that the

material is used rationally. A measuring tool from the roller measures sub-group of measures – spring tape – is used for this purpose. If live edge planks are used, the shape and width of the live edge should also be taken into account.

3. Marking of the workpiece. This is followed by the calculation of the size of the workpieces with the oversize based on the dimension drawing of the puzzle pieces and the cross-section of the live edge plank chosen for its making. In the next step, the dimensions of the workpieces must be determined measuring and marking them on the timber to be processed. At this stage, the use of woodworking hand tools in the work execution process begins. Taking into account that at this stage the measurement has not yet been carried out with very high accuracy, several tools are applied – rules for cutting from the subgroup of rules, a right isosceles triangle from the subgroup of triangles, and framing squares from the subgroup of squares and bevels. Pencils and mechanical pencils can be used for marking the workpieces. Other tools include single ended scribes and double ended scribes from the sub-group of engineer's scribes, all types of marking knives from the subgroup of marking knives, and round point awls intended for marking from the subgroup of scratch awls. Two rectangular workpieces are measured and marked on the wood plank to be processed, each containing three pieces with an offset measurement.

4. Workpiece with offset crosscutting and rip cutting. Next, the marked workpieces are sawed out. Before sawing, the workpiece needs to be immovably secured so that sawing can be done in the appropriate working position. The workbench vise or vise with wedges, or C clamps, F clamps or lever clamps can be used for securing and holding the workpiece. Firstly, crosscutting is done obtaining oversized workpieces of the required length. Secondly, the rip cutting is done to widen the oversized workpieces. The most suitable tools for performing the operation are general purpose handsaws, backsaws, frame saw with the universal blade or, respectively, the blade suitable for the sawing direction of each of the mentioned saws from the subgroup of saws.

5. Two surface plane planing and squaring. Before planing, the workpiece needs to be immovably secured using the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps which do not protrude above the workpiece. Planing is one of the most difficult treatment processes in this task. First, one surface of the workpiece is planed until it is flat and straight, the planing is checked both lengthwise and crosswise using a cutting rule, try squares or framing squares. Then the adjacent surface is planed at a 90° angle to the planed surface. Here, it is important to observe both the right angle to the previously planed plane and the flatness and straightness of the surface of the plane. The

resulting angle with the adjacent plane is examined using a try square or a framing square. Bench planes are suitable for planing the workpiece surface. The size of the plane is chosen according to the size of the workpieces to be processed, so that the foot of the plane rests firmly on the workpiece and its length is shorter than the length of the workpiece. Jack planes and smoothing planes are suitable for this processing operation.

6. Marking workpiece dimensions. Based on the thickness and width of the two planes of the workpieces obtained in the planning process, recalculations of the dimensions of the workpieces are made at this stage, taking into account the dimension drawing of the puzzle pieces and the cross-section of the workpieces obtained in the planing process. Measuring and marking is then done on the workpieces to plane the remaining two surface planes. At this stage of processing, the measurement must be carried out with high accuracy, and several tools can be applied for this purpose, such as a right isosceles triangle from the subgroup of triangles and framing squares from the subgroup of squares and bevels. Pencils and mechanical pencils can be used for marking workpieces, as well as all types of marking scribes and marking knives from the sub-group of engineer's scribes, round point awls intended for marking from the subgroup of scratch awls, and tools from marking gauges subgroup. Marking is done for the workpieces along the perimeter, setting aside the planed cross-sections of the parts without the offset in the width and thickness.

7. Planing of the remaining two surface planes and squaring against planed surfaces and according to dimensions. Before planing, the workpiece needs to be immovably secured using the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps which do not protrude above the workpiece. Planing is carried out considering the dimensions marked on the workpieces. First, one of the unprocessed surfaces of the workpiece is planed until it is flat and straight, corresponds to the marked dimensions along the perimeter and forms a 90° angle with the adjacent workpiece plane. The planing is checked both lengthwise and crosswise using a cutting rule, try squares or framing squares, the resulting angle with the adjacent plane is also checked using a try squares or framing squares. Then the adjacent workpiece plane is planed at a 90° angle to the previously planed surface. Here, it is important to observe both the right angle to the previously planed workpiece plane and the flatness and straightness of the surface. Bench planes such as jack planes and smoothing planes are suitable for planing the workpiece surface.

8. Marking of the workpiece length. Based on the thickness and width of the workpieces obtained as a result of the planning process, at

this stage the dimensions of the workpieces are recalculated according to the dimension drawing of the pieces. After that, the dimensions of the workpieces are set measuring and marking on the workpieces to be processed in order to perform the lengthening of the workpieces. At this stage of processing, the measurement must be carried out with high accuracy and several tools can be applied for this purpose – rules for cutting from the subgroup of rules and try squares from the subgroup of squares and bevels. Pencils and mechanical pencils are used for marking the workpieces, as well as all types of scribes from the sub-group of engineer's scribes and round point awls intended for marking from the subgroup of scratch awls of marking knives. Marking is done for the workpieces along the perimeter, setting the lengths of the parts with a small offset (up to 1 mm).

9. Workpiece with offset crosscutting according to length markings. Next, the marked pieces are cut out by cross sawing the timber, obtaining workpieces of the required length with a small surface offset. The most suitable tools for performing the processing operation are the general-purpose handsaws, backsaws, frame saw with blade for universal or crosscut sawing. Before sawing, the workpiece needs to be immovably fixed using the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps.

10. Marking out the notches. The dimensions of the notches are calculated according to the dimensions of the workpiece and the dimension drawing of the pieces, they are placed symmetrically from the centre of the workpiece at both sides. Next, the dimensions of the workpieces are measured and marked on the timber to be processed. At this stage, rules for cutting from the subgroup of rules and framing squares for measuring from the subgroup of squares and bevels can be used. Pencils and mechanical pencils are used for marking the workpieces, as well as single ended scribes and double ended scribes from the sub-group of engineer's scribes, all types of marking knives from the group of marking knives, and round point awls intended for marking from the subgroup of scratch awls.

11. Sawing out the notches. Sawing of the notches is done before paring the joints to facilitate paring work and prevent possible errors and inaccuracies. This is done by making notches in the marked joints in each plane surface. The cuts need to be made very precisely. The most suitable tools for performing the processing operation are the general-purpose handsaws and backsaws with small cutting teeth or Japanese saws for crosscutting. Before sawing the workpiece needs to be immovably fixed using the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps.

12. Chiselling out the notches. Before chiselling the workpiece needs to be fixed using the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps. Chiselling is done on each plane of the workpiece, where a notch or part of it is intended. Carpenter's chisels of the subgroup of chisels are suitable for the processing operation, chisels of different widths can be used depending on the dimensions of the workpiece to be processed. If necessary, an auxiliary tool – a wooden mallet – can be used to facilitate the work process.

13. Notch paring or filing, workpieces end grain paring or filing. The notches and piece end grains are processed for the workpieces immovably fixed with the workbench vise or vise with wedges, or C clamps, F clamps or lever clamps. After sawing, both the joints and the ends of the workpieces need to be precisely processed so that the workpieces fully comply with the size ratios indicated in the dimension drawing. It can be done with the tools of the subgroup of chisels – firmer chisels or carpenter's chisels, or the ordinary files of the file and rasp subgroup, choosing them according to their shape and size depending on the shape of the workpiece to be processed. At this stage of processing, it is important to choose a file with a fine cut to obtain a quality result.

14. Design development by cutting, planing, trimming, and other types of processing (if envisioned). This stage of processing can be done optionally. The student has the opportunity to individualize the puzzle, to make shape modifications with wood subtraction techniques, keeping a constant piece of the joints embedded in the workpieces. Taking into account that at this stage there are no restrictions on the type of processing and the tools used, the student individually consults with the academic staff about the chosen solution and the sequence of its implementation.

15. Sanding of the workpieces. The workpieces are ground with an abrasive material, grinding aids can be used in its execution depending on the shape of the workpiece and the desired result.

16. Finishing the pieces, design development, varnishing, painting and other types of processing (if envisioned). This processing step is optional. If desired, the student can apply finishing touches to the pieces of the completed puzzle. At this stage, there are no restrictions regarding the type of finish and adopted application techniques, so the student individually consults with the academic staff about the chosen solution and its implementation possibilities.

Result

As a result, six pieces of the puzzle are obtained, four of which are different from each other, while two form pairs. Therefore, the production of both different and identical individual pieces is realized.

The manufactured pieces are, first of all, evaluated individually, looking at each piece from all sides and taking control measurements to make sure that the pieces and their size proportions correspond to the task specified. The accuracy of the manufactured pieces and joints and the quality of the machined surface are important (see Figure 8 (a)).



Figure 8. (a). Assessment of separate puzzle pieces.



Figure 8. (b). Checking the joints of the puzzle pieces.



Figure 8. (c). A puzzle assembly test.

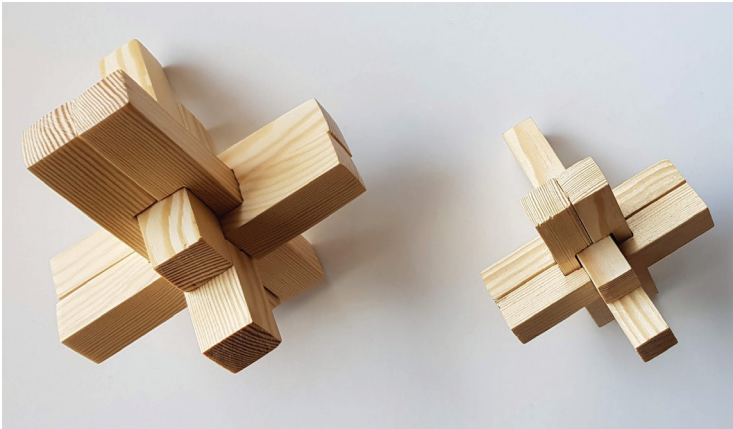


Figure 8. (d). Checking the size and proportions of the puzzle.

This is followed by checking the mutual compatibility of the pieces and joint points – tightness and accuracy when assembling and disassembling the puzzle so that it can be assembled, hold together, be disassembled and reassembled observing the angular parameters of the pieces and not creating unnecessary voids between the joint points of the pieces (see Figures 8 (b) and 8 (c), p. 136).

As a result, the cross-section of the obtained pieces is also inspected with regard of the thickness of the raw material. This indicates inaccuracies during the machining process, resulting in re-machining and reduced cross-section size (see Figure 8 (d), p. 136).

Individualization of the product or design development with wood removal techniques and/or the application of finishes performed voluntarily at the initiative of the student is the final aspect to be assessed.

Conclusions

The role and meaning of hand tools have changed over time, but today they are still relevant and allow preserving the knowledge about history and culture in crafts and woodworking, as well as acquiring the knowledge and skills in working with hand tools used and produced today, to compare their functionality both in theory and practically in manufacturing of a product. Traditional woodworking hand tools take an important place in learning the basics of woodworking when dealing with solid wood, learning the properties of the material and the specifics of processing.

Within the current study, a task has been developed and approbated in the study process, which helps students learn traditional woodworking hand tools, linking it to solid wood processing and product manufacturing, reveals the aspects that are essential in the process of manufacturing prototypes and products and help them choose materials before starting production, shows the importance of planning processing sequence and the role of dimensional precision of the parts of the finished product. The task also helps students conduct practical work making the product according to the dimension drawing of its parts.

Such knowledge and skills are essential for future product designers, since they will help them learn various materials, their properties, and processing options used in the design, prototyping, and manufacturing of new products. That will increase the diversity of students' knowledge relevant to this interdisciplinary sector, as well as increase their empathy and understanding of the operational specifics of the related industries, such as carpentry and crafts.

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SOURCES OF ILLUSTRATIONS

Figure 1. Autoru veidots attēls.

Figure 2. The Puzzling World of Polyhedral Dissections [online]. <https://johnrausch.com/PuzzlingWorld/introduction.htm> [cited: 24.01.2022].

Figure 3. Interlocking Burr Puzzles [online]. <https://chinesepuzzles.org/interlocking-burr-puzzles> [cited: 24.01.2022].

Figure 4. Interlocking Burr Puzzles [online]. <https://chinesepuzzles.org/interlocking-burr-puzzles> [cited: 24.01.2022].

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Figure 6. Autoru veidots attēls.

Figure 7. Autoru veidots attēls.

Figure 8 (a). Autoru veidots attēls.

Figure 8 (b). Autoru veidots attēls.

