

Name of teacher:	Vedran Jagodnik
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Employed at: Since:	Faculty of Civil Engineering, University of Rijeka 2007
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Academic rank: Since: In:	Associated professor 2021. Geotechnics, Civil Engineering, Technical sciences
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Knowledge of foreign languages:	English
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Qualifications	- date of birth, nationality: 28.08.1983., Croatian - First degree obtained at: Faculty of Civil Engineering, University of Rijeka - Ph.D. degree obtained at: Faculty of Civil Engineering, University of Rijeka, 2014. „Behaviour of laterally loaded piles in sandy gravels“ - additional education: - Summer School Numerical Modelling, 2024. University of Innsbruck, Austria - MPM Training course, 2016. University of Cambridge, United Kingdom - previous employments: - Assistant professor: 2016. – 2021. Faculty of Civil Engineering, University of Rijeka - Postdoc: 2014. – 2016. Faculty of Civil Engineering, University of Rijeka - Teaching assistant: 2007. – 2014. Faculty of Civil Engineering, University of Rijeka
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List of papers published in scientific journals	Jagodnik, V. and Sulovsky, T., 2025. Degradation of fully saturated uniform sand subjected to small-strain undrained cyclic shearing. Journal of Rock Mechanics and Geotechnical Engineering. https://doi.org/10.1016/j.jrmge.2025.02.012 Marušić, D. and Jagodnik, V., 2025. Atterberg limits determination and soil classification using Fall cone device on the silty sands and sandy silts. International Journal of Geotechnical Engineering, pp.1-10. Marušić, D. and Jagodnik, V., 2023. Determination of the Atterberg limits using a Fall cone device on low plasticity silty sands. Rudarsko-geološko-naftni zbornik, 38(3), pp.133-145 Jagodnik, V. and Arbanas, Ž., 2022. Cyclic behaviour of uniform sand in drained and undrained conditions at low confining stress in small-scale landslide model. Sustainability, 14(19), p.12797. Pajalić, S., Peranić, J., Maksimović, S., Čeh, N., Jagodnik, V. and Arbanas, Ž., 2021. Monitoring and data analysis in small-scale landslide physical model. Applied Sciences, 11(11), p.5040. Jagodnik, P., Gazibara, S.B., Jagodnik, V. and Arbanas, S.M., 2020. Types and distribution of Quaternary deposits originating from carbonate rock slopes in the Vinodol Valley, Croatia—new insight using airborne Jagodnik V, Kraus I, Ivanda S, Arbanas Ž. Behaviour of Uniform Drava River Sand in Drained Condition—A Critical State Approach. Applied Sciences 2020;10:5733. http://dx.doi.org/10.3390/app10175733 Jagodnik P, Jagodnik V, Arbanas Ž, Mihalić Arbanas S. Landslide types in the Slani Potok gully, Croatia. Geologia Croatica. 2020;73(1):13-28. https://doi.org/10.4154/gc.2020.04 Jagodnik, V., Arbanas, Ž. - Testing of laterally loaded piles in natural sandy gravels. International Journal of Physical Modelling in Geotechnics 15 (4), 191-208. 2015.
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	Jagodnik, V., Jelenić, G., Arbanas, Ž - On application of mixed finite-element approach to beam–soil interaction. <i>Acta Geotechnica Slovenica</i> 10 (2), 15-27. 2013.
