

UVODNO PREDAVANJE

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O ŽIVLJENJU IN DELU PROF. DR. LUJA ŠUKLJETA

ON LIFE AND WORK OF PROF. DR. LUJO ŠUKLJE



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UVOD

Na 3. posvetovanju slovenskih geoteknikov v Portorožu leta 1999 so vsi 103 udeleženci soglasno sprejeli sklep, da se posvetovanje SloGeD organizira vsako leto v počastitev spomina na našega velikega in dragega učitelja, akademika in zaslužnega profesorja

INTRODUCTION

At the 3rd Congress of Slovenian Geotechnical Engineers in Portorož in 1999 all 103 participants unanimously adopted the decree that the meeting of Slovenian Geotechnical Society (SloGeD) is to be organised every year honouring the memory of our great and dear teacher, academician and professor

Luja Šukljeta. Ta posvetovanja naj bi se v bodoče imenovala »Šukljetovi dnevi«. 1. srečanje v oktobru 2000 je posvečeno proslavitvi njegove 90-letnice rojstva, organiziramo ga njegovi najožji sodelavci in učenci. Naša želja je vsaj v grobem predstaviti dela z obširnega področja njegovega delovanja ter z majhno razstavo njegovih knjig in publikacij širšemu krogu slovenskih geoteknikov ustvariti podobo o njegovem bogatem ustvarjanju. Ob slikah se bomo spomnili mnogih prijetnih trenutkov, ki smo jih preživeli skupaj, spomnili se bomo njegove strogosti do sebe, resnega dela, v katerega smo bili vključeni in, ki je žal prehitro minilo. Nesporno je, da je s svojimi talenti in neutrudno voljo zgradil temelje neke nove vede, da je ponesele ugled slovenske geotehniške stroke po vsem svetu, zato nam ostaja vzor in navdih.

S svojo navzočnostjo in nagovorom se danes tu poklanjajo njegovemu spominu v imenu Slovenske akademije znanosti in umetnosti prof.dr. Peter Fajfar, ki ga je nekoč prof. Šuklje tudi učil, prof.dr. Michele Jamiolkowski, nekdanji predsednik ISSMGE in njegov znanstveni kolega ter cenjeni in ugledni strokovnjaki in učitelji, prof.dr. Franjo Verić, prof.dr. Antun Szavits Nossan, gospa mag. Božica Marić, predhodna predsednica Hrvaškega društva za mehaniko tal in geotehnično inženirstvo in njegov sedanji predsednik gospod Zvonimir Lisac ter dekan Fakultete za gradbeništvo in geodezijo prof. dr. Jurij Banovec.

V programu srečanja je vabljen predavanje o reševanju geotehnične problematike stolpa v Pisi, v nadaljevanju pa bodo nekateri izmed učencev in sodelavcev prof. Šukljeta predstavili svoja dela. Za nadaljnje »Šukljetove dneve« želimo, da bi se predstavili tudi drugi člani SloGeD, zlasti vedno mlajše generacije, saj nas vse družijo globoko občudovanje in spoštovanje Šukljetovega pionirskega in neverjetno obsežnega dela na področju mehanike tal in temeljenja. Naj živi tudi spomin na njegov človeški lik, ki mu je skromnost, predanost delu, iskanje resnice, ljubezen do domovine in družine ter do vsega lepega in preprostega dajala prav posebno veličino in plemenitost.

emeritus, Lujo Šuklje. These meetings shall in the future be called »Šukljetovi dnevi« (The Šuklje Days). The first meeting in October 2000 was dedicated to the celebration of his 90th anniversary, and it was organised by his closest colleagues and students. It is our desire to present to a wide circle of Slovenian geotechnical public at least to a certain extent the works from the vast area of his professional activity, and to give with a small exhibition of his books and publications the image of his rich creativity. Some pictures of him will always remind us of many pleasant moments we spent together, we will remember his self-rigorousness, serious work that we took part in and that came to an end all too soon. Undoubtedly Prof. Šuklje set the foundations for a new type of science with his talents and restless mind, and he spread the reputation of the Slovenian geotechnical science throughout the world. For this reason he is and will be our idol and inspiration.

With their presence and an addresses the following persons paid respect to Prof. Šuklje's memory: on behalf of the Slovenian Academy of Science and Art its member Prof. Dr. Peter Fajfar, who was once student of Prof. Šuklje; Prof. Michele Jamiolkowski, former president of ISSMGE and his scientific co-worker; estimated and respectful experts and teachers Prof. Dr. Franjo Verić, Prof. Dr. Antun Szavits Nossan, M.Sc. Božica Marić, previous chairperson of the Croatian Society for Soil Mechanics and Geotechnical Engineering, and its present Chairperson Mr. Zvonimir Lisac; and the Dean of the Faculty for Civil and Geodetic Engineering Prof. Dr. Jurij Banovec.

The programme of the meeting included an invited lecture on solving the geotechnical problems of the tower in Pisa, and in the sequel some of Prof. Šuklje's students and co-workers presented their work. For the future »Šuklje days« it is our desire that also other members of SloGeD would present their works, especially younger generations, as we are all joined by deep admiration and respect of Prof. Šuklje's pioneer work and incredibly vast scope of achievements in the field of soil mechanics and foundation engineering. We wish that also his human side, which was marked by modesty, dedication to work, search for truth, love to his country and family and to everything beautiful and simple, which gave him especial grandeur and nobility of mind, shall live long in our hearts and minds.

BIOGRAFSKI PODATKI

Rojen je bil 21. 9. 1910 v Jelsi na Hvaru, umrl je 18. junija 1997 v Ljubljani. Večino življenja je prebil v Ljubljani, izvira iz intelektualne meščanske družine. Tesno je bil povezan s svojima sestrama in bratom, imel je tri otroke. Poznali smo ga kot nadvse skrbnega soproga in očeta. Bil je izredno nadarjen na mnogih področjih, zlasti za matematiko, jezikoslovje in naravoslovje. Bil je visoke in vitke postave, na videz krhek, vendar je vzdržal izredne napore dolgotrajnega dela in skrbi za vse okrog sebe. Pričakovali smo, da nam bo zdrav še dolgo stal ob strani s svojimi nasveti in delom, vendar je pred leti doživel prometno nesrečo, s katero so njegove moči pričele hitreje usihati. Kljub temu se je vedno razveselil srečanj in pogovorov z nami, zanimalo ga je vse. S soprogo Boženko sta bila vselej neločljiva. Kljub utrujenosti in nemoči, ki sta jo prinesli starost in bolezen, sta si do zadnjega diha dajala veliko medsebojno oporo. Samo teden dni po smrti Luja je omahnila tudi Boženka.

BIOGRAPHICAL DATA

He was born on 21 August 1910 in Jelsa on the island of Hvar, and he died on 18 June 1997 in Ljubljana. He spent most of his life in Ljubljana, as he originates from an intellectual citizenry. He had close relations with his two sisters and a brother, and had three children. We knew him as an exceptionally caring husband and father. He was extremely talented in numerous areas, especially for mathematics, languages and natural sciences. He was tall and slender, fragile at first sight, but he endured extreme exertion of long hours of work and care for the people around him. We expected him to remain healthy for many years to follow and to stand by our side with his advice and work, but he had an accident a few years ago, after which his strength started to wither more quickly. Nevertheless, he was always happy to meet us and talk to us, and was interested in everything. He and his wife Boženka were always inseparable. Despite fatigue and incapacity of the old age and illness they supported each other until the final breath. Only a week after the death of Lujo his wife Boženka passed away too.



Akademik prof.dr. Lujo Šuklje s soprogo Boženko ob svoji 70.letnici
Academician Prof. Dr. Lujo Šuklje with his wife Boženka at his 70th anniversary

Na kratko so bili v njegovem življenju najpomembnejši naslednji mejniki:

A short summary of some most important milestones in his life:

1928	Končal klasično gimnazijo v Ljubljani	Finished classical high-school in Ljubljana
1928	Nekaj časa vzporedni študij elektrotehnike in gradbeništva	For some time parallel study of electrotechnics and civil engineering
1935	Diplomiral na Tehnični fakulteti Univerze v Ljubljani (13 študentov v letniku), področje gradbeništva	Graduated from Technical Faculty of the University of Ljubljana (13 students in the class), in the area of civil engineering
1935	Prva zaposlitev pri Hidrotehničnem oddelku banske uprave v Ljubljani	First job at the Hydrotechnical Department of the Civil Government in Ljubljana
1937	Strokovno izpopolnjevanje na Institut Technique du Bâtiment et des Travaux Publiques, Pariz, Francija	Professional study visit at Institut Technique du Bâtiment et des Travaux Publiques, Paris, France
1938-46	Suplent in nato profesor na Tehnični srednji šoli v Ljubljani	Supplement teacher and then professor at the Technical High School in Ljubljana
1946	Postal doktor tehniških ved Univerze v Ljubljani	Doctor of technical sciences of the University of Ljubljana
1946-75	Univerzitetni učitelj na Univerzi v Ljubljani	University teacher at the University of Ljubljana
1975	Upokožitev na FAGG in nadaljevanje raziskovalnega dela	Retirement at FAGG and continuation of research work
1989	Zadnja predavanja in seminarji v okviru študijskega potovanja po ZDA na Turner-Fairbank Highway Research Center (McLean Virginia), na Virginia Polytechnic Institute and State University (Blacksburg Virginia), na Syracuse University (Syracuse New York) in na Massachusetts Institute of Tehnology (Cambridge Massachusetts), ZDA, 17. do 27. april 1989 <ul style="list-style-type: none">• Rheological relationships expressed by families of strain isotaches,• Consolidation and creep of soils in plane-strain conditions,• Consolidation and creep effects on earth pressures.	Last lectures and seminars within the study travel through the USA at the Turner-Fairbank Highway Research Center (McLean Virginia), at the Virginia Polytechnic Institute and State University (Blacksburg Virginia), at the Syracuse University (Syracuse New York) and at the Massachusetts Institute of Technology (Cambridge Massachusetts), USA, 17 to 27 April 1989 <ul style="list-style-type: none">• Rheological relationships expressed by families of strain isotaches,• Consolidation and creep of soils in plane-strain conditions,• Consolidation and creep effects on earth pressures.
1990	Zadnje javno predavanje v Sloveniji na SAZU z naslovom: Konsolidacija nelinearnih viskoznih zemljin	Last public lecture in Slovenia at the Slovenian Academy of Science and Art entitled Consolidation of nonlinear viscous soils

PODATKI O NJEGOVEM PEDAGOŠKEM DELU DATA ON HIS EDUCATIONAL WORK

Prof. Šuklje se je pedagoškemu delu posvečal celih 37 let, vse od Tehnične srednje šole, do Tehniške fakultete Univerze v Ljubljani in Fakultete za rudarstvo, metalurgijo in kemijsko tehnologijo ter končno od leta 1960 dalje na Fakulteti za arhitekturo, gradbeništvo in geodezijo. Tako je pomembno prispeval k vzgoji povojne generacije gradbenih inženirjev, vzgojil pa je tudi mnogo pedagogov in znanstvenikov s področja mehanike tal v svoji ožji domovini Sloveniji, izredno pa je bil cenjen tudi kot učitelj na podiplomskem študiju v Zagrebu in Beogradu. Potek njegovih imenovanj je bil naslednji:

Prof. Šuklje dedicated as much as 37 years to the educational work, from the Technical High School to the Technical Faculty of the University of Ljubljana, the Faculty of Mining, Metallurgy and Chemical Technology and finally from 1960 at the Faculty for Architecture, Civil and Geodetic Engineering (FAGG). In this way he contributed substantially to the education of the post-war generation of civil engineers, and he also raised in his native country of Slovenia numerous teachers and scientists from the area of soil mechanics. He was also extremely esteemed as teacher at the post-graduate study in Zagreb and Belgrade. The course of his professorship elections was as follows:

1946	Postal doktor tehniških ved Univerze v Ljubljani na podlagi disertacije »Dršenje temeljnih tal pod učinkom brezkrajnega bremenskega pasu«	Doctor of technical sciences at the University of Ljubljana based on the Ph.D. thesis »Soil sliding under the influence of infinite strip loading«
1946	Izvoljen v naziv docenta Tehniške fakultete	Elected into the title of assistant professor at the Technical Faculty
1951	Izvoljen v naziv izrednega profesorja za predmeta »mekanika tal« in »osnove tehnične mehanike«	Elected into the title of associate professor for the subjects »Soil Mechanics« and »Fundamentals of Technical Mechanics«
1956	Izvoljen v naziv rednega profesorja za predmeta »mekanika tal« in »osnove tehnične mehanike«	Elected into the title of full professor for the subjects »Soil Mechanics« and »Fundamentals of Technical Mechanics«
1979	Postal zaslužni profesor FAGG	Professor emeritus of FAGG

UČBENIKI

Več kot 20 let je predaval arhitektom, gradbenikom, rudarjem in tudi drugim študentom osnovne predmete, kot so: "Statika", "Trdnost", "Dinamika in kinematika" ter svoje specialno področje "Mehanika tal", ki ga je kot prvi uvedel na ljubljanski univerzi. Šele v zadnjem obdobju, po preselitvi FAGG v stavbo na Jamovi cesti, se je posvetil samo "Mehaniki tal". Za vse predmete, ki jih je predaval, je napisal učbenike:

STATIKA TOGIH TELES, Univerza v Ljubljani, Ljubljana 1949, 130 str. + 174 slik v prilogi.

