

100 LET INŽENIRSKÉ
100 Years of the Slovenian Chamber of Engineers
ZBORNICE SLOVENIJE
1919–2019

Nismo samo slovenski gradbeniki navdušeni in ponosni ob izjemnih projektantskih dosežkih svojih cenjenih kolegov Marjana Pipenbaherja in dr. Viktorja Marklja doma in po svetu, ampak so njihovi realizirani projektni dosežki visoko ocenjeni in nagrajeni s prestižnimi mednarodnimi priznanji. S svojo inovativnostjo in inženirsko modrostjo dajeta izjemen prispevek h gradbenemu inženirstvu doma in po svetu ter tako postavljata trdne temelje za nadaljnji razvoj inženirske stroke in izziv za bodoče mlade strokovnjake.

Janez Reflak

Not only the Slovene civil engineers are enthusiastic and proud of the exceptional design achievements of our distinguished colleagues Marjan Pipenbaher and Dr. Viktor Markelj at home and abroad, but their project accomplishments are also highly rated and rewarded with prestigious international awards. With their innovativeness and engineering wisdom, they make an exceptional contribution to civil engineering at home and abroad and thus set a solid foundation for the further development of the engineering profession and a challenge for future young professionals.



Bogo Zupančič

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Kazalo / Content

- 4 Predgovor
5 Foreword
- 6 Bogata tehnična dediščina na Slovenskem
7 Rich technical heritage in the Slovene ethnic territory
- 14 Tržaška inženirska zbornica leta 1913 in ustanovitev Ljubljanske inženirske zbornice leta 1919
15 Chamber of Engineers of Trieste in 1913 and the establishment of the Chamber of Engineers of Ljubljana in 1919
- 20 Ljubljanska inženirska zbornica med letoma 1925 in 1944
21 Chamber of Engineers of Ljubljana between 1925 and 1944
- 36 Sezname pooblaščenih inženirjev in drugi dokumenti LIZ iz let 1919–1944
37 Lists of authorized engineers and other documents of the Chamber of Engineers of Ljubljana from the period 1919–1944
- 30 Izbor pomembnih inženirskih objektov zadnjih 100 let, obdobje 1919–1944
31 Selection of important engineering objects of the last 100 years, period 1919–1944
- 34 Predsedniki LIZ v letih 1919–1944 in predsednika IZS v letih 1996–2019
35 Presidents of the Chamber of Engineers of Ljubljana between 1919 and 1944 and Presidents of the Slovenian Chamber of Engineers between 1996 and 2019
- 44 Inženirska zbornica Slovenije v letih 1996–2019
45 Slovenian Chamber of Engineers in years 1996 until 2019
- 48 Izbor pomembnih inženirskih objektov zadnjih 100 let, obdobje 1996–2019
49 Selection of important engineering objects of the last 100 years, period 1996–2019
- 54 Seznam literature / List of literature
- 54 Seznam virov slikovnega gradiva
55 List of sources of visual material
- 56 Imensko kazalo / Index



Ob Svetovnem gradbenem forumu 2019 (WCF 2019) v Ljubljani, katerega častni pokrovitelj je predsednik Republike Slovenije g. Borut Pahor, smo pripravili priložnostno razstavo in katalog z naslovom 100 let Inženirske zbornice Slovenije. Forum bo s tematiko odporne gradnje stavb in infrastrukture obravnaval več ciljev trajnostnega razvoja po klasifikaciji Unesca, ki je v vlogi pokrovitelja foruma. Poleg naše cenjene partnerice, Fakultete za gradbeništvo in geodezijo Univerze v Ljubljani, je organizator srečanja tudi Svetovna zveza inženirskih organizacij (WFEO), ki predstavlja več milijonov inženirjev z vseh petih celin.

Letos tako ob prvem Svetovnem gradbenem forumu praznujemo tudi 100. obletnico ustanovitve inženirske zbornice in Univerze v Ljubljani, ki sta pomembna temeljna kamna slovenske državnosti. Avstro-ogrski zakon o inženirskih zbornicah je bil sprejet že leta 1913, vendar je bila zaradi nesoglasij glede zastopnosti Slovencev v Tržaški inženirski zbornici in zaradi začetka prve svetovne vojne Ljubljanska inženirska zbornica ustanovljena šele leta 1919. Velika gospodarska kriza in druga svetovna vojna sta nato več odličnih slovenskih inženirjev razselili na različne konce sveta, kjer so nekateri dosegli zavirljive uspehe, in razstava v preddverju Cankarjevega doma govori tudi o njih.

Kljub večdesetletni časovni razliki lahko med današnjo Inženirsko zbornico Slovenije (IZS) in predvojno Ljubljansko inženirsko zbornico (LIZ) najdemo več podobnosti. Še vedno se namreč borimo za večjo kakovost inženirskih storitev in pravično plačilo. Kritike, kakršne so se pojavljale ob zaostitvi pogojev za pooblaščen inženirje v tridesetih letih preteklega stoletja, lahko zaznamo tudi danes, z novo gradbeno in zbornično zakonodajo. Kakorkoli, prva naloga zbornice ostaja skrb za stroko in članstvo, vendar mora hkrati ščititi tudi javni interes, česar pa seveda ni vedno lahko usklajevati.

Za pripravo in postavitve razstave gre posebna zahvala našemu partnerju Muzeju za arhitekturo in oblikovanje (MAO), pod vodstvom direktorja Matevža Čelika, kustosu dr. Bogu Zupančiču pa tudi oblikovalcu Primožu Pislaku ter prizadevnim sodelavcem IZS in Cankarjevega doma v Ljubljani, ki so pomagali pri organizaciji tega pomembnega dogodka za slovenske inženirje in arhitekta.

Mag. **Črtomir Remec**, predsednik IZS

On the occasion of the *World Construction Forum 2019* (WCF 2019) in Ljubljana, the honorary patron of which is the President of the Republic of Slovenia, Mister Borut Pahor, we prepared an exhibition and a catalogue entitled *100 Years of the Chamber of Engineers in Slovenia*. The Forum on the resilient construction of buildings and infrastructure will address several sustainable development goals according to the classification of UNESCO, which is also Forum's patron. In addition to our respected partner, the *Faculty of Civil Engineering and Geodesy of the University of Ljubljana*, the organizer of this meeting is also the *World Federation of Engineering Organizations*, which represents millions of engineers from all five continents.

This year, at the first *World Construction Forum*, we celebrate also the 100th anniversary of the establishment of the *Chamber of Engineers* and the *University of Ljubljana*, which are important foundations of Slovene statehood. The *Austro-Hungarian Chamber of Engineers Act* was adopted in 1913, but due to disagreements over the representation of Slovenes in the *Chamber of Engineers of Trieste* and the beginning of the First World War, the *Chamber of Engineers of Ljubljana* was established only in 1919. The great economic crisis and the Second World War displaced many excellent Slovene engineers to various parts of the world, where some achieved enviable successes. The exhibition in the lobby of *Cankarjev dom* speaks also about them.

Despite several decades of time difference, we can discover many similarities of today's *Slovenian Chamber of Engineers* with the pre-war *Chamber of Engineers of Ljubljana*. We are still fighting for a better quality of engineering services and a fair payment. When the conditions for authorized engineers become strained, criticism arises, which was the case both in the 1930s and nowadays in the context of the new construction and chamber legislation. The first task of the Chamber is still a concern for profession and membership, but it must also protect the public interest, which of course is not always easy to harmonize.

For the preparation and setting up the exhibition, the special thanks goes to our partner *Museum of Architecture and Design (MAO)*, under the guidance of director Matevž Čelik, curator Dr. Bogo Zupančič as well as the designer Primož Pislak and dedicated colleagues from IZS and Cankarjev dom in Ljubljana, who helped to organize this important event for Slovene engineers and architects.

Mag. **Črtomir Remec**, President of the Slovenian Chamber of Engineers

Bogata tehnična dediščina na Slovenskem

Slovenija leži v srcu Evrope, na pomembnem območju na robu Mediterana, na južni strani Alp, med zahodom in vzhodom, severom in jugom Evrope. Zaradi strateške lege je bilo ozemlje današnje Slovenije, ki je stičišče slovanskega, germanskega in romanskega sveta, v zgodovini predmet interesnih apetitov številnih osvajalcev, tu so se menjavale državne tvorbe in družbeni sistemi. Po vojnah, v mirnodobnem času, se je veliko trgovalo, gradile so se ceste, železnice, vodne poti in drugo. Inovativni duh je bil v tem prostoru vseskozi prisoten, prav tako napredne tehnične rešitve in strokovnjaki, kot so bili denimo astronom Ferdinand Avguštin Hallerstein (1703–1774),¹ ki je deloval na kitajskem dvoru, izumitelj ladijskega vijaka Josef Ressel (1793–1857) in avtomobilski pionir, konstruktor Janez Puh, tudi Johann Puch (1862–1914). V teh krajih so se rojevali številni ugledni strokovnjaki, sem so prihajali dobri konstruktorji, iz tega prostora so inženirji in arhitekti odhajali v širni svet.

Mesto Ljubljana, ki je staro več kot 2000 let, se je razvilo iz starorimskega mesta Emona, ki je bilo sprva vojaška utrdba – castrum. Rimljani so tu gradili še druga s kanalizacijsko mrežo opremljena mesta in jih povezovali s cestami; v srednjem veku so tod nastajala utrjena mesta z obzidji in obrambnimi jarki, na zahodnem robu današnje Slovenije je okoli leta 1500 slavni Leonardo da Vinci gradil vojaške utrbe in z zajezitvijo rek Vipave in Soče želel poplaviti Vipavsko dolino ter tako preprečiti sovražnikom vstop na Apeninski polotok.² Med najpomembnejše gradbeniške posege na Slovenskem iz časa pred industrijsko revolucijo sodi Gruberjev prekop v Ljubljani (1772–1780), po industrijski revoluciji pa se je v avstro-ogrski monarhiji in zato tudi na slovenskem etničnem ozemlju razmahnila gradnja železniških prog, postaj, viaduktov, predorov in mostov. Konec julija 1857 je bila dokončana 578 km dolga železniška povezava od Dunaja do Trsta, montažni litoželezni Čevljarski most je Ljubljana dobila leta 1867, prvi železobetonski most, Zmajski most, pa leta 1901. Prvi urbanist z doktorskim nazivom v avstro-ogrski monarhiji, kraški arhitekt Maks Fabiani (1865–1962), se je v letih 1903–1946 ukvarjal z drznimi načrti, kako prek sistemov vodnih prekopov in obstoječih rek povezati Donavo in Dunaj z Jadranskim morjem.³ Da so bila ta razmišljanja stvarna, dokazuje dejstvo, da so gradbenega inženirja Josipa Pavlina, ki je delal v tedanji cesarsko-kraljevi pomorski upravi pristanišča v Trstu, v času gradnje Panamskega prekopa poslali tja na izpopolnjevanje.⁴ V začetku tridesetih let 20. stoletja je Ljubljana dobila prvi nebotičnik – delo arhitekta Vladimira Šubica in statika inž. Stanka Dimnika – ki je bil nekaj časa najvišja stavba v srednji Evropi in potem še dolgo časa na Balkanu.⁵ Omeniti velja še leseno skakalnico

1 Ralf Čeplak Mencin, V deželi nebesnega zmaja: 350 let stikov s Kitajsko, Ljubljana: Darima, 2012.
2 Vladimir Braco Mušič, Po Leonardovih sledih na naši zemlji, Ob petstoletnici dogodka in po veliki razstavi v Ljubljani, Ljubljana: samozaložba, 2000, str. 1–30; Marjan Mušič, Arhitektura in čas, Z Leonardom po Vipavski in Soški dolini, Maribor: Založba Obzorja, 1963, str. 266.
3 Marco Pozzetto, Fabiano architetto del Carso, Il canale di Vipacco, Firenze: Critica d'Arte XLI, n. 150, 1976, pp. 1–24.
4 Sergej Pavlin, Sergej Pavlin – arhitekt, pedagog, oblikovalec in slikar, Radovljica: Didakta, 2011, str. 12.
5 Bogo Zupančič, Ljubljanski Nebotičnik – denar in arhitektura, Ljubljana: Urbanistični inštitut RS, 2001.

Rich technical heritage in the Slovene ethnic territory

Slovenia lies in the heart of Europe in an important area, on the edge of the Mediterranean, on the southern side of the Alps, between the West and East, North and South of Europe. Due to its strategic position, the territory of today's Slovenia, which is the crossroads of the Slavic, Germanic and Romanic worlds, was in the past the object of the interest appetites of many conquerors, and state structures and social systems have been changed many times. After wars, in peacetime, there was a lot of trading, and roads, railways, waterways, and other construction objects were built. Innovative spirit has always been present in this area as well as progressive technical solutions and experts, such as the astronomer Ferdinand Avguštin Hallerstein (1703–1774),¹ who worked at the Chinese court, the inventor of the ship propeller Josef Ressel (1793–1857), and the automobile pioneer, constructor Janez Puh, or Johann Puch (1862–1914). Many prominent experts were born in these places, good constructors came to work here, and many engineers and architects left this area and went to the wider world.

The city of Ljubljana, which is more than 2000 years old, has evolved from an Ancient Roman city of Emona, which was at first a military fortress - castrum. The Romans built many with the sewage network equipped cities and connected them to the roads. In the middle ages, many fortified cities with defensive walls and defensive ditches were built in this area. Around 1500, on the western edge of today's Slovenia, the famous constructor Leonardo da Vinci built military fortresses and with the containment of the Vipava and Soča rivers he wanted to flood the Vipava valley, thus preventing enemies from entering the Apenine peninsula.² Among the most important construction interventions in Slovenia before the industrial revolution we can count the Gruber Canal in Ljubljana (1772–80), and after the industrial revolution, in the Austro-Hungarian Monarchy and therefore also on the Slovene ethnic territory, the construction of railway lines, stations, viaducts, tunnels and bridges was in full swing. At the end of July 1857, a 578 km long railway connection from Vienna to Trieste was completed. Ljubljana got its prefabricated cast-iron bridge, the Shoemakers' Bridge, in 1867, and its first reinforced concrete bridge, the Dragon Bridge, in 1901. Between 1903 and 1946, the first urban planner with a doctoral title in the Austro-Hungarian Monarchy, the architect Max Fabiani (1865–1962), born in the Karst region, occupied himself with daring plans how to connect, with the systems of water canals and existing rivers, the Danube river and Vienna with the Adriatic Sea.³ The plans were realizable, since the construction engineer Josip Pavlin, who worked at the then Imperial-Royal Naval Administration of the port of Trieste, was sent on training in Panama during the construction of the Panama Canal.⁴

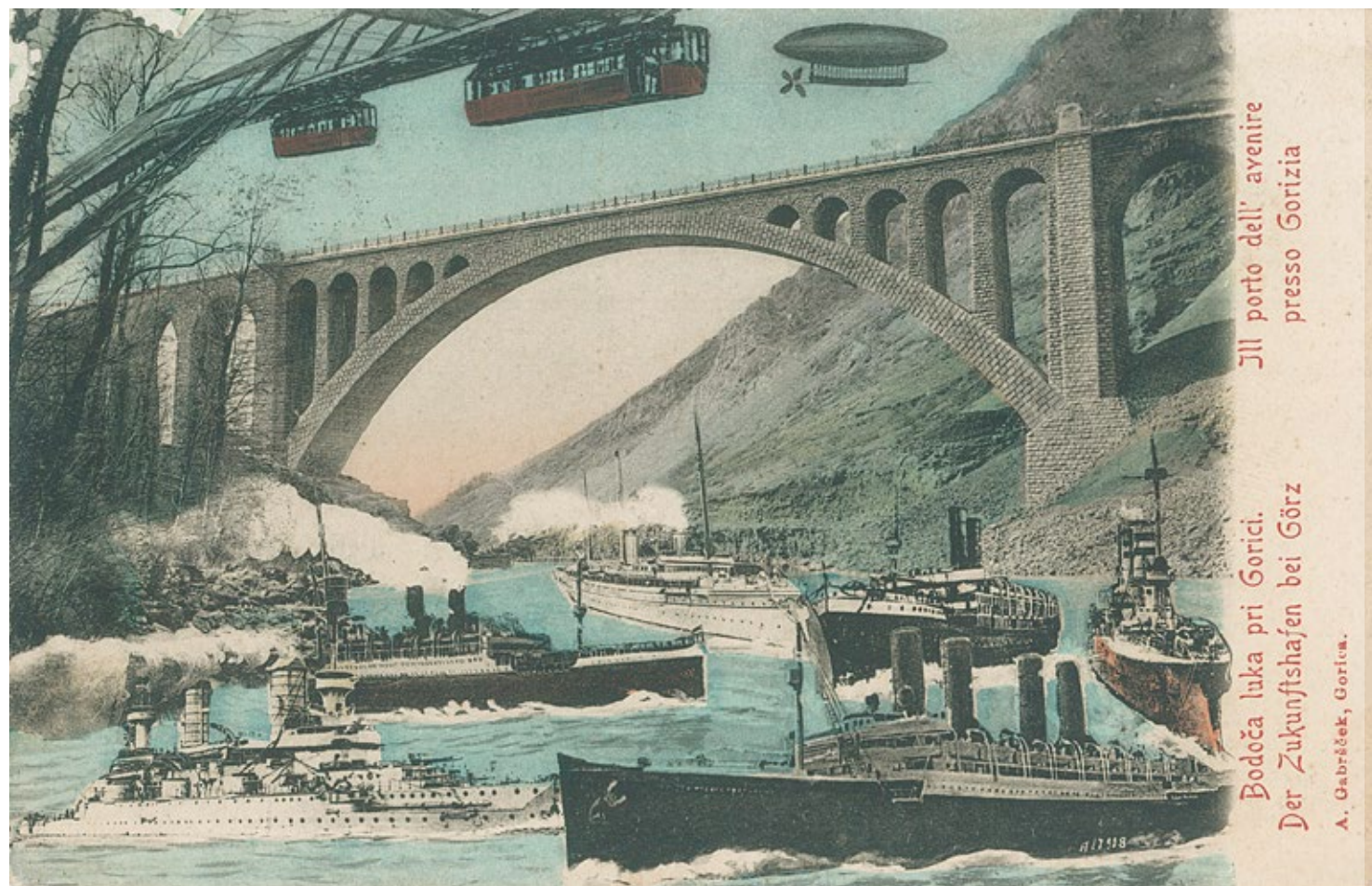
1 Ralf Čeplak Mencin, V deželi nebesnega zmaja: 350 let stikov s Kitajsko, Ljubljana: Darima, 2012.
2 Vladimir Braco Mušič, Po Leonardovih sledih na naši zemlji, Ob petstoletnici dogodka in po veliki razstavi v Ljubljani, Ljubljana: self-publishing 2000, p. 1-30; Marjan Mušič, Arhitektura in čas, Z Leonardom po Vipavski in Soški dolini, Maribor: Obzorja 1963, p. 266.
3 Marco Pozzetto, Fabiano architetto del Carso, Il canale di Vipacco, Firenze: Critica d'Arte XLI, n. 150, 1976, pp. 1-24.
4 Sergej Pavlin, Sergej Pavlin – arhitekt, pedagog, oblikovalec in slikar, Radovljica: Didakta 2011, p. 12.