Figure 8 (c). Autoru veidots attēls.

Figure 8 (d). Autoru veidots attēls.



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An Example of the Use of Traditional Woodworking Hand Tools in Product Design Studies at the Institute of Design Technologies of the Faculty of Materials Science and Applied Chemistry of Riga Technical University

Ilze Gūtmane, Silvija Kukle, Jānis Kalniņš, Inga Zotova, Artūrs Ķīsis

Tradicionālo kokapstrādes rokas instrumentu lietojuma piemērs produktu dizaina studijās Rīgas Tehniskās universitātes Materiālzinātnes un lietišķās ķīmijas fakultātes Dizaina tehnoloģiju institūtā

Sākotnēji rokas instrumenti radīti, lai cilvēki spētu apstrādāt dažādus materiālus, iegūstot izdzīvošanai nepieciešamos priekšmetus. Laika gaitā attīstoties prasmei apstrādāt jaunus materiālus, tika attīstīta instrumentu konstrukcija, tehnoloģija un ergonomika. To klāsts paplašināts, pielāgojot daudzveidīgākām kokapstrādes vajadzībām – gan universālam lietojumam, gan konkrētai funkcijai. Kokapstrādes rokas instrumenti ir būtiski materiāla apstrādes procesu un veicamo apstrādes operāciju secības ievērošanai, kā arī apstrādājamā kokmateriāla īpašību iepazīšanai, praktiski darbojoties. To nodrošina darba veicēju, instrumentu un apstrādājamā materiāla mijiedarbība. Būtisks aspekts izpratnes veicināšanai ir salīdzinoši zemais materiāla apstrādes ātrums un cilvēka vadītais apstrādes process. Koka apstrādāšana ar amatniecības metodēm un darbarīkiem atklāj materiāla raksturīgās īpašības. To skaitā koksnes šķiedru virziena specifiku, agrīnās un vēlīnās koksnes blīvuma atšķirības, apstrādes atšķirības šķiedru garenvirzienā un šķērsvirzienā, kā arī ļauj iepazīt raksturīgākās koksnes vainas. Lai apstrādājamā materiāla apgūšana būtu jēgpilna, studiju procesā tā integrēta produkta – koka puzzles – izgatavošanā, ietverot secīgu izgatavošanas gaitu no priedes masīvkoka dēļa līdz apdarītam un funkcionālam produktam – puzzlei. Studentiem tā jāizgatavo pēc vienota parauga, pamatojoties uz zīmējumu, kurā norādītas detaļu un savienojumu vietu proporcijas. Koka puzzles izgatavošanas laikā studenti izvēlas atbilstošākos instrumentus katra etapa izpildei. Procesā nepieciešams veikt sagatavju un detaļu pārbaudi, mērīšanu, aizzīmēšanu, griešanu, rezultātā iegūstot trīsdimensionālu produktu, kas ir izjaukams un saliekams. Saliekšanas un izjaukšanas process dod iespēju novērtēt apstrādes precizitātes nozīmību darba gaitā un rezultātā.

Atslēgas vārdi: tradicionālie kokapstrādes rokas instrumenti, amatniecība, koka apstrāde, produktu dizains, izglītība.

PIONEERING INTERDISCIPLINARY ACADEMIC FIELD OF DIGITAL HUMANITIES IN LATVIA

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Summary. A mainstream tendency for multimediality of information and exponential growth of data have promoted major changes in the academic paradigm, supporting the transition towards interdisciplinary research-based studies, which has affected the development of the emerging field of Digital Humanities (DH).

The paper aims at providing insights into the different activities implemented by the DH community in Latvia, which have contributed to the advancement of the field and stimulated the inclusion of digital research-related courses in the Latvian higher education curricula, reflecting on the establishment and implementation of the Master study programme in Digital Humanities at RTU considering it in its wider Latvian, pan-European, and global context.

Keywords: Digital Humanities, digital scholarship, humanities curriculum, interdisciplinary studies, emerging scientific discipline.

Introduction

Although the field of humanities computing has a relatively long history dating back to the end of the 1940s, it has experienced exponential growth with several major developments made especially in the last decades. Rapid development of Information and Communications Technology (ICT) and their targeted application in humanities research allowed for the establishment of an independent discipline of Digital Humanities (DH).

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Nowadays DH stands as an umbrella term covering a wide range of interdisciplinary research and development perspectives of multimodal digital scholarship in humanities in its wider understanding [1; p. 144]. It has been acknowledged [2, 3, 4] that DH has expanded the scope and usability of the humanities, as well as broadened definitions of the scholarly activity in general [5].

At the turn of the 21st century, DH has gained substantial visibility and recognition in many countries around the world. Although the discipline is still considered relatively young as compared to mature scientific fields, it has accumulated a significant body of scientific knowledge, adopts a variety of established and innovative research methods, and relies on varied forms of empirical evidence. Development of the relevant theoretical and methodological framework has promoted the increasing integration of DH into academic curricula [6]. Thus, currently, the scholarly discipline of DH is developing not only as an innovative research area found at the crossroads of such fields as humanities, social sciences, ICT, culture studies and computational linguistics but also as a topical tertiary education field established to respond to the changing needs of the research community and the labour market.

In the last decade, following the global rise of digital scholarship in humanities, many leading universities have recognised the need to include this interdisciplinary field in the academic curricula, addressing different multifaceted challenges associated with the establishment of the theoretical and empirical framework of DH. Such top-level higher educational institutions as Oxford University, Cambridge University, King's College London in the United Kingdom, Massachusetts Institute of Technology in the United States of America, Sorbonne University in France, and Helsinki University in Finland to name just a few have established study programmes in DH at various levels.

Riga Technical University (RTU) has joined the cohort of universities, which have clearly recognized the necessity to change their educational paradigms by switching to an interdisciplinary student-centred higher education model. The launch of the Master study programme in DH at RTU in the 2010s coincides with the period of rapid global expansion of the field of DH. It is the first DH Master level programme in the Baltic States. Advancing a rather inert discipline of Humanities towards the technology-driven field is a huge step toward providing modern and internationally competitive education.

The aim of the paper is twofold: a) to provide insights into the different activities implemented by the DH community in Latvia, i.e. researchers, academia, students and industry, which have contributed to the advancement of the field and stimulated the inclusion of digital

research-related courses in the Latvian higher education curricula; b) to shed some light on the establishment and implementation of the Master study programme in DH at RTU considering it in its wider Latvian, pan-European, and global context.

The authors of the paper believe that such a historically-driven observation is required to build solid foundation for further advancement of both scientific and academic research in the field of DH, as it helps assigning the value to the efforts invested, comprehending the scale of DH field and recognizing its new frontiers to be conquered in the future.

Development of Digital Humanities in Latvia: Research and Academia

Research centres, laboratories and research groups in DH keep emerging in many countries around the world, which attest to the topicality and relevance of this discipline that is persistently evolving into an interdisciplinary research and development field. Cooperation that promotes the advancement of the discipline is carried out not only among academic institutions but also in the sector of cultural heritage management, i.e., libraries, archives and museums.

Transnational DH organisations, research networks and consortia are being established and developed. For example, «*Common Language Resources and Technology Infrastructure*» or CLARIN ERIC established in 2012 serves as a research infrastructure to support the sharing, use and sustainability of language data and tools for research in the humanities and social sciences (www.clarin.eu). In 2014, another important network – DARIAH or the «*Digital Research Infrastructure for Arts and Humanities*» – was established (www.dariah.eu). The Association for Literary and Linguistic Computing was renamed the European Association of Digital Humanities (<https://eadh.org/>), which *inter alia* helped promote the usage of the very term «*digital humanities*». It has become an umbrella organisation for the European digital humanities community comprising several regional branches. The Digital Humanities in the Nordic Countries is one of them. It was established in 2016 and subsequently renamed the Digital Humanities in the Nordic and Baltic Countries or DHNB in 2020 (<https://dhnbn.eu/>).

It may be noted that the development of DH in Latvia is following a rather unconventional path. On the one hand, since the field has emerged and has gained wide global recognition in major European countries and the USA, Latvia has managed to benefit from the opportunities offered by leapfrogging – it was not necessary to develop the discipline from

the very start. On the other hand, many existing DH solutions had to be adapted for the needs of the local research community and industry, often not relying on the capacity of such tech giants as Google and Microsoft. This, in its turn, provided an impulse for the development of in-house solutions in cooperation with the Latvian ICT sector and HEIs.

Since the 1990s, computer linguistics has been the most visible DH-related field in Latvia, around 2014 other humanitarian disciplines started to become increasingly active in digital scholarship. The launch of the initiative *www.digitalhumanities.lv* in 2017 has played an important role in building Latvia's DH community. It was initiated by the Institute of Literature, Folklore and Arts of the University of Latvia (UL), which has successfully managed to bring together academic and cultural heritage institutions interested in digital scholarship with the aim of building closer cooperation and promoting DH in Latvia. This initiative aggregates information on the Latvian DH tools and resources and organises various events. Since 2018, the member institutions of *www.digitalhumanities.lv* have been organising the annual Baltic Digital Humanities Summer School. This initiative has also resulted in the establishment of an inter-institutional consortium that has successfully won the competition for the implementation of the project «Digital Resources for the Humanities» of the National Research Programme supported by the Ministry of Education and Science for the Republic of Latvia from 2020 to 2021.

The initiative promotes closer integration and cross-fertilization between research and academia in the field of DH in Latvia. RTU and the UL take the leading roles in promoting this synergy, boosting the development of the DH field in different academic and research perspectives.

The last decades in the context of DH and higher education can be described as a time of experimentation and search for the most useful approaches. The field of DH is evolving very rapidly and it is very different today in terms of the methodologies adopted, the resources and tools developed, available infrastructure, and the research capabilities from the DH 15 years ago. Understanding of what DH are and what they evolve into is also changing rapidly. This has contributed to the fact that there is no one comprehensive and universally adopted definition of what DH are, as well as stirred extensive scholarly debates on whether it should be seen as a distinct scientific field or as a strong methodological complement to the humanities [1, 7].

Versatile approaches to DH in higher education curricula not only reflect this diversity and lack of general agreement but also offer great potential and possibilities to merge DH with other disciplines, such as media studies, economy, or creative industries.

Combining teaching practices used in the humanities, which have evolved over centuries, and information technology studies, which have been actively developing over the recent decades, in the joint teaching methodology and curriculum design, simply transferring and extrapolating their elements to equally comprehensively cover computing and humanities would not be the most successful and efficient model for DH. A more nuanced approach that would reflect the truly interdisciplinary and collaborative nature of digital scholarship in the humanities should be adopted.

The late 1980s to mid-1990s was a favourable period for the establishment of new academic initiatives. Many DH research centres and institutions were established in Europe and Northern America at that time, thus providing fruitful ground for further academic advancement [6, 8]. Although the development of digital resources in the humanities for the Latvian language had been going on since the late 1960s [5], the early 1990s was the time when digital scholarship in the humanities, particularly computational linguistics, became institutionalised in Latvia.

The Artificial Intelligence Laboratory (AiLAB) at the Institute of Mathematics and Informatics of the University of Latvia was founded in 1992, it makes the main focus on the development of digital tools and resources for the Latvian language and culture. One year earlier, company «Tilde», another prominent research and development centre of language technologies, was established [9]. However, despite the increasing availability of personal computers since the second half of the 1990s and onwards, which raised interest in wider application of computational methods in research in general and the development of language technologies in particular, higher education establishments in Latvia did not make any substantial efforts to include DH in their curricula over this period, except for a few study courses covering fragmented elements of the digital scholarship. For example, the Faculty of Humanities and the Faculty of Social Sciences of the University of Latvia offer courses in DH, corpus linguistics and computational text analysis as part of their Master degree programmes. At the undergraduate level, a course in computer linguistics is offered at the University of *Liepāja* and *Rēzekne* Academy of Technologies, and Introduction to Natural Language Processing is part of the curriculum at the Faculty of Computer Science of the UL.

However, the most efficient and sustainable academic results in the field of DH are being achieved along with the establishment and development of the Master study programme Digital Humanities implemented by the Faculty of E-Learning Technologies and Humanities (FETH) of RTU. It has become the first tertiary education programme

in the field of DH in Latvia offering advanced and versatile training in digital research in the context of humanities, cultural studies, e-marketing solutions, and e-pedagogy.