TRDNOST, Državna založba Slovenije v Ljubljani, Ljubljana 1952, 269 str.

TEXTBOOKS

For more than 20 years he held lectures to architects, civil engineers, miners and other students, where his subjects were: "Statics", "Strength of Materials", "Dynamics and Kinematics", and his special area "Soil Mechanics", which he was the first to introduce to the University of Ljubljana. Only in the last period, after civil engineering moved to the building in Jamova 2, he dedicated his work exclusively to "Soil Mechanics". For all the subjects he held lectures in he also wrote textbooks:

STATICS OF RIGID BODIES, University of Ljubljana, Ljubljana 1949, p.p. 130 + 174 figures as enclosures. (in Slovenian)

STRENGTH OF MATERIALS, Državna založba Slovenije v Ljubljani, Ljubljana 1952, p.p. 269. (in Slovenian)

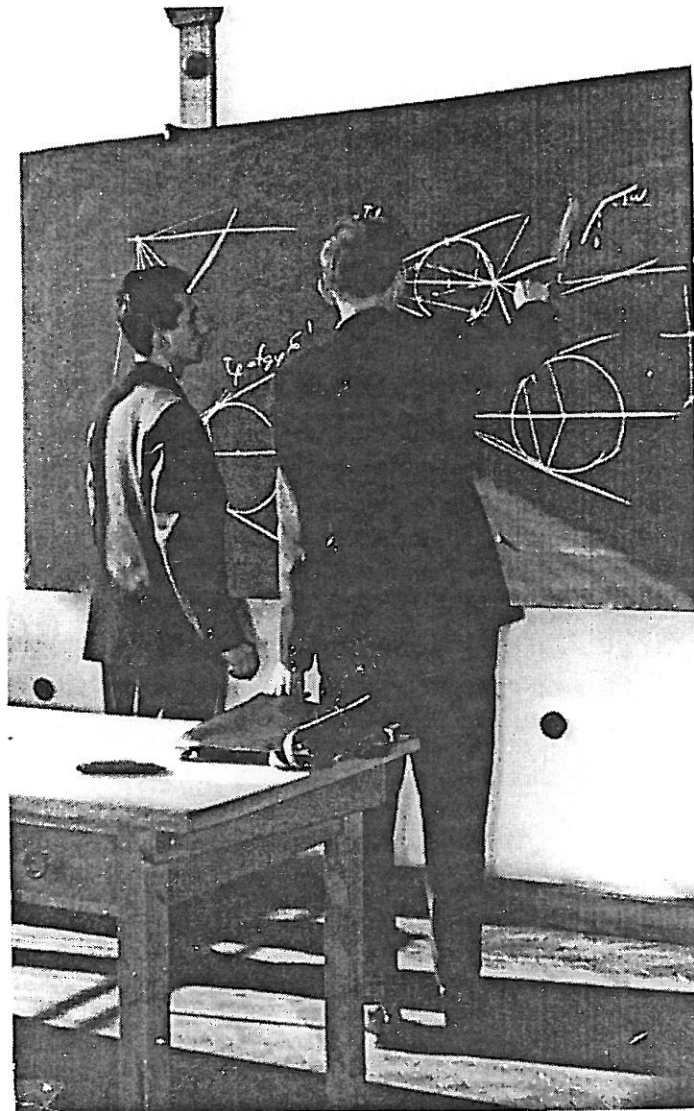
Navalo.

Izsenje temeljnih tal.
pod učinkom neskončnega brenenskega prasu.

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Reprodukcija kazala njegovega doktorata, ki ga je oddal v rokopisu.
 Reproduction of the table of contents in his Ph.D. thesis that he submitted handwritten



Učitelj pred tablo s svojim študentom
Teacher at the blackboard with his student

MEHANIKA TAL, Predavanja na Univerzi v Ljubljani, Tiskovna komisija Tehniških fakultet Univerze v Ljubljani, Ljubljana 1957, 324 str.

SOIL MECHANICS, Lectures at the University of Ljubljana, Commission for press of the technical faculties, University of Ljubljana, Ljubljana 1957, p.p. 324. (in Slovenian)

OSNOVE TEHNIČNE MEHANIKE, Predavanja na Univerzi v Ljubljani, **I. DEL, STATIKA TOGIH SISTEMOV**, Tiskovna komisija Tehniških fakultet Univerze v Ljubljani, Ljubljana 1959, 167 str., Ponatis: FAGG UL, Ljubljana 1964, 500 izvodov, Ponatis: FAGG UL, Ljubljana 1974, 200 izvodov.

FUNDAMENTALS OF TECHNICAL MECHANICS, Lectures at the University of Ljubljana, **PART I, STATICS OF RIGID SYSTEMS**, Commission of press of the technical faculties, University of Ljubljana, Ljubljana 1959, p.p. 167, reprint: FAGG UL, Ljubljana 1964, 500 copies, reprint: FAGG UL, Ljubljana 1974, 200 copies. (in Slovenian)

OSNOVE TEHNIČNE MEHANIKE, Predavanja na Univerzi v Ljubljani, **II. DEL, TRDNOST**, Fakulteta za arhitekturo, gradbeništvo in geodezijo Univerze v Ljubljani, Ljubljana 1960, 189 str., Ponatis: FAGG UL, Ljubljana 1963,

FUNDAMENTALS OF TECHNICAL MECHANICS, Lectures at the University of Ljubljana, **PART II, STRENGTH OF MATERIALS**, Faculty of Architecture, Civil and Geodetic Engineering of the University of Ljubljana, Ljubljana 1960, p.p. 189,

700 izvodov, Ponatis: FAGG UL, Ljubljana 1974, 200 izvodov.

reprint: FAGG UL, Ljubljana 1963, 700 copies, reprint: FAGG UL, Ljubljana 1974, 200 copies. (in Slovenian)

OSNOVE TEHNIČNE MEHANIKE, Predavanja na Univerzi v Ljubljani, **III. DEL, KINEMATIKA IN DINAMIKA**, Fakulteta za rudarstvo, metalurgijo in kemijsko tehnologijo Univerze v Ljubljani, Ljubljana 1960, 78 str.

FUNDAMENTALS OF TECHNICAL MECHANICS, Lectures at the University of Ljubljana, **PART III, KINEMATICS AND DYNAMICS**, Faculty of Mining, Metallurgy and Chemical Technology of the University of Ljubljana, Ljubljana 1960, p.p. 78.(in Slovenian)

MEHANIKA TAL, Fakulteta za arhitekturo, gradbeništvo in geodezijo Univerze v Ljubljani, Ljubljana 1967, 480 str.

SOIL MECHANICS, Faculty of Architecture, Civil and Geodetic Engineering of the University of Ljubljana, Ljubljana 1967, p.p. 480. (in Slovenian)

MEHANIKA TAL, Univerza Edvarda Kardelja v Ljubljani, Fakulteta za arhitekturo, gradbeništvo in geodezijo, Ljubljana 1984, XV + 359 str.

SOIL MECHANICS, Edvard Kardelj University in Ljubljana, Faculty of Architecture, Civil and Geodetic Engineering of the University of Ljubljana, Ljubljana 1984, p.p. XV + 359. (in Slovenian)

MENTORSTVA PRI DIPLOMAH, MAGISTERIJIH IN DOKTORATIH

MENTORSHIP AT DIPLOMAS, M.SC. AND PH.D. THESES

Diplomanti Oddelka za gradbeništvo FAGG Univerze v Ljubljani

Graduates of the Department of Civil Engineering of FAGG, University of Ljubljana

V obdobju od 1961 do 1975 je bil mentor 154 diplomantom, pri čemer je bilo do takrat vseh diplomantov na FAGG 1438.

In the time from 1961 to 1975 he was mentor to 154 graduates, where by then the total number of all graduates at FAGG was 1438.

Njegov prvi diplomant Jože Brodnik je leta 1961 pripravil nalogo z naslovom: »Z laboratorijskimi modelnimi preizkusi je treba raziskati stopnjo aktivizacije drsne trdnosti med betonom in zemljinami v odvisnosti od dopustnih premikov«.

In 1961 his first graduate, Mr. Jože Brodnik, wrote a thesis entitled: »The level of activation of the shear strength between concrete and soils depending on the allowable displacements need to be tested with laboratory model tests «.

V skopih številkah je pregled opravljenih diplomskih del pod njegovim mentorstvom v okviru Katedre za mehaniko tal naslednji:

Expressed in numbers, the overview of the diplomas under his mentorship within the Chair for Soil Mechanics is as follows:

1961	6 diplomantov	1969	9 diplomantov	1961	6 graduates	1969	9 graduates
1962	9 diplomantov	1970	11 diplomantov	1962	9 graduates	1970	11 graduates
1963	13 diplomantov	1971	10 diplomantov	1963	13 graduates	1971	10 graduates
1964	11 diplomantov	1972	7 diplomantov	1964	11 graduates	1972	7 graduates
1965	22 diplomantov	1973	8 diplomantov	1965	22 graduates	1973	8 graduates
1966	10 diplomantov	1974	7 diplomantov	1966	10 graduates	1974	7 graduates
1967	12 diplomantov	1975	6 diplomantov	1967	12 graduates	1975	6 graduates
1968	11 diplomantov			1968	11 graduates		

Njegov zadnji diplomant je bil Srečko Koritnik leta 1975; naslov diplomskega dela: »Proučite možnost upoštevanja viskoznih učinkov na odnose med deformacijami in napetostmi za zemljine pri numeričnih računih napetostno deformacijskega stanja v pogojih ravninsko deformacijskih stanj«.

His last graduate was Srečko Koritnik in 1975; the title of his diploma thesis was: »Study the feasibility of considering viscous effects on the stress-strain relations for soils in the numerical calculations of stress-strain state in the plane strain conditions«.



Za »svoje« diplomante je imel vedno čas za diskusijo, pa tudi po uspešnih zagovorih diplom.
For »his« graduates he always found time for a discussion, even after the defence of their theses.

