

Name of teacher:	Vanja Travaš
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Employed at: Since:	University of Rijeka, Faculty of Civil Engineering 1/10/2005
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Scientific / teaching title: Last election date: Scientific area and branch:	Associate Professor March, 2013 technical sciences, civil engineering, hydrotechnics
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e-mail address, web page	vanja.travas@uniri.hr
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Knowledge of foreign languages:	English, Italian
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Qualifications	<ul style="list-style-type: none"> - date of birth, nationality: 11.12.1977., Croat - First degree obtained at: Faculty of Civil Engineering in Rijeka 2004 - Ph.D. degree obtained at: Faculty of Civil Engineering in Rijeka 2009 - previous employments: Fluming d.o.o., Žrtava Fašizma 2, Rijeka
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List of papers published in scientific journals	<ul style="list-style-type: none"> ➤ Travaš, V.; Ožbolt, J.; Kožar, I.: "Failure of plain concrete beam at impact load: 3D finite element analysis", International Journal of Fracture 160, 2009. ➤ Travaš, V.; Kožar, I.: "Statička i dinamička analiza prostorne lančanice", Građevinar 60, 2008. ➤ Travaš, V.; Lanča, I.: "Numerički model infiltracije vode u nesaturiranu sredinu", Građevinar 64, 2012. ➤ Travaš, V.: "Oscilacije vodnih masa u vodnoj komori generičkog oblika", Građevinar 66, 2014. ➤ Mitrović, S.; Ožbolt, J.; Travaš, V.: "Three-dimensional finite element formulation for nonlinear dynamic analysis of seismic site and structure response", European Journal of Environmental and Civil Engineering 19, 2015. ➤ Travaš, V.; Basara, S.: "A mixed MOC/FDM numerical formulation for hydraulic transients", Tehnički vjesnik 22, 2015. ➤ Krvavica, N.; Kožar, I.; Travaš, V.; Ožanić, N.: "Numerical modelling of two-layer shallow water flow in microtidal salt-wedge estuaries: Finite volume solver and field validation", Journal of Hydrology and Hydromechanics. 65, 2017. ➤ Krvavica, N.; Travaš, V.; Ožanić, N.: "A field study of interfacial friction and entrainment in a microtidal salt-wedge estuary", Environmental Fluid Mechanics, Volume 16, 2016. ➤ Krvavica, N.; Travaš, V.; Ožanić, N.: "Salt-Wedge Response to Variable River Flow and Sea-Level Rise in the Microtidal Rječina River Estuary, Croatia", Journal of Coastal Research, 2016. ➤ Ožbolt, J.; Travaš, V.; Kožar, I.: "3D finite element analysis of concrete under impact load", Computational modelling of concrete structures, 2016. ➤ Travaš, V.: "On kinematic constraint in microplane theory", Engineering review, Vol. 32, 2012. ➤ Rubeša, A.; Travaš, V.: "A physical model of convective-dispersive transport in an intergranular porous material", Engineering review, Vol. 33, Issue 3, 141-150, 2013. ➤ Jelenković, T.; Travaš, V.: "Numerical and experimental analysis of seepage beneath a model of a gravity dam", Engineering review, Vol. 33, Issue 2, 75-84, 2013. ➤ Travaš, V.; Krvavica, N.; Radman, I.: "Numerical analysis of hysteresis in rating curves for open channel flow", Engineering Modelling 25, 2012. ➤ Travaš, V.; Krvavica, N.: "Spektralni i monokromatski pristup definiranja hidrodinamičkog opterećenja na vertikalne pilote", Hrvatsk vode 22, 2014. ➤ Travaš, V.; Krvavica, N.; Rubeša, J.: "Modeliranje morfologije otvorenih korita za provedbu jednodimenzijske analize toka", Hrvatske vode 23, 2015.
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	<ul style="list-style-type: none"> ➤ Kravica, N.; Travaš, V.: "A comparison of method of characteristics and Preissmann scheme for flood propagation modeling with 1D Saint-Venant equations", Acta hydrotechnica 27, 2015. ➤ Stipanić, D.; Travaš, V.: "An iterative algorithm for initializing the flow in a pipe system with more reservoirs", Engineering Modelling 28, 2015. ➤ Gjetvaj, Goran; Travaš, Vanja: Hidraulička analiza nestacionarnog tečenja kroz hidromelioracione nasipe, Priručnik za hidrotehničke melioracije (Nasipi u hidromelioracionim radovima), Elementi planiranja sustava za navodnjavanje, Ožanić, Nevenka (ur.). Rijeka, Liber, 2005.
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List of publications which serve as a proof of teaching qualifications	<p>In addition to the above papers:</p> <ul style="list-style-type: none"> ➤ NACFail (Numerical Analysis of Concrete Failure at Impact Loadings) - Autorski program razvijen u svrhu istraživanja ponašanja betona kod visoko-energetskih udarnih opterećenja. Program je napisan u programskom jeziku FORTRAN95. ➤ CBSflow - Autorski program razvijen u svrhu istraživanja aerodinamičnih karakteristika kolničkih konstrukcija mostova (2D). Program je pisan u programskom jeziku FORTRAN95 i bazira se na numeričkoj integraciji Navier-Stokesove jednadžbe (metodom konačnih elemenata). ➤ PIPENET3D. Autorski program razvijen u suradnji s kolegom Davorom Stipanićem u svrhu analize tlačnih sustava. Program podržava slučajeve većeg broja vodosprema spojenih na istu tlačnu mrežu te isto tako omogućuje provedbu optimizacije promjera cjevovoda. Optimizacija se provodi na deterministički, a ne stohastički način kako je uobičajeno za ovakve modele.
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Leader of the following research projects	<ul style="list-style-type: none"> ➤ Scientific research project funded by the National Foundation for Science, Higher Education and Technological Development of the Republic of Croatia. At the Northwestern University Institute of Technology (USA), he conducts independent research entitled "Fragmentation of the spatial network of tetrahedral finite elements". ➤ Head of UniRi support "Experimental research of the interaction of salt and fresh water on the downstream stream and the mouth of the river"
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Participant in the following research projects	<ul style="list-style-type: none"> ➤ 2009-2014 Bilateral Croatian-Japanese scientific research project "Risk Identification and Land-Use Planning for Disaster Mitigation of Landslides and Floods in Croatia"
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Supervision of MSc theses	0
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Supervision of PhD theses	2
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Examination of MSc theses	0
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Examination of PhD theses	1
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