1. Žig »Kluba slovenskih tehnikov na Dunaji«
• Stamp of Club of Slovenian technicians in Vienna



2. Prvi slovenski tehnični časopis Slovenski tehnik, Praga, 1906 • The first Slovene technical journal Slovene technician, Prague, 1906



3. Razglednica z napisi v treh jezikih: Bodoča luka pri Gorici / Der Zukunftshafen bei Görz / Il porto dell'avenire presso Gorizia, založnik A. Gaberšček, Gorica • Postcard with the titles in three languages: Bodoča luka pri Gorici / Der Zukunftshafen bei Görz / Il porto dell'avenire presso Gorizia, edited by A. Gaberšček, Gorica/Gorizia

konstruktorjev Ivana Rožmana in Stanka Bloudka iz leta 1934, ki je bila pred leti ponovno posodobljena, ter slovenske kozolce nenavadnih konstrukcijskih oblik, ki pa ob novih tehnologijah sušenja sena počasi izginjajo.

Slovenski inženirji so se v času avstro-ogrske monarhije šolali predvsem na Dunaju, v Brnu in Pragi ter na uglednih tujih visokih tehničnih šolah v evropskih mestih, denimo Zürichu, Berlinu in Parizu. Eden od njih je bil gradbeni inženir Mihael Štrukelj, tudi Mihael Strukel (1851–1923),⁶ ki je svojo študijsko pot začel na Dunaju, poklicno kariero in življenjsko pot pa sklenil na Finskem. Prvi slovenski strokovni časopis *Slovenski tehnik* (1906) je v času Avstro-Ogrske izhajal v Pragi kot glasilo tamkajšnjega Kluba slovenskih tehnikov; njegov urednik je bil študent Ciril Jekovec, ki se je kasneje uveljavil pri gradnji jezov v Argentini. V Argentino se je leta 1924 odselil tudi arhitekt Viktor Sulčič, tudi Victorio Sulcic (1895–1973),⁷ ki je tam prav tako uspel. Slovensko-italijanski arhitekt Anton Laščak, tudi Antonio Lasciac (1856–1946), je delal za egiptovski dvor, gradil pa je tudi druge palače v Kairu, Aleksandriji, Carigradu in Rimu. V Minnesoti v ZDA se je uveljavil arhitekt Ivan (John) Jager (1871–1959), znan po vzdevku »builder of Minneapolis«.

6 Gorazd Humar, Mihael Štrukelj, 1851–1923, gradbenik svetovnega slovesa (ali tudi: Zgodba o Logu pod Mangartom), Šempeter pri Gorici: Pontis, 2006.

7 Viktor Sulčič je arhitekturo študiral v Firencah in Bologni. Leta 1924 se je izselil v Argentino, kjer je sodeloval z arhitektoma Joséjem Luisom Delpinijem in Raúlom Besom. Najbolj znani zgradbi, ki ju je projektirala omenjena trojica, stojita v Buenos Airesu: leta 1940 dograjeni stadion La Bombonera, kjer igra moštvo Boca Juniors, in leta 1934 dograjena živilska tržnica Abasto, ki je bila leta 1999 predelana v nakupovalno središče.

At the beginning of the 1930s, Ljubljana got its first skyscraper by the architect Vladimir Šubic and the statics expert Eng. Stanko Dimnik, which was for some years the tallest building in Central Europe and for a long time in the Balkans.⁵ It is worth mentioning the wooden ski jump from 1936 and of the constructors Ivan Rožman and Stanko Bloudek, which was modernized several years ago, and Slovene hayracks of unusual constructional forms, which are now, with new technologies of drying of hay, slowly disappearing.

During the Austro-Hungarian period, Slovene engineers were mainly educated in Vienna, Brno and Prague, as well as at prestigious foreign technical colleges in European cities, such as Zürich, Berlin and Paris. One of them was a construction engineer Mihael Štrukelj, or Mihael Strukel (1851–1923),⁶ who started his study in Vienna and concluded his professional career and path in Finland. The first Slovene professional magazine, *Slovene Technician*, was published during the Austro-Hungarian period in Prague, on today's Czech territory, in 1906, as a newsletter of the Club of Slovene technicians in Prague. Its editor was a student Ciril Jekovec, who later established himself in the construction of dams in Argentina. In 1924, the architect Viktor Sulčič, or Victorio Sulcic (1895–1973),⁷ also moved to Argentina, and he also succeeded there. The Slovene-Italian architect Anton Laščak, or Antonio Lasciac (1856–1946), constructed for the Egyptian court as well as other palaces in Cairo, Alexandria, Istanbul, and Rome. Architect Ivan (John) Jager (1871–1959), known for his nickname "Builder of Minneapolis", established himself in Minnesota, USA.



4. »Tehnika« so imenovali stavbo Tehniške fakultete Univerze v Ljubljani, ki jo je zasnoval arhitekt Jože Plečnik, profesor na oddelku za arhitekturo. Zgrajena je bila leta 1921. • The building of Faculty of Technology of University of Ljubljana, designed by a professor in the Department of Architecture, architect Jože Plečnik, was called the »Technique«. It was built in 1921.

5 Bogo Zupančič, Ljubljanski Nebotičnik – denar in arhitektura, Ljubljana: Urbanistični inštitut RS 2001.

6 Gorazd Humar, Mihael Štrukelj, 1851–1923, gradbenik svetovnega slovesa, (or also: Zgodba o Logu pod Mangartom), Šempeter pri Gorici: Pontis 2006.

7 Viktor Sulčič studied architecture in Florence and Bologna. In 1924, he moved to Argentina, where he collaborated with architects José Luis Delpini and Raúl Besa. The most famous buildings, constructed by the three, are located in Buenos Aires: the stadium La Bombonera, completed in 1940, where the Boca Juniors team is playing, and Abasto food market, completed in 1934, which was rebuilt in 1999 into a shopping centre.



5. Logotip ljubljanske univerze Universitas Alexandrina, ki so jo leta 1929 poimenovali po kralju Aleksandru I., da bi preprečili ukinitvev slovenske univerze • The logo of the Ljubljana's University Universitas Alexandrina, which was named after King Aleksander I. in 1929, in order to prevent the abolishment of the Slovene university



6. Inženir Janko Bleiweis (1909–2005), dekan FAGG v Ljubljani v letih 1973–1975, je v študijskem letu 1937/38 nekaj mesecev delal v Le Corbusierovem ateljeju v Parizu. • Engineer Janko Bleiweis (1909–2005), Dean of Faculty of Civic and Geodetic Engineering in Ljubljana in the period between 1973 and 1975, worked in Le Corbusier's studio in Paris in the academic year 1937/38 for several months.

Univerza v Ljubljani je bila ustanovljena leta 1919; na Tehniški fakulteti so kar tretjino profesorjev sestavljali ruski strokovnjaki, ki so pribežali pred oktobrsko revolucijo in se na poti v Pariz »zataknili« v Ljubljani ter ostali pri nas. Po končanih študijih v Ljubljani je veliko inženirjev in arhitektov odhajalo na izpopolnjevanje v tujino, predvsem v Pariz in Berlin. Ponosni smo na deset Slovencev, ki so delali v ateljeju »guruja« moderne arhitekture Le Corbusiera v Parizu, na osem arhitektov in dva gradbena inženirja; eden od njih je bil dr. Janko (Jana) Bleiweis, kasnejši dekan Fakultete za arhitekturo, gradbeništvo in geodezijo v Ljubljani. Po številu arhitektov in gradbenikov, ki so pred drugo svetovno vojno delali pri Le Corbusieru v Parizu, so bili Jugoslovani in s tem tudi Slovenci prava velesila, saj jih je bilo ob Švicarjih in Francozih tam največ. Le Corbusier je leto 1939 v ateljeju celo označil kot slovensko – *l'époque slovène*.⁸ Strokovno odmevna razstava Muzeja sodobne umetnosti v New Yorku (MoMA) z naslovom *Toward a Concrete Utopia – Architecture in Yugoslavia, 1948–1980*, ki je bila na ogled do januarja 2019, je svetovni javnosti prikazala visoko raven moderne arhitekture, hkrati pa drzne konstrukcije in družbene utopije znotraj tedanjega ustroja sveta.⁹ Že v šestdesetih, še bolj pa v sedemdesetih in osemdesetih letih 20. stoletja so številna velika slovenska gradbena podjetja in biroji znotraj jugoslovanske politike neuvrščenosti, katere pobudnik je bil predsednik Josip Broz - Tito, projektirali, organizirali in gradili po vsem Bližnjem in Srednjem vzhodu, po Afriki in drugod. Po tranzicijskem obdobju, začetem v devetdesetih letih 20. stoletja, se je gradbena dejavnost v Sloveniji reorganizirala v skladu z novimi načeli. Ponovno smo dobili inženirske zbornice in druga z njimi povezana telesa, ki so bila v obdobju socializma ukinjena, ker naj bi socialistični sistem sam izničil nasprotja med delom in kapitalom, med delodajalci in delavci.

Ljubljana je znana po dobri arhitekturi, bivalni kulturi, po dobrih inženirjih; dela arhitekta Jožeta Plečnika so trenutno v procesu vpisa na Unescov seznam svetovne kulturne dediščine.

⁸ Bogo Zupančič, Plečnikovi študenti in drugi jugoslovanski arhitekti v Le Corbusierovem ateljeju, Ljubljana: MAO in KUD Polis, 2017.

⁹ Martino Stierli, Vladimir Kulić (ur.), *Toward a Concrete Utopia – Architecture in Yugoslavia, 1948–1980* (katalog), New York: MoMA, 2018.

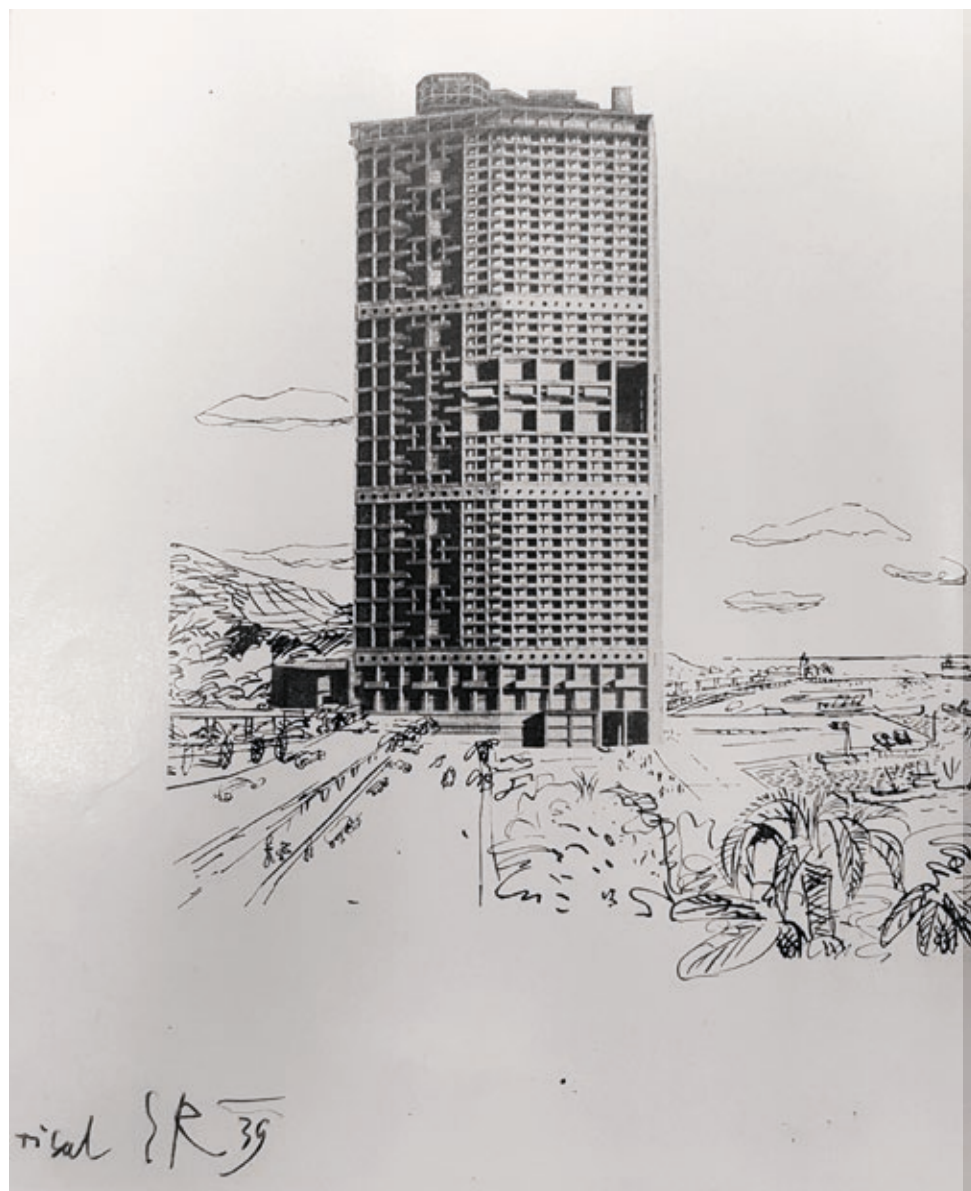


7. Arhitekt Marjan Tepina in »guru« moderne arhitekture Le Corbusier v ateljeju na Rue de Sèvres 35 v Parizu, 1939 • Architect Marjan Tepina and the "guru" of modern architecture Le Corbusier in the studio at the Rue de Sèvres 35 in Paris, 1939

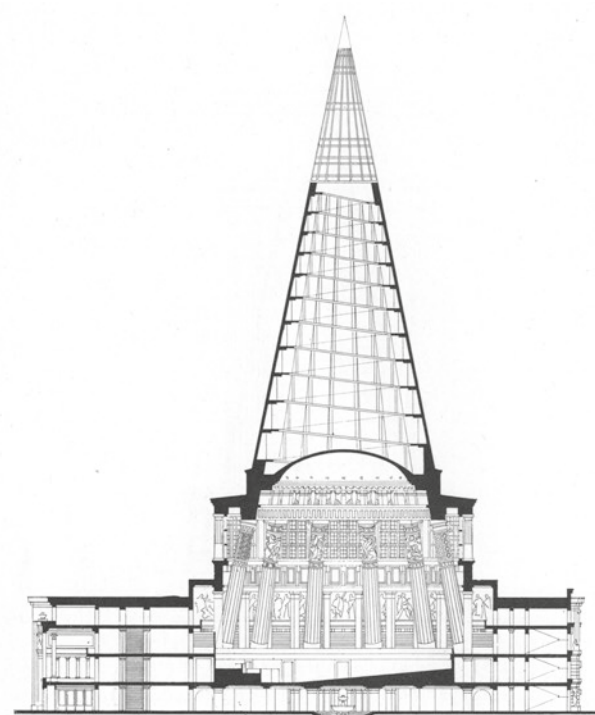
The University of Ljubljana was founded in 1919. At the Faculty of Technology, a third of professors were Russians who fled from the October Revolution, got stuck on their way to Paris in Ljubljana and stayed with us. After completing their studies in Ljubljana, many engineers and architects continued their training abroad, especially in Paris and Berlin. We are proud of ten Slovenes who worked in the studio of the guru of modern architecture Le Corbusier in Paris, of eight architects and two construction engineers. One of them was Dr. Janko (Jana) Bleiweis, who was later a dean of the Faculty of Architecture, Civil Engineering and Geodesy in Ljubljana. According to the number of architects and construction engineers who worked at Le Corbusier in Paris before the Second World War, the Yugoslavs, and thus also the Slovenes, were the real superpower, since they were, next to the Swiss and the French, the most numerous. Le Corbusier even labeled the 1939 at his studio as the Slovene – *l'époque slovène*.⁸ Professionally acclaimed exhibition at the Museum of Modern Art in New York, entitled *Toward a Concrete*

⁸ Bogo Zupančič, Plečnikovi študenti in drugi jugoslovanski arhitekti v Le Corbusierovem ateljeju, Ljubljana: MAO in KUD Polis 2017.

8. Arhitekt Edvard Ravnikar je Le Corbusiera navdušil z izjemno risbo. Ravnikarjeva risba alžirskega nebotičnika in poseg Le Corbusiera z risbo okolice nebotičnika; iz knjige *Le Corbusier – Oeuvre complète 1938–1946*. Na risbo je arhitekt zapisal: »risal ER 39«. • Architect Edvard Ravnikar impressed Le Corbusier with an extraordinary drawing. Ravnikar's drawing of the Algerian skyscraper and the intervention of Le Corbusier with a drawing of the skyscraper's surroundings; from the book *Le Corbusier - Oeuvre complète 1938–1946*. In the drawing, the architect wrote: "Drawing by ER 39".



9. Katedrala svobode, neizvedeni projekt slovenskega parlamenta, delo arhitekta Jožeta Plečnika, 1947 • The Cathedral of Freedom, the unimplemented project of Slovene Parliament, the work of architect Jože Plečnik, 1947



Utopia – Architecture in Yugoslavia, 1948–1980, which ended in January 2019, demonstrated to the world public a high level of modern architecture, and at the same time many daring constructions and social utopias inside the then structure of the world.⁹ In the 1960s and even more in the 1970s and 1980s, many large Slovene construction companies and bureaus designed, organized and constructed, in the context of Yugoslav politics of non-alignment, the initiator of which was President Josip Broz Tito, throughout the Middle and Near East, Africa and elsewhere. After the transition period, which started in the 1990s, the construction activity in Slovenia was reorganized in line with the new principles. Again we got Chambers of Engineers and other related bodies that were abolished in the period of socialism for the reason that the socialist system itself should abolish the conflicts between work and capital, employers and workers. Ljubljana is known for its good architecture, housing culture, and good engineers. The works of the architect Jože Plečnik are currently in the process of registration on the list of Unesco World Cultural Heritage.