Magistranti Oddelka za gradbeništvo FAGG
Univerze v Ljubljani

Masters of science at the Department of Civil
Engineering of FAGG, University of Ljubljana

Pod mentorstvom prof. dr. Luja Šukljeta so
 magistrirali:

Under the mentorship of Prof. Dr. Lujo Šuklje the
 following students finished their M.Sc. degrees:

- | | | |
|---|------|--|
| 1 | 1968 | Vidmar Silvan
Eksperimentalna raziskava relaksacijskih učinkov na zemeljske pritiske
<i>Experimental research of relaxation effects on earth pressures</i> |
| 2 | 1969 | Battelino Darinka
Račun deformacij in konsolidacije tal ob upoštevanju nelinearne in viskozne deformabilnosti
<i>Calculus of strains and soil consolidation by taking into account nonlinear and viscous deformability</i> |
| 3 | 1976 | Trauner Ludvik
Premiki v elastičnem polprostoru dobljeni z integracijo Boussinesqovih enačb
<i>Displacements in elastic half-space derived by the integration of Boussinesq equations</i> |
| 4 | 1985 | Majes Bojan
Hkratna analiza deformacij in stabilnosti tal v ravninsko deformacijskih pogojih
<i>Simultaneous analysis of strains and stability of ground in plane strain conditions</i> |

Doktorandi tehniških ved Univerze v Ljubljani

Ph.D.'s of technical sciences at the university of Ljubljana

Pod mentorstvom prof. dr. Luja Šukljeta so doktorirali:

Under the mentorship of Prof. Dr. Lujo Šuklje the following persons finished their Ph.D. degrees:

- 1 1957 Nonveiller Ervin
Stabilnost nehomogenih nasipov
Stability of non-homogeneous embankments
Pokojni redni profesor na Gradbeni fakulteti Univerze v Zagrebu
The late full professor at the Faculty of Civil Engineering at the University of Zagreb
- 2 1974 Vidmar Silvan
Ovisnost zemeljskih pritiskov na toge konstrukcije od kinematskih robnih pogojev
Dependence of soil pressures to rigid structures on kinematic boundary conditions
Upokojeni redni profesor na Fakulteti za gradbeništvo in geodezijo Univerze v Ljubljani
Retired full professor at the Faculty for Civil and Geodetic Engineering, University of Ljubljana
- 3 1976 Battelino Darinka
Reološki odnosi za zemljine po eksperimentih ter v računih deformacij tal
Rheological relations of soils according to experiments and in calculations of ground deformation
Izredna profesorica na Gradbeni fakulteti Univerze v Trstu
Associate professor at the Faculty of Civil Engineering, University of Trieste
- 4 1982 Trauner Ludvik
Uporabnost teorije elastičnosti pri projektiranju temeljev
Applicability of the elasticity theory in the foundation design
Redni profesor na Fakulteti za gradbeništvo Univerze v Mariboru
Full professor at the Faculty of Civil Engineering, University of Maribor
- 5 1990 Majes Bojan
Dvodimenzionalna konsolidacija nelinearnih viskoznih zasičenih zemljin
Two-dimensional consolidation on nonlinear viscous saturated soils
Izredni profesor na Fakulteti za gradbeništvo in geodezijo Univerze v Ljubljani
Associate professor at the Faculty for Civil and Geodetic Engineering, University of Ljubljana
- 6 1992 Vogrinčič Geza
Analiza prenosa obtežbe v tla po kolu
Analysis of load transfer into the ground along the pile
Docent na Fakulteti za matematiko in fiziko Univerze v Ljubljani
Assistant professor at the Faculty of Mathematics and Physics, University of Ljubljana

OSTALE FUNKCIJE NA FAKULTETI

Prof. Šuklje je ves čas svojega delovanja zavzeto in odgovorno sodeloval pri kreiranju življenja in usmeritvah univerzitetnega študija in bil pri izvajanju pedagoškega in raziskovalnega dela izredno natančen in dosleden. Kljub svoji strogosti pa je bil tudi očetovsko razumevajoč, največ mu je pomenil iskren in vljuden odnos. Odraz njegovega splošnega odgovornega pristopa k pedagoškemu procesu so bile naslednje funkcije:

- 1951 - 53 Predstojnik oddelka splošnih predmetov Tehniške fakultete
- 1967 - 69 Predstojnik oddelka za gradbeništvo FAGG
- 1969 - 71 Namestnik predstojnika oddelka za gradbeništvo FAGG
- 1946 - 63 Predstojnik laboratorija za mehaniko tal na UL
- 1966.- 75 Predstojnik laboratorija za mehaniko tal na FAGG.

ZNANSTVENO RAZISKOVALNO IN STROKOVNO DELO

V njegovem znanstveno raziskovalnem delu je najpomembnejši delež, ki ga je imel pri razvoju mehanike tal vse od samega pričetka uveljavljanja te nove panoge v mehaniki. Leta 1936 je bila na Harvardski univerzi na pobudo prof. Casagrandeja 1. konferenca za mehaniko tal. Konferenci je predsedoval prof. Karl Terzaghi.

Od tu dalje se je pričela Šukljjetova aktivna vloga pri uvajanju te stroke pri nas. Leta 1937 se je strokovno izpopolnjeval v Parizu na 'Institut Technique du Bâtiment et des Travaux Publiques, že leta 1938 pa je bil na pobudo prof. Krala ustanovljen laboratorij za mehaniko tal v okviru tedanjega inštituta za tehniško mehaniko Univerze v Ljubljani. Leta 1943 je bila objavljena prva strokovna objava prof. Šukljeta s tega področja: **Fizikalne spremenljivke v preračunu deformacij temeljnih tal** v Zborniku Prirodoslovnega društva III, 38-45. Od konca vojne dalje je uspešno organiziral in vodil delo v laboratoriju, prvi aparati za raziskovanje zemljin so bili izdelani po njegovih načrtih in nekateri od njih so še danes v uporabi. Laboratorij je stalno opremljal z najnovejšimi aparaturami, sledil je vsem dognanjem v svetu in na določenih področjih raziskav celo vodil.

Leta 1952 se je zopet strokovno izpopolnjeval na 'Institut Technique du Bâtiment et des

OTHER FUNCTIONS AT THE FACULTY

Throughout his working career at the Faculty Prof. Šuklje was very much engaged in the creating of the life and the orientations of the university study. Further on, he was extremely precise and consistent in his educational and research work. Despite his rigorousness, he was also fatherly understanding. What meant for him most was sincere and polite relation. His responsible approach to the educational process was reflected in the following functions:

- Head of the department of general teaching subjects at the Technical Faculty
- Head of the Department of Civil Engineering, FAGG
- Deputy Head of the Department of Civil Engineering, FAGG
- Head of the Laboratory of Soil Mechanics, UL
- Head of the Laboratory of Soil Mechanics, FAGG.

SCIENTIFIC RESEARCH AND PROFESSIONAL WORK

The most important part of his scientific research work represents his share at the introduction of soil mechanics as a new area of mechanics. In 1936 the 1st conference for soil mechanics took place at the Harvard University, initiated by Prof. Casagrande. The chairperson at the conference was Prof. Karl Terzaghi.

This was the moment when Prof. Šuklje took an active part in the process of introducing this area of science to Slovenia. In 1937 he went to a study visit in Paris at 'Institut Technique du Bâtiment et des Travaux Publiques, and as early as in 1938 on the initiative of Prof. Kral the Laboratory of Soil Mechanics was founded within the then Institute of Technical Mechanics, University of Ljubljana. In 1943 the first professional publication by Prof. Šuklje from this field appeared in the Proceedings of Prirodoslovno društvo (Society of Natural Sciences), III, 38-45: **Physical variables in the calculus of subsoil deformations**. From the end of the war onwards he organised and lead the laboratory work, and the first equipment for soil testing was elaborated according to his plans. Some of these machines are still being used. He constantly supplied the laboratory with the most contemporary equipment, he followed the latest discoveries in the world and, in certain areas, he even led the researches.

In 1952 he went to another study visit at 'Institut

Travaux Publiques v Parizu. Do leta 1957 se je ukvarjal s splošnimi problemi v mehaniki tal in o svojih dognanjih poročal na domačih in svetovnih kongresih in v strokovnih in znanstvenih revijah. Leta 1957 je na četrtem mednarodnem kongresu za mehaniko tal in temeljenje v Londonu objavil svoj pristop k analizi konsolidacijskega procesa po metodi izotah. Analiza je vzbudila veliko pozornost in je bila v svetovni literaturi večkrat citirana, v praksi pa uporabljena predvsem v računih konsolidacije malo nosilnih tal z znatnim učinkom sekundarnega lezenja.

Technique du Bâtiment et des Travaux Publiques in Paris. From 1957 onwards he was engaged in general problems of soil mechanics, and he reported on his findings at domestic and international congresses as well as in professional and scientific journals. In 1957, at the fourth international congress of soil mechanics and foundation engineering in London, he published his own approach to the analysis of consolidation process according to the isotache method. The analysis attracted a lot of attention and has been quoted in the world literature several times. In the practice it has mainly been used in the calculi of the consolidation of soft soil with considerable effect of secondary creep.

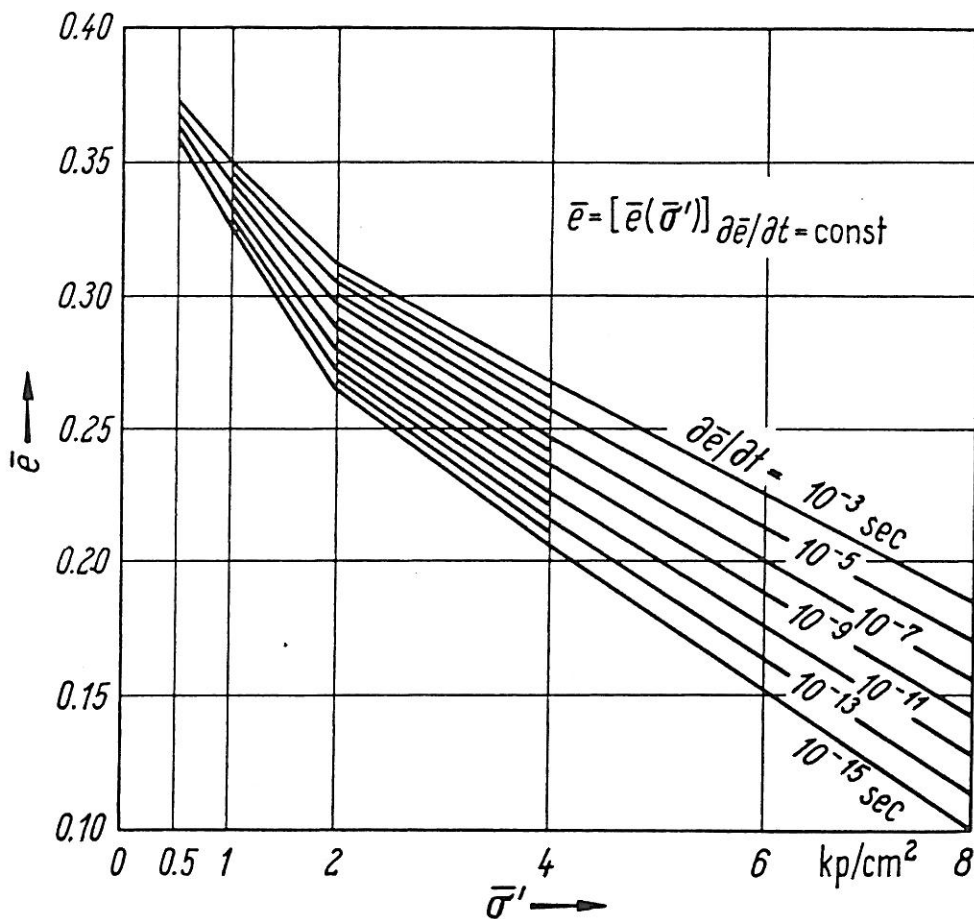


Fig. 6.

Izotahe – družina sovisnic med efektivnimi napetostmi, količnikom por in hitrostmi spremembe količnika por, ki jih je Šuklje prvič objavil leta 1957.
 Isotaches – a family of interdependencies between effective stresses, the void ratio and the rate of void ratio change, published for the first time by Prof. Šuklje in 1957.

Pretežni del njegovega raziskovalnega dela je bil posvečen reologiji zemljin. Proučeval je nelinearne odnose med napetostmi, deformacijami in časom za prostorska napetostna stanja deloma in polno zasičenih zemljin z uporabo laboratorijskih rezultatov na osnosimetrično obremenjevanih vzorcih v triosnih aparatih oziroma na edometrskih vzorcih, upoštevajoč vpliv viskoznosti zemljin na takšne odnose.

The largest share of his research work was devoted to the rheology of soils. He studied nonlinear relations between stresses, strains and the time for spatial stress states of partially and fully saturated soils by using laboratory results at axi-symmetrically loaded samples in triaxial apparatus or at oedometer samples, taking into account the influence of soil viscosity on such relations.