Master Study Programme «Digital Humanities». New Interdisciplinary Academic Frontiers

The rapid advancement of modern technologies, a tendency for multimodality and multimediality of information and exponential growth of diverse data have promoted major changes in the academic paradigm, supporting the transition towards interdisciplinary research studies, which has affected the development of DH and pushed it to the leading positions in academia, science and research.

Nowadays a specialist in DH is a multi-competent professional who organises, administers, implements, and/or supervises comprehensive research and application of interdisciplinary data mining, digitization, representation and archiving, processing, visualisation, and analysis strategies and methods to effectively solve cross-disciplinary challenges.

An increasing number of the world leading universities, including MIT, Oxford University, King's College London, and the University of Vienna, either launch study programs in DH and/or set DH as their strategic priority (<https://www.univie.ac.at/en/about-us/at-a-glance/strategic-priorities/>). It should be noted that although the study programmes vary in structure, duration, academic focus and curricula, they apparently indicate the overall global tendency for the launch and implementation of interdisciplinary study programmes.

The implementation of such study programmes requires adopting manifold study process organisation strategies and envisages introduction of various mechanisms pursuing excellence in the academic environment. The authors do not attempt to provide an exhaustive list of the mechanisms and strategies proposed worldwide when implementing similar study programmes but shall focus on the ones adopted and successfully approbated by Riga Technical University, which are provided in the Figure 1, p. 148.

It is interesting to note that although nowadays the Master study programme in «Digital Humanities» has gained its visibility and recognition, the decision to elaborate this study programme at the FETH did not come easy and required considerable effort, since the proposed model of the study programme presupposed active participation not only of different faculties within RTU but also various international partners that had already gained considerable experience in DH education and training. Today, the core of the study programme is

provided by the academic staff of RTU FETH and the Faculty of Computer Science and Information Technology, who alongside the representatives of the Faculty of Architecture, Faculty of Civil Engineering, Faculty of Engineering Economics and Management, Faculty of Electronics and Telecommunications contribute their scientific knowledge and extensive experience implementing study courses, supervising, consulting and reviewing Master Theses, providing study modules, seminars and tutorials. In terms of the number of faculties involved in the implementation of the study programme – 6 in this case – the Master study programme «Digital Humanities» is a unique example of successful interdepartmental and interfaculty collaboration not only on the national but also international scale. Effective and efficient cooperation between different faculties of RTU allows delivering high-quality interdisciplinary education to the students of the Master study programme.

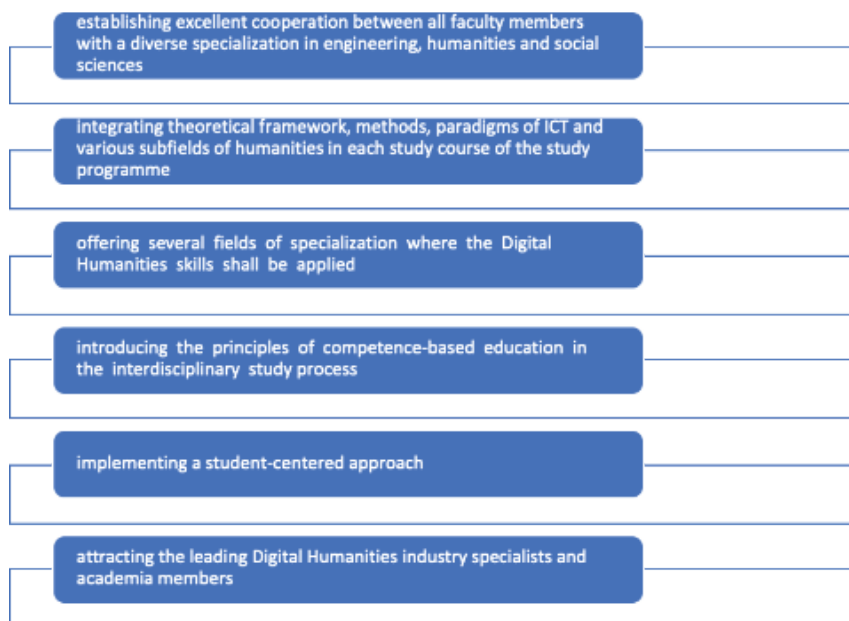


Figure 1. List of the mechanisms and strategies approved by RTU.

Prominent professors with international achievement record from the School of Advanced Studies, King's College London, Vrije Universitat Brussels, Linnaeus University, University of Western Ontario, Tartu University, not to mention professors and leading researchers from the local HEIs, such as the University of Latvia, who participate in programme implementation make it a region-leading and sound initiative.

The study programme is highly esteemed by the students with different backgrounds in humanities, art, social sciences, cultural studies and computing. The project, which started in 2018 with a group of local students and just one international representative, has now tripled in size and has attracted foreign students from many countries, including China, Pakistan, Uzbekistan, Egypt, Turkey, Iran, Azerbaijan, Indonesia, Peru, Ukraine, India, Russia, Cameroon, South Korea, Sri Lanka, Ghana, Bhutan, Brazil, etc.

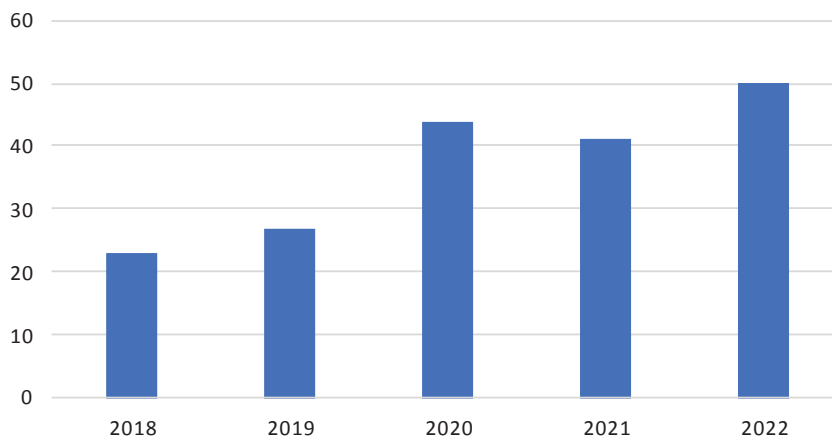


Figure 2. Total number of students enrolled at the RTU FETH master study programme «Digital Humanities».

Within the framework of the study programme, the primary focus is made on the students' needs. The list of the study courses is regularly complemented to operatively respond to the changing market and industry needs, as well as the new challenges posed by the emerging field of DH. It is worth noting that the list of compulsory and compulsory elective study courses contains more than 50 items, they are grouped into several study modules. Currently, there are 4 distinct study modules, containing custom-designed interdisciplinary study courses, which allow ensuring that the list of the students' takeaways will grow exponentially.

The provided specialisation fields aim at developing such skills as creative problem solving, implementation and approbation of the customised interdisciplinary solutions, analytical and critical thinking, cognitive flexibility and conceptual thinking, curiosity, and excellent communication skills. These skills help students «get outside the silo» of just one field and successfully apply the methods and paradigms of engineering, humanities, social sciences, and other scientific disciplines

to solve current interdisciplinary scientific research, academic training and professional tasks quickly and efficiently.

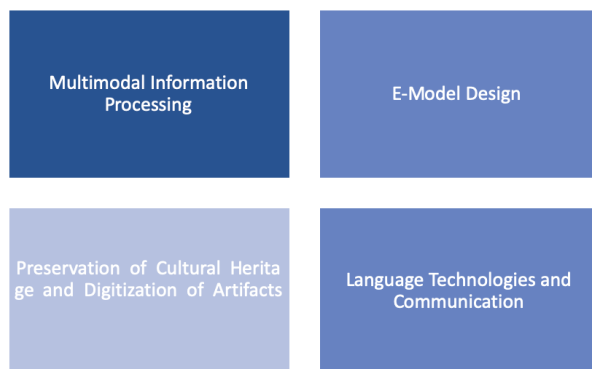


Figure 3. Study modules at the RTU FETH master study programme «Digital Humanities».

Undoubtedly, academic and scientific research greatly contributes to the study process and promotes the development of DH as a promising scientific discipline in Latvia and globally. One of the strategies adopted to promote international recognition of this Master study programme is to develop close links with academic research and DH infrastructures in Latvia and beyond. The aim is to encourage students of the programme to become active members of the DH research community during their studies, further strengthening not only their academic knowledge and skills but also helping them develop a wide range of «horizontal» skills, and motivate them to perform interdisciplinary research casting their gaze across all existing and emerging relevant theories, methods, phenomena and paradigms [10; p. 78].

The ability to attract new scientific and academic disciplines to establish yet other methodological commons, to explore yet other research and learning challenges and to discover more winning points the interdisciplinary field can offer provides for the high valency of the given study field (11, p. 10) in general and of the given study programme in particular, as well as contributes to creating the well-pronounced competitive advantage for every student, academic staff and researcher operating in DH.

Conclusions

Current research in the field of DH is aimed at solving many interdisciplinary challenges faced by the industry, academia and general public. Given the scope and impact of DH research, it may be safely predicted that the field will only grow in popularity, both locally and globally.

The fruitful and efficient synergy established between RTU and the UL paves the road for sustainable development of the field of DH, pioneering digital scholarship in Latvia. The research initiatives implemented by the UL are reflected in the education process implemented by RTU, whereas the issues faced within the framework of research performed by the academic family of RTU are further addressed within the projects and other scientific activities propounded by the researchers of the UL.

Nowadays it is safe to argue that RTU has truly become a natural cradle for the first tertiary level study programme in DH. In future, other Latvian universities will definitely follow the trend started by RTU, enriching the field, promoting cooperation and strengthening Latvia's position in such smart specialisation areas as digitisation, intelligent cities, sustainable cultural heritage management and other areas particularly important for humanity in the times of geopolitical turbulence and insecurity.

Integrating and implementing humanitarian ideas in various areas of human life with the help of the most advanced ICT solutions, DH has the potential to become both ends and means in making Latvia a modern, intelligent, welfare and human values-focused country.

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SOURCES OF ILLUSTRATIONS

Figure 1. Raksta autoru veidots attēls.

Figure 2. Raksta autoru veidots attēls.

Figure 3. **Platonova, Marina, Smirnova, Tatjana, Seņko, Zane** (2021) *Academic Research Student Handbook*. Master of Science in Digital Humanities. Riga: RTU Press, p. 10.



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It is the only study programme in the respective field, which offers specialization in translatology and terminology studies. *Marina Platonova* has been the member of the Committee of Experts of the State Language since 2016, the European Society for Translation Studies since 2007, and the Association of Digital Humanities Organizations since 2018. She was also the Board Member of the EC DGT EMT Network and co-chair of the working group on Traineeship (2014–2019). She is the chair of Organizing Committee of the international scientific conference Meaning in Translation: Illusion of Precision, which has been successfully organized biennially since 2012.

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Starpdisciplinārās akadēmiskās jomas digitālās humanitārās zinātnes aizsākumi Latvijā

Galvenā informācijas multimedialitātes tendence un eksponenciālais datu apjoma pieaugums ir veicinājis būtiskas izmaiņas akadēmiskajā paradigmā, atbalstot pāreju uz starpdisciplināriem pētījumiem, kas ir ietekmējis jaunās digitālo humanitāro zinātņu (DHZ) jomas attīstību.

Raksta mērķis ir sniegt ieskatu par dažādām DHZ sabiedrības īstenotajām aktivitātēm Latvijā, kas veicinājušas nozares attīstību un stimulējušas ar digitālo pētniecību saistītu kursu iekļaušanu Latvijas augstākās izglītības studiju programmās, atspoguļojot RTU maģistra studiju programmas «Digitālās humanitārās zinātnes» izveidi un īstenošanu plašākā Latvijas, Eiropas un visas pasaules kontekstā.

Atslēgas vārdi: digitālās humanitārās zinātnes, digitālās zināšanas, humanitāro zinātņu mācību programma, starpdisciplinārās studijas, jauna zinātnes nozare.

CHRONOLOGY OF KEY EVENTS OF RIGA TECHNICAL UNIVERSITY

IN STUDY YEAR 2021/2022

2021

September 1

The traditional RTU management meeting with freshmen is taking place in *Ķīpsala* colonnade.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-krasni-iezvanits-jaunais-studiju-gads>

This year's graduate of RTU Engineering High School (EHS) *Džonatans Miks Melgalvis* receives a scholarship from the Mayor of Riga.