10. Razstava *Toward a Concrete Utopia – Architecture in Yugoslavia, 1948–1980* v Muzeju moderne umetnosti (MoMA) v New Yorku, 2018 • Exhibition *Toward a Concrete Utopia – Architecture in Yugoslavia, 1948–1980* at the Museum of Modern Art in New York, 2018

⁹ Martino Stierli, Vladimir Kulić (ed.), *Toward a Concrete Utopia – Architecture in Yugoslavia, 1948–1980* (catalogue), New York: MoMA 2018.

Tržaška inženirska zbornica leta 1913 in ustanovitev Ljubljanske inženirske zbornice leta 1919



11. Inž. Dragotin Gustinčič • Eng. Dragotin Gustinčič

Ideje in zahteve o oblikovanju inženirskih zbornic na območju Avstro-Ogrske so se začele pojavljati konec 19. stoletja in so na začetku 20. stoletja postajale čedalje glasnejše. Medtem ko so inženirske zbornice na Dunaju, v Pragi, Brnu in Lvovu leta 1908 že obstajale, pa zbornice na jugu tedanje Avstrije še ni bilo. Tržaško inženirsko zbornico štejemo za predhodnico ljubljanske. Leta 1913 sta bili z zakonom o ustanovitvi inženirskih zbornic ter ukazom o ustanovitvi okolišev in sedežev zbornic ustanovljeni zbornici v Trstu in Gradcu, ki sta od vseh najbolj povezani s slovenskimi inženirji. Zakon, ki je bil napisan tudi v slovenskem jeziku, je imel 25 paragrafov, s katerimi je določal delovanje zbornic. Prvi člen opisuje razloge za ustanovitev in tudi namen zbornic: »Za zastopanje stanu oblastveno avtorizovanih zasebnih tehnikov in rudniških inženirjev, za pospeševanje interesov in za varovanje stanovske časti teh poklicnih krogov se ustanavljajo inženirske zbornice.« Iz časopisnih poročil je moč domnevati, da delovanje inženirske zbornice v Trstu ni bilo učinkovito. Tržaška inženirska zbornica je bila organizirana po nacionalni sestavi, torej razdeljena na italijansko, slovansko – kjer so bili ob slovenskih, hrvaških in srbskih inženirjih člani verjetno tudi češki inženirji iz Trsta – in nemško sekcijo. Slovanskih inženirjev je bilo v inženirski zbornici v Trstu leta 1913 dvanajst, njena predstavnika sta bila Slovenca, inž. Dragotin Gustinčič in inž. Josip Skoberne, zato sklepamo, da je bilo slovenskih inženirjev v zbornici največ. Tako o tržaški kot o graški inženirski zbornici še niso bile opravljene podrobne raziskave in predstavitve, zato bo treba to občutljivo večnacionalno tematiko v prihodnje še podrobno osvetliti.

Ljubljanska inženirska zbornica (v nadaljevanju besedila LIZ) je bila ustanovljena kmalu po prvi svetovni vojni, ko je bila oblikovana Kraljevina Srbob, Hrvatov in Slovencev (leta 1929 preimenovana v Kraljevino Jugoslavijo), in sicer z uredbo Deželne vlade za Slovenijo z dne 12. avgusta 1919, kot naslednica inženirskih zbornic v Trstu in Gradcu, ustanovljenih leta 1913, še v obdobju avstro-ogrške monarhije.

Ker je arhiv LIZ le deloma ohranjen (predvsem register članov iz obdobja 1939–1944), je mogoče LIZ v pretežni meri raziskovati prek različnih objav v časopisju, strokovnih revijah in uradnih listih. Po podatkih iz njih lahko delovanje LIZ razdelimo na tri vsebinsko zaključena obdobja: na prvo obdobje, ki je trajalo od leta 1919 do začetka leta 1925, drugo, ki zajema čas od srede leta 1925 do konca leta 1933, in tretje, trajajoče od decembra leta 1933 do leta 1944.

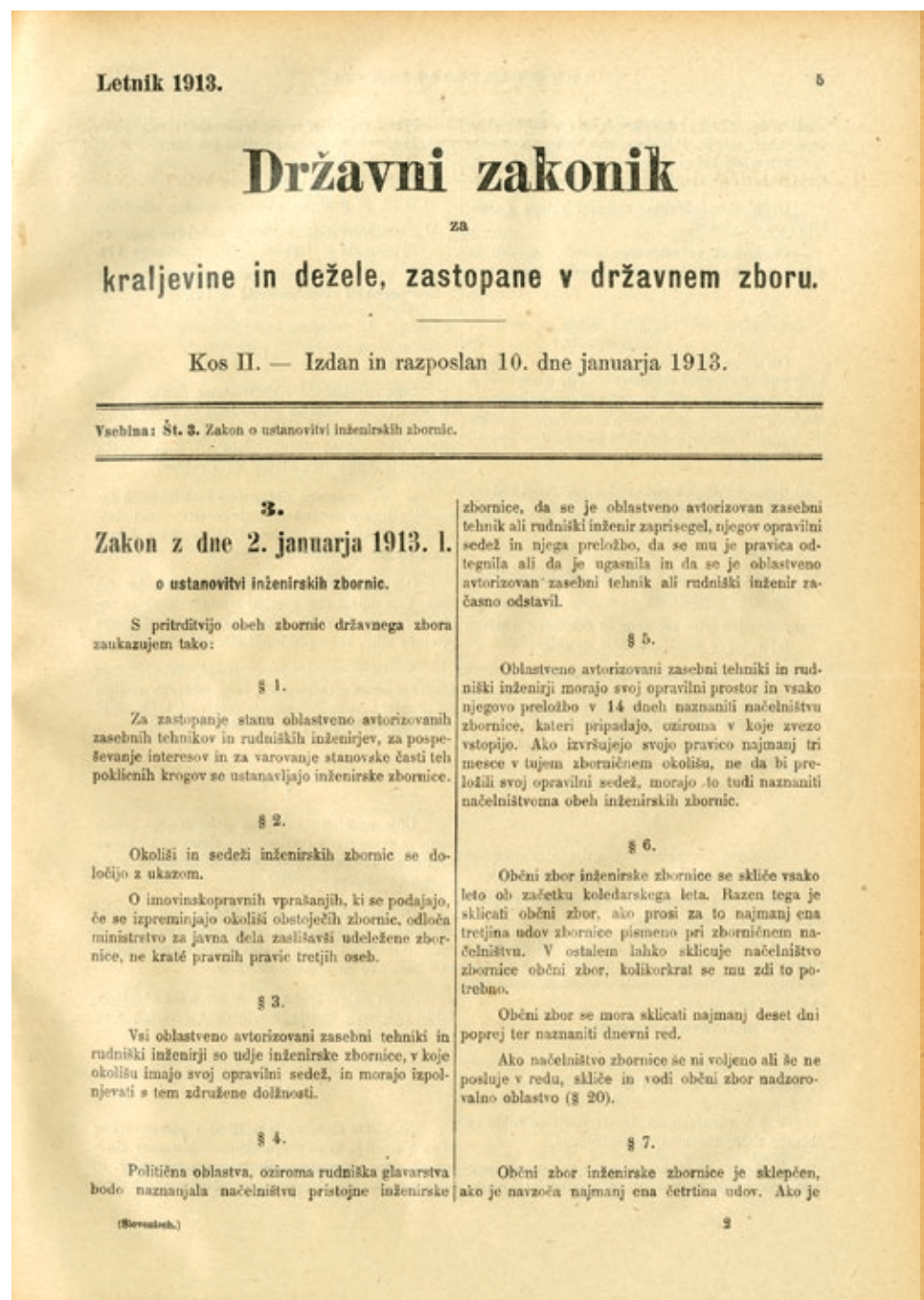
Chamber of Engineers of Trieste in 1913 and the establishment of the Chamber of Engineers of Ljubljana in 1919



12. Trst je bil v začetku 20. stoletja največje slovensko mesto, saj je v njem živelo več Slovencev kot v Ljubljani. • At the beginning of the 20th century Trieste was the largest Slovene city, as it was a home to more Slovenes than Ljubljana.

The ideas and demands for the establishment of the Chambers of Engineers in the area of Austro-Hungarian Monarchy began to emerge at the end of the 19th century, and over the years, at the beginning of the 20th century, they became increasingly louder. While the Chambers of Engineers had already existed in Vienna, Prague, Brno and Lvov in 1908, they were not present in the south of the then Austria. We consider the Chamber of Engineers of Trieste as the predecessor of Ljubljana's. In 1913, during the period of the Austro-Hungarian Monarchy, the Act on Establishment of Chamber of Engineers and the Order on Establishment of districts and seats of Chambers of Engineers established Chambers in Trieste and Graz, which were most closely connected with Slovene engineers. The act, which was also written in Slovene language, had 25 paragraphs, which determined the activities of Chamber and their details. The first article states why the chambers are founded and what is their purpose: "Chambers of Engineers are being set up to represent the profession of publicly authorized private technicians and mining engineers, to promote interests and to protect the professional honor of these professional circles". From newspaper reports it can be assumed that activities of the Chamber of Engineers of Trieste were not effective. Chamber of Engineers of Trieste was organized according to national composition, therefore divided into Italian, Slavic – along Slovene, Croatian and Serbian engineers there were probably also Czech engineers from Trieste – and the German section. In 1913 in the Chamber of Engineers of Trieste there were twelve Slavic engineers,

13. Zakon o ustanovitvi inženirskih zbornic z dne 2. januarja 1913, Dunaj: Državni zakonik za kraljevine in dežele, zastopane v državnem zboru, 10. januarja 1913 • Act of 2nd of January 1913 on the establishment of Chambers of Engineers, Vienna: National Act for Kingdoms and countries represented in the National Assembly, 10th of January 1913



V prvem – šestletnem – obdobju LIZ, o katerem je mogoče pridobiti razmeroma malo podatkov, članstvo zbornice pa je bilo tedaj še maloštevilno (ducat ali nekaj več inženirjev), je zbornica delovala v okviru Države SHS, po avstro-ogrskem zakonu o ustanovitvi zbornic. V prvem obdobju so se številni inženirji, kot denimo inž. Milan Šuklje, ukvarjali s svojo poklicno kariero, z obnovo novonastale države in z ustanavljanjem Tehniške fakultete Univerze v Ljubljani. V tem obdobju se je delovanje inženirske zbornice zelo povezovalo in prepletalo z delovanjem društva inženirjev in arhitektov.



its representatives were two Slovenes, Eng. Dragotin Gustinčič and Eng. Josip Skoberne, so we can assume that the Slovene Engineers were the majority in the Chamber. Trieste's and Graz's Chambers of Engineers are yet to be researched in details, so this sensitive multinational subject still needs to be highlighted in the future.

14. Zemljevid Avstro-Ogrske in njenih sosednjih držav • Map of the Austro-Hungarian Monarchy and its neighbouring countries

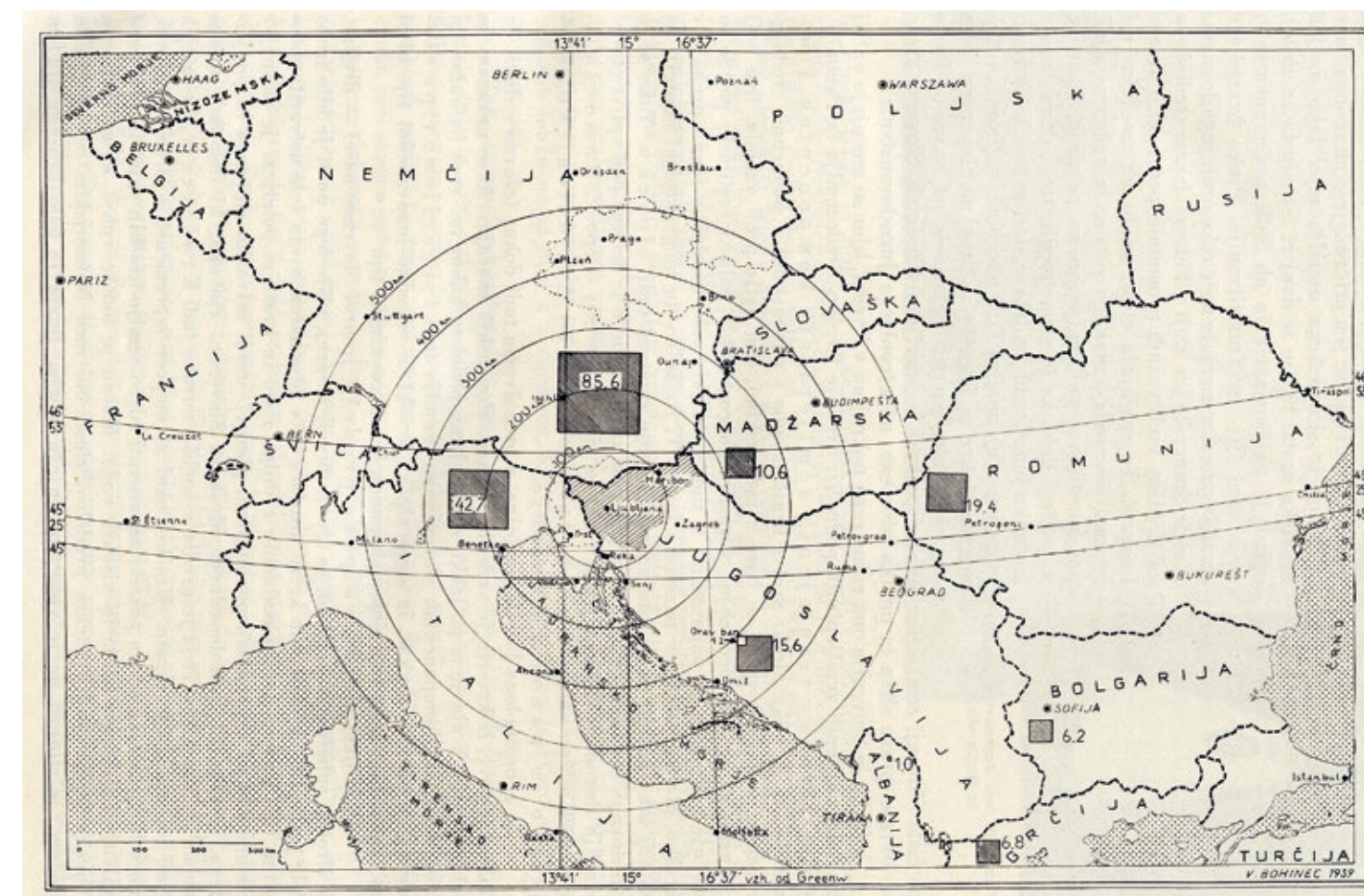
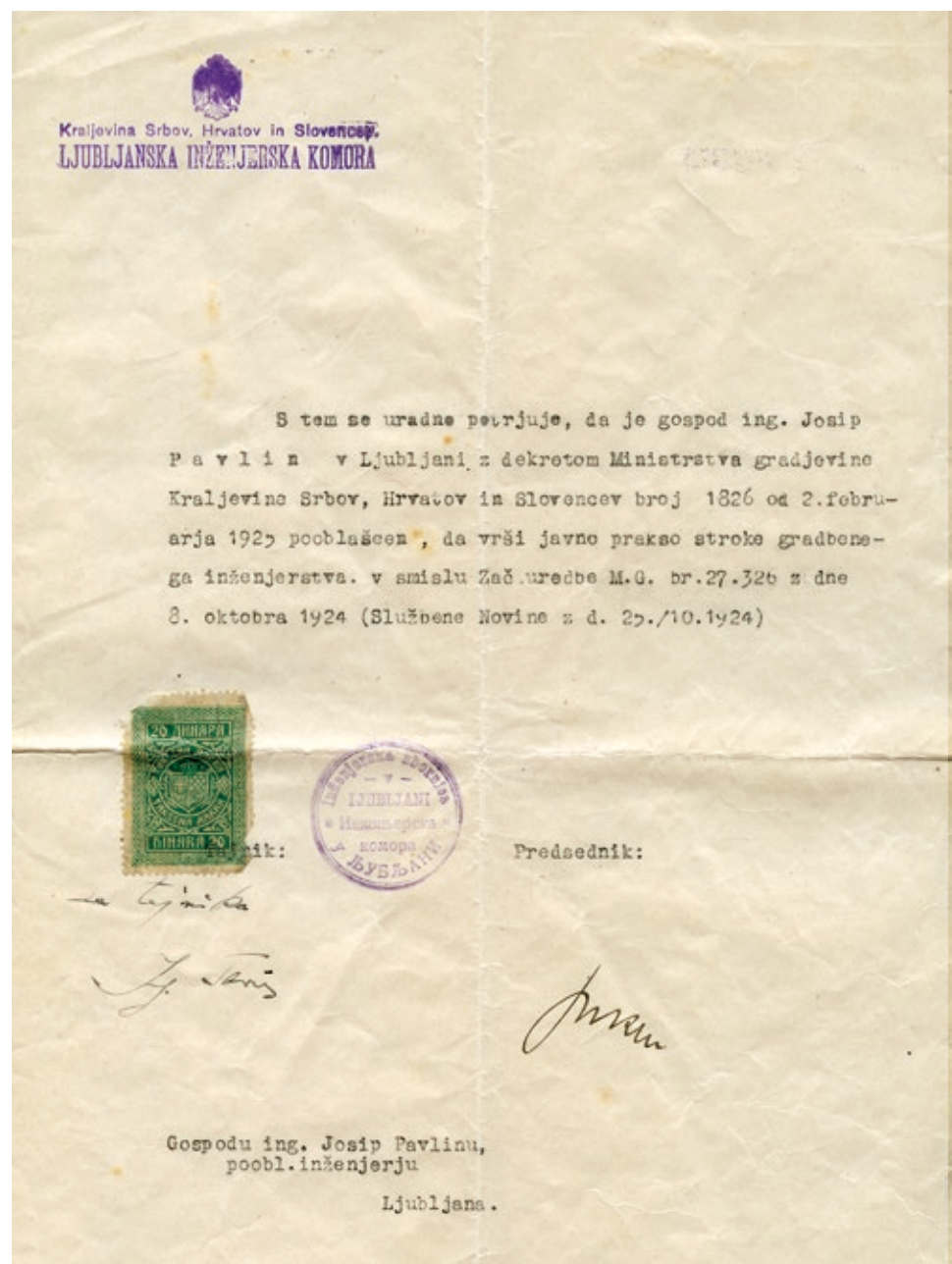
Chamber of Engineers of Ljubljana (in the continuation of the text LIZ) was founded shortly after the First World War, when the Kingdom of Serbs, Croats and Slovenes was formed, in 1929 renamed in the Kingdom of Yugoslavia, namely in 1919 by the Provincial Government regulation for Slovenia on 12th of August 1919 as the successor of in 1913 established Chambers of Engineers in Trieste and Graz in the period of the Austro-Hungarian Monarchy.