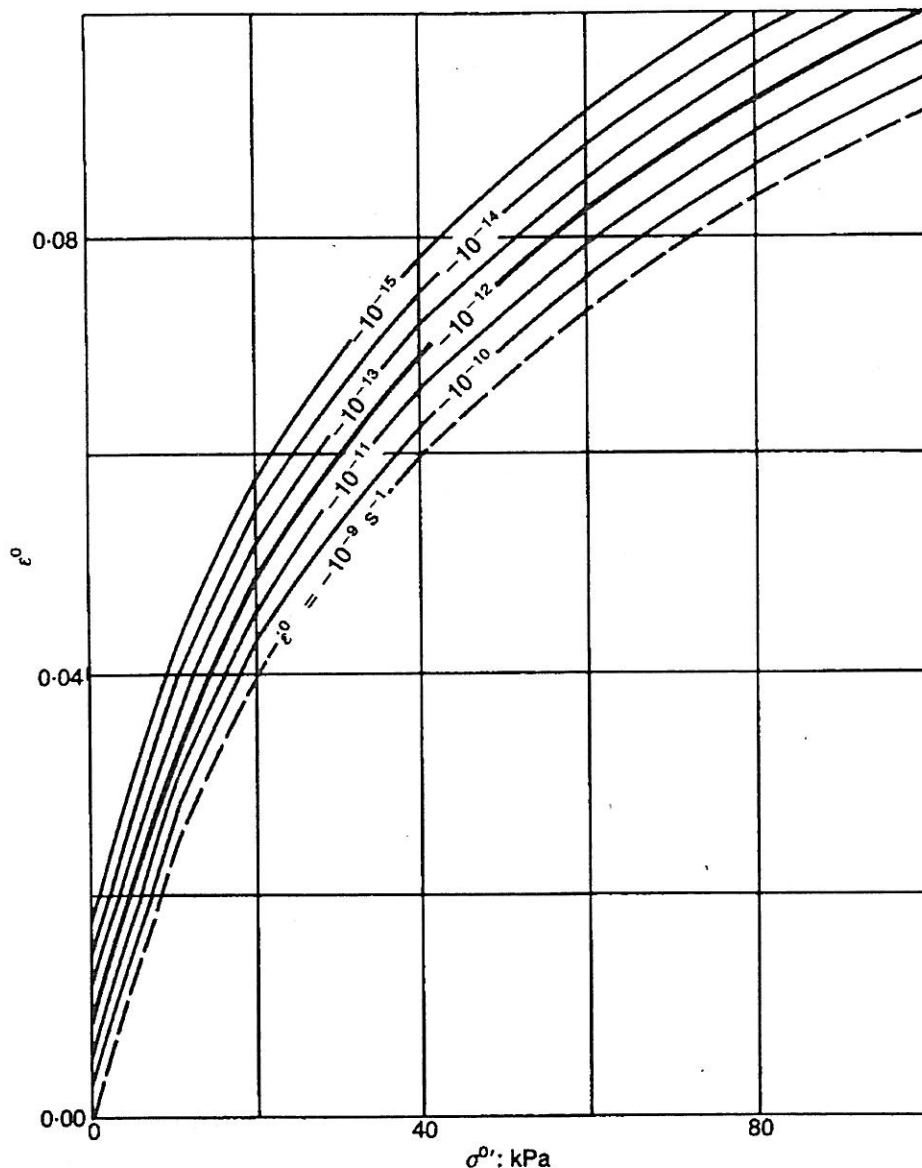


Fig. 18. Family of isotaches $\varepsilon^0 = \{\varepsilon^0(\sigma^0)\}_{\dot{\varepsilon}^0 = \text{const.}}$ for soil I

Družina izotah - sovisnice med normalnimi oktaedri napetostmi, deformacijami in njihovimi hitrostmi za polžarico.

The family of isotaches – relationship between normal octahedral stresses, strains and their velocities for polžarica soil.

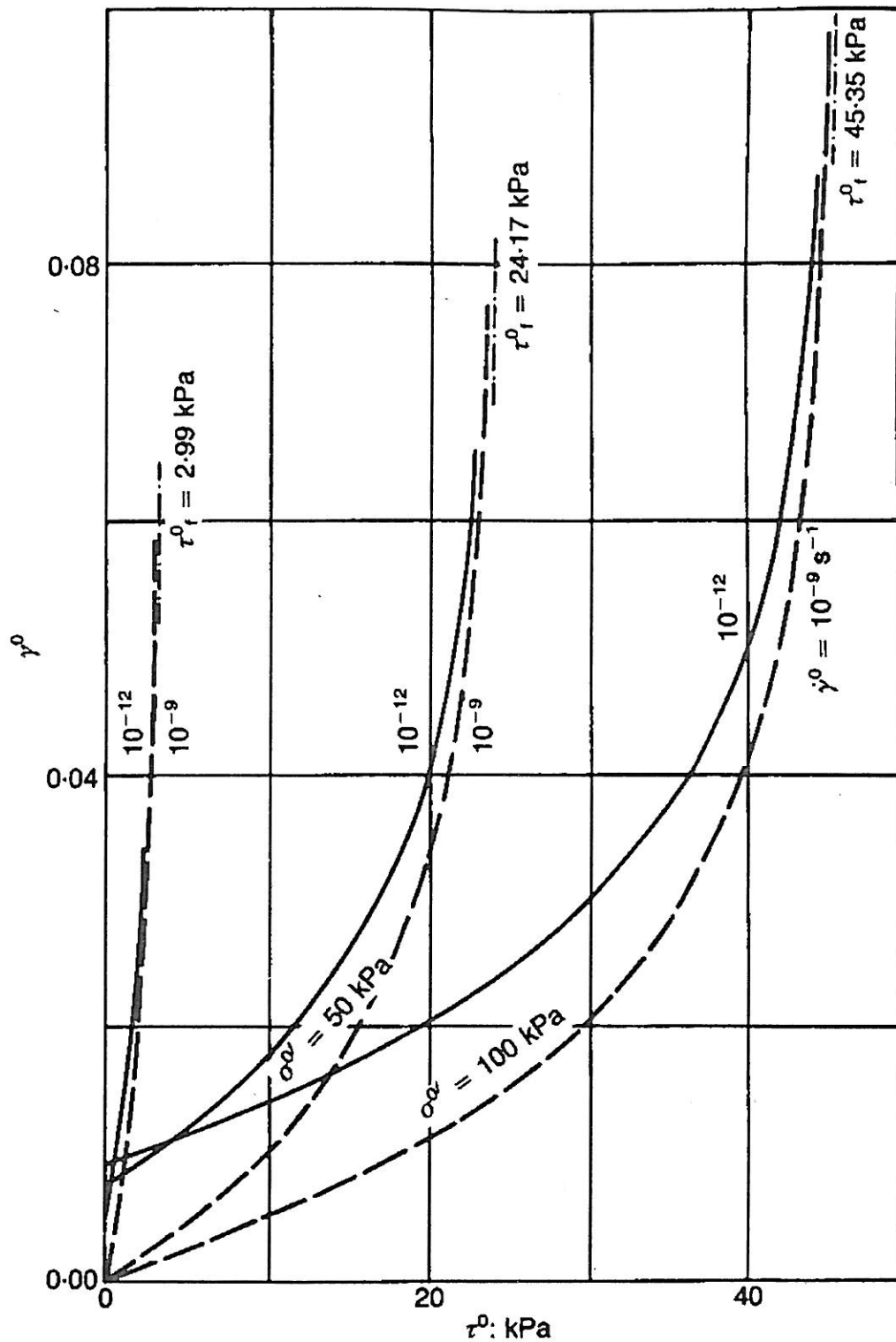


Fig. 19. Family of isotaches $\gamma^0 = \{\{\gamma^0(\tau^0)\}_{\dot{\gamma}^0 = \text{const}, \sigma_{o'} = \text{const}}$ for soil I

Družina izotah - sovisnice med tangencialnimi oktaedrski napetostmi, deformacijami in njihovimi hitrostmi za polžarico.

Family of isotaches – relationship between tangential octahedral stresses, strains and their velocities for polžarica soil.

**SODELOVANJE NA MEDNARODNIH IN
DOMAČIH KONFERENCAH TER OBJAVE V
REVIJAH**

**COOPERATION AT INTERNATIONAL AND
DOMESTIC CONFERENCES AND
PUBLICATIONS IN JOURNALS**

Prof. dr. Lujo Šuklje se je aktivno udeležil že 2. mednarodne konference za mehaniko tal (ICSMFE) leta 1948 v Rotterdamu. Od leta 1948 do 1985 je imel referate in diskusije na 7 svetovnih kongresih za mehaniko tal in temeljenje (ICSMFE).

Prof. Dr. Lujo Šuklje took active part already at the 2nd international conference of soil mechanics (ICSMFE) in 1948 in Rotterdam. From 1948 to 1985 he held lectures and discussions at 7 world congresses for soil mechanics and foundation engineering (ICSMFE).

2nd ICSMFE 1948 Rotterdam

Soil sliding under the influence of an infinite strip load.

3rd ICSMFE 1953 Zürich

Discussions.

4th ICSMFE 1957 London

The analysis of the consolidation process by the isotache method.

5th ICSMFE 1961 Pariz

Essais sur les effets provoqués par la retenue du fluage des sols. (Soavtor: S. Vidmar.)

6th ICSMFE 1965 Montreal

A landslide due to long term creep. (Soavtor: S. Vidmar.)

8th ICSMFE 1973 Moskva

Investigation of the tensile deformability of soils using hollow cylinders. (Soavtor: J. Drnovšek.)

Critical loads depending on layer thickness. (Soavtor: S. Vidmar.)

Up-to-date methods of investigating the strenght and deformability of soils.

(Uvodna in zaključna beseda predsednika 1. glavne sekcije.)

The use of isotaches in the consolidation analysis.

(Brief report and oral discussion in the Special Sessions 2.)

Discussion on the paper: A unified theory for the consolidation of clays by J. G. Hawley and D. L. Borin.

11th ICSMFE 1985 San Francisco

Previous secondary consolidation in a soil model. (Soavtorja: B. Majes in I. Kovačič.)



Akademik prof. dr. Lujo Šuklje na ljubljanski železniški postaji po vrnitvi iz ene izmed mnogih konferenc, ki se jih udeleževal aktivno z referati.
Academician Prof. Lujo Šuklje at the Ljubljana Railway Station at his return from one of many conferences where he took active part with papers.

Prof. dr. Lujo Šuklje se je aktivno udeležil tudi dveh evropskih kongresov za mehaniko tal in temeljenje (ECSMFE) in 4. Podonavskega evropskega kongresa (bil je predsednik organizacijskega odbora).

Prof. Dr. Lujo Šuklje also took active part at two European congresses on soil mechanics and foundation engineering (ECSMFE) and at the 4th Danube European Conference (he was the chairperson of the organising committee).

ECSMFE	1954	Stockholm	Discussions: Session 1, Session 4 and Session 5 Contributions to the discussion. The role of the effective stress speed in the consolidation analysis. (Soavtor: I. Kovačič.) Discussion on the paper: State of earth dam due to non-linear soil properties.
ECSMFE	1963	Wiesbaden	
4 th D-ECSMFE	1974	Bled	

Prof. dr. Lujo Šuklje se je aktivno udeležil še 14 mednarodnih konferenc.

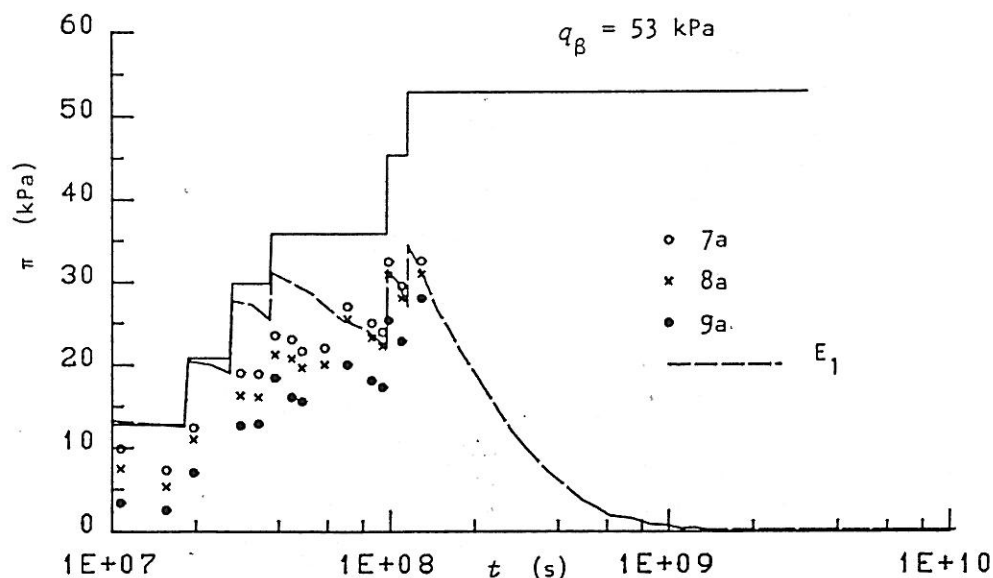
Prof. dr. Lujo Šuklje took active part at further 14 international conferences.