<https://www.lsm.lv/raksts/dzive--stils/cilvekstasti/dzonatans-miks-melgalvis--visvairak-tituletais-skolens-latvija.a419466/>

September 3

The opening of the new building and auditorium centre «*Domus Auditorialis*» of the Faculty of Computer Science and Information Technology (FCSIT) at 10 *Zunda kanāls* in *Ķīpsala* is taking place. Prime Minister *Krišjānis Kariņš*, Minister of Education and Science *Anita Muīžniece*, RTU management, students and industry professionals participate in the solemn event.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/evinigi-atklaj-rtu-datorzinatnes-un-informacijas-tehnologijas-fakultates-un-auditoriju-majas-jaunas-ekas>

September 8

RTU EHS has been recognized as the best school in the Friendly Call Fund's Best School Ranking in 2020 by the City Secondary Schools Group, as well as receives awards in several nominations. The solemn awarding ceremony takes place at the National Library of Latvia.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskolai-vislabakie-rezultati-centralizetajos-eksamenos-lielo-pilsetu-vidusskolu-grupa>

September 16

RTU signs a memorandum of cooperation with one of the leading universities of technology in the world – Massachusetts Institute of Technology, USA.

<https://www.tvnet.lv/7335305/rtu-sadarbosies-ar-masacusetas-tehnologiju-institutu?fbclid=IwAR2QII0INa2YkNuHSKsxn4LbcYbTi8DEqJ4AD7bjF9mrNp7w2y59jIJD9g>

In Riga, in the square near the shopping centre «Origo», there is an open-air large-scale exhibition «Science Inspires!», which tells about 25 men scientists and 25 women scientists – creative and inspiring personalities in modern Latvian science. Among them – 11 RTU scientists.

<https://www.izm.gov.lv/lv/jaunums/pie-tc-origo-atklata-izstade-zinatne-iedvesmo-par-50-latvijas-zinatniekiem-un-zinatniecem>

RTU Scientists' Night takes place online.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-skolenus-uz-zinatnieku-nakts-pasakumiem-24-septembri>

September 20–24

The very first official European University of Technology – EUT+ (the result of the alliance of eight European partners) meeting is taking place in Cyprus. Rector of RTU Academician *Leonīds Ribickis* and Rector of *Universidad Politécnica de Cartagena* (UPCT) Professor *Beatriz Miguel Hernández* has signed a Memorandum of Cooperation between RTU, UPCT and the University of Latvia (UL) whose Rector Academician *Indriķis Muižnieks* has signed the Memorandum last week in Riga. In the context of the EUT+, the agreement provides the promotion of the development of new study programs within the EUT+ consortium i.e. master program in Environmental Biotechnology.

<https://international.rtu.lv/2021/09/30/the-first-face-to-face-meeting-of-the-eut-consortium-takes-place-in-cyprus/>

September 21

Rolf Wenzel, President of the Council of Europe Development Bank (CEB), visits RTU with representatives of the steering group to get acquainted with RTU infrastructure projects implemented with CEB funding.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/eiropas-padomes-attistibas-bankas-prezidents-iepazisies-ar-rtu-studentu-pilsetinas-infrastrukturas-projektiem?fbclid=IwAR37R1XmpOXv6M5GtEL_SpsZJNiskhK5Dp3UPRt8h26LlZqMN_LBZcPZxbw

September 24

RTU Vice-Rector for Research Academician *Tālis Juhna* pays an introductory visit to the Ambassador Extraordinary and Plenipotentiary of the Kingdom of Thailand to the Republic of Latvia Kanchana Patarachoke to inform about RTU's activities in the field of studies, science, and innovation and discuss possible directions of cooperation with higher education institutions in Thailand.

September 27

By the decision of the RTU Senate (Minutes No. 653):

- *Elīna Gaile-Sarkane* was re-elected as the Chairman of the RTU Senate, *Jānis Kaminskis* as the Deputy Chairman;
- the Department of Aeronautical Systems and Aircraft Exploitation (DASAE) was established by merging the Department of Transport Systems and Logistics and Department of Aeronautic Technologies of the Institute of Aeronautics (IA) of the Faculty of Mechanical Engineering, Transport and Aeronautics (FMETA);
- by merging the Department of Aircraft Theory and Construction and the Department of Avionics of FMETA IA, the Department of Aircraft Maintenance and Design (DAMD) has been established.

September 29

A modern complex of surface and nano-object spectroscopy is discovered at Laboratory House (1 *P. Valdena* Street) in *Ķīpsala*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-atklaj-virsmas-un-nanoobjektu-spektroskopijas-kompleksu>

In September

For the second year in a row, RTU has been recognized as one of the 25 leading universities in the world in terms of the proportion of open access publications in the «U-Multirank» international university ranking.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-uzlabo-sniegumu-un-saglabu-liderpozicijas-latvija-u-multirank-reitinga?fbclid=IwAR2a4xuRobEwJN7m1xHS2MbR03zL3t77kTfzrMCzDNQC78zODgYi3nB8FvQ>

RTU in the «QS Graduate Employability Rankings 2021» created by prestigious rating agency «QS World University Rankings», ranks 201st–250th place, achieving the best results in the indicator of employer-student cooperation.

<https://www.tvnet.lv/7345135/starptautiskie-darba-deveji-visaugstak-latvija-noverte-rtu-un-lu>

October 1

Evaluating the 69 submitted applications, the Council of the State Scientists Emeritus grants the status of State Emeritus Scientist to 32 scientists, among them – six RTU researchers: *Jurijs Dehtjars, Jānis Grundspenķis, Valdis Kokars, Andrejs Kolišķins, Gaļina Merkurjeva* and *Andris Ozols*.

[https://lza.lv/aktualitates/](https://lza.lv/aktualitates/jaunumi/772-valsts-emeriteta-zinatnieka-statuss-pieskirts-32-zinatniekiem)

[jaunumi/772-valsts-emeriteta-zinatnieka-statuss-pieskirts-32-zinatniekiem](https://lza.lv/aktualitates/jaunumi/772-valsts-emeriteta-zinatnieka-statuss-pieskirts-32-zinatniekiem)

October 8

The fifth RTU History Day is taking place.

<https://www.rtu.lv/lv/muzejs/muzejs-par-mums/muzeja-zinas/atvert/notiks-rtu-62-zinatniskas-konferences-sekcijas-inzenierzinatnu-un-augstskolu-vesture-sede>

October 9

RTU inter-faculty erudition competition «*Spice 2021*» is taking place.

<https://www.rtu.lv/lv/kultura/par-mums-kultura/jaunumi-kultura/atvert/rtu-starpfakultasu-erudicijas-konkurss-spice-2021-norisinasies-9-oktobri>

October 11

By the decision of the RTU Senate (Minutes No. 654):

- RTU Honorary Doctorate awarded to Paul E. Tesluk, Professor at the University of Buffalo, State University of New York;
- a Science and Innovation Centre has been established within the RTU Office of Vice-Rector for Research including the reorganized RTU Design Factory;
- regulations for nominating RTU Council candidates have been approved.

October 12

Today, remembering and honouring the founders and the first rectors of our university, the team of RTU Research Centre for Engineering History visited their resting places in Riga cemeteries. RTU management was represented by Vice-Rector for Academic Affairs Professor *Uldis Sukovskis*; students – by the Head of Study Department of RTU Student Parliament *Airita Olehnoviča*.

Photo gallery: <https://www.flickr.com/photos/rtu-lv/albums/72157720005597346>

October 14

Celebrating the 159th anniversary of RTU, the 62nd Plenary Session of the RTU International Scientific Conference and the Solemn Sitting of the RTU Senate take place, in which the most outstanding RTU scientists and lecturers are traditionally praised: the Award «RTU Scientist of the Year 2021» is awarded to *Andris Šutka*, Associate Professor of the Faculty of Materials Science and Applied Chemistry (FMSAC); «RTU Young Female Scientist of the Year 2021» – FMSAC Researcher *Jana Vecstaudža*; «RTU Young Scientist of the Year 2021» – FMSAC Researcher *Kristaps Rubenis*; the Award «RTU Annual Award for Valorisation» is awarded to Professor *Agris Ņikitenko*, Dean of the Faculty of Computer Science and Information Technology (FCSIT); «RTU Annual Student Award for Valorisation» – FMSAC doctoral student *Kristīne Irtiševa*. «RTU Annual Academic Excellence Award» is awarded to FCSIT Professor *Jānis Grabis*; «RTU New Lecturer of the Year 2021» – Assistant Professor of the Faculty of Electronics and Telecommunications (FET) *Ingrīda Lavrinoviča*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-159-dzimsanas-diena-apbalvo-izcilakos-zinatniekus-un-macibspekus>

October 16

RTU chess players win 1st place both individually and in the overall rating in the Latvian Student's Chess Championship, which takes place during the XXXII Latvian Universiade.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-studenti-izcina-cempionu-titulu-latvijas-studentu-saha-cempionata?fbclid=IwAR1ekUKkoDAeJkd1i hXoZASTWx5r0e_UVNpfU6nECjn79ZdUfTIGRWxXdqI

October 19

Latvia has signed a Memorandum of Understanding with the European Institute of Innovation and Technology on closer co-operation in promoting innovation. The Ministry of Education and Science entrusts the implementation of the memorandum in Latvia to RTU.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/veidojot-ciesakas-saites-ar-eiropas-inovaciju-un-tehnologiju-institutu-stiprinas-atbalstu-inovaciju-ekosistemai-latvija?fbclid=IwAR2X1FTR_uAXeR4xre2kG3EGmCjINYo0S3BTgw9FGew7EHW-06sU97gKyuE

October 20

The Ambassador of Mongolia to Latvia Barkhas Dorj pays a working visit to the RTU Student Campus in *Kipsala* to get acquainted with the development of RTU infrastructure, technical support and to discuss the current cooperation between RTU and higher education institutions in Mongolia and future opportunities.

<https://www.flickr.com/photos/rtu-lv/albums/72157720031777648>

October 22

The Paul Walden Memorial Medal is awarded: to *Māra Jure*, Professor of the Institute of Technology of Organic Chemistry of FMSAC; to *Māris Knite*, Professor of the Institute of Technical Physics (ITP) of FMSAC; and to *Pāvels Arsenjans*, Head of the Pharmacomodulators Synthesis Group of the Latvian Institute of Organic Synthesis (LIOS).

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/paula-valdena-pieminas-medalu-sanem-tris-izcili-latvijas-zinatnieki?fbclid=IwAR0DLcaH5R6pdgWzpzxeKPyzDoLhNY-DgblnGUEZblvi5te2dFBbAfrQE8>

October

RTU ranks 251–300th place in «THE Emerging Economies University Rankings 2022» ranking of universities in emerging economies by «Times Higher Education» (THE), one of the world's most prestigious rating agencies. RTU's performance was rated the highest in two areas of activity – income from industry (knowledge transfer) and international cooperation (staff, students, research).

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/starptautiskaja-jaunas-ekonomikas-valstu-reitinga-visaugstak-noverte-rtu-starptautisko-sadarbibu-un-ienakumus-no-industrijas>

November 2

RTU men's choir «*Gaudeamus*» founder (1959) and Honorary Conductor, Chief Honorary Conductor of the General Latvian Song and Dance Festival, composer Professor *Edgars Račevskis* is awarded the Cabinet of Ministers Prize for lifelong contribution to strengthening and developing the Latvian choir art and General Latvian Song and Dance Festival tradition.

<https://www.lnkc.gov.lv/lv/jaunums/ar-ministru-kabineta-balvu-un-atzinibas-rakstu-novertetas-kulturas-nozares-izcilibas?fbclid=IwAR02aJHHZE9MgR9QZmQbNMnv1ZvyqYZWZeEgcRplRogb8uR67m3MaDPFLW0>

November 2–6

The third face-to-face meeting of the European University of Technology Consortium (EUT+) is taking place at the Darmstadt University of Applied Sciences in Germany; during which the rectors of the eight universities involved in the project, including Rector of RTU Academician *Leonīds Ribickis*, sign a letter of intent on the establishment of research institutes for the development of science.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/eiropas-tehnologiju-universitates-konsorcija-rektori-paraksta-nodomu-protokolu-par-petniecibas-institutu-izveidi-zinatnes-attistibai>

November 10

The President of Latvia *Egils Levits* and the Chapter of Orders decide: to award the Order of the Three Stars to the Professor of the FMETA *Toms Torims* for special merits in favour of Latvia by appointing the Professor as an Officer of the Order of the Three Stars; to award the Cross of Recognition to *Aija Janbicka-Vība*, Director of the RTU Scientific Library, by appointing her an Officer of the Cross of Recognition.

