



Name of teacher:	Ivan Vrkljan
Employed at: Since:	Faculty of Mining University of Sarajevo 1972 – 1979
Employed at: Since:	Institut IGH d.d., Zagreb 1979 – 2002
Employed at: Since:	Institut IGH d.d., Zagreb(50 percent of working hours) 2002-2014
Employed at: Since:	Faculty of Civil Engineering, University of Rijeka (50 percent of working hours) 2002 - 2014
Title: Since: In:	Emeritus Professor 2015 Geotechnics
e-mail address, web page	ivan.vrkljan@uniri.hr
Knowledge of foreign languages:	English: fluent (speking, writing, understanding (listening and reading))
Qualifications	<ul style="list-style-type: none"> - date of birth, nationality:19.01.1949. Croatian - First degree obtained at: Faculty of Mining, University of Sarajevo - Master degree obtained at: Faculty of Civil Engineering, University of Zagreb - Ph.D. degree obtained at: Faculty of Civil Engineering, University of Zagreb - additional education: - previous employments:1972-1979: Faculty of Mining, University of Sarajevo
List of papers published in scientific journals	<ol style="list-style-type: none"> 1. 1. Kavur, Boris; Vrkljan, Ivan; Kovačević Zelić, Biljana. Analysis of hydraulic properties of unsaturated expansive soil // <i>Građevinar : časopis Hrvatskog saveza građevinskih inženjera</i>. 2011 (2011) , 03; 245-253. 2. Vrkljan, Ivan; Kavur, Boris. Rock Mass Deformability Testing By Large Flat Jacks. // <i>Građevinar</i>. 58 (2006) , 01; 05-14. 3. Vrkljan, Ivan; Kavur, Boris; Fifer Bizjak, Karmen. Dilatometer Testing in Engineering Rock Mechanics. // <i>Građevinar</i>. 58 (2006) , 3; 187-197. 4. Vrkljan, Ivan; Kavur, Boris. Some aspects of accreditation of geotechnical laboratories. // <i>Rudarstvo</i>. 10 (2005) , 39-40; 324-332. 5. Vrkljan, Ivan; Stojković, Branko; Marenče Miroslav. Rock mass strength criteria. // <i>Građevinar</i>. 41 (1989) , 6; 293-301. 6. Jašarević, Ibrahim; Hudec, Mladen; Stojković, Branko; Plamenac, Mihajlo; Vrkljan, Ivan; Marenče, Miroslav. Bekhme Dam Tunnels protection. // <i>Građevinar</i>. 40 (1988) , 11; 527-533. 7. Nonveiller, Ervin; Szavits-Nossan, Antun; Lisac, Zvonimir; Vrkljan, Ivan; Višić, Ivan; Mavar, Ramon. Gründungsschacht 60 m tief als Brunnen abgesenkt. // <i>Bauingenieur</i>. 57 (1982) ; 351-356. 8. Vrkljan, Ivan. Protection of the urban area of Tuzla against the consequences of rock salt exploitation by leaching . // <i>Rudarsko-metalurški zbornik</i>. 28 (1981) , 2-3; 223-238 (članak, znanstveni). 9. Vrkljan, Ivan. Applicability Analysis of some strength criterion on rock salt "Tušanj". // <i>Zbornik radova rudarsko-geološkog fakulteta u Tuzli</i>. VI (1976) , 6; 33-37.