List of publications which serve as a proof of teaching qualifications	Jagodnik, V. and Sulovsky, T., 2025. Degradation of fully saturated uniform sand subjected to small-strain undrained cyclic shearing. <i>Journal of Rock Mechanics and Geotechnical Engineering</i>. (accepted for publishing). Marušić, D. and Jagodnik, V., 2025. Atterberg limits determination and soil classification using Fall cone device on the silty sands and sandy silts. <i>International Journal of Geotechnical Engineering</i>, pp.1-10. Jagodnik, V., Marušić, D., Mušić, N. and Bošnjak, I., 2025. Sand and sand-kaoline mixtures cyclic properties under low confining stress. In <i>Proceedings of the 3rd Croatian Conference on Earthquake Engineering-3CroCEE</i> (pp. 264-273). Zagreb: University of Zagreb Faculty of Civil Engineering; University of Split Faculty of Civil Engineering, Architecture and Geodesy. Jagodnik, V., Marušić, D., Peranić, J., Prodan, M.V., Arbanas, Ž. and Katalinić, D., 2024. Cyclic properties of sand-clay mixtures at low confining stresses. In <i>Geotechnical Engineering Challenges to Meet Current and Emerging Needs of Society</i> (pp. 554-559). CRC Press. Jagodnik, V., Čeh, N. and Trbović, N., 2024. Stability of Rigid Blocky Structures on Uniform Sand Subjected to Harmonic Horizontal Base Excitation. In <i>5th European Conference on Physical Modelling in Geotechnics ECPMG 2024</i>. Delft: ISSMGE. Marušić, D. and Jagodnik, V., 2023. Determination of the Atterberg limits using a Fall cone device on low plasticity silty sands. <i>Rudarsko-geološko-naftni zbornik</i>, 38(3), pp.133-145 Jagodnik, V., Čeh, N., Peranić, J., Vivoda Prodan, M. and Arbanas, Ž., 2023. Behaviour of small-scale slope under dynamic loading at 1g conditions considering remediation measures. In <i>9. savjetovanje Hrvatskog geotehničkog društva s međunarodnim sudjelovanjem is pokroviteljstvom ISSMGE-a</i>(pp. 303-310). Jagodnik, V. and Arbanas, Ž., 2022. Cyclic behaviour of uniform sand in drained and undrained conditions at low confining stress in small-scale landslide model. <i>Sustainability</i>, 14(19), p.12797. Brandis, A., Čeh, N., Jagodnik, V., Kraus, I. and Brandis, D., 2022, June. Experimental research of soil-steel frame system on shaking table. In <i>Symposium of the Macedonian Association for Geotechnics</i> (pp. ISRM-MAG). ISRM Jagodnik, V., Turkovic, M. and Arbanas, Ž., 2022, March. Preliminary results on the undrained cyclic behavior of uniform sand at low confining stress. In <i>Proceedings of the 5th Regional Symposium on Landslides in the Adriatic-Balkan Region</i>, Rijeka, Croatia (pp. 23-26). Čeh, N., Peranić, J., Jagodnik, V., Pajalić, S., Vivoda Prodan, M. and Arbanas, Ž., 2022. Digital image correlation and the use of high-speed cameras for 3D displacement monitoring in 1g small-scale landslide models. <i>Proceedings of the 5th Regional Symposium on Landslides in Adriatic-Balkan Region</i>; Peranic, J., Vivoda Prodan, M., Bernat Gazibara, S., Krkac, M., Mihalic Arbanas, S., Arbanas, Ž., Eds., pp.181-186. Arbanas, Ž., Peranić, J., Jagodnik, V., Vivoda Prodan, M., Čeh, N., Pajalić, S. and Plazonić, D., 2022, March. Impact of gravity retaining wall on the stability of a sandy slope in small-scale physical model. In <i>Proceedings of the 5th Regional Symposium on Landslides in Adriatic-Balkan Region</i>; Peranic, J., Vivoda Prodan, M., Bernat Gazibara, S., Krkac, M., Mihalic Arbanas, S., Arbanas, Ž., Eds. Arbanas, Ž., Peranić, J., Jagodnik, V., Čeh, N., Pajalić, S. and Prodan, M.V., 2022. Behaviour of sandy and clayey slopes exposed to artificial rain in small-scale model. In <i>International Conference on Physical Modelling in Geotechnics (ICPMG2022)</i> (pp. 712-715).

