

First and last name and title of teacher	Prof.dr.sc. Vesna Denić-Jukić
GENERAL INFORMATION ON COURSE TEACHER	
Adress	Matice hrvatske 15, Split
Telephone number:	021/303404
E-mail adress:	vdenic@gradst.hr
Personal web page:	CroRIS - Osobe
Research-and-teaching, art-and-teaching or teaching rank, and date of last rank appointment	Professor with tenure, 2019
Area and field of election into research or art rank	Domain of Technical Sciences, Field of Civil Engineering
INFORMATION ON CURRENT EMPLOYMENT	
Institution where employed	University of Split, Faculty of Civil Engineering, Architecture and Geodesy, Department of Hydrology
Field of research	Hydrology, Karst hydrology, Karst hydrology modelling
SCIENTIFIC COMPETENCES	
Scientific articles published in the field	<p>Scientific articles (2019-2023)</p> <p>Jukić, D., Denić-Jukić, V., 2023. An alternative approach to investigation of sediment transport through a karst aquifer, <i>Journal of Hydrology</i> 625, 130037.</p> <p>Kadić, A., Denić-Jukić, V., Jukić, D., 2023. Exceeding Turbidity versus Karst Spring Discharge during Single Rainfall Events: The Case of the Jadro Spring, <i>Water</i> 15(14), 2589; https://doi.org/10.3390/w15142589</p> <p>Kadić, Ana; Denić-Jukić, Vesna; Jukić, Damir, 2023. Higher-order Partial Cross-correlation Analysis Of Adjacent Karst Springs // 8th World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium: Abstract Book. Prag: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium (WMCAUS).</p> <p>Jukić, D., Denić-Jukić, V., Kadić, A., 2022. Temporal and spatial characterization of sediment transport through a karst aquifer by means of time series analysis, <i>J. Hydrol.</i>609, 127753. https://doi.org/10.1016/j.jhydrol.2022.127753</p> <p>Jukić, D., Denić-Jukić, V., Lozić, A., 2021. An alternative method for groundwater recharge estimation in karst, <i>J. Hydrol.</i>600,126671. https://doi.org/10.1016/j.jhydrol.2021.126671</p>

Denić-Jukić, V., Lozić, A., Jukić, D., 2020. An Application of Correlation and Spectral Analysis in Hydrological Study of Neighboring Karst Springs, *Water* 12, 3570, <http://dx.doi.org/10.3390/w12123570>.

Orlić, Mirko; Duplančić-Leder, Tea; Verbanac, Giuliana; Denić-Jukić, Vesna; Grbec, Branka; Horvath, Kristian; Beg Paklar, Gordana; Herak, Marijan; Herak, Davorka; Stipčević, Josip: Geodesy in Croatia, 2015-2018: Report submitted to the International Association of Geodesy of the International Association of Geodesy and Geophysics // *Geofizika*, 36 (2019), 2; 173-180

Kadić, A., Denić-Jukić, V., Jukić, D., 2019. Analiza meteoroloških i hidroloških odnosa u kršu primjenom parcijalne kros-korelacijske funkcije višeg reda, *Hrvatske vode* 27, 201-210.

Denic-Jukic, V., 2019. Hydrology and physical limnology in Croatia, 2015-2018. *GEOFIZIKA*, 36(2), pp.185-194.

Kadić, A. et al., 2019. Hydrological functioning of three karst springs located in the Cetina River catchment in Croatia, *Geophysical Research Abstracts*, EGU General Assembly, 2019.

Scientific articles relevant in the field:

Kadić, Ana; Denić-Jukić, Vesna; Jukić, Damir, Revealing hydrological relations of adjacent karst springs by partial correlation analysis // *Hydrology Research*, 49 (2018), 3; 616-633. doi: 10.2166/nh.2017.064.

Jukić, Damir; Denić-Jukić, Vesna, Investigating relationships between rainfall and karst-spring discharge by higher-order partial correlation functions // *Journal of hydrology*, 530 (2015), 24-36. doi: 10.1016/j.jhydrol.2015.09.045.

Jukić, Damir; Denić-Jukić, Vesna, Partial spectral analysis of hydrological time series // *Journal of hydrology*, 400 (2011), 1/2; 223-233. doi: 10.1016/j.jhydrol.2011.01.044.

Jukić, Damir; Denić-Jukić, Vesna, Groundwater balance estimation in karst by using a conceptual rainfall-runoff model // *Journal of hydrology*, 373 (2009), 3-4; 302-315. doi: 10.1016/j.jhydrol.2009.04.035.

Jukić, Damir; Denić-Jukić, Vesna, Estimating parameters of groundwater recharge model in frequency domain: Karst springs Jadro and Žrnovnica *Hydrological Processes*, 22

(2008), 23; 4532-4542. doi: 10.1002/hyp.7057.

Jukić, Damir; Denić-Jukić, Vesna, Nonlinear kernel functions for karst aquifers // *Journal of hydrology*, 328 (2006), 360-374-x.

Jukić, Damir; Denić-Jukić, Vesna, A frequency domain approach to groundwater recharge estimation in karst // *Journal of hydrology*, 289 (2004), 1-4; 95-110-x.