Because the archive of LIZ is only partially preserved, only the register of members in the period 1939–44, LIZ can be mainly explored only through various publications in newspapers, professional journals and official documents. According to data from them, the functioning of the LIZ can be divided into three completed periods: the first period from 1919 to early 1925, the second from mid-1925 until the end of 1933, and the third from December 1933 until 1944.



15. Knjižica Honorarne odredbe, ki jo je leta 1924 izdalo Udruženje jugoslovenskih inženirjev in arhitektov – sekcija Ljubljana, dokazuje, da razmejitev med poslovnim in društvenim delovanjem v dvajsetih letih ni bila stroga. • The booklet Honorary decrees published by the Association of Yugoslav Engineers and Architects – Ljubljana section in 1924 shows that the distinction between business and the working of associations in the twenties was not strict.

16. Potrnilo »Ljubljanske inženjske komore« inž. Josipu Pavlinu, izdano po 2. februarju 1925 • Confirmation of Ljubljana's Cell of Engineers to Eng. Josip Pavlin, issued after 2nd of February 1925



In the first – six-year – period, from which we can obtain relatively poor information, and when the Chamber had a tiny membership, only a dozen or few more engineers, the Chamber, until 1925, operated within the State of SHS, and according to the Austro-Hungarian Act on the establishment of Chambers. In the first period many engineers, such as Eng. Milan Šuklje, dealt with their professional career, with the restoration of a newly formed state and the establishment of the Faculty of Technology of the University of Ljubljana. In this period, the functioning of the Chamber of Engineers and the Society of Engineers and Architects was very connected and intertwined.

17. Ljubljana, Dravska banovina in Kraljevina Jugoslavija leta 1939 • Ljubljana, Drava Province and the Kingdom of Yugoslavia in 1939



18. Prostori LIZ so bili v prvem nadstropju stavbe na Šelenburgovi ulici 7 v Ljubljani. Stavba, v kateri je bila v dvajsetih letih Jadransko-podonavska banka, se je morala konec tridesetih let 20. stoletja umakniti veleblagovnici Bata. • The seat of LIZ was on the first floor of the building on Šelenburg Street 7 in Ljubljana. In this building there was the Adriatic-Danubian bank, which at the end of the thirties of the 20th century was replaced by the department store Bata.

Ljubljanska inženirska zbornica od leta 1925 do 1944



19.–20. Zbornica za trgovino, obrt in industrijo, v kateri so bili sestanki vodstva LIZ, je bila ponos slovenske trgovine, obrti in industrije. Notranjščino stavbe, ki izkazuje visoko raven tehnične kulture in stavbne estetike v obdobju med prvo in drugo svetovno vojno na Slovenskem, je v letih 1925–1927 oblikoval arhitekt univ. prof. Jože Plečnik v sodelovanju s svojim prvim asistentom, inž. arh. Francetom Tomažičem. • The Chamber of Commerce, Trade and Industry, in which the LIZ leadership meetings were held, was the pride of Slovene commerce, trade and industry. The interior of the building, which shows a high level of technical culture and architectural aesthetics in the period between the First and Second World War in Slovenia, was between the years 1925 and 1927 designed by the architect Univ. Prof. Jože Plečnik, in the collaboration of his first assistant Eng. Arch. France Tomažič.

V drugem – devetletnem – obdobju LIZ, ko je začelo članstvo polagoma naraščati, je bil predsednik LIZ inž. Milan Šuklje, razen leta 1929/30, ko je zbornico predsedoval dr. Alojz Král. O tem obdobju obstaja nekoliko več podatkov, zbornica pa je postajala vse bolj vpeta, v dobrem in slabem, v jugoslovansko inženirsko stvarnost. Članstvo LIZ je leta 1926 naraslo na šestintrideset članov, med katerimi so bili tudi inženirji in arhitekti iz Dalmacije. Po objavi začasne uredbe o ustanovitvi zbornic v Kraljevini SHS decembra leta 1924 se je v uradnih listih zvrstilo več objav pravilnikov, ki so vse strože urejali poslovna in druga razmerja med inženirji in poslovno sfero. Primer je akcija proti neupravičeni rabi naziva »inženir«. Člani LIZ so sodelovali s kolegi iz zagrebške, beograjske in novosadske zbornice, vsako leto so imeli letno skupščino vseh štirih zbornic, ki je bila praviloma vsakič v drugem kraju. Posamezne zbornice so imele pred tem občne zборе, kjer so člani izvolili in/ali potrdili vodstvo in odločali o drugih tekočih zadevah. Javna predavanja članov LIZ so v tem času postajala vse bolj uveljavljena in so se utrdila kot stalnica strokovnega, društvenega in tudi zborničnega udejstvovanja. V začetku leta 1928 je bil v Pragi mednarodni kongres inženirskih zbornic Evrope, ki se ga je kot vodja jugoslovanske delegacije udeležil

Chamber of Engineers of Ljubljana from 1925 to 1944

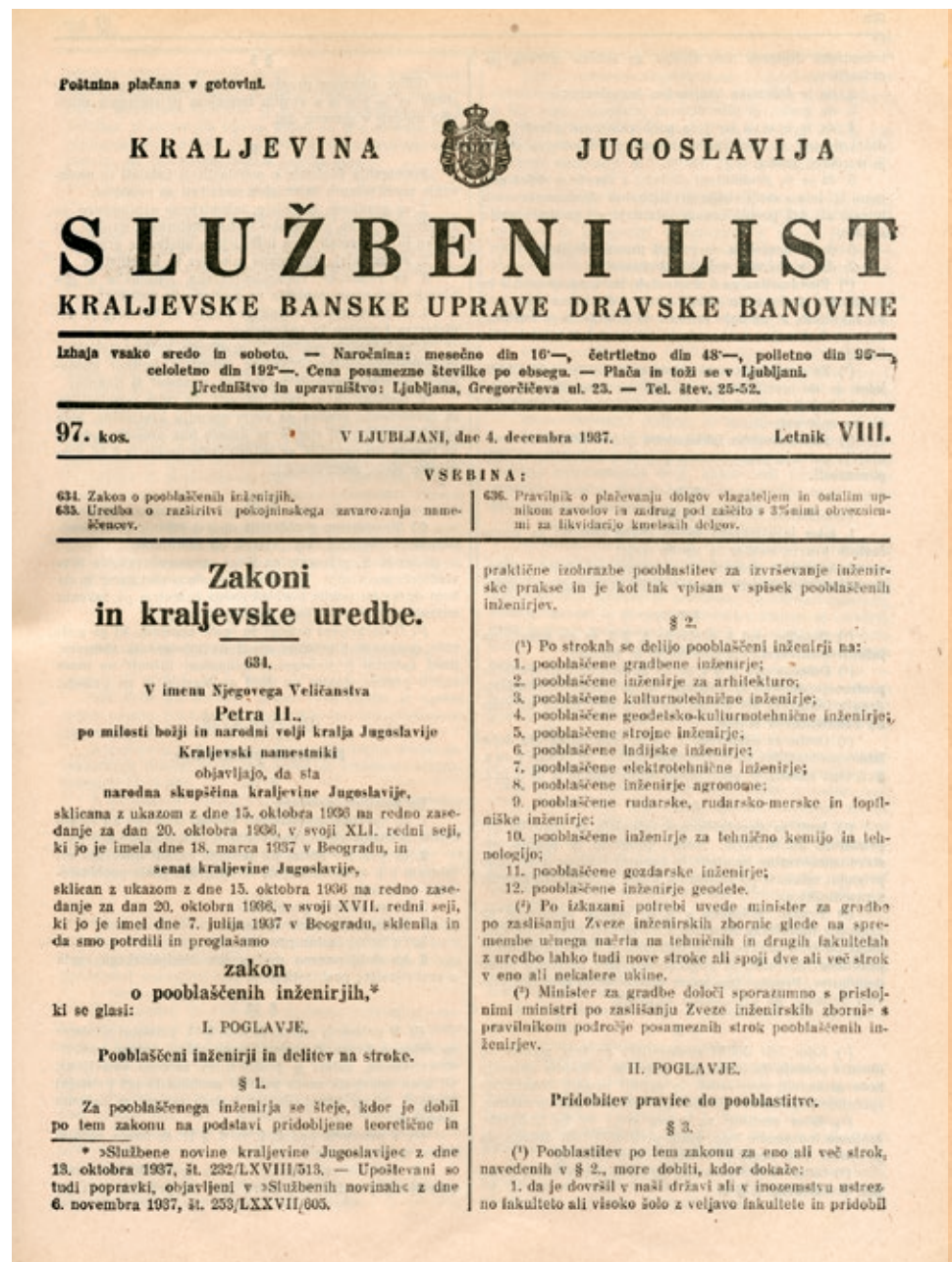
In the second – nine-year – period, when the membership began to rise slowly, the president of LIZ was Eng. Milan Šuklje, except in 1929/30, when the president was Dr. Alojz Král. From this period we have a little more information, the Chamber has become increasingly embedded, for better or worse, into Yugoslav engineering reality. In 1926 LIZ membership grew to thirty-six members and among them there were also engineers and architects from Dalmatia. Following the publication of the temporary regulation on the establishment of chambers in the Kingdom of SHS in December 1924 in the continuation there were in the official journals several publications of regulations that were becoming more and more strict in their regulation of business and other relations between engineers and business sphere. An example is the campaign against unauthorized use of the title “Engineer”. Members of LIZ shared the fate of colleagues from Chambers of Zagreb, Belgrade and Novi Sad, each year they had an annual assembly of all four Chambers, which was usually each time in a different city. Individual chambers had before that their own assemblies where members elected and/or confirmed the new leadership and decided on other current issues. During this time public lectures of members of LIZ became increasingly valued and the very core of the professional, community as well as the Chamber’s activities. In early 1928 in Prague there was an International Congress of Chambers of Engineers from Europe, which was attended by Eng. Josip Pavlin as the head of the Yugoslav delegation. At the end of 1930 the membership rose to sixty-eight, and at the end of 1933 to one hundred and eight. On 7th of July 1931 the Construction Act which upset professional and entrepreneurial public was adopted. During the economic boom issues related to development, economic growth as well as the economic efficiency prevailed. Things have begun to change because of the global economic crisis in the early thirties, and the crisis in the construction sector peaked in 1934. At the end of 1933, the President of LIZ Eng. Milan Šuklje resigned and this was probably related to the tensions and developments regarding the adoption of Construction act and regulations connected with its implementation. Due to lack of data, the details and the reasons for his resignation are not explained.

From the third – ten-year – period from the end of 1933 to mid-Second World War most newspaper records survived, the register of members of the LIZ from the period 1939–44 is also preserved, and from it we can see the size, structure and other properties of membership in that period. The central figure of the Chamber was its president Eng. Milko Pirkmajer, who, together with permanently appointed secretary Maks Veselko, made the work in the Chamber professional and brought it nearer to membership. The sphere of engineering was increasingly regulated with the acts and regulations, such as the Authorized engineers Act from 1937, Regulations on tenders for drafts for public buildings and on the rights of participants from 1939, Regulation on the distribution of the spheres of different professions of authorized engineers from 1939, etc. In the newspapers president Pirkmajer supported the solution of the economy and economic crisis



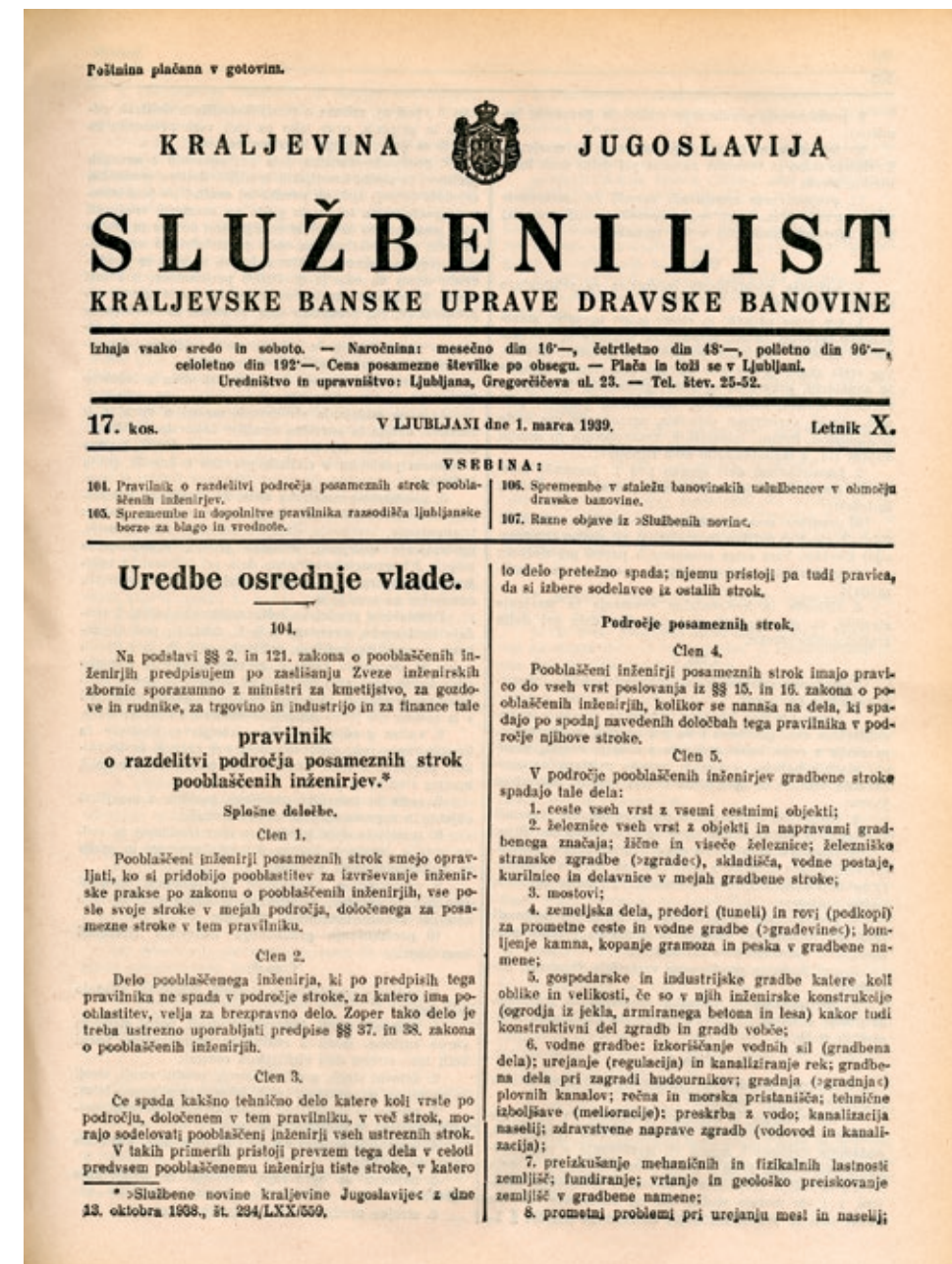
21. Pravilnik o nagradah iz leta 1929 • Regulation on awards from 1929

22. Zakon o pooblaščenih inženirjih, Službeni list Kraljevske banske uprave Dravske banovine, 4. decembra 1937 • Act on Authorized Engineers, Official Journal of Royal Provincial Government of Drava Province, 4th of December 1937



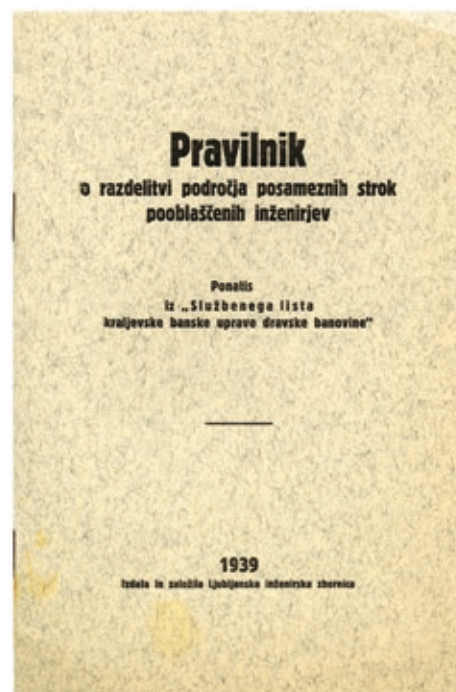
inž. Josip Pavlin. Članstvo je konec leta 1930 naraslo na oseminšestdeset, konec leta 1933 pa na sto osem članov. 7. julija 1931 je bil sprejet gradbeni zakon, ki je razburkal strokovno in podjetniško javnost. V času gospodarskega razcveta so prevladovali teme, povezane z razvojem, gospodarsko rastjo, pa tudi ekonomičnostjo. Zadeve so se začele zaradi svetovne gospodarske krize spreminjati v začetku tridesetih let; kriza je v gradbeništvu dosegla vrhunec leta 1934. Konec leta 1933 je odstopil predsednik LIZ inž. Milan Šuklje, kar je najverjetneje povezano s trenji in dogajanjem v zvezi z gradbenim zakonom oziroma pravilniki glede njegove izvedbe. Zaradi pomanjkanja podatkov podrobnosti in razlogi za njegov odstop niso pojasnjeni.

Iz tretjega – desetletnega – obdobja LIZ, ki obsega čas od konca leta 1933 do srede druge svetovne vojne, je ohranjenih največ časopisnih zapisov; ohranjen je tudi register članov LIZ iz let 1939–1944, iz katerega lahko razberemo obseg, strukturo in druge lastnosti članstva v navedenem obdobju. Osrednja osebnost zbornice je bil njen predsednik inž. Milko Pirkmajer, ki je s stalno nameščenim tajnikom



in the form of public works along the lines of the United States of America. The themes of design and construction of roads as well as the deepening of the railway line in the centre of Ljubljana were therefore central issues in which Slovene engineers were engaged. The assassination of King Alexander I. in Marseille in October 1934 sharpened the political situation in the country. Because of unitary tendencies and centralist demands the authorities in Belgrade wanted to abolish university and thus also the Faculty of Technology in Ljubljana, but members of LIZ resisted. In early 1937, members of LIZ were shaken by news of the death of longtime and first president of LIZ Milan Šuklje, but in professional journals his activities within LIZ were not (yet) presented in details. In 1937 the Chamber's work was marked by the emancipation and separation of Split and Dalmatian section from LIZ. Slovene and Dalmatian engineers and architects were connected already from the Austro-Hungarian times of the Chamber of Engineers of Trieste, therefore the extensive activities of Slovene engineers and architects, such as Eng. Vladimir Šuklje, Eng. Arch. Vladimir Šubic, Arch. Jože Mesar, Arch. Josip Costaperaria and others in Dalmatia are not surprising.