List of publications which serve as a proof of teaching qualifications	<ol style="list-style-type: none"> 1. Vrkljan, Ivan. Karl Terzaghi and engineering geology, geomorphology, rock mechanics and tunnelling. Invited lecture // <i>Eight international conference: Geotechnics in Civil Engineering. Association of civil engineers of Serbia, Serbian society of soil mechnaics and geotechnical engineering</i>, Vrnjačka Banja, 13-15.11.2019. 59-78. (keynote lecture). 2. Vrkljan, Ivan. Karl Terzaghi and Croatian karst. // <i>Geotechnical challenges in karst, ISRM Specialised Conference / International conference, 8. Savjetovanje Hrvatskog geotehničkog društva Omiš – Split, Croatia, 11.-13.04.2019. 29-52 (in Croatian); 53-78 (in English). (invited lecture).</i> 3. Parwata, I Nyoman Sudi; Shimizu, Norikazu; Grujić, Bojana; Čeliković, Ruža; Zekan, Sabid; Vrkljan Ivan. Validity of SBAS-DInSAR Monitoring of Subsidence Induced by Salt Mining in Tuzla // <i>Geotechnical challenges in karst, ISRM Specialised Conference / International conference, 8.</i>

- Savjetovanje Hrvatskog geotehničkog društva Omiš – Split, Croatia, 11.-13.04.2019. 311-317.*
4. Podolszki, Laszlo; Parwata, Nyoman, Sudi; Shimizu, Norikazu; Pollak, Davor; Vrkljan Ivan. Landslide in Hrvatska Kostajnica – collected data and analysis in progress // *Geotechnical challenges in karst, ISRM Specialised Conference / International conference, 8. Savjetovanje Hrvatskog geotehničkog društva Omiš – Split, Croatia, 11.-13.04.2019. 323-328.*
 5. Vrkljan, Ivan. Geotechnical investigation works // *Proceedings of the conference: Contemporary Civil Engineering practice. Faculty of Technical Sciences in Novi sad, Civil engineers Society of Novi sad, Andrevlje, 25-26. 05. 2017. 25-50.*
 6. Vrkljan, Ivan. Controlled sinking of concrete open caisson for the machine hall of pumped-storage plant „Velebit“. // *Seventh international conference Geotechnics in Civil Engineering. Association of civil engineers of Serbia, Serbian society of soil mechanics and geotechnical engineering, Institut IMS a.d. i SET d.o.o. Šabac, 14-17.11.2017. 21-36. (invited lecture).*
 7. Vrkljan, Ivan. Rock mechanics-50 years since the ISRM was founded. // *Fifth International Conference „Geotechnics in Civil Engineering“. Association of civil engineers of Serbia, Serbian society of soil mechanics and geotechnical engineering. Sokobanja, 29-31.10.2013. 53-59. (invited lecture).*
 8. Vrkljan, Ivan. Geotehnička problematika građenja tunela-iskustva i mogućnosti // *Izazovi u graditeljstvu. Hrvatski savez građevinskih inženjera. November, 2013. 98-333.*
 9. Vrkljan, Ivan. Half century of rock mechanics as an independent scientific and engineering discipline. // *2nd International Scientific Meeting GTZ 2012 GEO-EXPO 2012, Tuzla, June 07-09, 2012. (invited lecture).*
 10. Bandić, Matija; Galjan, Branimir; Barbalčić, Ivo; Štambuk Cvitanović, Nataša; Vrkljan, Ivan. Extent of geotechnical testing for pile excavation in port of Dubrovnik // *Rock Engineering in Difficult Ground Conditions - Soft Rocks and Karst / Vrkljan, Ivan (ur.). Amsterdam : Balkema, 2009. 227-232 (poster, međunarodna recenzija, objavljeni rad, znanstveni).*
 11. Hrženjak, Petar; Navratil, Dražen; Vrkljan, Ivan; Duvnjak, Branko. Stability analysis of large-scale slopes in heterogeneous rock masses // *Rock Engineering in Difficult Ground Conditions - Soft Rocks and Karst / Vrkljan, Ivan (ur.). Amsterdam : Balkema, 2009. 459-464 (poster, međunarodna recenzija, objavljeni rad, znanstveni).*
 12. Ivšić, Tomislav; Vrkljan, Ivan; Zlatović, Sonja; Mavar, Ramon. Dynamic testing of marine sediments at the Pelješac bridge site // *Proceedings of the 17th International Conference on Soil Mechanics and Geotechnical Engineering, The Academia & Practice of Geotechnical Engineering / Hamza, M., Shahien, M., El-Mossallamy, Yasser. (ur.). Alexandria : IOS Press, 2009. 344-347 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 13. Ortolan, Želimir; Zlatović, Sonja; Vrkljan, Ivan. GEOTECHNICAL 3D MODELLING IN SOFT ROCKS USING RNC METHOD // *Rock Engineering in Difficult Ground Conditions - Soft Rocks and Karst / Vrkljan, Ivan (ur.). Amsterdam : Balkema, 2009. 489-494 (poster, međunarodna recenzija, objavljeni rad, znanstveni).*