	Peranić, J., Jagodnik, V., Čeh, N., Pajalić, S., Jagodnik, P. and Arbanas, Ž., 2022. Landslide initiation in small-scale sandy and clayey slopes exposed to artificial rain. In 20th International Conference on Soil Mechanics and Geotechnical Engineering (pp. 1075-1080). Prodan, M.V., Peranić, J., Pajalić, S., Jagodnik, V., Čeh, N. and Arbanas, Ž., 2022. Mechanism of rainfall induced landslides in small-scale models built of different materials. Proceedings of the 5th ReSyLAB 'Landslide Modelling & Applications, pp.187-192. Peranic, J., Jagodnik, V., Ceh, N., Vivoda Prodan, M., Pajalic, S. and Arbanas, Ž., 2022. Small-scale physical landslide models under 1g infiltration conditions and the role of hydrological monitoring. In Proceedings of the 5th Regional Symposium on Landslides in Adriatic-Balkan Region; Peranic, J., Vivoda Prodan, M., Bernat Gazibara, S., Krkac, M., Mihalic Arbanas, S., Arbanas, Ž., Eds. Pajalić, S., Peranić, J., Maksimović, S., Čeh, N., Jagodnik, V. and Arbanas, Ž., 2021. Monitoring and data analysis in small-scale landslide physical model. Applied Sciences, 11(11), p.5040. Miranda, E., Brzev, S., Bijelic, N., Arbanas, Ž., Bartolac, M., Jagodnik, V., Lazarević, D., Mihalić Arbanas, S., Zlatović, S., Acosta, A. and Archbold, J., 2021. Petrinja, Croatia December 29, 2020, Mw 6.4 Earthquake Joint Reconnaissance Report (JRR). ETH Zurich. Jagodnik, P., Jagodnik, V., Arbanas, Ž. and Arbanas, S.M., 2021. Gullies as Landforms for Landslide Initiation—Examples from the Dubračina River Basin (Croatia). Understanding and Reducing Landslide Disaster Risk: Volume 2 From Mapping to Hazard and Risk Zonation 5th, pp.67-73. Jagodnik, V., Peranić, J. and Arbanas, Ž., 2021. Mechanism of landslide initiation in small-scale sandy slope triggered by an artificial rain. Understanding and Reducing Landslide Disaster Risk: Volume 6 Specific Topics in Landslide Science and Applications 5th, pp.177-184. Jagodnik, P., Gazibara, S.B., Jagodnik, V. and Arbanas, S.M., 2020. Types and distribution of Quaternary deposits originating from carbonate rock slopes in the Vinodol Valley, Croatia—new insight using airborne LiDAR data. Rudarsko-geološko-naftni zbornik, 35(4). Jagodnik V, Kraus I, Ivanda S, Arbanas Ž. Behaviour of Uniform Drava River Sand in Drained Condition—A Critical State Approach. Applied Sciences [Internet] 2020;10:5733. Available from: http://dx.doi.org/10.3390/app10175733 Jagodnik P, Jagodnik V, Arbanas Ž, Mihalić Arbanas S. Landslide types in the Slani Potok gully, Croatia. Geologia Croatica [Internet]. 2020 [pristupljeno 04.10.2020.];73(1):13-28. https://doi.org/10.4154/gc.2020.04 Peranić J, Jagodnik V, Arbanas Ž. Rainfall infiltration and stability analysis of an unsaturated slope in residual soil from flysch rock mass. Proceedings of the XVII ECSMGE-2019 "Geotechnical Engineering Foundation of the Future", Reykjavik, Iceland. 2019 Sep:1-6. Arbanas, Ž., Pajalić, S., Jagodnik, V., Peranić, J., Vivoda Prodan, M., Đomlija, P., Dugonjić Jovančević, S. & Čeh, N. (2019) Development of physical model of landslide remedial constructions' behaviour. U: Uljarević, M., Zekan, S., Salković, S. & Ibrahimović, D. (ur.) Proceedings of the 4th Regional Symposium on Landslides in the Adriatic-Balkan Region doi:10.35123/resylab_2019_17. Jagodnik, V., Đomlija, P., Vorić, L. & Arbanas, Ž. (2019) Cyclic stress ratio of landslide deposits in Vinodol Valley, Croatia. U: Uljarević, M., Zekan, S., Salković, S. & Ibrahimović, D. (ur.) Proceedings of the 4th Regional Symposium on Landslides in the Adriatic-Balkan Region doi:10.35123/resylab_2019_13. Đomlija, P., Prša, M., Jagodnik, V. & Arbanas, Ž. (2019) Preliminary testing of clay activity from landslide deposits in Dubračina River Basin, Croatia. U: Uljarević, M., Zekan, S., Salković, S. & Ibrahimović, D. (ur.) Proceedings of the 4th Regional