<https://www.delfi.lv/news/national/politics/pirms-lacplesa-dienas-60-personam-pieskir-augstakos-valsts-apbalvojumus.d?id=53764811>

November 15

RTU Senate (Minutes No. 656), based on the Regulations «*Par RTU padomes kandidātu izvirzīšanas un ievēlēšanas nolikuma apstiprināšanu*» (On Approval of the Regulations on Nomination and Election of RTU Council Candidates) approved on 11 October 2021, elects five members of the RTU Council by secret ballot: *Jānis Braunfelds*, *Jānis Grabis*, *Jānis Ločs*, *Jurgis Porinš* and *Anita Straujuma*. Such elections are taking place for the first time not only in the history of RTU but also in the history of Latvia.

The RTU Council will consist of 11 members. Five persons, elected by the RTU Senate, will be joined by another outstanding non-academic representative nominated by the President, and five members of the public will be appointed by the Ministry of Education and Science in accordance with the Cabinet of Ministers.

November 23

RTU Science and Innovation Centre Acting Director *Liene Briede* has been confirmed as the first representative of Latvia on the Board of the European Innovation Council.

<https://labsoflatvia.com/aktuali/rtu-eiropas-inovaciju-padomes-valde?fbclid=IwAR145knW9Vgy6cb3Dw-l3gFfXXeilFvhpKeg7vXJgY3a4pmllejDyrFkAwOI>

RTU Rector Academician *Leonīds Ribickis* pays a reconnaissance visit to H. E. Ms. Eimear Friel, Ambassador Extraordinary and Plenipotentiary of Ireland to the Republic of Latvia. *Igors Tipāns*, Deputy Rector for International Cooperation and Foreign Students Department, *Kārlis Valtīņš*, Head of the International Projects Unit and Coordinator of the EU + Initiative, and *Laura Štāle*, Head of the International Cooperation Unit, are also participating in the conversation with the Ambassador of Ireland.

<https://www.flickr.com/photos/rtu-lv/albums/72157720188251839>

November 25

22 new members were elected at the general meeting of the Latvian Academy of Sciences (LAS), including five RTU scientists. The following have become full members of the LAS (academicians): *Dagnija Loča* and *Andris Šutka* (both FMSAC); correspondent members: *Andra Blumberga* (Faculty of Electrical and Environmental Engineering; FEEE); *Remo Merijs Meri* and *Kristīne Šalma-Ancāne* (both FMSAC).

<https://www.lza.lv/aktualitates/jaunumi/827-latvijas-zinatnu-akademijas-2021-gada-jauno-loceklu-vešanas-ieveleti-divdesmit-divi-zinatnieki-un-divi-goda-loekli>

In this general meeting, FMSAC graduate *Dr. chem. Marija Skvorcova*, receives the Award named by *Edvīns Vedējs* for young doctors of science for outstanding achievements in organic chemistry, established this year by the LAS and the Riga Technical University Development Fund.

<https://www.lza.lv/par-mums/pilnsapulces/829-lza-rudens-pilnsapulces-materiali-2021-gada-25-novembris>

December 2-3

Representatives of RTU faculties and the International Cooperation and Foreign Students Department in *Kīpsala* meet with Philippe Bolon, Dean of the Polytech Annecy-Chambéry, University of Savoie Mont Blanc, France.

December 3

Seong-Jin Han, Ambassador of the Republic of Korea, and Sang Gum Li, Adviser on International Cooperation at Busan National University, are visiting RTU.

At the XXXII Latvian Universiade, RTU students (women) win 1st place in the women's competition, while the students (men) – the 2nd place.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-peldetajiem-zelts-un-sudrabs-xxxii-universiade?fbclid=IwAR39cBdrZaVMfSH_qOA8T2Bcjc_n3EfcBd6vGeldMtl9_p1zIzqZx7A8KJ0

December 11

At the XXXII Latvian Universiade in badminton, RTU students win 1st place in the men's competition, the women's team ranks 2nd.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/universiade-badmintonu-rtu-studenti-izcina-godalgotas-vietas>

December 11-12

RTU Team wins gold and bronze medals in Latvian Quick Chess and Rapid Chess Championships.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-komanda-izcina-zeltu-un-bronzu-latvijas-atra-saha-un-saha-atrspeles-cempionatos>

December 13

At the solemn event, removing a granite plaque with the name of RTU from the facade of the building at 1 *Kaļķu* Street, RTU leaves the historic building. From now on, the university administration will be located on the RTU Student Campus in *Ķīpsala*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-svinigi-atvadas-no-vesturiskas-ekas-kalku-iela-1>

December 20

RTU scientists receive JSC «Latvenergo» and the Latvian Academy of Sciences Annual Awards for excellence in energy research: *Gatis Bažbauers*, Deputy Vice-Rector for Research at RTU, Professor of the Institute of Energy Systems and Environment (IESE), receives the Award named by *A. Vītols* for outstanding contribution to Latvian Energy in 2021; Annual Award for Significant Contribution to Energy receive *Laila Zemīte*, Associate Professor of the Institute of Power Engineering of FEEE and *Dmitrijs Rusovs*, Associate Professor at the Department of Thermal Power Systems of FMETA; Annual Award for Success in Energy for Young Scientists receives IESE researcher *Edīte Biseniece*; the Promotion Award for doctoral dissertation is won by two young scientists – IESE researcher *Armands Grāvelsiņš* and *Toms Mols*, who developed the dissertation at IESE.

<https://www.lza.lv/aktualitates/jaunumi/869-latvijas-zinatnieki-sanem-gada-balvas-energetika-2021>

December 30

The Latvian Olympic Team (LOT) approves the composition of sportsmen in summer sports in 2022, including 131 athletes in the LOT Gold, Silver, and Bronze squads. Among them are three RTU students: 3rd-year student of the Faculty of Engineering Economics and Management (FEEM) beach volleyball player *Artūrs Rinkevičs* is included in the Silver squad, 2nd-year student of FEEE judoka *Aleksejs Zarudņevs* and FEEM 2nd-year master student-athlete *Patriks Gailums* are included in the Bronze squad.

<https://www.lov.lv/apstiprinati-lov-sastavi-vasaras-sporta-veidos>

In December

Professor *Dagnija Blumberga*, Director of the IESE of RTU FEEE, receives the first Baltic Sustainability and Innovation Award «Rimi Baltic Sustainability Awards» in the category «Messenger of Change» for educating the public and actively advocating for climate neutrality in the field of energy.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-vassi-direktore-sanem-pirmo-baltijas-ilgtspejas-un-inovaciju-balvu>

RTU retains 57th place in the international rating «QS Emerging Europe and Central Asia (ECCA) 2022» compared to last year, in several criteria, such as the reputation of employers, experiencing growth.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/reitinga-qs-ecca-2022-visaugstak-noverteta-rtu-sadarbiba-ar-darba-devejiem>

RTU raises its position in «The GreenMetric World University Rankings» and becomes the 50th greenest university in the world, achieving the highest results in the categories of transport infrastructure, environmental education, and science, water efficiency, and waste management.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-greenmetric-reitinga-atzita-par-50-zalako-universitati-pasaule?fbclid=IwAR3dMV_ISJh9uKBo5_mEVfCeRxknSldWLeKUbNbvAJ1eWMVf6mjY4eSGDYM

The LAS names the most significant achievements in science in 2021, including several studies of RTU scientists in applied science: Faculty of Civil Engineering (FCE) and FMSAC jointly developed solution for modification of bitumen and asphalt concrete composition with used car tire granules (developers – *Viktors Haritonovs, Jānis Zicāns, Remo Merijs-Meri* in cooperation with colleagues of the Latvian Tire Management Association, Ltd. «Eco Baltia vide», Ltd. «Ceļu būvniecības sabiedrība «IGATE»» and VSIA «Latvijas Valsts ceļi»); research of FMSAC scientists on the transformation of biomass waste into sustainable bioplastic products (developers – *Sergejs Gaidukovs, Oskars Platnieks, Anda Barkāne, Sergejs Beļuns, Gerda Gaidukova* in cooperation with colleagues from the Latvian State Institute of Wood Chemistry (LSIWC) and the UL).

For significant achievements in science Letters of Recommendation by LAS receives: on interdisciplinary research «*Drošu tehnoloģiju integrācijas aizsardzībai pret Covid-19 veselības aprūpes un augsta riska zonās*» (Safe technology integration for protection against Covid-19 in healthcare and high risk areas) – RTU, Latvian Institute of Organic Synthesis, UL, Latvian Biomedical Research and Study Centre, Riga Stradins University, Rezekne Academy of Technology, LSIWC and Scientists from the Institute of Electronics and Computer Science:

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Tālis Juhna, Linda Mežule, Ivars Kalviņš, Juris Purāns, Andris Šutka, Inga Dāboliņa, Inese Fiļipova, Ilze Irbe, Ivars Vanadziņš, Atis Elsts, Andreta Slavinska, Anna Zajakina, Andris Martinovs, Atis Skudra, Gita Rēvalde, Agris Ņikitenko, Kārlis Pajuste, Aleksandrs Ļevinskis; on an interdisciplinary study on how to transform traditional e-learning technology into a digital learning ecosystem – Researchers of Distance Education Study Centre of the Faculty of E-Learning Technologies and Humanities (FETH): *Atis Kapenieks, Aleksandrs Gorbunovs, Mērija Jirgenšons, Jānis Kapenieks, sen., Iveta Daugule, Žanis Timšāns, Jānis Kapenieks, jun., Viktors Zagorskis, Bruno Žuga, Ieva Vītoliņa, Ieva Grada, Guna Jākobsone-Šņepste, Loreta Juškaite, Evija Mirķe*.

The LAS Letter of Recognition also praised the monograph «*Latvijas tautsaimniecība pandēmijas ēnā un pēckrīzes izrāviena iespējas* = Latvian Economy in the Shadow of Pandemic and Opportunities of the Post-Crisis Recovery»; the authors are FEEM scientists *Natalja Lāce, Jūlija Bistrova* and *Ludmila Kasperoviča*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/par-nozimigakajiem-sasniegumiem-zinatne-2021-gada-atzist-vairakus-rtu-zinatnieku-petijumus?fbclid=IwAR3mvID5gG7xA D2n-9kizh5rzjvJSlcovLeIBtcCQhzr6Llo831SfsoiF50>

2022

January 10

The cycle of events of the 160th anniversary of RTU Scientific Library is opened with a virtual exhibition.

https://www.rtu.lv/writable/public_files/RTU_mlkf_gramatas_1990_2021.pdf

January 18

The LAS Senate awards name prizes to two young FMSAC scientists: the Award named by *Mārtiņš Straumanis* and *Alfrēds Ieviņš* in Chemistry to *Dr. chem. Krista Gulbe*; the Award named by *Emīlija Gudriniece* in Chemistry and Chemical Technology to *Mg. chem. Andris Jeminejs*.

<https://www.lza.lv/aktualitates/jaunumi/900-latvijas-zinatnu-akademija-pieskir-ikgadejas-vardbalvas-un-balvas-jaunajiem-zinatniekiem>

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/jaunie-zinatnieki-sanem-latvijas-zinatnu-akademijas-vardbalvas-par-ieguldijumu-kimija-un-kimijas-tehnologija>

January 19

FEEM graduate *Liene Bondare*, a skier, wins the opportunity to start at the XXIV Winter Olympic Games, which will take place from 4 to 20 February in Beijing, China.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-sava-olimpiete-ziemas-olimpiskajas-speles-pekina?fbclid=IwAR05bn3avHV0CJVYjtUC35ht-oNEOWVPdTuDcuTXH2NsU5R7h8NlfTqsxe4>

January 23

The four-man piloted bobsleigh by FEEM student *Dāvis Kaufmanis* wins the World Bobsleigh Championship, which takes place on the Igls track in Austria. RTU FCE student *Lauris Kaufmanis* is also one of the pushers.

https://www.bobslejs.lv/raksts/kaufmana-cetrinieks-triumfe-pasaules-junioru-cempionata?fbclid=IwAR0GA526XVE-E5nFaVtfbPMtBrP77s3Ly-vYlorcmz6coKrzmsIGi1_n0mw

January 27

RTU Rector *Leonīds Ribickis* meets with Rector of the Chernihiv National University of Technology (CNUT) in Ukraine Oleh Novomlynets to present RTU's achievements in studies, science, valorisation and infrastructure development, as well as to discuss the current cooperation, outline its further development directions and sign the Memorandum of Understanding.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-plano-attistit-sadarbibu-ar-cernigovas-valsts-tehnologisko-universitati-ukraina>

January 28

RTU Open Day is taking place online.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-toposos-studentus-aicina-uz-atverto-durvju-dienu-tiessaiste-1>

January 31

In accordance with the Law on Institutions of Higher Education, which stipulates that one representative of the Council of State Higher Education Institutions shall be nominated by the President, *E. Levits* has nominated *Andris Ambainis*, a Professor at the University of Latvia, to serve on the RTU Council.