1955	Pariz	Influence de l'épaisseur de la couche sur le caractère et la vitesse de la consolidation.
1957	Pariz	Discussion. Cinquième Congrès International des Grands Barrages.
1958	Bruxelles	L'influence des déplacements cinématiques des dispositifs de soutènement et l'influence du facteur »Temps« sur l'amplitude de la pression des terres sur un écran de soutènement (Rapport général).
1961	Dubrovnik	Facteurs gouvernant les gradients critiques dans la base d'exavation. Association Internationale de Recherches Hydrauliques.
1964	Kijev	Kritičeskie fazy opozanija otkosov.
1964	Grenoble	Étude sur la consolidation sphérique des sols partiellement saturés soumis à la filtration linéaire.
1967	Oslo	Rheology and Soil Mechanics. Discussion on progressive failure. Common factors controlling the consolidation and the failure of soils.
1967	Istanbul	A three-dimensional stability analysis of foundation of arch dams based on fissured rock. (Soavtor: J. Drnovšek.)
1968	Wrocław	Isochrones of a uniformly loaded layer of viscous soils. (Soavtor: B. Kogovšek.)
1969	Praha	Consolidation of viscous soils subjected to continuously increasing uniform load.
1971	Sarajevo	Load distribution in pile groups embedded in elastic half space.
1978	Videm	Non-linear viscous soil behaviour. Limit Analysis and Rheological Approach in Soil Mechanics, CISM Courses and lectures No. 217.
1979	Pensacola Beach	Consolidation of drained multilayer viscous soils. (Soavtor: I. Kovačič.)
1980	Wrocław	Incremental matrix form of an elastic viscoplastic model for soils. (Soavtor: S. Srpčič.)

Rezultate svojega raziskovalnega dela je objavil še v 8 člankih v mednarodno priznanih revijah:

He published the results of his research work in 8 papers in internationally recognised journals:

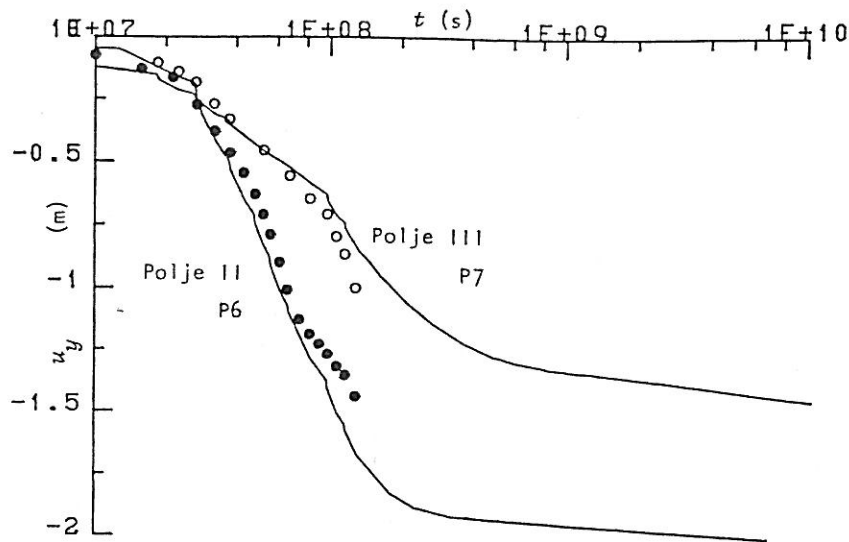
1. **Capacité portante des couches cohérentes peu perméables et d'épaisseur limitée.** Annales de l'Institut Technique du Bâtiment et des Travaux Publics, no. 83, 1147-1166, Pariz 1954. (Soavtor: P. Habib.)
2. **Landslide Zalesina.** Géotechnique, Vol. 5, 143-153, London 1955. (Soavtor: E. Nonveiller.)
3. **The equivalent elastic constants of saturated soils exhibiting anisotropy and creep effects.** Géotechnique 13, 291-309, London 1963.
4. **Creep e rottura progressiva nei pendii naturali.** Rivista Italiana di geotechnica, 4, 3-23, 1970.
5. **Discussions to J. E. Garlanger's paper: The consolidation of soils exhibiting creep under constant effective stress.** Géotechnique 22, 670-673, London 1972; Géotechnique 23, 283-284, London 1973.
6. **Stresses and strains in non-linear viscous soils.** International Journal for Numerical and Analytical Methods in Geomechanics 2, 129-158, 1978.
7. **Consolidation and creep of soils in plane-strain conditions.** Géotechnique 39, No. 2, 231-250, 1989, ponatisnjeno v zbirki Acta Geotechnica, Univerza Edvarda Kardelja v Ljubljani, No. 98-a, Ljubljana, 1989 (soavtor: B. Majes).
8. **Influence of the density of finite element networks on consolidation analysis.** Géotechnique 41, No. 1, 139-142, 1991 (soavtor: B. Majes).



Slika 7.17: Časovne sovisnice presežnih pornih tlakov $\pi = \pi(t)$ v globini 12.5 m; primerjava rezultatov računskega primera E_1 (vozlišče 78) z izmerki

Primerjava med izračunanimi in izmerjenimi presežnimi pornimi tlaki pod poskusnim nasipom na ljubljanskem Barju.

Comparison between the calculated and measured excessive pore pressures under the test embankment at the Ljubljana Marshland



Slika 7.26: Časovne sovisnice posedkov dna nasipa $u_y = u_y(t)$; primerjava izmerjenih in izračunanih posedkov v III. in II. polju poizkusnega nasipa

Primerjava med izračunanimi in izmerjenimi posedki tal pod poskusnim nasipom na ljubljanskem Barju.
Comparison between the calculated and measured settlements under the test embankment at the Ljubljana Marshland

7 prispevkov je objavil v jugoslovanskih revijah in strokovnih časopisih (Naše građevinarstvo, Građevinar in Izgradnja), 11 prispevkov pa v slovenskih revijah in zbornikih (Gradbeni vestnik, Novator in Zbornik Prirodoslovnega društva), 16 razprav v zvezkih Acta Geotechnica, 9 referatov na kongresih jugoslovanskega društva za mehaniko tal in temeljenje (JDMTF) in 3 referate na slovenskih kongresih.

He published 7 papers in Yugoslav journals and professional newspapers (Naše građevinarstvo, Građevinar and Izgradnja) and 11 papers in Slovenian journals and proceedings (Gradbeni vestnik, Novator and Zbornik Prirodoslovnega društva), 16 discussions in the volumes of Acta Geotechnica, 9 papers in congresses of the Yugoslav Society for Soil Mechanics and Foundation Engineering (JDMTF) and 3 papers in Slovenian congresses.

KNJIGE

Rezultate svojega obsežnega raziskovalnega dela je predstavil v knjigah:

1. **Rheological Aspects of Soil Mechanics**, Wiley-Interscience, London, New York, Sydney, Toronto 1969, 571 str.
2. **Reologičeskie probleme mehaniki gruntov**, skrajšani ruski prevod knjige Rheological Aspects of Soil Mechanics N.N. Maslova, Strojizdat, Moskva 1973, 485 str.
3. **Objašnjenja uz Pravilnik o tehničkim normativima za projektovanje i izvodjenje radova kod temeljenja građevinskih objekata**, Časopis Izgradnja, Beograd 1979, 227 str.

BOOKS

He presented the results of his vast research work in the following books:

1. **Rheological Aspects of Soil Mechanics**, Wiley-Interscience, London, New York, Sydney, Toronto 1969, p.p. 571.
2. **Reologičeskie probleme mehaniki gruntov**, shortened russian translation of the book Rheological Aspects of Soil Mechanics, N.N. Maslova, Strojizdat, Moskva 1973, p.p. 485.
3. **Explanation to the code for the design and execution of foundations of structures**, Časopis Izgradnja, Belgrade 1979, p.p. 227.

UREDNIŠTVO

Ugled stroke je povzdignil na višji nivo tudi z izdajanjem in urejanjem prve slovenske geotehnične znanstvene revije *Acta Geotechnica*, s katero je vzdrževal mednarodne stike in vzpodbujal k pisanju tudi raziskovalce okoli sebe polnih 27 let. Zvezke razprav *Acta Geotechnica* sta izdajala Laboratorij za mehaniko tal IMFM Univerze v Ljubljani in Katedra za mehaniko tal z laboratorijem FAGG Univerze v Ljubljani.

Po upokojitvi mu je bil še prav poseben izziv priprava zbornika predavanj na centru v Vidmu. Kasneje je s sodelovanjem pri Spominskem zborniku počastil spomin na svojega vzornika in prijatelja akademika prof. dr. Antona Kuhlja.

Pregled njegovega uredniškega dela je v kratkem podan takole:

EDITORSHIP

This field of science gained reputation also with Prof. Šuklje's publishing and editing work for the first Slovenian geotechnical scientific journal *Acta Geotechnica*. With it Prof. Šuklje maintained international contacts and had encouraged researchers around him to scientific writing for as many as 27 years. The volumes of discussions in *Acta Geotechnica* were published by the Laboratory for Soil Mechanics IMFM, University of Ljubljana and the Chair for Soil Mechanics with laboratory, FAGG, University of Ljubljana.

After his retirement Prof. Šuklje found it especially challenging to prepare the proceedings of papers in the centre in Udine. Later on he cooperated at the Memorial Proceedings honouring the memory of his last role model and friend, academician Prof. Dr. Anton Kuhelj.

His editing works can be summarised as follows:

1. **LIMIT ANALYSIS AND RHEOLOGICAL APPROACH IN SOIL MECHANICS**, CISM Courses and lectures No. 217, Springer Verlag, Wien–New York 1978, 292 str. (Sourednik: W. Olszak.)
2. **SPOMINSKI ZBORNIK ANTONA KUHLJA – ANTON KUHELJ MEMORIAL VOLUME**, SAZU, Ljubljana 1982, 348 str. (Sourednik: P. Gosar.)
3. **ACTA GEOTECHNICA**, Univerza v Ljubljani, No. 1 (1962) do No. 101 (1989)
 - **Deformation conditions of the mobilization of the friction between concrete and soil**. Univerza v Ljubljani, *Acta Geotechnica* 4, 1-4, Ljubljana 1963. (Soavtor: J. Brodnik.)
 - **Étude supplémentaire sur à la consolidation sphérique des sols partiellement saturés soumis à la filtration linéaire**. Univerza v Ljubljani, *Acta Geotechnica* 14-b, 1-8, Ljubljana 1966.
 - **A three-dimensional consolidation analysis applied to non-linear, viscous and anisotropic deformability of soils**. Univerza v Ljubljani, *Acta Geotechnica* 15, 1-11, Ljubljana 1967.
 - **Testing of the flexibility of clays using photographic registration of displacements**. Univerza v Ljubljani, *Acta Geotechnica* 17, 1-5, Ljubljana 1967. (Soavtorji: G. Vogrinčič, G. Tratnik, M. Jenko.)
 - **Dependence of earth pressures on strains in Rankine's case**. Univerza v Ljubljani, *Acta Geotechnica* 22, 1-19, Ljubljana 1968. (Soavtorja: L. Marczał in J. Podržaj.)
 - **Some effects of anisotropic, non-linear and viscous soil behaviour**. Univerza v Ljubljani, *Acta Geotechnica* 28, 1-40. Ljubljana 1968.
 - **The use of isotaches in the numerical analysis of radial consolidation**. Univerza v Ljubljani, *Acta Geotechnica* 41, 1-57, Ljubljana 1972. (Soavtor: M. Simončič.)
 - **Radially symmetric space consolidation of saturated viscous soils**. Univerza v Ljubljani, *Acta Geotechnica* 42, 1-51, Ljubljana 1972. (Soavtor: J. Kozak.)
 - **Consolidation of partly saturated viscous soils**. Univerza v Ljubljani, *Acta Geotechnica* 54, 1-13, Ljubljana 1974. (Soavtor: J. Kozak.)
 - **Development of displacements in a non-linear viscous plane-strain space**. Univerza v Ljubljani, *Acta Geotechnica* 58, 1-13, Ljubljana 1975. (Soavtor: B. Majes.)
 - **On some controversial effects of the viscous structural resistance of soils**. Univerza v Ljubljani, *Acta Geotechnica* 84, 1-25, Ljubljana 1982.