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	Marui, Hideaki; Dragicević, Nevena (edt.). Rijeka, Croatia : University of Rijeka, 2012. 29-32 Arbanas, Ž., Vivoda, M., Jagodnik, V., Dugonjic Jovančević, S. Ljutić, K. - Consideration of early warning system on the Grohovo Landslide - 2nd Project Workshop: Monitoring and Analyses for disaster mitigation of landslides, debris flow and floods. Book of Proceedings. Ožanic, Nevenka ; Arbanas, Željko ; Mihalić, Snježana ; Marui, Hideaki ; Dragicević, Nevena (edt.). Rijeka, Croatia : University of Rijeka, 2012. 51-54. Arbanas, Ž., Dugonjić, S., Vivoda, M., Jagodnik, V. - Landslide affected with an open pit excavation in flysch deposit. Proceedings of the 15th European conference on soil mechanics and geotechnical engineering, Anagnostopoulos, Andreas ; Pachakis, Michael ; Tsatsanifos, Christos (edt.). Amsterdam : IOS Press BV, 2011. 1319-1324 Arbanas, Ž., Jagodnik, V., Dugonjić S. - Analysis of foundation solution of new building in build-up area. Numerical Methods in Geotechnical Engineering NUMGE 2010. Benz, Thomas ; Nordal, Steinar (edt.). Trondheim : CRC Press, 2010. 601-606 Arbanas, Ž., Grošić, M., Udović, D., Jagodnik, V. - Optimization of rock mass support systems during deep excavations. Proceedings of the regional symposium of the International Society for Rock Mechanics, Eurock 2009, Rock Engineering in Difficult Ground Conditions - Soft Rock and Karst. Vrkljan, Ivan (edt.). Leiden: CRC Press/Balkema, Taylor and Francis Group, 2009. 427-433 Arbanas, Ž., Jagodnik, V., Grošić, M., Goršićić, D. - Foundation of new buildings in old urban areas. Proceedings of 2. British Geotechnical Association International Conference On Foundations, ICOF 2008 ; Dundee, Scotland, UK / Brown, Michael J. ; Bransby, Fraser ; Brennan, Andrew J. and Knappett, Johnatan A. (ur.). Garston : IHS BRE Press, 2008. 975-984
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Leader of the following research projects	Physical and laboratory tests of interparticle behavior of sand and clay mixtures at low overburden stresses (uniri-iskusni-tehnic-23-212) - 2023 Laboratory research of static and cyclic behaviour at landslide activation (uniri-tehnic-18-113) - 2018
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Participant in the following research projects	Landslides and erosion as mutual geological hazards in flysch environments (uniri-iskusni-tehnic-23-191) - 2023 Physical modelling of landslide remediation constructions behaviour under static and seismic actions (ModLandRemSS) Inicijalno-rubni problemi u istraživanju modela mikropolarnog kontinuuma (UNIRI) 2017 Laboratory testing and numerical modelling of landslides in flysch deposits in Croatia and Slovenia Study of landslides in flysch deposits: sliding mechanisms and geotechnical properties for landslide modelling and mitigation (SoLiFlyD) Razvoj sustava monitoringa klizišta i ranog upozoravanja za potrebe umanjavanja hazarda od klizanja tla Study of landslides in flysch deposits of North Istria, Croatia: sliding mechanisms, geotechnical properties, landslide modelling and landslide susceptibility Risk identification and land-use planning for disaster mitigation of landslides and floods in Croatia, 2009 – 2014.
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Supervision of PhD theses	1
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Examination of PhD theses	3
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