23. Pravilnik o razdelitvi področja posameznih strok pooblaščenih inženirjev, Službeni list Kraljevske banske uprave Dravske banovine, 1. marca 1939 • Regulation on the distribution of the spheres of different professions of authorized engineers, Official Journal of Royal Provincial Government of Drava province, 1st of March 1939

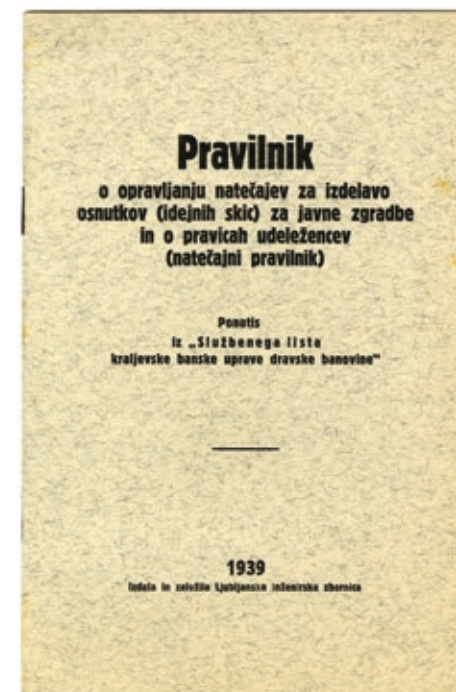


24. Pravilnik o razdelitvi področja posameznih strok pooblaščenih inženirjev, Ljubljanska inženirska zbornica, 1939 • Regulation on the distribution of the spheres of different professions of authorized engineers, Chamber of Engineers of Ljubljana, 1939

Maksom Veselkom delo v zbornici profesionaliziral in ga približal članstvu. Področje inženirstva se je tudi vse bolj reguliralo z zakoni in pravilniki, kot so denimo Zakon o pooblaščenih inženirjih iz leta 1937, Pravilnik o opravljanju natečajev za izdelavo osnutkov za javne zgradbe in o pravicah udeležencev iz leta 1939, Pravilnik o razdelitvi področja posameznih strok pooblaščenih inženirjev iz leta 1939 itn. Predsednik Pirkmajer se je v časopisju zavzemal za reševanje gospodarstva in gospodarske krize v obliki javnih del po zgledu Združenih držav Amerike. Vprašanja načrtovanja in gradnje cest, pa tudi poglobitve železniške trase v središču Ljubljane, so bila zato osrednje teme, s katerimi so se ukvarjali slovenski inženirji. Atentat na kralja Aleksandra I. v Marseillu oktobra 1934 je zaostрил politične razmere v državi. Zaradi unitarističnih tendenc in centralističnih zahtev so oblasti v Beogradu želele ukiniti univerzo in s tem tudi Tehniško fakulteto v Ljubljani, čemur so se člani LIZ uprli. V začetku leta 1937 jih je pretresla vest o zgodnji smrti dolgoletnega in prvega predsednika LIZ Milana Šukljeta, vendar njegovo delovanje znotraj LIZ v strokovnem časopisju (še) ni bilo podrobno predstavljeno. V letu 1937 je zbornično delovanje zaznamovala osamosvojitve oziroma ločitev splitskega krila ali dalmatinske sekcije LIZ. Slovenski in dalmatinski inženirji in arhitekti so bili povezani še iz avstro-ogrskih časov tržaške inženirske zbornice, zato velika aktivnost slovenskih inženirjev in arhitektov (denimo inž. Vladimirja Šukljeta, inž. arh. Vladimirja Šubica, arh. Jožeta Mesarja, arh. Josipa Costaperarie in drugih) v Dalmaciji ne preseneča. V nadaljevanju zborničnega delovanja so se začele razmere zaradi bližajoče se druge svetovne vojne in priprav nanjo čedalje bolj zaostrovati, tudi na gradbenem področju. Med vojno pa je prišlo – razumljivo – do stagnacije članstva.

Število članov LIZ je (s kandidati za pooblaščen inženirje vred) v začetku štiridesetih let 20. stoletja naraslo na štiristo enaintrideset, kar sovpada s tehničnim razvojem in skrbjo za tehnično šolanje. Marsikatera podrobnost iz zgodovine LIZ je še zakrita, zato se mora raziskovanje in iskanje predmetov, povezanih z Ljubljansko inženirsko zbornico v obdobju 1919–1944, nadaljevati. Na LIZ so lahko današnji inženirji ponosni, saj so njeni člani dosegli zavidljive uspehe, zbornica pa je z organiziranostjo pripomogla k dvigu tehnične kulture in poslovne odličnosti. Število arhitektov v okviru LIZ je s šestinpetdeset leta 1944 po zadnjih podatkih ZAPS naraslo na okoli tisoč petsto leta 2013 – v skoraj sedmih desetletjih se je torej število arhitektov povečalo za nekaj več kot petindvajsetkrat.

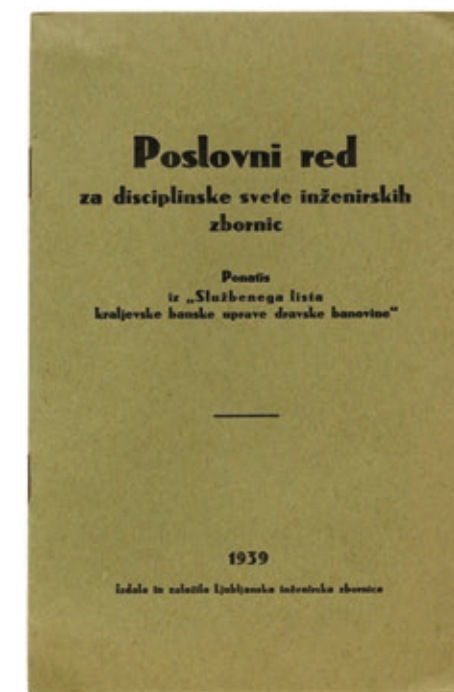
Razvoj LIZ je bil po drugi svetovni vojni prekinjen, podobno kot v drugih nekdanjih vzhodnoevropskih socialističnih državah. V teh družbah zato v delovanju inženirskih zbornic ni nepretrgane kontinuitete, kakršno srečamo v nekdanjih zahodno- in srednjeevropskih ter drugih kapitalističnih državah po svetu. Zgodovinski vpogled pa nam omogoča, da se vedno znova sprašujemo o poslanstvu in smiselnosti delovanja inženirskih zbornic v današnjem času.



In the continuation the conditions became, because of the impending Second World War and preparations for it, increasingly strained, also in the construction sector. During the Second World War we witness – understandably – the growing stagnation of membership.

In early forties of the 20th century the number of members of LIZ, together with candidates for authorized engineers, grew to four hundred thirty-one, which coincides with the technical development and concern for technical education. A lot of details from the history of LIZ are still obscured therefore the research and tracing items associated with the Chamber of Engineers of Ljubljana from the period from 1919 to 1944 must be continued. Today's engineers can be proud of LIZ, for its members achieved impressible successes, and the Chamber with its organizational ability helped to raise technical culture and business excellence. Number of architects of LIZ rose from fifty-six in 1944 to, according to recent data of ZAPS (Chamber of Architecture and Environmental Planning Slovenia), about one thousand five hundred in 2013, in other words, in almost seventy-year long history the number of architects increased by more than twenty-five times.

After the Second World War the development of LIZ was coarsely interrupted, similarly as in other former Eastern-European socialist countries. Therefore in these societies there is no continuity in the working of Chambers of Engineers we encounter in the former Western and Central-European and other capitalist countries around the world. In short, historical insight allows us to ask again and again about the meaning and mission of Chambers of Engineers today.

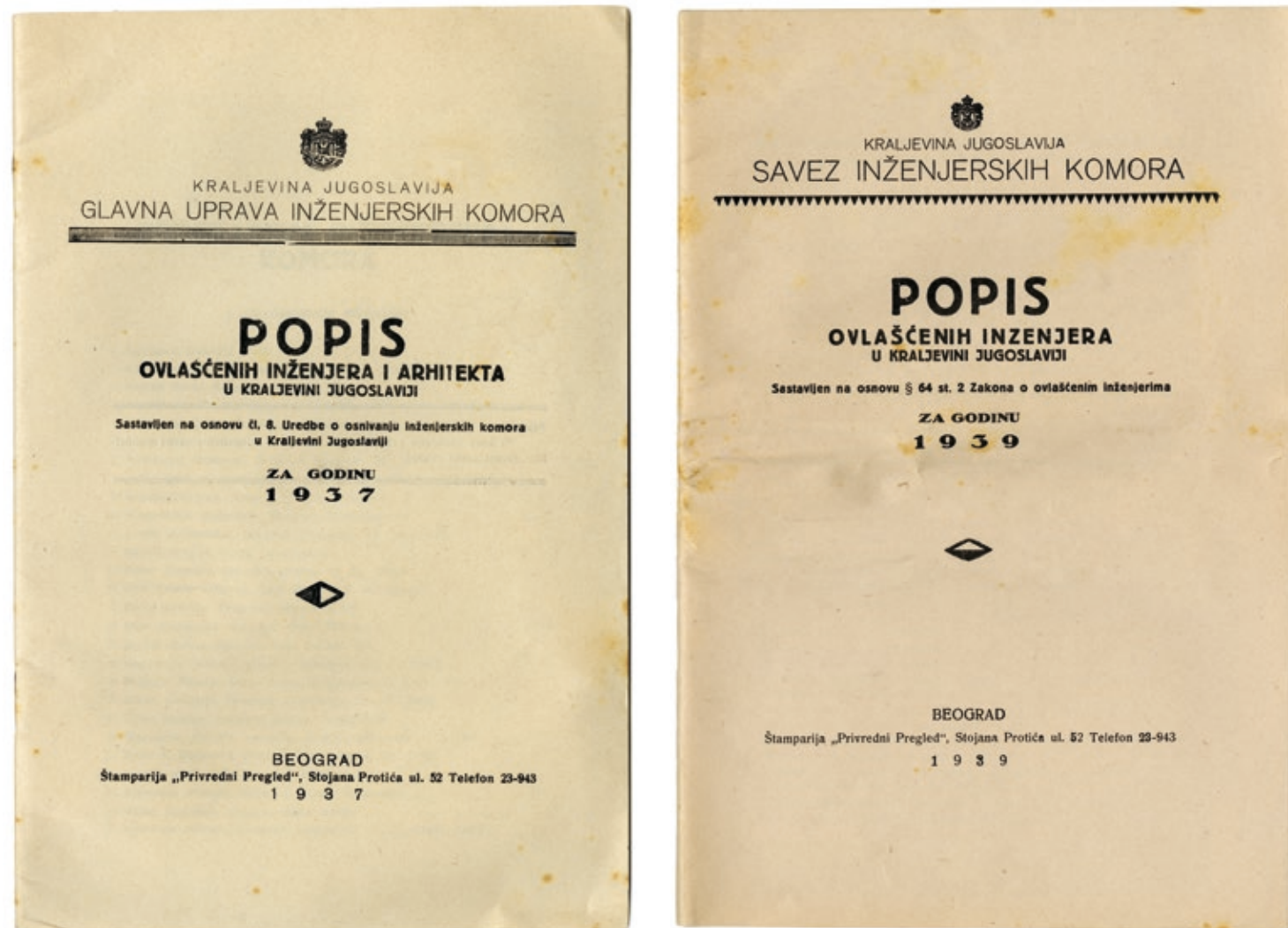


25. Pravilnik o opravljanju natečajev za izdelavo osnutkov (idejnih skic) za javne zgradbe in o pravicah udeležencev (natečajni pravilnik), Ljubljanska inženirska zbornica, 1939 • Regulation on conducting competitions for drafts (conceptual sketches) for public buildings and on the rights of participants (competition regulation), Chamber of Engineers of Ljubljana, 1939

26. Poslovni red za disciplinske svete inženirskih zbornic, Ljubljanska inženirska zbornica, 1939 • Business Order for Disciplinary Councils of Chambers of Engineers, Chamber of Engineers of Ljubljana, 1939

27. Pravilnik o poslovanju razsodišč inženirskih zbornic, Ljubljanska inženirska zbornica, 1939 • Regulation on the operation of tribunals of the Chambers of Engineers, Chamber of Engineers of Ljubljana, 1939

Seznami pooblaščenih inženirjev in drugi dokumenti LIZ iz let 1919–1944



28. Knjižica s seznamom pooblaščenih inženirjev in arhitektov v Kraljevini Jugoslaviji iz leta 1937
• Booklet with the list of authorized engineers and architects in Kingdom of Yugoslavia from 1937

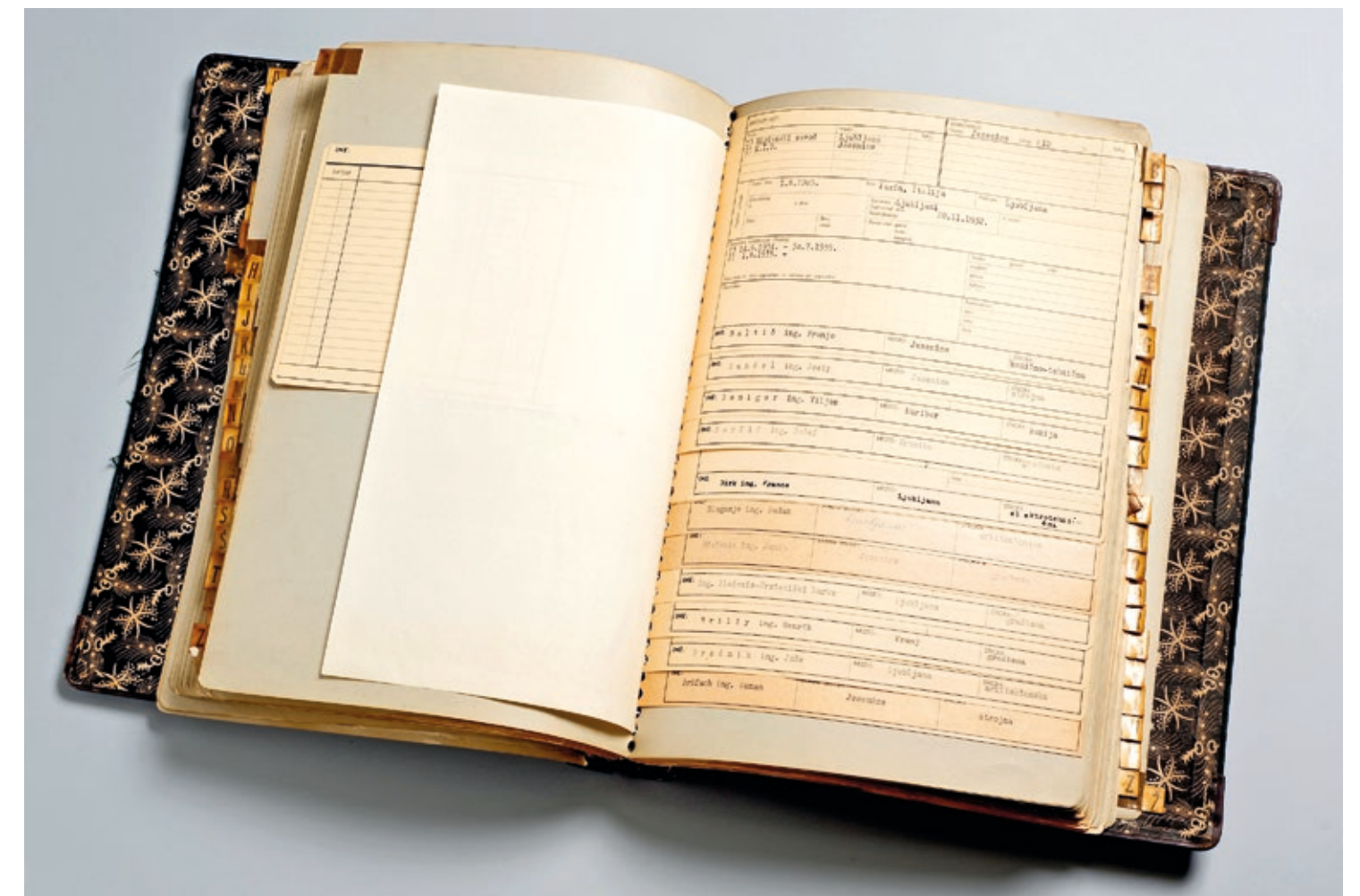
29. Knjižica s seznamom pooblaščenih inženirjev in arhitektov v Kraljevini Jugoslaviji iz leta 1939
• Booklet with the list of authorized engineers and architects in Kingdom of Yugoslavia from 1939

Število članov Ljubljanske inženirske zbornice večkrat, predvsem ob letnih zasedanjih, navajajo članki o zbornici v dnevnem časopisju, večkrat v njih v primerjavah zapišejo še število članov zagrebške, beograjske in novosadske zbornice. Imenski sezname pooblaščenih inženirjev LIZ in drugih zbornic so bili objavljeni v knjižicah z naslovom *Popis ovlaščenih inženjera i arhitekata u Kraljevini Jugoslaviji*, ki jih je izdajala Glavna uprava inženjerskih komora v Beogradu. Znani so sezname iz let 1930, 1931, 1934, 1937 in 1939. Narodna in univerzitetna knjižnica v Ljubljani hrani register pooblaščenih inženirjev in kandidatov za pooblaščene inženirje iz let 1939–1944, ki ji ga je leta 2016 darovala IZS. Register je vir zanesljivih podatkov o izobrazbi in specializiranih znanjih posameznikov, o študijskih izpopolnjevanjih in strukturi inženirjev ter o pomenu inženirjev pri nas.

Lists of authorized engineers and other documents of the Chamber of Engineers of Ljubljana from the period 1919–1944

The number of members of LIZ is repeatedly, in particular at the annual assemblies, mentioned in the articles on chamber in daily newspapers, and several times they compare a number of members of Chambers of Zagreb, Belgrade and Novi Sad. Lists of names of authorized engineers of LIZ or other chambers were made public in booklets *Index of authorized engineers and architects in the Kingdom of Yugoslavia*, published by the Central Board of Chambers of Engineers in Belgrade. Lists from 1930, 1931, 1934, 1937, and 1939 are known. National and University Library in Ljubljana is keeping a register of authorized engineers and candidates for authorized engineers from 1939 to 1944, which was donated by the Slovenian Chamber of Engineers in 2016. The register is a source of reliable data that speaks about education, specialized knowledge of individuals, trainings, the structure of engineers and the importance of engineers in our country.