<https://nra.lv/latvija/izglitiba-karjera/370756-valsts-prezidents-egils-levits-izvirza-parstavjus-darbam-valsts-augstskolu-padomes.htm>

By the decision of the RTU Senate (Minutes No. 659): *Andris Vanags*, the Chairman of the Council of JSC «SAKRET Holdings», was awarded the title «RTU Honorary Alumni 2021».

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In January

The FMETA Metrology Scientific Laboratory receives new equipment from the company «Mititoyo Polska Sp.o.o», which allows to expand the range of measurements performed in the laboratory and which can be used for student training and research.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/mitutoyo-metrologijas-laboratorija-piegadats-jauns-aprikojums-jaunas-iespejas-studentiem-un-zinatniekiem>

FMETA Professor *Viktors Mironovs* receives the World Intellectual Property Organization (WIPO) Medal for outstanding and innovative research in the fields of powder metallurgy, material pulse processing technology, composite materials and more.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-profesors-viktors-mironovs-sanem-pasaules-intelektuala-ipasumu-organizacijas-medalu>

February 1-4

RTU students present business ideas at the European University of Technology (EUT +) demo day in Spain.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-studenti-prezente-biznesa-idejas-eut-demo-diena-spanija>

February 2

For the second year in a row, the Latvian State Radio and Television Centre grants RTU with the award «eParaksta čempions 2021» (eSignature Champion 2021) and a Certificate of Recognition for 3rd place. In the first place – the portal *Latvija.lv*, in the second place – the State Revenue Service.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-jau-otro-gadu-klust-par-eparaksta-čempioni>

February 5

RTU students win the 32nd Universiade of Latvia in powerlifting.

<https://studentusports.lv/2022/02/08/rtu-studenti-izcina-uzvaru-latvijas-universiade-speka-triscina/?fbclid=IwAR2iXFzZJXpTqeCRLwWTN26nciyYnrrTXFgOgurIQwq7zmDgEBs9o5ccmds>

February 5-6

FCE 5th year bachelor student *Reinis Krauklis* wins the first two places in the Latvian Badminton Championship: mixed doubles (with *Diana Stognija*) and men's doubles (with *Artūrs Akmenis*).

https://badminton.lv/aktualitates_a.php?lang=lv&id=215&k=1351&limit=0

February 15

The Cabinet of Ministers approves five members of the RTU Council, thus the RTU Council has been established in the following composition:

Andris Ambainis, Jānis Braunfelds, Rik De Doncker, Jānis Grabis, Neils Kalniņš, Sanda Liepiņa, Jānis Ločs, Gary B. Marquis, Jurgis Poriņš, Anita Straujuma, Andris Vanags. The first meeting of the RTU Council is scheduled for the beginning of March.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/marta-darbu-saks-jauna-rtu-padome>

February 20

Anda Upīte, a 2nd course student of the FEEM, won a silver medal at the Latvian Junior and Youth Championships in Women's Luge, starting in a Doubles with *Zane Kaluma*.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-studentei-sudrabs-latvijas-junioru-meistarsacikstes-kamaninu-sporta?fbclid=IwAR3g9Kf64SVEDBL-QjutxXhuFwOT1tnPuZyHhfs-1v_N-vkSNpTJNl_AiEU

February 21

A sitting of the Constitutional Assembly of RTU is taking place, at which a decision (Minutes No. 34) has been adopted and a new version of the Regulations of the Constitutional Assembly of RTU has been approved. After listening to the informative report on the RTU Council, the Constitutional Assembly by vote expresses convincing support for the composition of the RTU Council, thus the newly established RTU Council receives a confirmation of confidence from the RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/jauna-rtu-padome-sanem-satversmes-sapulces-atbalstu>

February 24

In solidarity with the Ukrainian academic community, RTU sends an invitation to the partner universities in Ukraine and the Embassy of Ukraine in Latvia, offering the doctoral students of the partner universities to continue the research work interrupted by the war at RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-sniedzot-atbalstu-ukrainai-piedava-doktoranturas-studentiem-zinatnisko-darbu-turpinat-riga>

February 25–27

RTU swimmers win prizes in the Latvian Open Swimming Championship, which takes place in *Kīpsala* swimming pool: Olympian FMETA 2nd course year master student *Daniils Bobrovs* wins a gold medal in the 200 m Breaststroke and a bronze medal in the 50 m Breaststroke; FEEM graduate (2018) *Ģirts Feldbergs* wins a gold medal in two disciplines – 50 m and 100 m Backstroke; FEEM 1st course master student *Jevgenijs Boicovs* wins a gold and a silver medal in a 50 m and 100 m Breaststroke; FEEM 1st course student *Marija Goberga* wins bronze medal in the 200 m complex swimming.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-peldetaji-izcina-godalgas-latvijas-atklataja-cempionata?fbclid=IwAR1f00FvVhr60_NUDYlBqsPcBv1HktLvL7DP4sVfSyskyW_Tx9XZnZKKWZQ

In February

RTU is the first in Latvia to announce a competition for six vacancies for guaranteed employment or tenure professors.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-ka-pirma-universitate-latvija-izsludina-konkursu-tenurprofesoru-vakancem>

March 1

Expressing support for Ukraine's struggle for its land and freedom, RTU awards scholarships to students from Ukraine, offers Ukrainian refugees accommodation in RTU service hotels and raises the Ukrainian flag in *Kīpsala*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-pieskir-stipendijas-ukrainu-studentiem-un-kipsala-pacel-ukrainas-karogu>

At the first meeting of the RTU Council, *Andris Vanags*, the Chairman of the Council of JSC «*Sakret Holdings*», was elected the Chairman of the Council, and *Anita Straujuma*, an Associate Professor at the FEEM, was elected Deputy Chairman.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/par-rtu-padomes-priekssedetaju-ievelets-sakret-holdings-vaditajs-andris-vanags>

March 4

RTU Virtual Career Day is taking place.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-aicina-jauniesus-piedalities-virtualaja-karjeras-diena-2>

March 11

At the solemn presentation ceremony of the competition «*Latvijas Būvniecības Gada balva 2021*» (Latvian Construction Year Award 2021), which takes place in Āgenskalns Market Square, the new buildings of FCSIT and «*Domus Auditorialis*» receive the award for the 2nd place in the nomination «*Sabiedriskā ēka – jaunbūve*» (Public Building – New Building).

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-datorzinatnes-un-informacijas-tehnologijas-fakultates-un-auditoriju-majas-jaunas-ekas-apbalvo-konkursa-latvijas-buvniecibas-gada-balva-2021>

March 12

For the fourth year in a row, the RTU Team is winning the title of Champion at the XXXII Latvian Universiade in Chess.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-saglabat-latvijas-studentu-cempiona-godu-saha?fbclid=IwAR2GT604Yo2j-NpzH7-IWBbD88sAbgS0SeDJR8KI9OqRDhf-QNFBiqP81oI>

March 13

FEEM Master's student javelin thrower *Patriks Gailums* wins a silver medal in the European Throwing Cup in Leiria, Portugal.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-skepmetejs-patriks-gailums-izcina-sudrabu-eiropas-meteju-kausa-sacensibas>

March 22

Stefano Fontana, the Italian Ambassador for Design to Latvia in 2022, nominated by the Italian Ministry of Foreign Affairs and International Cooperation, is visiting the Institute of Design Technologies of FMSAC.

March 23

The Italian Design Day, organized by the Italian Embassy in Latvia in cooperation with RTU, is taking place at the «*Domus Auditorialis*» auditorium.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-un-italijas-vestnieciba-aicina-interesentus-uz-lekciju-par-italu-dizainu>

March 25–26

RTU swimmers win six gold medals at the Baltic States Championship in Tartu, Estonia: FEEM graduate (2018) *Ģirts Feldbergs* – 50 m, 100 m and 200 m backstroke; FMETA 2nd year master student *Daniils Bobrovs* in 100 m and 200 m breaststroke; FEEM 1st year student *Jevgeņijs Boicovs* – 50 m breaststroke.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-sportisti-izcina-baltijas-cempionu-titulus-peldesana>

March 26–27

In the Latvian Table Tennis Championship, FEEM 1st year master student *Viktorija Majorova* wins the third place in both singles and doubles (paired with *Diāna Afanasjeva*).

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/viktorija-majorova-izcina-bronzu-latvijas-cempionata-galda-tenisa>

March 27

RTU Men's Volleyball Team «RTU *Robežsardze/Jūrmala*» wins a silver medal in the Latvian Championship.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-robezssardze-jurmala-latvijas-cempionata-iegust-sudrabu>

March 29

The RTU Council approves the election commission and election regulations of the RTU Constitutional Assembly.

March 29–April 29

Twice a week – on Tuesdays and Wednesdays – there is an online event «*Pieslēdzies RTU!*» (Connect RTU), where RTU students talk about their studies, students' lives and career opportunities after graduating from RTU.

<https://www.rtu.lv/lv/nac-studet/piesledzies-rtu>

In March

The Latvian Wheel Chair Curling Team, in which FEEM graduate *Polina Rožkova* also participates, ranks 9th in the XII Paralympic Games in Beijing.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-absolventes-parstaveta-latvijas-ratinkerlinga-izlase-paralimpiskajas-speles-pekina-izcina-9-vietu?fbclid=IwAR1yMCjCR2pK6kS-CIopVTvfcl2zt7on4t-78vWGC9mAXFqdYOWsVmPPLGHk>

The RTU Sports Bridge Team wins a silver medal in the Latvian 2022 Team Championship, which takes place over three weekends in February and March, and acquires the right to start in the Baltic Cup, which is scheduled for April in Tallinn.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-komandai-sudraba-medalas-latvijas-komandu-cempionata-sporta-bridza>

RTU is organizing a donation campaign to financially support Ukrainian students and teaching staff who came to Latvia during the War.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-riko-ziedosanas-kampanu-un-piedava-atbalstu-ukrainas-studentiem-un-macibspekiem>

Professor *Ivars Strautmanis*' Latvian Regional Architecture Scholarship is awarded to FA graduate *Ieva Liepa*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/profesora-ivara-strautmana-latvijas-regionalas-arhitekturas-stipendiju-iegust-jauna-arhitekta-ieva-liepa>

April 7

The winners of the first 3D concrete printing competition in the Baltics are the student team of RTU and the Latvian Academy of Arts (LAA) «4 AM», which has developed the idea of an environmental design object – a multifunctional 3D concrete bench covered with wooden boards. The second place in the competition is won by the RTU and LAA student team «onlyonly», the third – by the RTU and University of Applied Sciences RISEBA student team «FRA».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/pirmaja-3d-betona-drukas-konkursa-triumfe-ideja-par-multifunkcionalu-solinu>

In the LAS spring general meeting the winners of the LAS Name Award and the Young Scientists Award were awarded; among them also the FMSAC assistant professor *Dr. chem. Krista Gulbe*, who receives the *Mārtiņš Straumanis* and *Alfrēds Ieviņš* Name Award in Chemistry. The authors of the study «*Slīdamība pa ledu*» (Glide on Ice) – FMSAC and FMETA scientists *Kārlis Agris Gross*, *Jānis Lungevičs*, *Ernests Jansons*, *Ilze Jerāne*, *Jānis Vība* and *Mārtiņš Irbe* – receive a letter of gratitude from the LAS Senate.