- **Consolidation effect on bearing capacity of non-linear viscous soils.** Univerza Edvarda Kardelja v Ljubljani, Acta Geotechnica 86, 1-13, Ljubljana 1984. (Soavtor: M. Saje.)
- **Consideration of displacements along contacts of different media,** Acta Geotechnica 91, 1-22, Ljubljana 1985. (Soavtorja: B. Majes, I. Kovačič).
- **Numerical analysis of plane-strain consolidation accorded with strain isotaches.** Acta Geotechnica, Univerza E. Kardelja v Ljubljani, No. 94, 1-43, Ljubljana 1986 (Soavtorja: B. Majes, I. Kovačič).
- **Discussion on consolidation and creep of soils in plane-strain conditions.** Acta Geotechnica, Univerza Edvarda Kardelja v Ljubljani, No. 98-b, 1-6, Ljubljana 1989 (Soavtor: B. Majes).
- **Consolidation and creep effects on earth pressures.** Acta Geotechnica, Univerza Edvarda Kardelja v Ljubljani, No. 99, 1-33, Ljubljana, 1989 (Soavtor: B. Majes).

RECENZIJE

Kot svetovno priznani znanstvenik je bil dolgoletni recenzent **Applied mechanics reviews**. Podal je 65 recenzij od vol. 9 (1956) do vol. 27 (1974).

REVIEWS

As world renowned scientist he was a long standing reviewer of **Applied mechanics reviews**. He elaborated 65 reviews, from vol. 9 (1956) to vol. 27 (1974).

PREDAVANJA NA TUJIH UNIVERZAH IN AKADEMIJAH

Velik mednarodni sloves akademika prof. dr. Luja Šukljeta izkazujejo številna predavanja po vsem svetu, kjer je predstavljal rezultate svojega raziskovalnega dela in številnih sodelavcev, med katere je pritegnil mnoge kolege tako s področja osnovnih kot tudi aplikativnih raziskav.

LECTURES AT FOREIGN UNIVERSITIES AND ACADEMIES

Immense international reputation of the academician Prof. Dr. Lujo Šuklje is demonstrated by numerous lectures he held throughout the world, where he presented the results of his research work and those of his numerous co-workers. Among them were colleagues from the area of basic as well as applicative research.

- Septembra 1963 je kot gost madžarske akademije znanosti predaval v Budimpešti o geotehničnih problemih pri dnevnikih kopih v rudarstvu.
- V Budimpešti je predaval tudi leta 1966 o trodimenzionalni konsolidaciji tal ob upoštevanju nelinearne, viskozne in anizotropne deformabilnosti.
- Septembra 1966 je obiskal kot gost poljske akademije znanosti Varšavo in Gdansk; v Gdanku je predaval o analizi stabilnosti pobočij s potencialnimi porušnicami poljubnih in krožnih oblik.
- O svojem in svojih sodelavcev raziskovalnem delu je predaval na Imperial College v Londonu leta 1968.
- Na povabila je imel predavanje o konsolidaciji viskoznih tal pod vplivom zvezno naraščajoče obtežbe na simpoziju v Pragi 1969.
- O lezenju in postopni porušitvi na ravnih pobočjih je predaval na univerzah v Palermu in Rimu leta 1970.
- In September 1963 he held a lecture in Budapest as the guest of the Hungarian academy of science on geotechnical problems at surface mining.
- He held another lecture in Budapest in 1966, where he discussed the three-dimensional consolidation of soil by taking into account nonlinear, viscous and anisotropic deformability.
- In September 1966 he was invited to Warsaw and Gdansk by the Polish academy of sciences; in Gdansk he held a lecture on the stability analysis of embankments with potential slip surfaces of arbitrary and circular forms.
- In 1968 he held a lecture at the Imperial College in London on the results of his work and the work of his colleagues.
- He held an invited lecture on the consolidation of viscous soil under the influence of continuously increasing load at the symposium in Prague in 1969.
- On creep and gradual failure of straight slopes at the universities in Palermo and Rome in 1970.

- O porazdelitvi obtežbe v skupini kolov je imel predavanje na univerzi v Neaplju leta 1970.
- O reoloških sovisnostih za zemljine je predaval v ZDA na Purdue University, University of Colorado in na Duke University ter na Waterways Experiment Station v Vicksburgu leta 1974.
- V okviru znanstvenega sodelovanja med Jugoslavijo in Francijo je imel leta 1975 dve predavanji: o vplivu reoloških sovisnosti na konsolidacijo zemljin v Laboratoire Central des Ponts et Chaussees v Parizu in o razvoju deformacij viskoznih zemljin na Inštitutu za mehaniko trdnin univerze v Grenoblu.
- Pri francoskem društvu za mehaniko tal je leta 1975 v Parizu poročal o raziskavah laboratorija za mehaniko tal FAGG na področju reologije zemljin.
- Istega leta je na povabilo Politehnike v Wroclawu predaval o viskoznih lastnostih zemljin, leta 1976 pa na Tehniški visoki šoli v Delftu in pri nizozemskem društvu za mehaniko tal in temeljenje v Haagu o izsledkih svojega raziskovalnega dela.
- Leta 1977 je na Inštitutu za mehaniko tal in temeljenje Univerze v Karlsruhe predaval o vplivu nelinearnih in viskoznih odnosov med napetostmi in deformacijami na račun deformacij pod cestnimi nasipi.
- Po eno predavanje o teh temah je imel še v Goteborgu, Oslu in Trondheimu leta 1977.
- Na povabilo je kot gost predaval na mednarodni konferenci ASCE v Pensacola Beachu, USA leta 1978.
- Na posvetovanju o reologiji zemljin je poročal na univerzi v Wroclawu leta 1980.
- O nadaljevanju teh preiskav je predaval na Univerzi v Kuwajtu leta 1981.
- V okviru sodelovanja SAZU in Academia Sinica je leta 1981 predaval v akademskih institutih v Pekingu in Wuhanu.
- Vabljen predavanje je imel tudi na 17. Kongresu JDMTF v Zadru leta 1986.
- Zadnja predavanja oziroma seminarje v okviru študijskega potovanja po ZDA je imel na Turner-Fairbank Highway Research Center (McLean Virginia), na Virginia Polytechnic Institute and State University (Blacksburg Virginia), na Syracuse University (Syracuse New York) in na Massachusetts Institute of Tehnology (Cambridge Massachusetts), ZDA, 17. do 27. april 1989.
- In 1970 he held a lecture on the distribution of load in a group of piles at the University of Naples.
- In 1974 he held a lecture on rheological relationships of soils in the USA, at the Purdue University, University of Colorado and at the Duke University, as well as at Waterways Experiment Station in Vicksburg.
- Within the scientific cooperation between Yugoslavia and France, he held two lectures in 1975: on the influence of rheological relationships on the consolidation of soils in Laboratoire Central des Ponts et Chaussees in Paris, and on the strain development of viscous soils at the Institute for Mechanics of Solids at the University of Grenoble.
- In 1975 he reported at the French society for soil mechanics in Paris on the research work of the laboratory of soil mechanics, FAGG, in the area of soil rheology.
- In the same year he was invited by Politechnica in Wroclaw to hold a lecture on viscous properties of soils, and in 1976 by the Technical High School in Delft to the Dutch society for soil mechanics and foundation engineering in the Hague to present the results of his research work.
- In 1977 he held a lecture at the Institute for Soil Mechanics and Foundation Engineering, University in Karlsruhe, on the influence of nonlinear and viscous stress-strain relations on the strains under road embankments.
- In 1977 he held one lecture in each of the following towns: Gothenburg, Oslo and Trondheim.
- In 1978 he was invited to give a lecture at the international conference of ASCE in Pensacola Beach, USA.
- In 1980 he reported at the congress on soil rheology at the University of Wroclaw.
- In 1981 he reported on the continuation of this research at the University of Kuwait.
- In 1981, within the cooperation between the Slovenian Academy of Science and Art and Academia Sinica he held lectures in the academic institutes in Beijing and Wuhan.
- In 1986 he was also invited to hold a lecture at the 17th Congress of JDMTF in Zadar.
- His last lectures or seminars within the study visit in the USA he held at the Turner-Fairbank Highway Research Center (McLean Virginia), at the Virginia Polytechnic Institute and State University (Blacksburg Virginia), at the Syracuse University (Syracuse New York) and at the Massachusetts Institute of Tehnology (Cambridge Massachusetts), USA, 17 to 27 April 1989.

V okviru podiplomskega študija je v letu 1964/65 predaval na Gradbeni fakulteti Univerze v Zagrebu, v letu 1965/66 v Beogradu in v letih 1972, 1974 in 1976 v Zagrebu in v Beogradu.

Within the postgraduate study he held lectures in the years 1964/65 at the Faculty of Civil Engineering, University of Zagreb, in 1965/66 in Belgrade and in 1972, 1974 and 1976 in Zagreb and Belgrade.

V letih 1974 in 1975 je imel na povabilo CISM-a (International Centre of Mechanical Sciences) v Udine v okviru tečaja o reoloških problemih v mehaniki tal 10 predavanj in je tudi vodil seminar tega tečaja. Uredil je zbornik Limit Analysis and rheological approach in soil mechanics (sourednik W. Olszak), CISM Courses and lectures No. 217.

Between the years of 1974 and 1975 he was invited by CISM (International Centre of Mechanical Sciences) in Udine to hold 10 lectures and lead a seminar within the course of rheological problems in soil mechanics. He was the editor of the proceedings Limit analysis and rheological approach in soil mechanics (second author W. Olszak), CISM Courses and lectures No. 217.

STROKOVNA DRUŠTVA

Skrb za napredek znanosti in stroke na področju geotehnike in na širšem strokovnem področju gradbeništva izpričuje angažiranost pri ustanavljanju Jugoslovanskega društva za mehaniko tal in temeljenje in vse nadaljnje aktivno udejstvovanje pri delovanju in vodenju tega društva.

PROFESSIONAL SOCIETIES

In his care for the progress of science in the area of geotechnics and in the wider professional area of civil engineering, he was also engaged at the foundation of the Yugoslav Society for Soil Mechanics and Foundation Engineering, and he took active part in the society's further work and management.

Priznanje za visoko strokovnost in ponos na njegovo delo in načela izražajo tudi mnoga druga častna članstva v strokovnih združenjih.

Acknowledgement for his high professional expertise and the pride of his work and principles is expressed also by his many other honorary memberships in professional associations.

1949	Ustanovil je Jugoslovansko društvo za mehaniko tal in temeljenje na 1. kongresu JDMTF na Bledu	Founder of the Yugoslav Society for Soil Mechanics and Foundation Engineering (JDMF) at its first congress in Bled
1949 - 52	Tajnik Jugoslovanskega društva za mehaniko tal in temeljenje	Secretary of the Yugoslav Society for Soil Mechanics and Foundation Engineering
1954 - 55	Predsednik Jugoslovanskega društva za mehaniko tal in temeljenje je postal na 5. kongresu JDMTF v Iliđi	Elected to the Chairperson of the Yugoslav Society for Soil Mechanics and Foundation Engineering at its 5 th congress in Iliđa
1965	Postal je častni član Zveze gradbenih inženirjev in tehnikov Jugoslavije	Honorary member of the Association of Civil Engineers and Technicians of Yugoslavia
1975	Postal je častni član Zveze gradbenih inženirjev in tehnikov Slovenije	Honorary member of the Association of Civil Engineers and Technicians of Slovenia
1977	Postal je častni član Jugoslovanskega društva za mehaniko skale in podzemna dela	Honorary member of the Yugoslav Society of Rock Mechanics and Underground Works
1992	Ob ustanovitvi Slovenskega geotehničnega društva je bil izvoljen za njegovega častnega člana	At the incorporation of the Slovenian Geotechnical Society he was elected its honorary member

OSTALE POMEMBNE FUNKCIJE

OTHER IMPORTANT FUNCTIONS

Kot ugleden pedagog in znanstvenik je opravljal vodilne in odgovorne organizacijske funkcije na širšem slovenskem izobraževalnem in raziskovalnem področju.