30. Register pooblaščenih inženirjev in arhitektov iz obdobja 1939–1944 je dragocen vir podatkov o LIZ. Sestavljen je iz 440 kartončkov (221 kartončkov članov in 219 kartončkov kandidatov za člane zbornice). • Register of authorized engineers and architects from the period 1939–44 is a valuable source of information about LIZ. It consists of 440 cards, of which 221 cards are from members and 219 cards from the candidates for members of the Chamber.





31. Izkaznica inž. Milana Šukljeta, ki jo je izdalo »Udruženje jugoslovanskih inženjerjev in arhitektov« leta 1920 • The card of Eng. Milan Šuklje, published by the Association of Yugoslav Engineers and Architects in 1920

Potrdila, izkaznice in žigi LIZ iz obdobja 1919–1944

Čeprav je arhiv Ljubljanske inženirske zbornice ohranjen v le manjšem obsegu, je mogoče med arhivskim gradivom z drugih povezanih področij in predvsem znotraj osebnih arhivov posameznih inženirjev najti številne sledi o delovanju zbornice. To so žigi zbornice, žigi pooblaščenih inženirjev, različne listine, potrdila o opravljenih izpiti, pravilniki in sezname članov. Ohranjeni sta samo dve članski izkaznici, fotografskega gradiva, povezanega s sestanki ali letnimi skupščinami zbornice, pa ni.

32. Potrdilo Gizele Šuklje, prve Plečnikove diplomantke, o opravljenem državnem izpitu za »pooblaščenega inženirja« • Certificate of completion of the state exam for »authorized engineer« Gizela Šuklje, first Plečnik's female graduate



Certificates, cards and stamps of LIZ from period 1919–1944

Although the archive of LIZ is partially preserved, a number of traces of its activities can be found in the archives from other related areas, and especially from the personal archives of individual engineers. These are the stamps of the Chamber, the stamps of the authorized engineers, various documents and certificates of passed exams, regulations and lists of members. Only two membership cards are preserved, there are no photographic materials related to meetings or annual assemblies of the Chamber.



33. Notranji strani izkaznice LIZ inž. Josipa Pavlina • Inner pages of the card of LIZ of Eng. Josip Pavlin



34. Druga in tretja stran izkaznice LIZ inž. Josipa Pavlina • Second and the third page of the card of LIZ of Eng. Josip Pavlin



35. Žig »Ljubljanske inženjerske komore« iz obdobja Kraljevine Jugoslavije • Stamp of Ljubljana's Cell of Engineers from the period of the Kingdom of Yugoslavia



36. Žig pooblaščenega inženirja in arhitekta Vladimirja Šubiča • Stamp of the authorized engineer and architect Vladimir Šubič



37. Novi žig: »Inženjerska zbornica Ljubljana« • The new stamp: Chamber of Engineers of Ljubljana

Izbor pomembnih inženirskih objektov zadnjih 100 let, obdobje 1919–1944

Delovanje zbornic in pooblaščenih inženirjev najbolj prikazuje njihova izvedena dela in projekti; predstavljeni so na fotografijah gospodarskih, stanovanjskih, športnih in kulturnih, infrastrukturnih ter sakralnih objektov. Tehnološkega napredka ni mogoče spregledati.

38. Nebotičnik v Ljubljani, zgrajen leta 1933, delo arhitekta Vladimirja Šubica in statika Stanka Dimnika, je bil nekaj let najvišja stavba v srednji Evropi in dolgo časa na Balkanu, ponos slovenskega meščanstva v tridesetih letih 20. stoletja in tudi slovenske tehnične inteligence

- Skyscraper in Ljubljana, built in 1933, the work of the architect Vladimir Šubic and statics expert Stanko Dimnik, was a few years the tallest building in Central Europe and a long time in the Balkans, the pride of Slovene bourgeoisie and also of Slovene technical intelligence in the thirties of the 20th century



Selection of important engineering objects of the last 100 years, period 1919–1944

The activities of chambers and authorized engineers are best illustrated by the completed works and projects in the last 100 years, which are presented in photographs of economic, housing, sport and cultural, infrastructural and sacral objects. Technological progress cannot be overlooked.



39.–40. Mali nebotičnik v Ljubljani, zgrajen leta 1932, delo arhitekta Hermana Husa, so začeli graditi kot drugi nebotičnik, zgrajen je bil kot prvi, vendar ima na vogalu nekoliko nižji stolp.

- They began to build a small skyscraper in Ljubljana as a second skyscraper, it was built as the first, but it has a slightly lower tower on the corner. It was completed in 1932 and it is the work of the architect Herman Hus.

41. Dukičevi bloki v Ljubljani so primer kakovostne bivanjske kulture in so delo na Dunaju šolanega arhitekta Jožeta Sivca; 1932/33. • Dukič's blocks of flats in Ljubljana are an example of a quality housing culture. They are the work of in Vienna educated architect Jože Sivec; 1932/33.



42. Regulacija reke Ljubljanice je po obsegu del pomenila večja gradbena dela v času gradbene krize v Ljubljani v začetku tridesetih let 20. stoletja. • According to the scope of works, the regulation of the Ljubljanica river represented major construction works during the construction crisis in Ljubljana in the early 1930s



43. Univerzitetna knjižnica, danes Narodna in univerzitetna knjižnica, je najpomembnejše delo arhitekta Jožeta Plečnika v ljubljanskem obdobju; 1936–1941. • The University Library, today the National and University Library, is the most important work of the architect Jože Plečnik in the Ljubljana period; 1936–1941.



44. Tromostovje, delo arhitekta Jožeta Plečnika, 1931/32 • The Three Bridges, the work of the architect Jože Plečnik, 1931/32



45. Bloudkova (tudi Rožman-Bloudkova) velikanka v Planici je delo konstruktorjev Ivana Rožmana in Stanka Bloudka iz tridesetih let 20. stoletja. • Bloudek, also Rožman-Bloudek's giant ski jump in Planica was the work of the constructors Ivan Rožman and Stanko Bloudek in the 1930s.



46. Razglednica s prireditve v Planici leta 1935 • Postcard from the ski jump event in Planica in 1935

Predsedniki LIZ v letih 1919–1944 in predsednika IZS v letih 1996–2019

Delovanje inženirske zbornice je v stoletnem obdobju vodilo veliko uglednih osebnosti, predsednikov in podpredsednikov, pri vodenju različnih teles zbornice pa so sodelovali strokovnjaki iz vseh strok. Svetnika Tržaške inženirske zbornice sta bila inž. Dragotin Gustinčič in inž. Josip Skoberne, pomembni funkcionarji LIZ pa so bili inž. Josip Pavlin, univ. prof. dr. inž. Miroslav Kasal, inž. Franc Zupančič, univ. prof. inž. Feliks Lobe, Maks Veselko in drugi.

Milan Šuklje (1881–1937), 1919–1929 in 1930–1933

47. Inž. Milan Šuklje na sliki Ivana Vavpotiča, brez datacije, olje na platnu, 160 x 135 cm • Eng. Milan Šuklje on a picture by Ivan Vavpotič, undated, oil on canvas, 160 x 135 cm



Presidents of the Chamber of Engineers of Ljubljana between 1919 and 1944 and Presidents of the Slovenian Chamber of Engineers between 1996 and 2019

The activities of chambers of engineers over the course of a century were led by many eminent personalities, presidents and vice-presidents, and experts from many disciplines participated in the management of various bodies of the Chamber. Councilors of Chamber of Engineers of Trieste were Eng. Dragotin Gustinčič and Eng. Josip Skoberne, but the important officials of LIZ were also Eng. Josip Pavlin, Univ. Prof. Dr. Eng. Miroslav Kasal, Eng. Franc Zupančič, Univ. Prof. Eng. Feliks Lobé, Maks Veselko and others.



48. Hiša Šuklje na Beethovnovi ulici 2 v Ljubljani, kjer je bil v tridesetih letih sedež Ljubljanske inženirske zbornice • House Šuklje on Beethoven Street 2, Ljubljana, a location of the seat of Chamber of Engineers of Ljubljana in the thirties

Engineer Milan Šuklje was from a respectable bourgeois family, from which many Slovene politicians, engineers and cultural workers came from. He was born on 18th of June 1881 in Wiener Neustadt. He graduated in 1899 in Vienna, where he also started higher education, which he continued in Prague and finished in Graz. He graduated there on 14th of November 1906. First, he spent a year in practice with a private company in Klagenfurt, then with the State and Northern Railways in Vienna, from where he came to Ljubljana to the State Craft School. He taught there from July 1911 to September 1919. In spring 1919 he, as a member of the

Inž. Milan Šuklje je bil iz ugledne meščanske rodbine, iz katere so izšli številni slovenski politiki, inženirji in kulturni delavci. Rojen je bil 18. junija 1881 v Dunajskem Novem mestu (Wiener Neustadt). Maturiral je leta 1899 na Dunaju; tu je pričel tudi visokošolski študij, ki ga je potem nadaljeval v Pragi in končal v Gradcu. Tam je 14. novembra 1906 tudi diplomiral. Najprej je bil leto dni na praksi pri zasebnem podjetju v Celovcu, potem pa pri državni in severni železnici na Dunaju, od koder je prišel v Ljubljano na državno obrtno šolo. Na njej je poučeval od julija 1911 do septembra 1919. Spomladi 1919 je kot član vseučiliške komisije organiziral tehnične visokošolske tečaje in bil predsednik njihovega kuratorija. Sodeloval je pri ustanovitvi tehničnih visokošolskih fondov, ki so bili namenjeni za prispevke študentom in opremo tehničnih inštitutov. Zaslužen je tudi za zgraditev poslopij tehniške fakultete in Akademskega (študentskega) doma. 15. marca 1919 je postal glavni tajnik zveze industrialcev in na tem za gospodarstvo zelo pomembnem mestu ostal do smrti leta 1937. Šuklje je bil v letih 1913–1914 deželni poslanec in banski svetnik, bil je soustanovitelj in odbornik Ljubljanskega velesejma, član upravnega sveta v več industrijskih podjetjih in lastnik patentne pisarne. Seznam njegovih del je dolg. Čeprav so nekatera dejstva o njem dobro znana in zapisana v Slovenskem biografskem leksikonu in drugje, pa njegovo inženirsko delovanje, povezano s patenti in ljubljansko patentno pisarno, ki jo je vodil, ter njegovo delo, povezano z Ljubljansko inženirsko zbornico in ljubljansko sekcijo združenja UJIA, ostajata neznanka.

college commission, organized higher technical courses and was a president of their board of trustees. He participated in the establishment of higher technical education funds, which were intended for students and equipment of technical institutes. He is also credited for the construction of buildings of Faculty of Technology and the Academic (Students') hall of residence. On 15th of March 1919 he became the Secretary General of the Industrialists' Association and on this very important position for the economy he remained until his death in 1937. Between 1913 and 1914 he was a member of the Provincial Parliament and a Councillor of the Province, he was a cofounder and a board member of Ljubljana Exposition, a board member of several industrial companies and the owner of the patent office. The list of his works is long. Although some facts about Eng. Milan Šuklje are well-known and written in SBL and elsewhere, his engineering work related to the patents and patent office in Ljubljana, which he led, and his work connected with LIZ, as well as UJIA Society – Ljubljana section, continues to remain unknown.



49. Univ. prof. dr. inž. / Univ. Prof. Dr. Eng. Alojz Král

Alojz Král (1884–1969), 1929

Univerzitetni profesor dr. inž. Alojz Král je bil rojen 1. decembra 1884 v kraju Dolni Studénky na severnem Moravskem, maturiral je leta 1905 v moravskem Šumperku, diplomiral pa 20. junija 1910 v Brnu; v letih 1910–1912 je bil asistent na stolici za splošno mehaniko in hidromehaniko univerze v Brnu, v letih 1910–1911 je namesto obolelega vodje oddelka predaval oba predmeta. Državni izpit iz gradbene stroke je opravil leta 1913. V letih 1912–1920 je delal pri državni stavbni upravi v Ljubljani, 31. julija 1916 je v Brnu doktoriral. Leta 1920 je postal izredni, leta 1923 pa redni profesor tehniške mehanike na ljubljanski univerzi, v letih 1920–1924 je bil vodja oddelka za gradbeništvo; pooblaščen inženir je postal sredi leta 1926, zapriseženi pa nekaj mesecev kasneje. V letih 1920–1929 je bil član uprave inženirske zbornice v Ljubljani, leta 1925 njen blagajnik, 1929. predsednik, leta 1937 predsednik nadzornega odbora. Napisal je številne strokovne članke in jih objavljaval v Ljubljani, na Dunaju, v Berlinu, Londonu, Zagrebu, Pragi in drugod. Štirikrat je bil dekan Tehniške fakultete ljubljanske univerze, in sicer v študijskih letih 1924/25, 1931/32, 1932/33 in 1944/45. Opus njegovih izvedenih del je velik. Král je edini tujec, ki je zasedal položaj rektorja Univerze v Ljubljani (v študijskem letu 1945/46). Prav tako se lahko LIZ pohvali z njim in dr. inž. Miroslavom Kasalom kot na Moravskem in Češkem rojenima strokovnjakoma, ki sta zasedala visok položaj v zbornici. Konec leta 1946 se je Král vrnil na Moravsko in postal profesor na Tehniški fakulteti v Brnu. Leta 1956 mu je Univerza v Ljubljani podelila častni doktorat. Umrl je 23. aprila 1969 v Brnu.

University Professor Dr. Eng. Alojz Král was born on 1st of December 1884 in Dolni Studénky in Northern Moravia. He received a high school degree in 1905 in Moravian Šumperk and graduated in Brno on 20th of June 1910. Between 1910 and 1912, he was the assistant at the department of general mechanics and hydromechanics in Brno, and between 1910 and 1911, he taught both these subjects instead of his diseased superior. He completed the State examination in construction profession in 1913. Between 1912 and 1920 he was employed by the State Construction Administration in Ljubljana, and on 31st of July 1916 he obtained his doctorate in Brno. In 1920 he became associate professor, and in 1923 full professor of technical mechanics at the University of Ljubljana, between 1920 and 1924 he was the head of the construction department. He became the authorized engineer on 15th of June 1926, and a public engineer on 30th of September 1926. Between 1920 and 1929 he was a board member of LIZ, in 1925 its treasurer, in 1929 its president, and in 1937 the chairman of supervisory board of LIZ. He wrote a number of professional articles published in Ljubljana, Vienna, Berlin, London, Zagreb, Prague and elsewhere. He was the dean of the Faculty of Technology of the University of King Alexander I. in Ljubljana four times, namely in the academic years 1924/25, 1931/32, 1932/33 and 1944/45. The opus of his works is great and can be read in SBL. Král was the only foreigner who took the position of rector of the University of Ljubljana, namely in the academic year 1945/46. LIZ can proudly stress his achievements, but also Dr. Eng. Miroslav Kasal's. Both were in Moravia and in today's Czech territory born experts who occupied high positions in the Chamber. At the end of 1946 Král returned to Moravia, where he became a professor at the Technical Faculty in Brno. In 1956, the University of Ljubljana awarded him an honorary doctorate. He died on 23rd of April 1969 in Brno.

Milko Pirkmajer (1893–1975), 1933–1944

50. Inž. Milko Pirkmajer na sliki Božidarja Jakca iz leta 1940, olje na platnu, 96 x 77 cm • Eng. Milko Pirkmajer on a picture by Božidar Jakac from 1940, oil on canvas, 96 x 77 cm



Inženir Milko Pirkmajer je bil rojen 15. novembra 1893 v Framu. Realno gimnazijo je končal v Mariboru. Gradbeništvo je sprva študiral v Gradcu, po prvi svetovni vojni pa je študij nadaljeval v Brnu, kjer je 24. junija 1920 diplomiral. Opravljanja državnega izpita je bil oproščen, za gradbenega inženirja s pravico opravljanja javne prakse na ozemlju Kraljevine SHS ga je 4. februarja 1925 pooblastilo ministrstvo za gradnje v Beogradu, istega dne je opravil svečano zaprisego. Že julija 1920 se je kot inženir na vabilo dr. Alojza Krála zaposlil v slovenski gradbeni in industrijski družbi Slograd, d. d., ustanovljeni marca 1920. Družba se je ukvarjala s številnimi projekti, ki so temeljili na železobetonu. Leta 1926 je postal »ravnatelj tvrdke Slograd«, kasneje pa tudi njen edini lastnik. Pod njegovim vodstvom je Slograd postal eno vodilnih gradbenih podjetij v Dravski banovini; gradili so ceste in mostove, pa tudi stanovanjske hiše in javna poslopja.

Konec leta 1933 je Pirkmajer postal predsednik Ljubljanske inženirske zbornice. V času njegovega predsednikovanja se je delovanje zbornice preoblikovalo, se



51. Vilo Pirkmajer na Vrtači v Ljubljani je leta 1931 zasnoval arhitekt Josip Costaperaria. Vila kaže na prefinjen in sodoben okus predsednika LIZ inž. Milka Pirkmajerja. • Villa Pirkmajer at Vrtača in Ljubljana was designed by the architect Josip Costaperaria in 1931. The villa shows a refined and contemporary taste of president of LIZ, Eng. Milko Pirkmajer.

Eng. Milko Pirkmajer was born on 15th of November 1893 in Fram. He finished a general high school in Maribor. He studied civil engineering in Graz, and after the First World War he continued his studies in Brno, where he graduated on 24th of June 1920. He was relieved of the State examination, and on 4th of February 1925 he was authorized by the Ministry of Construction in Belgrade for a construction engineer with the right to public practice in the territory of the Kingdom of SHS. On the same day he made a formal oath. From July 1920 he was, at the invitation of Dr. Alojz Král, employed as an engineer by the Slovene construction and industrial company Slograd, founded in March 1920. The company was involved in many projects based on reinforced concrete. In 1926, he became “the head of Slograd Company” and later its sole owner. Under his leadership Slograd became one of the leading construction companies in Drava Province, it built roads and bridges, as well as residential houses and public buildings.

At the end of 1933 he became the president of LIZ. At the time of his presidency, the work of Chamber was transformed, it was brought closer to membership and gained a new impetus. In newspaper articles he sought to solve the economic crisis in the form of public works and infrastructural projects. He studied the possibilities of water connection between the Danube River and the Adriatic Sea through the canals over Slovene territory. He also participated in plans for deepening the railway line in Ljubljana. He was creatively involved in the adoption of a number of acts and regulations related to the work of Chamber, such as the Act on Authorized Engineers in 1937. In 1938 he was, together with colleagues who took part in the adoption of the Act on Authorized Engineers, awarded the III. rate of the Order of Holy Sava. During the war, in 1944 he emigrated to Switzerland, and after the war he worked there as a civil engineer in the construction of hydroelectric power stations and bridges. He returned to Ljubljana after retirement and died on 4th of January 1975.

približalo članstvu in dobilo nov zagon. V časopisnih člankih se je zavzemal za rešitev gospodarske krize v obliki javnih del in infrastrukturnih projektov. Preučeval je možnosti vodne povezave Podonavja in Jadranskega morja prek kanalov čez slovensko ozemlje in sodeloval pri načrtih za poglobitev železniške proge v Ljubljani. Tvorno je sodeloval pri sprejetju številnih zakonov in pravilnikov, povezanih z delovanjem zbornice, kot je bil denimo Zakon o pooblaščenih inženirjih iz leta 1937. Leta 1938 je bil skupaj s kolegi, ki so sodelovali pri sprejetju tega zakona, odlikovan z redom svetega Save III. stopnje.