Denić-Jukić, Vesna; Jukić, Damir, Composite transfer functions for karst aquifers // *Journal of hydrology*, 274 (2003), 1-4; 80-94-x

Conference papers:

Kadić, Ana; Denić-Jukić, Vesna; Jukić, Damir, Higher-order Partial Cross-correlation Analysis of Adjacent Karst Springs // 8th World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium: Abstract Book. Prag: World Multidisciplinary Civil Engineering-Architecture-Urban Planning Symposium (WMCAUS), 2023, 41-41.

Kadić, Ana; Dadić, Ana; Slatina, Ivona; Duplančić-Leder, Tea; Jukić, Damir; Denić-Jukić, Vesna, Hydrological functioning of three karst springs located in the Cetina River catchment in Croatia // *Geophysical Research Abstracts*, EGU General Assembly, Vienna, 2019.

Jukić, Damir; Slatina, Ivona; Denić-Jukić, Vesna, EFFECTS OF HYDROPOWER RESERVOIRS ON HYDROLOGY OF TWO ADJACENT KARST SPRINGS // 18th International Multidisciplinary Scientific GeoConference SGEM, Vienna, 2018, Conference Proceedings, Volume 18, Science and Technologies in Geology, Oil and Gas Exploration, Water Resources, Forest Ecosystems, Issue:1.5, Oil and Gas Exploration, Hydrology and Water Resources, Forest Ecosystems. Sofija: SGEM, 2018, 267-274, doi: 10.5593/SGEM2018V/1.5/S02.033.

Carić, Ana; Denić-Jukić, Vesna; Jukić, Damir, Analyses of time variabilities of runoff coefficients at two neighbouring karst catchments // *Geophysical Research Abstracts*, EGU General Assembly, Vienna, 2018.

Jukić, Damir; Denić-Jukić, Vesna, Investigation of spatial and temporal variability of groundwater flow process by using higher-order partial correlation functions: theoretical considerations // *Geophysical Research Abstracts*, EGU General Assembly, Vienna, 2018.

Denić-Jukić, Vesna; Kadić, Ana; Jukić, Damir, HIGHER-ORDER PARTIAL CROSS-CORRELATION FUNCTION AS A TOOL FOR INVESTIGATING HYDROLOGICAL RELATIONS IN KARST // 17th International Multidisciplinary Scientific GeoConference SGEM, Vienna, 2017, Conference Proceedings, Volume 17, Water Resources. Forest, Marine and Ocean Ecosystems, Issue 33, Hydrology and Water Resources, Forest Ecosystems. Sofija: SGEM, 2017, 187-194 doi: 10.5593/SGEM2017H/33/S12.023.

Jukić, Damir; Denić-Jukić, Vesna, A THEORETICAL BASIS FOR APPLICATION OF PARTIAL CORRELATION FUNCTIONS IN HYDROLOGICAL SYSTEM ANALYSIS WITH REFERENCE TO KARST // 17th International Multidisciplinary Scientific GeoConference SGEM, Vienna, 2017, Conference Proceedings, Volume 17, Water Resources. Forest, Marine and Ocean Ecosystems, Issue 33, Hydrology and Water Resources, Forest Ecosystems. Sofija: SGEM, 2017, 11-18 doi: 10.5593/sgem2017H/33/S12.002.

Kadić, Ana; Jukić, Damir; Denić-Jukić, Vesna, Study of hydrological relations between two adjacent karst springs by means of time series analysis // Aqua 2015, Hydrogeology: Back to the Future!. Roma, The International Association of Hydrogeologists, 2015.

Andrić, Ivo; Bonacci, Ognjen; Denić-Jukić, Vesna; Jukić, Damir, Hydrologic budget of the intermittent karst lake Modro jezero // Geophysical Research Abstracts Vol. 15. EGU2013-6048, 2013 EGU General Assembly, Vienna, 2013

Kapelj, Sanja; Kapelj, Janislav; Jukić, Damir; Denić-Jukić, Jasna; Švonja, Mirjana; Tepeš, Predrag; Loborec, Jelena; Dogančić, Dragana; Biondić, Božidar; Leis, Albrecht, Integral approach for the protection of the Jadro and Žrnovnica springs catchment - Dalmatia, Croatia // Sustainability of the Karst environment - Dinaric Karst and other Karst regions / Ognjen Bonacci (ur.). Gospić: Plitvička jezera: Sveučilišna tiskara, 2009, 79-80.

Jukić, Damir; Denić-Jukić, Vesna; Teskera, Ivan, Groundwater recharge estimation in karst by combining soilmoisture and groundwater balance approaches: example of the Jadro Spring, Croatia // International Interdisciplinary Conference on Predictions for Hydrology, Ecology and Water Resources Management: Using Data and Models to Benefit Society / Jyri Bruthans, Karel

<p>Scientific projects:</p>	<p>Water balance and flow modeling in karst, Principal investigator, Ref. No.: 083-0831510-1513.</p> <p>Identification and modelling of karst hydrological system 2-11-011</p> <p>Research of extreme hydrological situation and water risks in karst (083-0831510-1511)</p> <p>International scientific project “Risk Identification and Land-Use Planning for Disaster Mitigation of Landslides and Floods in Croatia”, Ministry of Science, Education and Sports of the Republic of Croatia, Japanese Cooperation Agency JICA, preliminary phase 2009-2010,</p> <p>Project KK.01.1.1.02.0027 co-financed by the Croatian Government and the European Union through the European Regional Development Fund - the Competitiveness and Cohesion Operational Program,</p>