As respectful teacher and scientist he performed leading and responsible organisational functions in the wider Slovenian educational and research area.

1963 - 71	Član upravnega odbora Sklada Borisa Kidriča	Member of Board of Directors of the Fund Sklad Borisa Kidriča
1965 - 67	Član komisije skupščine SRS za proučitev visokega šolstva	Member of the Commission of the Parliament of SR Slovenia for the analysis of higher education
1967 - 72	Predsednik skupščine Izobraževalne skupnosti SRS	Chairperson of the parliament of the Educational community of SR Slovenia

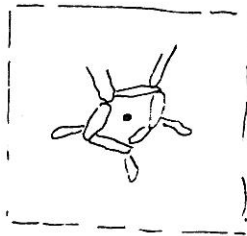
ad 6

Naloga elektromne magnetosti

homogena magnetna polje

Jayaghi: $\mu + \sigma_i' = \sigma_i$ (1)

$$\sigma_{out} \delta_{ns} = (\sigma_{out}' + \mu) \delta_{ns}' \quad (2)$$



Zanimarimo se sferično tranzico

$$\begin{bmatrix} \sigma_1' & & \\ & \sigma_2' & \\ & & \sigma_3' \end{bmatrix} = (\sigma_{out}' - \mu) \delta_{ns}' + \begin{bmatrix} \sigma_1' - \sigma_{out}' & & \\ & \sigma_2' - \sigma_{out}' & \\ & & \sigma_3' - \sigma_{out}' \end{bmatrix} \quad (3)$$

$(\sigma_{out}' - \mu) \delta_{ns}' \rightarrow$ določa hitrost gibanja volumna ^{x1)} (4)

$$\begin{bmatrix} \sigma_1' - \sigma_{out}' & & \\ & \sigma_2' - \sigma_{out}' & \\ & & \sigma_3' - \sigma_{out}' \end{bmatrix} = \begin{bmatrix} \sigma_1' - \sigma_{out}' & & \\ & \sigma_2' - \sigma_{out}' & \\ & & \sigma_3' - \sigma_{out}' \end{bmatrix} \quad (5) \rightarrow \text{hitrost}^{x2}$$

gibanja volumna

$$\sigma_i' = \sigma_i - \mu \quad (i = 1, 2, 3) \quad (6)$$

hitrost gibanja volumna, strukturne anizotropije, x1) pri določeni poravnosti, zgodovini magnetnosti in deformaciji (skupajno tehnološko število in stabilnosti ali tudi vsaj vsake vode)

Načelo efektivnih napetosti.

Klasirano Tuzgafbijewo načelo: Napetosti, ki nastanejo zaradi deformacij v klasični teoriji kon. in ti nap. pomena konvergencije.

Klasirano te: Napetosti Tuzgaf, ki nastanejo zaradi deformacij - pri delovanju npr. toplotne in deformacijskega upornosti, delovanju histozit. termomehanika, in tist. konj.

↓
vklj. konjunkt in tih. učinke.

Homogeno stanje od $\sigma_{ns}^0 = (\sigma^0 + u) \sigma_{ns}^0$

$u =$ pomni tlak, u ni funkcija: samo nap. pomeni moč. roba u in enakom. gibanje pomeni konst. pomni.

Tuzgaf efekt. up:

$$\sigma_{ns}^1 = (\sigma_{ns}^0 - u) \sigma_{ns}^0 + (\sigma_{ns}^1 - \sigma_{ns}^0) \sigma_{ns}^0 = \sigma_{ns}^1 - u \sigma_{ns}^0$$

$$\sigma_{ns}^0 \sigma_{ns}^0 = \sigma_{ns}^1 - \sigma_{ns}^0 \sigma_{ns}^0$$

Up. te. te. u: avdiz. histozit. giban. vol. → avdiz. histozit. del. del.

Varnig. te. \rightarrow

Vklj. u in σ_{ns}^0 na giban. v dolžinski smeri: shof. vnet $C_c = \frac{1}{K_c}$

$$\epsilon_{v,n} = (1-\alpha) \epsilon_p u$$

Def.:

Effekt. nap. Tuzgaf: okt. konj. $\sigma^0 \sigma_{ns}^0 \rightarrow \epsilon_v = C_c \sigma^0$
 Klasični: $\sigma^0 \sigma_{ns}^0 = \sigma^0 \sigma_{ns}^0 + u \sigma_{ns}^0 \rightarrow \bar{\epsilon}_v = \epsilon_v + (1-\alpha) \epsilon_p u = C_c \bar{\sigma}^0$

$$\frac{\bar{\sigma}^0}{\sigma^0} = \frac{\epsilon_v + (1-\alpha) \epsilon_p u}{\epsilon_v} = 1 + \frac{(1-\alpha) \epsilon_p u}{C_c \sigma^0} \rightarrow \bar{\sigma}^0 = \sigma^0 - u \left[1 - \frac{(1-\alpha) \epsilon_p}{\epsilon_v} \right]$$

Rokopis zapiskov akademika prof. dr. Luja Šukljeta za študente podiplomskih študijev na ljubljanski, zagrebški in beograjski gradbeni fakulteti.

Manuscript of notes by the academician, Prof. Dr. Lujo Šuklje for the postgraduate students at the faculties of civil engineering in Ljubljana, Zagreb and Belgrade.



Akademik prof. dr. Lujo Šuklje po ustanovitvi Slovenskega geotehničnega društva in izvolitvi za njegovega prvega častnega člana
Academician Prof. Dr. Lujo Šuklje after the incorporation of the Slovenian Geotechnical Society and his election to the Society's first honorary member

PRIZNANJA, ODLIKOVANJA IN NAGRADE

Izjemnost njegovega znanstvenega in strokovno organizacijskega dela ter zavezanost k širjenju in razdajanju znanja potrjuje številna, tudi najvišja priznanja nekdanje države.

- 1969 Postal dopisni član Slovenske akademije znanosti in umetnosti
- 1979 Postal redni član Slovenske akademije znanosti in umetnosti
- 1964 Nagrada Sklada Borisa Kidriča
- 1972 Kidričeva nagrada za življenjsko delo
- 1964 Odlikovan z medaljo zasluge za narod
- 1965 Odlikovan z redom republike s srebrnim vencem
- 1970 Prejel častno priznanje skupščine mesta Ljubljane
- 1980 Odlikovan z redom dela z rdečo zastavo

ACKNOWLEDGEMENTS, ORDERS AND AWARDS

Some most esteemed awards of the former country confirm the exceptional character of his scientific and expert organisational work, as well as his commitment to spreading and disseminating knowledge.

- Corresponding member of the Slovenian Academy of Science and Art
- Full member of the Slovenian Academy of Science and Art
- Award of the fund Sklad Borisa Kidriča
The Kidrič Award for his life work
- Awarded with the medal for merits for the nation
- Awarded with the decoration of the republic silver garland
- Honorary acknowledgement by the community of the municipality of Ljubljana
- Awarded with the decoration of labour red flag

KRATEK PREGLED VSEBINE ŠUKLJE TOVEGA DELA

Težišče znanstveno-raziskovalnega dela prof. Šukljeta je bilo v proučevanju viskoznih lastnosti zemljin in njihov vpliv na konsolidacijo oziroma na razvoj napetostnih in deformacijskih stanj v tleh.

Kronološko lahko postavimo naslednje časovne mejnike:

- 1957 Izotahe
- 1964 – 74 Numerični izračuni vertikalne in osnosimetrične konsolidacije viskoznih delno in polno zasičenih zemljin v linearnih pogojih deformacij po diferenčni metodi.
- 1974 Numerični izračuni napetostnega in deformacijskega stanja v ravninsko deformacijskih pogojih za neviskozne nelinearne zemljine brez upoštevanja konsolidacije po metodi končnih elementov.
- 1975 Numerični izračuni napetostnega in deformacijskega stanja v ravninsko deformacijskih pogojih za viskozne nelinearne zemljine brez upoštevanja konsolidacije po metodi končnih elementov.
- 1982 – 85 Numerični izračuni napetostnega in deformacijskega stanja v ravninsko deformacijskih pogojih za viskozne nelinearne zemljine, osnovani na Maxwellovemu reološkemu modelu, po metodi končnih elementov.
- 1985 – 90 Numerični izračuni napetostnega in deformacijskega stanja v ravninsko deformacijskih pogojih za viskozne nelinearne zemljine, osnovani na "Šukljetovemu reološkemu modelu" – dve družini deformacijskih izotah, po metodi končnih elementov.

Nič manj ni bilo pomembno njegovo delo na drugih področjih mehanike tal. Naj omenimo samo nekaj teh področjih:

Nosilnost temeljnih tal pod togimi pasovnimi obtežbami,

račun kontaktnih tlakov pod trakastimi temelji in temeljnimi ploščami po teoriji elastičnosti s pomočjo koeficientov α_{ik} ,

SHORT OVERVIEW OF THE CONTENTS OF PROF. ŠUKLJE'S WORK

The centre point of his scientific-research work was the study of viscous properties of soils and their influence on the consolidation, and the development of stress/strain conditions in the ground.

Chronologically the following milestones can be defined:

Isotaches

Numerical calculations of vertical and axisymmetrical consolidation of viscous partially and fully saturated soils in linear strain conditions according to the finite difference method.

Numerical calculations of stress-strain state in plane strain conditions for non-viscous non-linear soils without considering the consolidation according to the finite element method.

Numerical calculations of the stress-strain state in plane strain conditions for viscous nonlinear soils without considering the consolidation according to the finite element method.

Numerical calculations of the stress/strain state in plane strain conditions for viscous nonlinear soils, based on the Maxwell rheological model according to the finite element method.

Numerical calculations of the stress-strain state in plane strain conditions for viscous nonlinear soils, based on the "Šuklje rheological model" – two families of strain isotaches, according to the finite element method.

No less important was his work in other fields of soil mechanics. Let us mention only a few of these fields:

Bearing capacity of the subsoil under rigid strip loadings,

calculus of contact pressures under strip foundations and foundation slabs according to the elasticity theory with the

β_{ik} in γ_{ik}

račun notranjih statičnih količin v kolih po teoriji elastičnosti s pomočjo koeficientov α_{ik} , β_{ik} in γ_{ik}

help of coefficients α_{ik} , β_{ik} and γ_{ik}

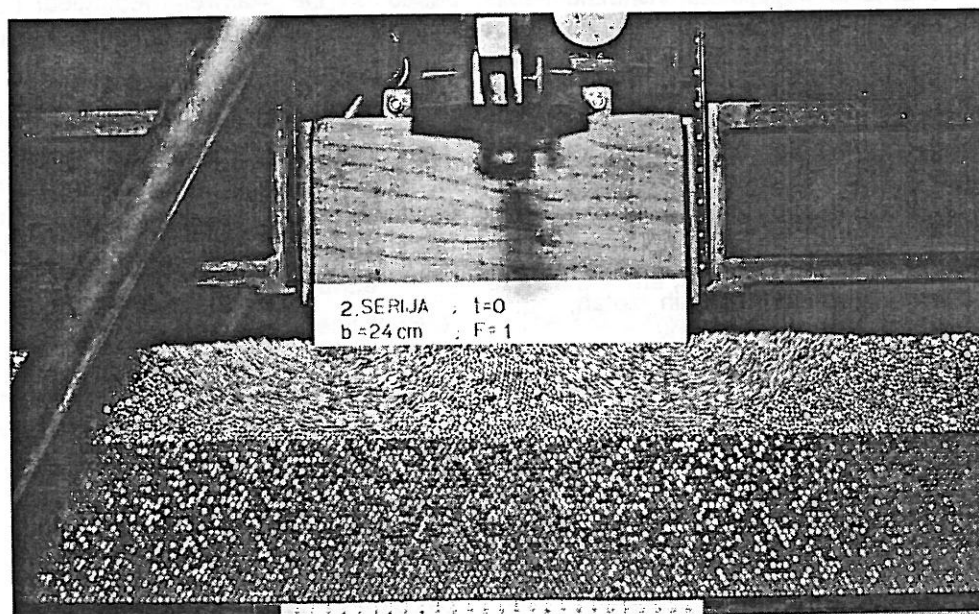
calculus of internal forces in piles according to the elasticity theory with the help of coefficients α_{ik} , β_{ik} and γ_{ik}

Značilna za akademika prof. dr. Luja Šukljeta je bila izjemna strokovna razgledanost in radovednost. Spremljal je razvoj stroke v svetu, ob tem pa imel številne zamisli za lastne raziskave, ki jih je izvajal ob pomoči sodelavcev, diplomantov in podiplomskih študentov. Nekaj te raznolikosti njegovega raziskovalnega dela je mogoče spoznati na razstavi na teh 1. Šukljegovih dnevih v Ljubljani.