 14. Kavur, Boris; Vrkljan, Ivan; Milaković, Davor; Štambuk Cvitanović, Nataša. A case history on the interpretation of CPTU data using laboratory test results // *Proceedings of the international geotechnical conference: "Development of urban areas and geotechnical engineering", Saint Petersburg 16-19 June 2008 / V.M. Ulitsky (ur.). Saint Petersburg : NPO, 2008. 409-412 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 15. Kavur, Boris; Vrkljan, Ivan; Mulabdić, Mensur. Interpretation of CPTU results in terms of soil design parameters at Satnica Djakovacka, Croatia // *Geotechnical and Geophysical Site Characterization / Huang & Mayne (ur.). London : Taylor & Francis Group, London, 2008. 403-408 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 16. Kovačević Zelić, Biljana; Vrkljan, Ivan. Laboratory Testing of GCLs // *Proceedings of the 1st Middle European Conference on landfill Technology / Telekes, G., Imre, E., Witt K-J., Ramke H-G (ur.). Budimpešta : Szent Istvan University Ybl Miklos Faculty of Architecture and Civil Engineering Press, 2008. 95-102 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 17. Štambuk Cvitanović, Nataša; Đukić, Predrag; Vrkljan, Ivan; Kavur, Boris. Use of the laser interferometry in geotechnical laboratory - why and how? // *Kompetentnost laboratorija 2007 - novi pristup / Margeta, Karmen (ur.). Zagreb : CROLAB, 2008. 527-539 (poster, međunarodna recenzija, objavljeni rad, znanstveni).*
 18. Kavur, Boris; Vrkljan, Ivan; Znidarčić, Dobroslav. Prediction of Rock Swelling Behaviour // *Proceedings of the Sri Lankan Geotechnical Society's First International Conference on Soil & Rock Engineering. (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 19. Vrkljan, Ivan; Kavur, Boris; Nataša, Štambuk, Cvitanović. Strength and deformation properties of the concrete-to-rock contact // *The Second Half Century of Rock Mechanics / L. Riberio e Sousa, C. Olalla, N. Grossmann (ur.). London : Taylor and Francis, 2007. 697-700 (predavanje, međunarodna recenzija, objavljeni rad, znanstveni).*
 20. Vrkljan, Ivan; Kavur, Boris; Znidarčić Dobroslav. Influence of desiccation on swelling behavior of initially saturated swelling rocks // *Proceedings of the XIII. Danube-European Conference on Geotechnical Engineering / Logar, Janko ; Gaberc, Ana ; Majes, Bojan (ur.). Rotterdam : Balkema,*

	<p>2006. 159-164 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>21. Vrkljan, Ivan; Ženko, Tomislav; Ožanić, Nevenka. Problems with water during tunnel construction // <i>Proceedings of the 10th ACUUS International Conference - Underground Space : Economy and Environment</i> / Yufin, S. (ur.). Moscow : State University of Civil Engineering, 2005. 256-259 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>22. Kovačević Zelić, Biljana; Kovačić, Davorin; Vrkljan, Ivan. Bentonitni tepisi u odlagalištima otpada // <i>Razprave četrtog posvetovanja slovenskih geotehnikov</i> / Logar, Janko ; Gaberc, Ana (ur.). Ljubljana : SloGeD, 2004. 227-236 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni). </p> <p>23. Vrkljan, Ivan; Ženko, Tomislav. The Influence of Undergoround Water on Rock Mass Behaviour During Tunnelling // <i>Proceedings of the 1st International Conference on Groundwater In Geological Engineering, 22-26 September 2003, Bled, Slovenia</i> / Petrič, Metka ; Pezdič, Jože ; Trček, Branka ; Veslič, Miran (ur.). Ljubljana : RMZ-Materials and Geoenviroment, 2003. 401-404 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>24. Veinović, Želimir; Kvasnička, Predrag; Sesar, Snježana; Vrkljan, Ivan. Ispitivanje vodopropusnosti alternativnih materijala za izradu brtvenih slojeva odlagališta komunalnog otpada u kršu // <i>Razprave tretjega posvetovanja slovenskih geotehnikov</i> / Majes, Bojan ; Logar, Janko (ur.). Maribor : Slovensko geotehniško društvo, 1999-2000. 