Leta 1944 je emigriral v Švico in po vojni tam delal kot gradbeni inženir pri gradnji hidroelektrarn in mostov. V Ljubljano se je vrnil po upokojitvi in tu 4. januarja 1975 tudi umrl.

Gorazd Pust (1935), 1997–1999



52. Inž. / Eng. Gorazd Pust

Gradbeni inženir Gorazd Pust je bil rojen 29. oktobra 1935 v Novem Sadu v Vojvodini. Leta 1961 je diplomiral na FAGG (gradbena smer) Univerze v Ljubljani. Konec leta 1962 se je zaposlil pri gradbenem podjetju GP Tehnika Ljubljana in do leta 1965 sodeloval pri gradnji Trga revolucije v Ljubljani, nato je bil istega leta vodja gradbišča zbirnega kolektorja v sklopu gradnje hidrocentrale Srednja Drava – Zlatoličje v Melju v Mariboru. Konec leta 1966 je postal vodja gradbišča pri gradnji klavnice perutnine v Niederlehmeju v Nemški demokratični republiki, nato pa je bil v letih 1967–1969 v Eberswaldeju vodja gradbišča največje farme za vzrejo prašičev v Evropi. Po koncu gradnje projekta je v podjetju GP Tehnika – gradbena operativa postal pomočnik direktorja za dejavnost v tujini, saj se je območje delovanja podjetja razširilo še na Zahodno Nemčijo, Luksemburg, Belgijo in Irak. V času velikih gradbenih projektov v tujini in ob hkratnem združevanju slovenskih gradbenih podjetij je napredoval; leta 1981 je bil vodja gradbenega biroja v podjetju Rudis Inženiring, leta 1986 je prevzel vodenje inženirskega biroja Elektroprojekt (IBE). Konec osemdesetih, leta 1987, je za nekaj let vstopil v politiko, oktobra 1991 pa je postal vodja DE Rudis München, kjer je ostal vse do upokojitve januarja 1999. V tem zadnjem obdobju je bil aprila 1997 izvoljen za prvega predsednika IZS. Pri pionirskem delu IZS Pust izpostavlja še vlogo mag. Gojmirja Černeta, direktorja ZRMK, in sekretarja IZS Zvoneta Gosarja. V času vodenja IZS je Pust septembra 1997 sklenil pogodbo o poslovnem sodelovanju z Inženirsko zbornico Bavarske, ki jo je vodil predsednik prof. Karel Kling. Osnovni namen je bil izmenjevanje strokovnih mnenj arhitektov in inženirjev obeh zbornic ter povezovanje z inženirskimi zbornicami držav vzhodne in zahodne Evrope z namenom strokovnega povezovanja in oblikovanja enotnih stališč pri sprejemanju odločitev o nadaljnjem strokovnem usposabljanju članov inženirskih zbornic v Evropi.

V obdobju od 2. julija 1999 do 31. marca 2000 je bil v. d. predsednika IZS mag. Gojmir Černe, nato pa so si do 10. oktobra 2000 funkcijo v. d. predsednika mesečno izmenjevali predsedniki upravnih odborov matičnih sekcij.

Construction Engineer Gorazd Pust was born on 29th of October 1935 in Novi Sad in Vojvodina. In 1961 he graduated at the Faculty of Civil and Geodetic Engineering – Construction Department of the University of Ljubljana. At the end of 1962 he was employed by the construction company GP Tehnika Ljubljana, and until 1965 he took part in the construction of the Revolution Square in Ljubljana, then in 1965 he was the head of the construction site of the collector as a part of the construction of the hydroelectric power station Srednja Drava – Zlatoličje in Melje in Maribor. At the end of 1966 he became the head of the construction site of the construction of poultry slaughterhouse in Niederlehme in German Democratic Republic, and then between 1967 and 1969 he was the head of the construction site of the largest pig farm in Europe in Eberswalde. After finishing this project he became assistant director for activities abroad in the company GP Tehnika – Construction Operative, when the range of activities of the company expanded to West Germany, Luxembourg, Belgium and Iraq. During the time of large-scale construction projects abroad and merging of Slovene construction companies, he was promoted: in 1981 he became the head of the construction bureau in Rudis Inženiring Company. In 1986 he took over the management of Engineering Bureau Elektroprojekt. At the end of the 1980s, in 1987, he entered politics for some years, and in October 1991 he became the head of DE Rudis München, where he remained until his retirement in January 1999. In this period, in April 1997, he was elected and appointed as the first president of Slovenian Chamber of Engineers. From this pioneering stage of Slovenian Chamber of Engineers we can also emphasize the role of Mag. Gojmir Černe, director of ZRMK, and Chamber's Secretary Zvone Gosar. During the leadership of the Slovenian Chamber of Engineers, in September 1997, Pust entered into a contract on business cooperation with the Chamber of Engineers of Bavaria, which was headed by the President, Prof. Karel Kling. The main purpose was to connect and exchange expert opinions of architects and engineers of both chambers and to connect with the chambers of engineers from the countries of Eastern and Western Europe with the aim of professional networking and adoption of unified positions in making decisions on further professional training of members of chambers of engineers in Europe. Between 2nd of July 1999 and 31st of March 2000, the acting president of Slovenian Chamber of Engineers was Mag. Gojmir Černe, and then until 10th of October 2000 the function of acting director was monthly exchanged by the presidents of the boards of directors of the parent sections.

Črtomir Remec (1961), 2000–

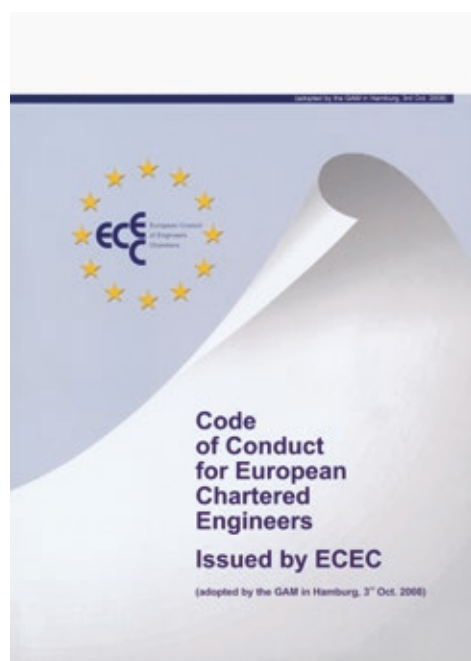


53. Mag. inž. / Mag. Eng. Črtomir Remec

Gradbeni inženir mag. Črtomir Remec je bil rojen 8. marca 1961 v Radovljici. Leta 1983 je diplomiral, leta 1986 pa še magistriral na Fakulteti za gradbeništvo in geodezijo Univerze v Ljubljani. Tako v diplomskem kot v magistrskem delu je obravnaval nelinearno analizo armiranobetonskih konstrukcij. Od leta 1987 do leta 2004 je bil zaposlen na Inštitutu za kovinske konstrukcije (IMK) v Ljubljani, kjer je začel kot raziskovalec, nadaljeval kot vodja konstrukcijskega oddelka in bil na koncu direktor inštituta. Kot raziskovalec se je večinoma ukvarjal s potresno varnostjo jeklenih konstrukcij. V obdobju, ko je vodil konstrukcijski oddelek, je njegova projektna ekipa uvedla številne sodobne metode za obnovo starih jeklenih cestnih in železniških mostov. Kariero je nadaljeval na področju montažnih stavb v skupini Trimo, kjer je bil strateški cilj razviti revolucionarni sistem fasad z visoko energijsko učinkovitostjo. Leta 2011 je začela obratovati visokotehnološka proizvodna linija, dokončani sta bili prvi dve nizkoenergijski stavbi, leta 2013 je sledila izvedba transparentne steklene obešene fasade. Sredi leta 2015, ko je bil v tujino prodan prvi večji projekt visokoizolativne steklene fasade, se je Remcu ponudila priložnost, da dolgoletne strokovne in vodstvene izkušnje na področju montažne in energijsko učinkovite gradnje uporabi pri vodenju Stanovanjskega sklada Republike Slovenije. Vzporedno s poklicnim delom je deloval v društvih in mednarodnih organizacijah. Bil je predsednik slovenske Organizacije za jeklene konstrukcije (OJK). Od leta 1997 je bil član upravnega odbora Evropske konvencije za jeklene konstrukcije (ECCS) in v obdobju 2003–2004 tudi njen predsednik. Začetek Remčevih aktivnosti v inženirskih organizacijah sega v leto 2000, ko je bil izvoljen za predsednika Inženirske zbornice Slovenije (IZS). V letih 2005–2011 je bil nacionalni član izvršnega odbora Svetovne zveze inženirskih organizacij (WFEO). Je tudi ustanovni član Evropskega sveta inženirskih zbornic (ECEC), ki mu je v obdobju od leta 2012 do 2018 tudi predsedoval. Decembra 2015 je bil za obdobje štirih let izvoljen za izvršnega podpredsednika Svetovne zveze inženirskih organizacij (WFEO).

Construction engineer Mag. Črtomir Remec was born on 8th of March 1961 in Radovljica. In 1983 he graduated, and in 1986 he earned a master degree from the Faculty of Civil and Geodetic Engineering of the University of Ljubljana. His diploma and his master degree research were dedicated to the nonlinear analysis of reinforced concrete structures. From 1987 to 2004 he worked at the Steel Construction Institute in Ljubljana, first as a researcher, then he continued as the head of the construction department and ultimately he became the director of the Institute. As a researcher he mainly worked on the problem of the seismic safety of steel structures. In the period when he led the construction department, his project team introduced a number of modern methods for the renovation of old steel road and railway bridges. He continued his career in the prefabricated construction industry at Trimo group with a strategic goal to develop a revolutionary highly energy-efficient façade system. In 2011, the high-tech production line started to operate, the first two low-energy buildings were completed, followed by the construction of a transparent glass facade in 2013. In mid-2015, when the first major project of high insulating glass facade was sold abroad, he was offered the opportunity to use his many years of professional and managerial experience in the field of prefabricated and energy-efficient construction in the leadership of the Housing Fund of the Republic of Slovenia. In parallel with his professional work he also participated in various associations and international organizations. He was a chairman of the Slovenian Steel Construction Organization. Since 1997, he has been a member of the board of directors of the European Convention on Steel Structures, and had been its President between 2003 and 2004. His activities in engineering organizations date back to 2000, when he was elected president of the Slovenian Chamber of Engineers. Between 2005 and 2011 he was a Slovene member of the Executive Committee of the World Federation of Engineers' Organizations. He is also a founding member and since 2012 also a president of the European Council of Engineers' Chambers, where he was a chairman from 2012 to 2018. In December 2015 he was elected as a Executive Vice President of the World Federation of Engineers' Organizations for a period of four years.

Inženirska zbornica Slovenije v letih 1996–2019



54. Etični kodeks pooblaščenih inženirjev je usklajen z etičnim kodeksom Evropskega sveta inženirskih zbornic (ECEC). • The Code of Ethics of authorized engineers follows the Code of Conduct issued by the European Council of Engineers Chambers (ECEC).

Inženirska zbornica Slovenije je pravna oseba javnega prava; združuje pooblaščené inženirje, ki delujejo na področju graditve objektov, in sicer kot projektanti, nadzorniki, vodje del in geodeti. Da to lahko postanejo, morajo izpolniti potrebne pogoje glede ustrezne stopnje izobrazbe in dolžine praktičnih izkušenj ter imeti opravljen strokovni izpit. Zakon določa, da je zbornica varuhinja javnega interesa na področju urejanja prostora in graditve objektov, njena naloga pa je tudi zagotavljanje strokovnosti članov. Zbornica je tako nosilka več javnih pooblastil, med drugim je pooblaščená za izvajanje strokovnih izpitov po zakonu o arhitekturni in inženirski dejavnosti in gradbenem zakonu ter za vodenje imenika pooblaščenih inženirjev in vodij del, za izvajanje strokovnega nadzora nad delom članov in izvajanje disciplinskih postopkov v primerih kršenja etičnega kodeksa članov zbornice. Poleg tega skrbi za razvoj stroke, informiranje članov in zagotavljanje njihove strokovnosti in etičnosti njihovega delovanja ter zastopa njihove interese v odnosu do države. Ustanovna zbornica sta bila 20. in 21. novembra 1996 v Mariboru in Ljubljani. Mariborskega se je udeležilo 81 inženirjev, ljubljanskega pa 310. Prvi statut zbornice je bil objavljen 13. februarja 1997. Ustanovni zbori matičnih sekcij (gradbenih in strojnih inženirjev ter elektroinženirjev, inženirjev tehnologov in arhitektov) so potekali od 1. do 16. marca 1997. Tem je 17. marca sledila prva redna seja skupščine v Cankarjevem domu v Ljubljani. Zbornici so se leta 2000 pridružili inženirji geodezije in rudarstva. Zaradi trenj med arhitekti in drugimi inženirji so se leta 2004 iz zbornice izločili inženirji arhitekture, ki so skupaj z inženirji krajinske arhitekture in prostorskimi načrtovalci ustanovili svojo zbornico (ZAPS). Pooblaščené inženirji so zavezani k spoštovanju kodeksa svojega poklica. V primeru njegovega kršenja zbornica zoper člana uvede disciplinski postopek. Disciplinski postopki se odvijajo po pravilih disciplinskega pravilnika, ki določa postopek, definicije kršitev, naloge disciplinskega tožilca, komisije in sodišča ter kazni. Najhujša disciplinska sankcija je začasen odvzem pooblastila (za pet let). Disciplinski organi na leto odzamejo eno do tri pooblastila.

Tudi izobraževanju pooblaščenih inženirjev zbornica posveča veliko pozornost. Novi zakon zahteva obvezno stalno poklicno izobraževanje pooblaščenih inženirjev, zato zbornica organizira posvete, izobraževanja in strokovne ogleda ter izdaja priročnike, navodila in smernice. Zbornica je zelo aktivna tako v evropskem kot v širšem mednarodnem prostoru. Vpetost v evropski prostor je zaradi politik in predpisov na področju javnih naročil in graditve, ki nastajajo na evropski ravni (Evropska komisija in Evropski parlament), zelo pomembna. Prav tako je za inženirje pomembno dogajanje na svetovni ravni. Stiki z mednarodnim prostorom so za zbornico mogoči predvsem prek Svetovne zveze inženirskih organizacij (WFEO), ki je tesno povezana z Unescom. Zbornica je članica zveze od leta 2001, članica Evropskega sveta inženirskih zbornic (ECEC) pa je od leta 2003.

Slovenian Chamber of Engineers in years 1996 until 2019

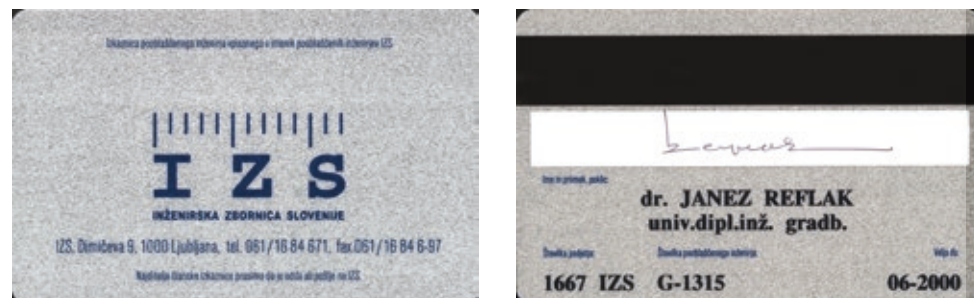
The Slovenian Chamber of Engineers is a legal entity of public law, which brings together authorized engineers working in the field of construction of objects as planners, supervisors, heads of works and geodesists. In order to be able to find themselves in this context, they must fulfil the necessary conditions such as the appropriate level of education, the length of practical experiences, and they must pass an examination of professional competence. The Act stipulates that the Chamber is a guardian of a public interest in the sphere of spatial planning, construction of objects and protection of third parties. Its task is also to ensure the professionalism of its members. The Chamber is thus the holder of many public authorizations, among other things it is authorized to conduct professional exams according to the act on architectural and engineering activities, and the construction act, to keep a register of authorized engineers and heads of works, to execute an expert supervision over the work of its members, and disciplinary procedures in cases of violation of the code of ethics of its members. In addition, the Chamber is responsible for the development of the profession, informing members, ensuring their professionalism and ethics of their work, and representing their interests in relation to the state. The founding assemblies of the Chamber were held on 20th and 21st of November 1996 in Maribor and Ljubljana. Maribor's assembly was attended by 81 engineers and Ljubljana's 310. The first statute of the Chamber was issued on 13th of February 1997. The founding assemblies of the main sections (construction engineers, mechanical engineers, electrical-engineers, engineers-technologists and architects) were held from 1st to 16th of March 1997. The first general meeting was held in Cankarjev dom in Ljubljana on 17th of March. In 2000, the engineers of geodesy and mining joined the Chamber. Due to friction between architects and other engineers, in 2004 the engineers of architecture left the Chamber and established their own together with landscape architects and spatial planners. Authorized engineers are committed to respect the code of their profession. In case of violation, the Chamber institutes disciplinary procedure against its member. Disciplinary procedures take place according to the rules of the disciplinary act, which determines the procedure, violations and tasks of the disciplinary prosecutor, the commissions, the court, and penalties. The most severe disciplinary sanction is a temporary suspension of the authorization for five years. Disciplinary authorities nullify one to three authorizations per year.