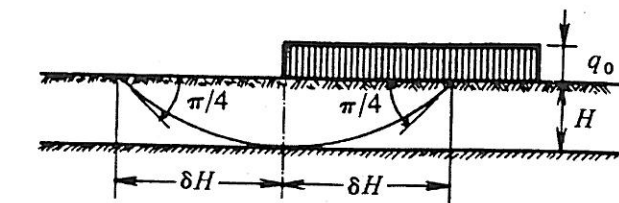
Typical for Prof. Lujo Šuklje was exceptionally vast professional knowledge and curiosity. He was following the development of his field of science in the world, and at the same time had numerous ideas for his own tests that he performed with the assistance of his colleagues, graduate students and postgraduate students. Some examples of this variety in his research work can be seen at the exhibition of the present 1st Šuklje days in 2000 in Ljubljana.

Akademik Šuklje je svoje bogato znanje uspešno prenašal tudi v prakso. Kot vodilni strokovnjak za mehaniko tal je sodeloval pri obnovi in pri gradnji številnih zahtevnih objektov v Sloveniji in bivši Jugoslaviji. Na področju mehanike tal, temeljenja in zemeljskih del je izdelal številne ekspertize, geotehnične elaborate projektov in recenzije za razne ustanove in podjetja. Strokovna poročila so obravnavala geotehnično problematiko dolinskih pregrad, melioracijskih kanalov in nasipov, plazov, podpornih zidov, pristaniških objektov, mostov in stavb. Med drugim je pomagal tudi pri gradnji ceste čez Ljubljansko barje. Sodeloval je pri pripravi predpisov za projektiranje in izvajanje del pri temeljenju gradbenih objektov in napisal pojasnila k tem predpisom.

The academician Prof. Šuklje transferred his rich knowledge with success also into the practice. As the leading expert for soil mechanics he cooperated at the renovation and construction of numerous demanding projects in Slovenia and former Yugoslavia. In the field of soil mechanics, foundation engineering and earth works he elaborated numerous studies, geotechnical reports of projects and reviews for different institutions and companies. His expert reports dealt with the geotechnical problems of valley dams, melioration channels and embankments, landslides, retaining structures, wharf objects, bridges and buildings. Among others, he also helped at the construction of the road across the Ljubljana Marshland. He cooperated at the preparation of the norms for the design and execution of foundation works and wrote the explanations to these norms.

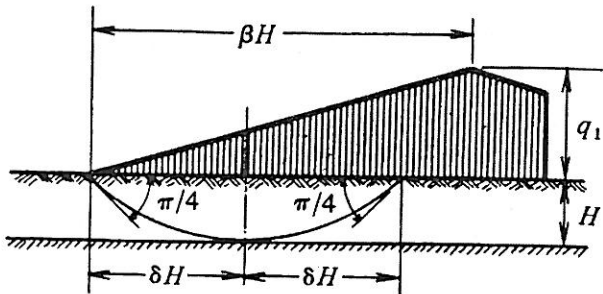


Modelne preiskave nosilnosti tal
Model tests of bearing capacity



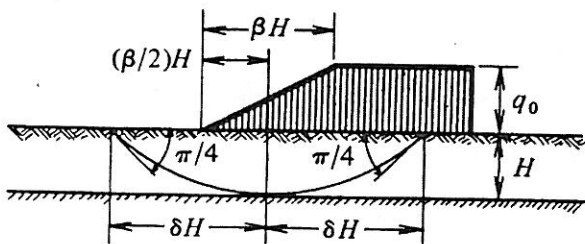
$$\delta = 2.415$$

$$q_0 = 2\pi c$$



$$\delta = 2.415$$

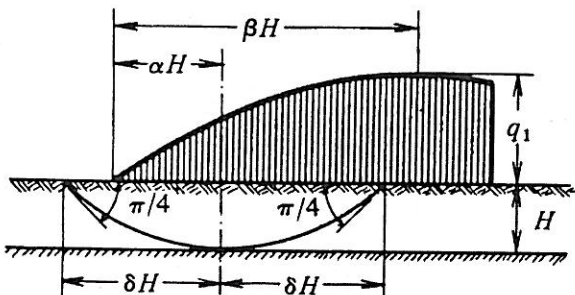
$$q_1 = 1.95\beta c$$



$$\delta = 2.415$$

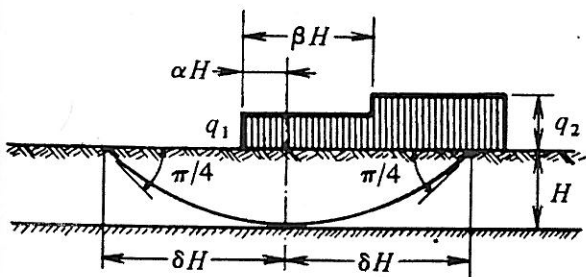
$$q_0 = (2\pi c) / (1 - 0.0142\beta^2)$$

$$(1/3)\alpha^3 + B\alpha^2 + [(2/9) - (\beta/\delta)]\delta^3 = 0$$



$$\delta = 2.415$$

$$q_1 = \frac{18.3\beta^2 c}{\frac{\alpha^4}{12} + \frac{\beta\alpha^3}{3} - \frac{\delta^2\alpha^2}{2} + (\frac{2}{9} - \frac{\beta}{\delta})\delta^3\alpha + \delta^4(\frac{2\beta}{9\delta} - \frac{1}{4})}$$



$$\delta = 2.415$$

$$\alpha = \beta[(\psi - 1)/\psi]$$

$$q_1 = 36.6 c / [\delta^2 - \beta^2(1 - 1/\psi)]$$

$$q_1 \leq 2\pi c \quad q_2 - q_1 \leq 2\pi c$$

$$q_2 \leq [\psi / (\psi - 1)] 2\pi c$$

Fig. 3.29 Bearing capacity of a layer of soft clay overlying rock. (After Suklje, 1954.)

Kopija Šukljetrovih analitičnih izrazov za določitev mejnih pasovnih obtežb iz knjige Hans F. Winterkorn and Hsai – Yang Fang, Foundation Engineering Handbook, 1975.

A copy of Prof. Šuklje's analytical expressions for the definition of limit strip loading from the book by Hans F. Winterkorn and Hsai – Yang Fang, Foundation Engineering Handbook, 1975.

JOHNS HOPKINS
ENGINEERING

Department of Civil Engineering

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(410) 516-8680 / FAX (410) 516-7473

October 18, 1995

Professor L. Suklje
Department of Civil Engineering
University of Ljubljana
Ljubljana
Slovenia

Dear Professor Suklje:

I am sending you a copy of a paper that has recently been accepted for publication in Geotechnique. The title of the paper is "The concept of effective stress for soil, concrete, and rock" and it is co-authored by myself and Professor de Boer from Essen in Germany.

The reason that I am sending the paper to you is that I thought that you might be interested in knowing that the formula for the effective stress derived and presented in your book on Rheological Aspects of Soil Mechanics appears to be the one that correctly captures the effective stress principle. To the best of my knowledge, this formula has not been presented by anybody else, but the experiments that we have performed indicate that among all the formulae that have been presented in the literature (they are summarized in the paper), yours is the correct one!

I remember meeting you at Duke University in 1974. We were standing in line somewhere, and Professor Wroth introduced me to you. You later sent me a copy of a report dealing with modeling of soil behavior, including time effects, and in this report you reviewed some of my earlier work on constitutive modeling of soils. At that time I was at University of California in Los Angeles, but I moved to The Johns Hopkins University in 1993.

I hope you will get this letter. I tried to find you over the Internet, but there was not a listing of the faculty of the Department of Civil Engineering at University of Ljubljana. Please let me know if you received the letter and what you think about the paper.

Sincerely yours,



Poul Lade
Professor

Enclosure

Accepted for publication in Geotechnique, July 1995

The concept of effective stress for soil, concrete, and rock

by

Poul V. Lade
Department of Civil Engineering
The Johns Hopkins University
Baltimore, Maryland, USA

and

Reint de Boer
Institut für Mechanik
Universität Essen
Federal Republic of Germany

$$\Delta \sigma' = \Delta \sigma - \left[1 - (1 - n) \cdot \frac{C_{gu}}{C_{sks}} \right] \cdot \Delta u$$

$$\rightarrow \bar{\sigma}' = \bar{\sigma} - u \left[1 - \frac{(1-n) \ell_s}{\ell_c} \right]$$

Kopija pisma prof. Poula V. Ladeja akademiku prof. dr. Šukljetu s priznanjem, da je njegova enačba za princip efektivnih napetosti, objavljena leta 1967 v knjigi *Rheological Aspects of Soil Mechanics*, dobljena zgolj na osnovi teoretičnih izvajanj, eksperimentalno potrjena.

*Copy of the letter by Prof. Poul V. Lade to the academician Prof. Dr. Šuklje with the acknowledgement that his theoretically derived formula for the effective stress principle, published in the book *Rheological Aspects of Soil Mechanics* in 1967 was experimentally confirmed.*

ZAKLJUČEK

Akademik prof. dr. Lujo Šuklje je bil človek, ki mu po pomembnosti pri ustvarjanju slovenske gradbeniške stroke in slovenske tehnike nasploh komajda najdemo primerjavo.

Bil je univerzitetni profesor mehanike tal in temeljenja številnim generacijam študentov tehnike, gradbeništva in arhitekture, pionir in voditelj geomehanske stroke in znanosti v Sloveniji in v Jugoslaviji, ustanovitelj, predsednik in zaslužni član Jugoslovanskega društva za mehaniko tal in temeljenje, zaslužni član Slovenskega geotehničnega društva, vrhunski geomehanski strokovnjak, ki je vrsto let sodeloval pri reševanju skoraj vseh najtežjih geomehanskih problemov na gradbiščih širom Jugoslavije, ter vrhunski znanstvenik mednarodnega slovesa, nagrajen s članstvom v Slovenski akademiji znanosti in umetnosti.

Bil je vse to in hkrati še uspešen pedagog, dober in plemenit človek, ki ostaja večno zapisan v spominu svojih študentov, sodelavcev in prijateljev.

CONCLUSION

Academician Prof. Dr. Lujo Šuklje was a man of great importance in the area of the Slovenian civil engineering science and the Slovenian technical sciences in general.

He was university professor of soil mechanics and foundation engineering working with numerous generations of students in mechanics, civil engineering and architecture, a pioneer and leader of soil mechanics profession and science in Slovenia and in Yugoslavia, the founder, chairperson and honorary member of the Yugoslav Society of Soil Mechanics and Foundation Engineering, a honorary member of the Slovenian Geotechnical Society, a top expert in geomechanics who cooperated for many years in the solving of almost all most difficult geomechanical problems in building sites throughout Yugoslavia, and a top scientist of international reputation, awarded with the membership in the Slovenian Academy of Science and Art.

He was all this and at the same time also a successful teacher, a good and noble man, who will always remain in the memory of his students, colleagues and friends.