<https://lza.lv/aktualitates/jaunumi/1034-lza-pavasara-pilnsapulce-sveic-lza-balvu-un-senata-pateicibas-rakstu-laureatus>

April 7-8

RTU, the University of Bergamo, the Italian Embassy and the Latvian Embassy in Italy sign a patronage agreement for the «Nonlinear Life» summer school.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-bergamo-universitate-italijas-vestnieciba-un-latvijas-vestnieciba-italija-paraksta-patronazas-ligumu-vasaras-skolai-nonlinear-life>

April 9

In the Latvian Universiade competition in table tennis, RTU athletes win gold medals in both women's and men's competitions, doubles, and in the overall ranking of women's and men's teams. In the women's competition, the 1st place in singles is won by *Viktorija Majorova*, 1st year master student of the FEEM, in doubles – *V. Majorova* and *Liāna Zeltiņa*, 4th year student of FCSIT. In the men's competition, the 1st place in singles is won by FCSIT 3rd year student *Eduards Spāģis*, the 2nd place – FCSIT 1st year student *Deniss Vasiljevs*, 3rd place – FEEM 1st year student *Dāvis Pavlovs*; *E. Spāģis* and *D. Vasiljevs* win 1st place in doubles.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-sportistiem-izcilisasniegumi-latvijas-xxxii-universiade-galda-tenisa?fbclid=IwAR373DR8XfUq7PzDD99jGWLg_G3YaYdeugT-oHHpCxS_lBi7LdiOgpFNtMI

April 19

The Government decides to award the Letter of Recognition of the Cabinet of Ministers of the Republic of Latvia to RTU Rector *Leonīds Ribickis* for a significant contribution to increasing the university's influence in promoting economic development, as well as to RTU for a significant contribution to Latvia's economic development.

https://www.izm.gov.lv/lv/jaunums/pieskir-ministru-kabineta-atzinibas-rakstu-par-izcilciem-sasniegumiem-izglitibas-zinatnes-un-sporta-joma?utm_source=http%3A%2F%2Fm.facebook.com%2F

April 22-24

Representing Latvia at the Nordic-Baltic Physics Olympiad, which takes place in Tallinn (Estonia), RTU EHS pupils *Lukass Roberts Kellijs* receive a silver and *Ralfs Šuba* a bronze award.

<https://www.izv.lv/2022/04/sasniegumi-ziemelvalstu-baltijas-valstu-fizikas-olimpiade/>

At the XX Nordic Veterans Table Tennis Championships in *Liepāja*, *Sanita Sveile*, Deputy Director of RTU Sports Centre and Coach of table tennis, wins gold (WS 45+ singles) and two bronze medals (WD 40+ in women's doubles and mixed doubles).

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/sanita-sveile-izcina-zeltu-un-divas-bronzas-xx-ziemelvalstu-veteranu-cempionata-galda-tenisa?fbclid=IwAR0zrQtZmUw3uC3z4U7vaQLzOR8jxwYWruQBCmI8oKa9Z5lfgT8ppqCYbFI>

April 28

RTU and the company «SmartLynx Airlines» sign a cooperation agreement to provide more internship opportunities for future aviation engineers. The agreement is signed by RTU Rector *Leonīds Ribickis* and Head of the Personnel Unit of «SmartLynx Airlines» *Māra Šteinberga*.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-paraksta-sadarbibas-ligumu-ar-smartlynx-airlains-par-studentu-prakses-organizesanu-uznemuma>

RTU has been one of the first participants to join the national social initiative «Mission Zero». By signing the Charter of «Mission Zero», RTU affirms the responsible attitude towards its employees and their concern for their well-being, health and safety.

In April

RTU has been recognized as the best university in the Baltics in engineering and technology, taking the 340th place in the prestigious international ranking «QS World University Rankings by Subject».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-atzita-par-baltijas-labako-augstskolu-inzenierzinatnes-un-tehnologijas-prestizaja-qs-world-university-rankings-by-subject>

Evaluating RTU's performance in implementing the United Nations Sustainable Development Goal (SDG) 17 cooperation program, RTU is ranked 201st–300th among the world's universities that are most successful in achieving sustainability goals. RTU's work in promoting sustainable innovations and combating climate change is rated the highest – 29th.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-reitinga-impact-rankings-2022-atzita-par-29-pasaule-labako-univeristati-kas-cinas-pret-klimata-parmainam?fbclid=IwAR13fk_RtYvuqzUgVRue2PkiZR-V7G08whbt1YEcdImJH0pBYmC5Xec2Y4

The team of pupils of RTU EHS and Varmdo Gymnasium in Sweden «North Filters» wins and the jury prize at the international team of ideas «Dragon's Den», developing a portable modular filter system to protect the sea from the rainwater entering it.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskolas-skolenu-idejas-triumfe-starptautiska-projekta-changemakers-somija>

May 6

RTU team wins the 32nd Latvian Universiade in Athletics in Men's Competition.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-komandai-uzvara-latvijas-32-universiade-vieglatletika?fbclid=IwAR0J00prA3hqrUwilVM8knjQnA3f4ToHm_AMvLRGZpfSXHjXCxBEqdy7w

May 8-14

Aleksandrs Vjaters, a 10th grade pupil at RTU EHS, wins a bronze medal at the European Experimental Science Olympiad in Hradec Kralove (Czech Republic).

<https://www.tvnet.lv/7523792/latvijas-skolenu-komandas-izcina-medalas-eiropas-eksperimentalo-zinatnu-olimpiade>

May 10

Dagmāra Bārbale, the Artistic Director of the RTU Folk Dance Ensemble «Vektors» in 2021, receives the Riga City Council Award «Baltais zvirbulis» (White Sparrow) in the nomination «Amatiermākslas kolektīva vadītāja» (Leader of the Amateur Art Group) for a high-quality creative process and successful implementation of the multimedia dance performance «Latvju zīmēs rotāties» (Decorate in Latvian Signs).

<https://www.riga.lv/lv/jaunums/riga-pasniegs-gada-balvu-kultura-baltais-zvirbulis>

During the visit to Riga, the delegation of the NATO Parliamentary Assembly visits RTU, meets with the university management and gets acquainted with research and innovations in the field of security.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/nato-parlamentaras-asamblejas-delegacija-iepazistas-ar-rtu-petijumiem-un-inovacijam>

May 12

The management and leading researchers of the Korean Institute of Machinery and Materials are visiting the FMETA to get acquainted with their scientific work and studies.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/korejas-masinerijas-un-materialu-instituts-viesojas-rtu-masinzinibu-transporta-un-aeronautikas-fakultate?fbclid=IwAR2C1UbNbL7ROAQ_U4YRy9xkQrtuxzOppwgmMAP-3PBaEP4V0lfkA2DAq5A

May 17

Professor *Inga Lapiņa* of FEEM receives a Letter of Commendation from the President of Latvia for her selfless contribution to the improvement of the quality of education in Latvia.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-profesore-inga-lapina-sanem-valsts-prezidenta-cildinajuma-rakstu?fbclid=IwAR0LqsZaJdkoAGEc3kzw-OHUUmee_4zP7Ugk5MfmmuCUHLgYNHE6jPRRxCs

May 18

A representative of the State Chancellery and the Head of the Prime Minister's Office *Jānis Patmalnieks* is visiting RTU to acquaint students with the opportunities of young people in the European Union, to provide a broader view of the processes taking place in Europe and the world, and to listen to students.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ministru-prezidenta-biroja-vaditajs-janis-patmalnieks-ar-rtu-studentiem-apspriez-latvijas-un-es-aktualitates-un-vertibas>

May 20

The rectors of universities at the European University of Technology (EUT+), including *Leonīds Ribickis*, rector of RTU, together with Jennifer Boyer, Vice-Rector for sustainability at Dublin University of Technology, meet with Eamon Ryan T. D., Irish Minister for the Environment, Climate and Communications to discuss the various issues of sustainable development, the role of universities in mitigating climate change and to highlight the need to make caring for people and the environment a key priority in EUT+ activities as well.

RTU basketball players win the title of «*Olybet*» enthusiast league champion.

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-basketbolistes-izcina-cempionu-titulu-olybet-entuziastu-liga>

May 20–24

Lukass Roberts Kellijs, a 11th grade pupil at RTU EHS, won a bronze prize at the European Physics Olympiad in Ljubljana, Slovenia.

https://www.visc.gov.lv/lv/jaunums/skolens-no-latvijas-izcina-bronzas-medalu-eiropas-fizikas-olimpiade-eupho?fbclid=IwAR2zRBCI4ZudFx7gGPgyK12T88_0Cr oCe0rKjiLLguOqahwb59IM0y0TFzE&utm_source=https%3A%2F%2Ffacebook.com%2F

May 23

The newly elected Constitutional Assembly of RTU convenes for the first sitting. During the sitting, the Constitutional Assembly approves the new Constitution of RTU, which will enter into force on 1 June, as well as elects the new leadership of the Constitutional Assembly: Professor *Valdis Kokars* of FMSAC has been elected as the Chairman, *Inga Lapiņa*, Professor of the FEEM – Deputy Chairman, *Anita Pētersone*, Head of the Unit of Legal Provision in Real Estate Issues – as the Secretary of the Constitutional Assembly of RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-satversmes-sapulce-apstiprina-universitates-jauno-satversmi>

May 25

Emphasizing the current issues of higher education and science, FA hosts a discussion «6 pret 6» (6 against 6) of the rectors of six Latvian universities and representatives of the six most popular political parties, organized by the Association of Latvian Universities.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/notiks-universitatu-rectoru-un-politiku-prieksvelesanu-diskusija-par-augstako-izglitiba-un-zinatni>

May 30

A delegation from the Tashkent Institute of Textiles and Light Industry (Uzbekistan) – Rector Professor Ilkhom Sabirov, Vice-Rector Bakhtiyor Bobohodjayev, Head of the International Cooperation Department Surayo Mamadzhanova, and the Head of the Master's Studies Department Professor Khayrulla Usmanov visit RTU to discuss possible directions of cooperation in the field of design and chemical technologies and gain an idea of RTU infrastructure development and technical support.

In May

The European Commission (EC) has approved the participation of RTU Science and Innovation Centre (SIC) in the implementation of the pilot action of the Partnerships for Regional Innovation (PRI) project. The EC has selected a total of 63 regions, seven cities and four Member States for this project.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-izraudzita-par-regionalas-inovacijas-partneribas-izmeginajuma-darbibas-istenotaju>

June 1

Taking into account the RTU Rector *Leonīds Ribickis*' order No. 01000-1.1-e/119, the legal address of RTU has been changed. Further on, it is 6A *Ķīpsalas* Street, Riga.

The exhibition of graduates of the Institute of Design Technologies of FMSAC «*Kīpsala Design Code*» dedicated to the 160th anniversary of RTU is opened in the FA building. The exhibition is open until the end of June.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-jaunie-dizaineri-savus-darbus-prezente-izstade-kipsalas-dizaina-kods-2022>

June 3

RTU, the Ministry of Education and Science of the Republic of Latvia and the Massachusetts Institute of Technology (USA) sign a letter of intent regarding the establishment of an Education Laboratory in Latvia.

<https://labsoflatvia.com/aktuali/mit-izglitibas-inovaciju-laboratorija>

June 6

The Ambassador of Uzbekistan to Latvia Kadambay Sultanov and a delegation of the Qarshi Institute of Engineering Economics under the leadership of Rector Professor Orifjan Bazarov visit RTU to discuss possible directions of cooperation with RTU Rector Academician *Leonīds Ribickis* and other RTU representatives and sign a memorandum of understanding.

The Latvian Olympic Unit included five RTU athletes in «Gold», «Silver», and «Bronze» composition. Representatives of winter sports: in «Gold» composition – *Lauris Kaufmanis* (FCE 4th year); as a member of «Silver» composition – *Dāvis Kaufmanis* (FEEM 2nd year); *Anda Upīte* and *Dārta Estere Zunte* (both FEEM 2nd year); as a member of «Bronze» composition – *Liene Bondare* (FEEM graduate 2021).

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-sportisti-ieklausti-latvijas-olimpiskas-vienibas-sastavos-ziemas-sporta-veidos?fbclid=IwAR0Cfyp537L0v2uAZ-9DDfvOKmt6ANIIMU3hxoYZs_Q27mkXiSU2uJETDyY

June 8

RTU in the international rating «QS World University Rankings 2023» gets 751st–800th place, maintaining the highest score among the three Latvian universities included in this rating.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-latvija-saglaba-liderpozicijas-prestizaja-qs-world-university-rankings-2>

Two RTU doctoral students – FMSAC doctoral student *Anda Barkāne* and FCE doctoral student *Laura Vītola* – receive the «L'ORÉAL-UNESCO» award «For Women in Science».