29-38 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni). </p> <p>25. Vrkljan, Ivan; Kavur, Boris; Mehinrad, A; Ghiassi, S. Rock Mass Deformability by Extra Large Flat Jack, Plate Load and Dilatometer Testings // <i>Proceedings of 8-th International Congress on Rock Mechanics</i> / T.Fujii (ur.). Rotterdam : Balkema, 1995. 185-191 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>26. Vrkljan, Ivan; Ortolan, Želimir, Petraš, Josip. Geotechnical problems in designing waste dumps on soft soils // <i>Proceedings of the Sixth International Symposium-Landslides</i> / David H. Bell (ur.). Rotterdam : Balkema, 1992. 255-262 (poster,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>27. Vrkljan, Ivan; Ortolan, Želimir; Ženko, Tomislav; Redžepagić, Murat. Some experiences on tunnelling in swelling materials // <i>Proceedings of 7-th International Congress on Rock Mechanics</i> / W.Wittke (ur.). Rotterdam : Balkema, 1991. 1381-1386 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p> <p>28. Vrkljan, Ivan; Nonveiller, Ervin; Szavits-Nossan, Antun; Lisac, Zvonimir; Višić, Ivan. Controlled sinking o fan open end caisson in weak rock // <i>Proceedings of 5-th International Congress on Rock Mechanics</i>. Melbourne : Balkema, 1983. D337-D342 (predavanje,međunarodna recenzija,objavljeni rad,znanstveni).</p>
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Leader of the following research projects	<ol style="list-style-type: none"> 1. Rock swelling phenomenon and its influence on underground facilities, Ministry of Science and Technology of the Republic of Croatia (Project Code: 2-11-420). 2. Behaviour of swelling rocks in geotechnical structures, Ministry of Science and Technology of the Republic of Croatia (Project Code: 0110221). 3. 3. Assessing Mechanical Characteristics of Bentonite Liners for Impervious Barriers (Project Code: 110-0831529-1517)
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Participant in the following research projects	<ol style="list-style-type: none"> 1. Introduction of a novel theory of underground pressures for a viscous-elastoplastic material using appropriate failure conditions, starting from the critical analysis of existing theories of underground pressures, Republic Agency for Research Work, Sarajevo, Documentation of the Faculty of Mining and Geology, Tuzla, (1972), Lead Researcher: Prof. M. Osmanagić. 2. Determining the most favourable shape of deep excavation chambers for bedded ore deposits in real heterogeneous environment from the standpoint of stability and high productivity, Republic Agency for Research Work, Sarajevo, Documentation of the Faculty of Mining and Geology, Tuzla, (1976), Lead Researcher: Prof. M. Osmanagić. 3. Study of existing and new methods for salt extraction from Tuzla deposits with a separate account of the settlement observed in the urban area of Tuzla, Synthesis Study - Part 1, Republic Agency for Research Work, Sarajevo, Documentation of the Faculty of Mining and Geology, Tuzla, (1972), Lead Researcher: Prof. M. Osmanagić. 4. Prefabricated anchored support structures, Ministry of Science and Technology of the Republic of Croatia (Project Code: 2-11-075), Lead Researcher: Prof. I. Jašarević. 5. Determining parameters required for tunnelling work in karst terrains, Ministry of Science and Technology of the Republic of Croatia (Project Code: 2-11-007), Lead Researcher: Prof. M. Plamenac. 6. 6.Consultant on the project entitled: Erosion and landslides as a joint geo-hazardous phenomenon (0195967). Lead Researcher: Vladimir Jurak. 7. Risk Identification and Land-Use Planning for Disaster Mitigation of Landslides and Floods in Croatia. Lead Researcher: Neevnka Ožanić."
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Supervision of MSc theses	0
Supervision of PhD theses	2
Examination of MSc theses	2
Examination of PhD theses	5