The Chamber pays a lot of attention to the education of authorized engineers. The new act requires obligatory permanent professional education of authorized engineers, therefore the Chamber organizes conferences, trainings and expert visits, publishes manuals, instructions and guidelines. The Chamber is very active in both the European and the wider international scene. Being integrated into the European scene is very important due to the policies and regulations in the field of public commissions and constructions, which are being created at the European level (the European Commission and the European Parliament). It



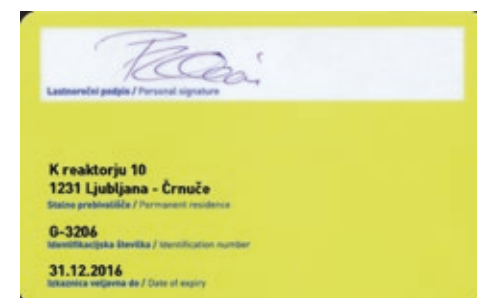
55. Žig Inženirske zbornice Slovenije, v uporabi vse od ustanovitve leta 1996 oziroma od pričetka poslovanja leta 1997 • The stamp of the Slovenian Chamber of Engineers used since its establishment in 1996 and the start of its operations in early 1997

56.–58. Članska izkaznica in žig dr. Janeza Reflaka, pooblaščenega inženirja IZS, iz leta 1999 • Membership card and stamp of Dr. Janez Reflak, an authorized engineer of IZS in 1999



Dr. JANEZ REFLAK
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59.–62. Članska izkaznica, žig in potrdilo o vpisu inženirja Dejana Prebila v imenik pooblaščenih inženirjev • Membership card, stamp and certificate of entry of Eng. Dejan Prebil into the register of authorized engineers



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is also important for engineers to act on a global level. For the Chamber, acting on a global lever is possible primarily through the World Federation of Engineers' Organizations, which is closely linked to UNESCO. The Chamber has been a member of WFEO since 2001 and a member of the European Council of Engineers' Chambers since 2003.



63.–64. Prva in zadnja stran izkaznice pooblaščenega inženirja iz let 2003–2009, izdane mag. Barbari Škraba Flis • The first and the last page of an authorized engineer's membership card from the period 2003–2009 issued to Mag. Barbara Škraba Flis.



65. Predsednik IZS mag. Črtomir Remec ob podelitvi medalje Evropskega sveta inženirskih zbornic (ECEC), ki je bila na zasedanju generalne skupščine oktobra 2017 v Skopju podeljena nekdanjemu predsedniku Svetovne zveze inženirskih organizacij (WFEO) Marwanu Abdelhamidu • President of Slovenian Chamber of Engineers Mag. Črtomir Remec at the medal ceremony of the European Council of Engineers' Chambers (ECEC) which was handed out to the former President of the World Federation of Engineering Organizations (WFEO) Marwan Abdelhamid at the General Assembly in October 2017 in Skopje.

Na sliki od leve: mag. Črtomir Remec, predsednik IZS, Marwan Abdelhamid (predsednik WFEO od leta 2013–2015), dr. Gjorge Ivanov (predsednik Makedonije), dr. Mirko Orešković (prvi predsednik ECEC) • In the picture from the left: Mag. Črtomir Remec, President of the Slovenian Chamber of Engineers, Marwan Abdelhamid (President of the WFEO from 2013 to 2015), Dr. Gjorge Ivanov (President of Macedonia), Dr. Mirko Orešković (first president of ECEC).

Umeščanje infrastrukturnih objektov v naravno okolje

66. Mariničev most v Škocjanskih jamah. Avtorja zasnove: inženirja dr. Viktor Markelj in Rok Mlakar (Ponting d. o. o.), 2011 • Marinič Bridge in the Škocjan Caves by engineers Dr. Viktor Markelj and Rok Mlakar (Ponting d.o.o.), 2011



67. Puhov most čez Dravo na Ptuj. Avtorja rešitve: dr. Viktor Markelj in mag. Peter Gabrijelčič, projektant: Ponting d. o. o., 2007 • The Puch bridge over Drava river at Ptuj. Authors are Dr. Viktor Markelj and Mag. Peter Gabrijelčič, project was done by Ponting d.o.o., 2007



68. Viadukt Črni Kal. Avtorja zasnove: arhitekt prof. Janez Koželj in gradbeni inženir Marjan Pipenbaher. Avtor konstrukcije: Marjan Pipenbaher, 2004 • Viaduct Črni kal by architect Prof. Janez Koželj and construction engineer Marjan Pipenbaher, author of the construction is Marjan Pipenbaher, 2004



Selection of important engineering objects of the last 100 years, period 1996–2019

Placement of infrastructural objects in the natural environment



69. Viadukt Predel je delo več gradbenih inženirjev. Avtorja zasnove: Iztok Likar in Primož Kobal, odgovorni projektant: Metod Kranjec, statična obdelava in tehnologija: Bogomir Ipavec in dr. Peter Kante, 2009 • Viaduct Predel is the work of several construction engineers, the authors of the design are Iztok Likar and Primož Kobal, responsible designer is Metod Kranjec, static processing and technology are the work of Bogomir Ipavec and Dr. Peter Kante, 2009

70. Predor pri mejnem prehodu Gruškovje na AC Gruškovje-Ptuj. Avtor zasnove: arhitekt Marko Kosovel (ACMA, d. o. o.), projektant: gradbeni inženir dr. Vojkan Jovičič (IRGO CONSULTING, d. o. o.), 2018. • The tunnel at the Gruškovje border crossing at the highway Gruškovje-Ptuj, by architect Marko Kosovel (ACMA d.o.o.), and construction engineer Dr. Vojkan Jovičič (IRGO CONSULTING, d.o.o.), 2018

Recikliranje
odpadkov, krožno
gospodarjenje in
energetska prenova

Izbor pomembnih inženirskih
objektov zadnjih 100 let,
obdobje 1996–2019



71. Regijski center za ravnanje z odpadki (RCERO) Ljubljana, avtorji: Plan B, Bruto, Studiobotas, ProstoRož, Trash design, 2017 • Regional Waste Management Centre (RCERO) Ljubljana, authors are Plan B, Bruto, studiobotas, prostoRož, Trash design, 2017

72. Bazeni za hladilno vodo na liniji za toplotno obdelavo specialne debele pločevine, SIJ Acroni Jesenice, projektant: Esotech / Savaprojekt, 2017 • Pool of cooling water line for heat treatment of special thick sheet metal, SIJ Acroni Jesenice, designer Esotech / Savaprojekt, 2017



Selection of important
engineering objects of the last
100 years, period 1996–2019

Recycling of waste,
circular economy and
energy renewal



73. Poslovna stavba MG Rohr, Ravne na Koroškem, arhitekt: mag. Matija Miler, konstruktor: Gregor Arnšek, 2018 • Business building MG Rohr, Ravne na Koroškem, architect Mag. Matija Miler, constructor Gregor Arnšek, 2018

Izbor pomembnih inženirskih objektov zadnjih 100 let, obdobje 1996–2019



74. Nordijski center Planica (NCP): skakalnice, spremljajoči in športni objekti. Arhitekti: dr. Matej Blenkuš, Miloš Florjančič in Klemen Kobal (Abiro), konstruktor krivulje skakalnic: Klemen Kobal, statik: dr. Vojko Kilar, 2012–2015
 • Planica Nordic Centre: Ski jumps with adjacent and support structures. Architects were Dr. Matej Blenkuš, Miloš Florjančič and Klemen Kobal (studio abiro), Constructor of ski-jumps profiles was Klemen Kobal and static project was done by Dr. Vojko Kilar, 2012–2014

Selection of important engineering objects of the last 100 years, period 1996–2019



75. Most čez tekaško progo v NCP. Arhitekta: dr. Matej Blenkuš, Miloš Florjančič (Abiro), krajinska ureditev: dr. Ana Kučan in Luka Javornik (Studio AKKA), statik: Uroš Žvan, 2015
 • Bridge over the cross-country lanes in NCP. Architects were Dr. Matej Blenkuš and Miloš Florjančič (studio abiro), Landscape Architecture project was done by Dr. Ana Kučan and Luka Javornik (Studio AKKA), Static project by Uroš Žvan, 2015

76. Nogometni stadion in športna dvorana Stožice. SADAR + VUGA, Studio AKKA, Elea iC, Atelier One – London, 2010
 • Football stadium and sports hall Stožice, SADAR+VUGA architects, studio AKKA, Elea iC, Atelier One – London, 2010



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Seznam virov slikovnega gradiva

- Slika na naslovnici: Viadukt Črni Kal, iz arhiva IZS, foto Miran Kambič
- Slika pri predgovoru: iz arhiva IZS
- Slika 1: iz arhitekturne zbirke MAO
- Slika 2: iz arhiva NUK
- Slika 3: iz zbirke Milana Škrabca
- Slika 4: iz Plečnikove zbirke, MGML
- Slika 5: iz zasebne zbirke avtorja
- Sliki 6–7: iz arhitekturne zbirke MAO
- Slika 8: iz knjige Willy Boesinger (ur.), Le Corbusier – Oeuvre complète 1938–1946, Zürich: Les Editions d'Architecture Erlenbach, 1946, str. 64 (knjigo s podpisom hrani Centralna tehniška knjižnica v Ljubljani)
- Slika 9: iz Plečnikove zbirke, MGML
- Slika 10: iz zasebne zbirke avtorja, foto Bogo Zupančič, 2018
- Sliki 11–12: iz kartografske in slikovne zbirke NUK
- Slika 13: iz arhiva NUK
- Slika 14: iz kartografske in slikovne zbirke NUK
- Slika 15: iz arhitekturne zbirke MAO
- Slika 16: iz zasebne zbirke, arhiv arhitekta Sergeja Pavlina
- Slika 17: iz knjige Spominski zbornik Slovenije, Ljubljana: Jubilej, 1939, str. 27
- Slika 18: iz zbirke Zmaga Tančiča
- Sliki 19: iz arhitekturne zbirke MAO
- Slika 20: iz zasebne zbirke
- Slika 21: iz Arhiva Republike Slovenije, osebni fond Anton Umek, 1221-1
- Sliki 22–23: iz arhiva NUK
- Slike 24–29: iz zbirke arhitekta Janeza Valentinčiča, INDOK center, Ministrstvo za kulturo RS
- Slika 30: iz arhiva NUK, foto Tomaž Lunder
- Slika 31: iz arhiva IZS, foto Tomaž Lunder
- Slika 32: iz arhitekturne zbirke MAO
- Sliki 33–34: iz zasebne zbirke, arhiv arhitekta Sergeja Pavlina
- Slika 35–36: iz zasebne zbirke avtorja
- Slika 37: iz arhiva Republike Slovenije, 461, Gradbeno podjetje ing. Josip Dždek
- Slike 38: iz zasebne zbirke avtorja
- Slika 39: iz zbirke Zmaga Tančiča
- Slika 40: iz arhitekturne zbirke MAO
- Slika 41: iz zasebne zbirke avtorja
- Slika 42: iz zasebne zbirke Matjaža Šporarja, foto Peter Naglič

- Sliki 43–44: iz zasebne zbirke avtorja
- Sliki 45–46: iz zbirke Zavoda za šport RS Planica, oddelek Muzej športa
- Slika 47: iz zasebne zbirke, foto Tomaž Lunder
- Slika 48: iz zasebne zbirke avtorja, foto Miran Kambič
- Slika 49: iz kartografske in slikovne zbirke NUK, foto Franjo Grabjec
- Slika 50: iz zasebne zbirke Eda Pirkmajerja, foto Tomaž Lunder
- Slika 51: iz fototeke Narodnega muzeja Slovenije
- Slika 52: iz zasebnega arhiva Gorazda Pusta
- Slike 53–65: iz arhiva IZS
- Slike 66–76: iz arhiva IZS, foto Miran Kambič

List of sources of visual material

- Figure on the cover: Viadukt Črni Kal, From the IZS archive, photo Miran Kambič
- Figure at foreword: From the IZS archive
- Figure 1: From the architectural collection, MAO
- Figure 2: From the NUK archive
- Figure 3: From the collection of Milan Škrabec
- Figure 4: From Plečnik's collection, MGML
- Figure 5: From a private collection of author
- Figures 6–7: From the architectural collection, MAO
- Figure 8: From the book Willy Boesinger (ed.), Le Corbusier - Oeuvre complète 1938–1946, Zürich: Les Editions d'Architecture Erlenbach, 1946, p. 64 (the book with a signature is kept by the Central Technical Library in Ljubljana)
- Figure 9: From Plečnik's collection, MGML
- Figure 10: From a private collection of the author, photo Bogo Zupančič, 2018
- Figures 11–12: From the NUK cartographic and visual collection
- Figure 13: From the NUK archive
- Figure 14: From the NUK cartographic and visual collection
- Figure 15: From the architectural collection, MAO
- Figure 16: From a private collection, archive of the architect Sergej Pavlin
- Figure 17: From the book Spominski zbornik Slovenije, Ljubljana: Jubilej, 1939, p. 27
- Figure 18: From the collection of Zmago Tančič
- Figure 19: From the architectural collection, MAO
- Figure 20: From a private collection
- Figure 21: From the Archives of the Republic of Slovenia, the personal fund Anton Umek, 1221-1
- Figures 22–23: From the NUK archive
- Figures 24–29: From a collection of the architect Janez Valentinčič, INDOK centre, Ministry of Culture of the Republic of Slovenia
- Figures 30: From the NUK archive, photo Tomaž Lunder
- Figure 31: From the IZS archive, photo Tomaž Lunder
- Figure 32: From the architectural collection, MAO
- Figures 33–34: From a private collection, archive of the architect Sergej Pavlin
- Figures 35–36: From a private collection of author
- Figure 37: From the Archives of the Republic of Slovenia, 461, Construction company Eng. Josip Dždek

- Figure 38: From a private collection of author
- Figure 39: From the collection of Zmago Tančič
- Figure 40: From the architectural collection, MAO
- Figure 41: From a private collection of author
- Figure 42: From a private collection of Matjaž Šporar, photo Peter Naglič
- Figures 43–44: From a private collection of author
- Figures 45–46: From the collection of Institute of Sport of the Republic of Slovenia Planica, department Sports Museum
- Figure 47: From a private collection, photo Tomaž Lunder
- Figure 48: From a private collection of author, photo Miran Kambič
- Figure 49: From the NUK cartographic and visual collection, photo Franjo Grabjec
- Figure 50: From a private collection of Edo Pirkmajer, photo Tomaž Lunder
- Figure 51: From the National Museum of Slovenia photographic collection
- Figure 52: From a private archive of Eng. Gorazd Pust
- Figures 53–65: From the IZS archive
- Figures 66–76: From the IZS archive, photo Miran Kambič

Imensko kazalo / Index

V imenskem kazalu so navedena samo osebna imena, omenjena v osrednjem besedilu, ne pa tudi v predgovoru in v opombah. Imena projektantskih birojev, izvajalskih podjetij in drugih institucij so navedena v podnapisih pod slikami.

In the Index, only the personal names from the main text, and not also from the foreword or the notes, are listed. The names of design bureaus, contractors and other institutions are listed under the captions below the pictures.

Abdelhamid, Marwan 47
Arnšek, Gregor 51
Bleiweis, Janko 10, 11
Blenkuš, Matej 52, 53
Bloudek, Stanko 8, 9, 33
Broz - Tito, Josip 10, 13
Costaperaria, Josip 23, 24, 39
Černe, Gojmir 40, 41
Dimnik, Stanko 6, 9, 30
Fabiani, Maks (Max) 6, 7
Florjančič, Miloš 52, 53
Gaberšček, Andrej 8
Gabrijelčič, Peter 48
Gosar, Zvone 40, 41
Gruber, Gabrijel 6, 7
Gustinčič, Dragotin 14, 17, 34, 35
Hallerstein, Ferdinand Avguštin 6, 7
Hus, Herman 31
Ipavec, Bogomir 49
Ivanov, Gjorge 47
Jager, Ivan (John) 8, 9
Jakac, Božidar 38
Javornik, Luka 53
Jekovec, Ciril 8, 9
Jovičić, Vojkan 49
Kante, Peter 49
Karadorđević, Aleksander I. 10, 24
Kasal, Miroslav 34–37
Kilar, Vojko 52
Kling, Karel 40, 41
Kobal, Klemen 52
Kobal, Primož 49
Kosovel, Marko 49
Koželj, Janez 48
Král, Alojz 20, 21, 36–39

Kranjec, Metod 49
Kučan, Ana 53
Laščak, Anton (Antonio Lasciac) 8, 9
Le Corbusier 10–12
Likar, Iztok 49
Lobe, Feliks 34, 35
Markelj, Viktor 48
Mesar, Jože 23, 24
Miler, Mitja 51
Mlakar, Rok 48
Orešković, Mirko 47
Pavlin, Josip 6, 7, 18, 21, 22, 29, 34, 35
Pipenbaher, Marjan 48
Pirkmajer, Milko 21, 22, 24, 38, 39
Plečnik, Jože 9, 10, 12, 13, 20, 28, 32, 33
Prebil, Dejan 46
Puh, Janez (Johann Puch) 6, 7, 48
Pust, Gorazd 40, 41
Ravnikar, Edvard 12
Reflak, Janez 46
Remec, Črtomir 42, 43, 47
Ressel, Josef 6, 7
Rožman, Ivan 8, 9, 33
Sadar, Jure 53
Sivec, Jože 32
Skoberne, Josip 14, 17, 34, 35
Sulčič, Viktor (Victorio Sulcic) 8, 9
Škraba Flis, Barbara 47
Štrukelj, Mihael (Mihael Strukel) 8, 9
Šubic, Vladimir 6, 9, 23, 24, 29, 30
Šuklje, Gizela 28
Šuklje, Milan 19–24, 28, 34–37
Šuklje, Vladimir 23, 24
Tepina, Marjan 11
Tomažič, France 20
Veselko, Maks 21, 24, 34, 35
Vinci, Leonardo da 6, 7
Vuga, Boštjan 53
Zupančič, Franc 34, 35
Žvan, Uroš 53

Opomba:

Pri velikih in kompleksnih gradbenih projektih in delih, prikazanih na fotografijah v tem katalogu, so sodelovali številni in različni avtorji, skupine in podjetja s podizvajalci, ki imajo glede vloge pri snovanju in gradnji podobna, pa tudi različna mnenja. Pri navajanju smo upoštevali glavne, najpomembnejše ustvarjalce, saj bi bilo poimensko navajanje vseh sodelujočih preobsežno. Pomagali smo si z javno dostopnimi podatki, ki pa se iz različnih razlogov večkrat razlikujejo. Posameznikom, ki niso oziroma niso prav navedeni, se zaradi morebitnih netočnih podatkov iskreno opravičujemo!

In the case of large and complex construction projects and works that are shown in the photographs in this catalogue, numerous and various authors, groups and companies with subcontractors, who have similar, but also different opinions about the role in design and construction, have participated. When quoting, we considered the main, most important creators, since the list of all participants would be quite long. When quoting, we considered publicly available information, which for various reasons are often different. We sincerely apologize to individuals who are not mentioned and / or who are not mentioned in an appropriate way!