<https://www.delfi.lv/calis/jaunumi/tris-izcilas-latvijas-zinatnieces-sanem-balvu-sievietem-zinatne.d?id=54432330>

2022/6

June 10

A forum «Interaction of the Education System in Secondary and Higher Education» is taking place to discuss how to successfully prepare pupils for higher education. The forum is organized by the Saeima Education, Culture and Science Commission, the Ministry of Education and Science, and RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/foruma-diskutes-ka-skolenus-veiksmigi-sagatavot-studijam-augstskolas>

June 14

RTU signs a cooperation agreement with the Riga City Council on the establishment of the RTU Curiosity Centre «Futurimo Rīga» at 6 Meža Street.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-parakstis-sadarbibas-ligumu-ar-rigas-domi-par-rtu-zinatkares-centra-futurimo-riga-izveidi>

June 17–19

The Baltic Students' Song and Dance festival «Gaudeamus» is taking place in Vilnius (Lithuania), with the participation of RTU amateur art groups: the choirs «Vivere» and «Delta», the student symphonic band «SPO» and the folk dance ensemble «Vektors».

<https://www.visc.gov.lv/lv/jaunums/sodien-vilna-sakas-baltijas-valstu-studentu-dziesmu-nu-deju-svetki-gaudeamus>

June 21

In order to create a cooperation network of national metrology centres and scientific institutions, which would allow RTU researchers to become more actively involved in international research and cooperation projects in the future, the heads of Scandinavian and Baltic national metrology institutions are visiting RTU.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-tiekas-skandinavijas-un-baltijas-valstu-nacionalo-metrologijas-instituciju-vaditaji>

The annual FMSAC IDT student fashion show «Restart» is taking place, where the future costume designers offer their works in the form of a short film.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-jaunas-modes-dizaineres-filma-demonstres-savas-terpu-kolekcijas>

June 28

Starting the celebration of the 160th anniversary of RTU, the management of the university planted beeches, red maples and Sakura in *Ķīpsala*. It is planned to plant 160 trees in the RTU Student Campus until RTU's birthday – October 14.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/par-godu-rtu-jubilejai-studentu-pilsetina-kipsala-tiks-iestaditi-160-koki>

In June

For the fifth year in a row, RTU is included in the highest or platinum category of the «Sustainability Index».

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-piekto-gadu-saglabas-pozicijas-ilgtspijas-indeksa-platina-kategorija?fbclid=IwAR22_AJ9w9R_RP-CxI90VD2v1v-OjG54-C0FUEZBfz98E3PZJF8scGpkvjQ

RTU receives the highest number of the highest (A level) ratings in Latvia in the international ranking of higher education institutions «U-Multirank 2022» - 15, for several years in a row obtaining convincingly the best results in the overall rating of this rating compared to all Latvian higher education institutions included in «U-Multirank».

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-saglabas-liderpozicijas-latvija-u-multirank-reitinga>

RTU Engineering High School holds the leading position in the group of small schools in the ranking of Latvian schools compiled by the *Atis Kronvalds* Foundation, which summarizes students' performance in national Olympiads and scientific research competitions, and retains the 1st place also in school year 2021/2022.

For the first time, RTU is hosting a meeting of the European University of Technology (EUT +) partners, bringing together the emerging EUT + partners – eight universities that have joined forces to create an internationally competitive technical university in Europe with innovative content and a single European degree.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-pirmoreiz-notiks-eiropas-tehnologiju-universitates-partneru-sanaksme?fbclid=IwAR3LnfAmfozBfXHH2Zml6i5owlFMXd0lNxEhekkL3CvxpmbrYGRxEQJ32Z4>

In a survey organized by the Confederation of Latvian Employers and the career portal *prakse.lv*, RTU was recognized as the university most recommended by employers for the eleventh year.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/jau-vienpadsmto-gadu-darba-deveji-jauniesiem-iesaka-izveleties-studijas-rtu>

2022/6

July 1

Celebrating RTU's 160th anniversary, several festive events are taking place:

- ceremonial reception of Rector Academician *Leonīds Ribickis*;

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/par-godu-rtu-160-jubilejai-studentu-pilsetina-kipsala-notiks-rektora-pienemsana>

- in the FCE building, an honorary plaque is unveiled for Polish professors and students who have significantly influenced the development of world science and technology, as well as public and political life; the Polish ambassador to Latvia *Monika Michaliszyn* takes part in the event;

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-godina-polijas-profesorus-un-studentus-kas-studejusi-un-stradajusi-rigas-politehnikuma>

- anniversary celebrations in *Mežaparks* together with the traditional RTU Grand Graduation.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/absolventu-cepuru-saluts-lielaja-izlaiduma-un-verienigs-koncerts-nosledz-rtu-160-jubilejas-svinibas>

July 2

The fifth graduation of the RTU EHS is taking place in the RTU Student Campus in *Ķīpsala*.

<https://www.izv.lv/2022/07/rtu-inzenierzinatnu-vidusskolas-izlaidums-2022/>

July 4

At the European Cheer Sports Championship, which takes place in Athens (Greece), the RTU Cheer Team «*RTU cheer*» wins the title of European Champion and a ticket to the World Championship, which will be held on 19–21 April 2023 in Orlando (USA).

<https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-karseju-komanda-klust-par-eiropas-cempioni>

July 5

The Cabinet of Ministers decides, starting from 31 October, to reorganize the Latvian Maritime Academy, adding it to RTU as an autonomous structural unit that retains its name, identity, and traditions.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ministru-kabinets-nolemj-latvijas-juras-akademiju-pievienot-rtu>

July 9–16

RTU EHS 11th-grade pupil *Alfrēds Saročinskis* receives a diploma of recognition at the International Mathematical Olympiad, which took place in Oslo, Norway.

July 10–17

RTU EHS 11th-grade pupil *Lukass Roberts Kellijs* wins a bronze medal at the International Physics Olympiad (IPhO), which took place in a distance (online) in Zurich, Switzerland.

https://www.visc.gov.lv/lv/jaunums/latvijas-skoleniem-starptautiskaja-fizikas-olimpiade-divas-bronzas-godalgas?fbclid=IwAR1AR_3JhhIO-FXxK7fmipkkl6IHZVVIAHMZCO_f4WNA3qPnefHBfyaYRmQ

July 10–18

RTU EHS 11th-grade pupil *Daniils Soško* wins a bronze medal at the 54th International Chemistry Olympiad, which is organized by China this year.

<https://www.visc.gov.lv/lv/jaunums/starptautiskaja-kimijas-olimpiade-latvijas-skoleniem-augsti-panakumi-iegutais-4-bronzas-medalas?fbclid=IwAR3sdnbYZKo3JtW1aL-50kLBuKXGcfDv6U14QbvpEnOwblLC-TxeSB9J60>

July 11

RTU is visited by the spouses of Latvian Honorary Consuls, who meet with RTU management, visit laboratories, get acquainted with RTU, technical education in Latvia, and the achievements of RTU scientists.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/latvijas-goda-konsulu-dzivesbiedri-iepazistas-ar-rtu?fbclid=IwAR1FVfWcZIGi-dEjEwMR7bHKjqnYreW36XNalmEKuuj0tql8NLHLYDsNfrg>

July 11–18

RTU EHS 10th-grade pupil *Rūdis Freipičs* wins a silver medal in the International Geography Olympiad (IGeo), which takes place in distance (online) and is organized by France this year.

<https://www.visc.gov.lv/lv/jaunums/cetri-latvijas-skoleni-izcina-medalas-starptautiskaja-geografijas-olimpiade>

July 20

The Secretary General of the United Nations Conference on Trade and Development (UNCTAD) Rebecca Grynspan is visiting RTU.

<https://www.facebook.com/rigastehniskauniversitate/photos/pcb.8129677033738964/8129676837072317>

July 21

RTU is visited by the President of the 76th session of the UN General Assembly, Abdulla Shahid. The guest learns about RTU's achievements in the implementation of the UN Sustainable Development Goals and visits several RTU laboratories, getting acquainted with the work of scientists.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ano-generalas-asamblejas-prezidents-abdulla-sahids-viesoas-rtu?fbclid=IwAR00Hmb4WePKomgypeWx0fuQNxGQEZS7nvA60flnpn7upKFtFB2Gtcf152U>

In July

In celebration of RTU's 160th anniversary, the music album «RTU dziesma 160» (RTU song 160) recorded by the collectives of the RTU Culture Centre was launched.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/klaja-laists-rtu-kulturas-kolektivu-ieskanotais-muzikas-albums-rtu-dziesma-160?fbclid=IwAR3xhhrDgTURk-7MnoIOnT3Kb-MU9uo6hPdhZSMlzyfteE1cpYM10PsQI7g>

In the «Entrepreneurial Spirit» category of the international rating «World's Universities with Real Impact» (WURI), RTU ranks 36th, becoming the only Baltic university ranked among the 40 world universities with a strong entrepreneurial spirit. Overall, RTU ranks 101st–200th in the WURI ranking.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-vieniga-nobaltijas-ieklost-starp-pasaules-40-augstskolam-kuras-ir-specigs-uznemejdarbibas-gars>

RTU EHS takes 2nd place in the «Zvaigžņu reitings» (Star Rating) of the *Atis Kronvalds* Foundation, which evaluates the success of Latvian pupils in the international Olympiads held during the school year 2021/2022.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/rtu-inzenierzinatnu-vidusskola-ierindojas-2-vieta-ata-kronvalda-fonda-zvaigznu-reitinga>

August 13–21

The international chess festival «RTU Open 2022» is being held 11 times in the International Exhibition Centre in *Kīpsala*, which gathers around 700 participants from more than 30 countries of the world. At the festival, Lithuanian chess grandmaster *Paulius Pultinevicius* reaps the laurels of victory.

https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/starptautiskaja-saha-festivala-rtu-open-2022-uzvar-lietuvass-lielmeistars-paulius-pultinevicius?fbclid=IwAR1ZGxh_ZKdVNRuKDrB_0LuKQrXbZl590v9-wGVoxZTQMiqxvRgWW7tk8eY

August 24

The President of Latvia *Egils Levits* in the Riga Palace presents the traveling award «*Lielā pūce*» (Big Owl) to RTU EHS for the first place in the *Atis Kronvalds* Foundation's rating of small schools and «*Mazā pūce*» (Little Owl) for the second place in the «*Zvaigžņu reitings*» (Star Rating), which evaluates the success of Latvian pupils in the international Olympiads of the academic year 2021/2022.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/valsts-prezidents-pasniedz-balvas-rtu-inzenierzinatnu-vidusskolai-apliecinot-tas-izcilibu-talantigu-skolenu-izglitosana>

Creative cooperation workshop «Think Un*Common» is opened in the FA atrium, the mentors of which are six internationally recognized artists. French Ambassador to Latvia Mme *Aurélie Royet-Gounin*, German Ambassador to Latvia Christian Heldt and RTU Vice-Rector of Research *Tālis Juhna* take part in the opening event.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/ar-vestnieku-lidzdalibu-darbu-uzsak-radosas-sadarbibas-darbnica-think-un-common>

August 24–25

During his visit to Latvia, the President of the Council of the European Centre for Nuclear Research (CERN) *Eliezer Rabinovici* also visits the RTU Student Campus in *Ķīpsala* and familiarizes himself with the academic environment of our university and the achievements of scientists.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/cern-padomes-prezidents-parliecinas-par-latvijas-sniegumu-dalinu-fizika-un-pastrinataju-tehnologijas?fbclid=IwAR0anY7X0s-SfrNHCfNUUSdLTqQDK2svly0-lolBxI21sMFbAQRTWcg2p50>

August 27

FEEM 2nd year student *Artūrs Rinkevičs* in a duet with *Rūdolfs Stankevičs* wins 2nd place in the «DEPO Open 2022» Latvian beach volleyball championship.

https://www.rtu.lv/lv/sports/sporta-centra-jaunumi/atvert/rtu-students-arturs-rinkevics-dueta-ar-rudolfu-stankevicu-izcina-2-vietu-latvijas-cempionata-pludmales-volejbola?fbclid=IwAR3LwDe9hqZ9nCX2DM9X-pp3-jS_Jg-z8kfMHm0OAsYoTlg3ogeBu-H3bno

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August 31

The opening event of the RTU Talents program is taking place, in which the patron of this program, the executive Vice-President of the European Commission and RTU graduate *Valdis Dombrovskis*, is taking part. In honour of RTU's 160th anniversary, *V. Dombrovskis* plants one of the planned 160 trees in the *Ķīpsala* Student Campus.

<https://www.rtu.lv/lv/universitate/masu-medijiem/zinas/atvert/treso-gadu-pek-kartas-rtu-talantu-programma-studijas-uzsak-izcilakie-latvijas-jauniesi>