

PERSONAL INFORMATION



Zoran Kovač

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Gender Male | Date of birth 08/04/1987 | Nationality Croat

WORK EXPERIENCE

03/12/2018 - today Assistant Professor – Department of Geology and Geological Engineering, Faculty of Mining, Geology and Petroleum Engineering (FMGPE), University of Zagreb

26/01/2018 – 02/12/2018 Postdoctorand - Department of Geology and Geological Engineering (FMGPE)

01/05/2012 – 25/01/2018 Teaching and Research Assistant - Department of Geology and Geological Engineering (FMGPE)

EDUCATION AND TRAINING

2012 – 2017 Postgraduate doctoral study of geological engineering at FMGPE

2008 – 2010 Graduate study of geological engineering at FMGPE – course hydrogeology and engineering geology

2005 – 2008 Undergraduate study of geological engineering at FMGPE

PERSONAL SKILLS

Mother tongue Croatian
Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
Common European Framework of Reference for Languages

Communication skills Very good communication skills acquired in teaching and participating in scientific and professional projects

Computer skills Experience in usage of *Microsoft Office tools* (Word, Excel, Power Point) and other software (Aquifer test, Visual Modflow, Arcmap 10.1, Autocad, Statistica 64)

Driving licence B category for car and boat

ADDITIONAL INFORMATION

Professional and scientific training International Atomic Energy Agency in Vienna (Advances in Data Processing and Interpretation Applied to Isotope Hydrology Studies; October 2019)

International Atomic Energy Agency (IAEA) in Vienna (Measurement of Stable Isotopes of Water by Laser Spectroscopy; September 2016)

Universitat Politècnica de València (October 2014 – January 2015, Erasmus+ Programme)

Scientific projects	<p><u>Associate</u> at the <u>Croatian Science foundation project SUPREHILL</u> (SUbsurface PREferential transport processes in agricultural HILLSlope soils; 2020-2024)</p> <p><u>Leader</u> of the <u>regional IAEA TC project</u> for Croatia RER/7/013 (Evaluating Groundwater Resources and Groundwater-Surface-Water Interactions in the Context of Adapting to Climate Change; 2020-2023)</p> <p><u>Associate researcher</u> at the <u>national IAEA TC project</u> CRO7002 (Using Nitrogen and Oxygen Stable Isotopes in the Determination of Nitrate Origin in the Unsaturated and Saturated Zone of the Velika Gorica Wellfield; 2020-2021)</p> <p><u>Associate researcher</u> at the <u>national IAEA TC project</u> CRO7001 (Isotope Investigation of the Groundwater-Surface Water Interaction at the Well Field Kosnica in the Area of the City of Zagreb; 2016-2017)</p> <p><u>Associate researcher</u> at the international <u>scientific FP-7 project</u> GENESIS (Groundwater and Dependent Ecosystems: New Scientific and Technological Basis for Assessing Climate Change and Land-use Impacts on Groundwater; 2009-2014)</p>
Professional projects	<p><u>Associate at projects:</u></p> <p>„Study of the sanitary protection zones of the well field Igralište-Orolik“ (2019)</p> <p>„Study of sanitary protection zones of the well field Skorotinci-Otok, location Petkovac“ (2019)</p> <p>„Study of sanitary protection zones of the well field Banovina-Tovarnik, location Mlaka“ (2019)</p> <p>„Hydrogeological research of the Koretići spring, Samobor“ (2019)</p> <p>„Definition of criteria for determining background concentrations and threshold values for contaminants in groundwater bodies in the Pannonian part of Croatia“ (2018)</p> <p>„Study of sanitary protection zones of the well fields Žeravinec, Meljin and Đumlije“ (2017)</p> <p>„Study of sanitary protection zones of the well field Berića Plac-Marinci“ (2017)</p> <p>„Study of sanitary protection zones of well field Ekonomija-Mirkovci and Skorotinci-Otok“ (2017)</p> <p>„Study of sanitary protection zones of well field Topolik-Privlaka and Sojara-Vrbanja“ (2017)</p> <p>„Study of the sanitary protection zones of the well field Banovina-Tovarnik and Veliki kraj-Stari Jankovci“ (2017)</p> <p>„Study of the sanitary protection zones of the well field Barbine-Lipovac“ (2017)</p> <p>„Defining trends and assessing groundwater status in the Pannonian part of Croatia“ (2016)</p> <p>„Preliminary research to determine the state of the underground at the location Mlaka. Book 8 - Hydrogeological research“ (2016)</p> <p>„Davor-Nova Gradiška - well field Davor of regional water supply network of Davor-Nova Gradiška - Study of sanitary protection zones“ (2014)</p> <p>„Moslavina - well field Osekovo - Study of sanitary protection zones“ (2014)</p> <p>„Krašić - hydrogeological research - Study with proposal of sanitary protection zones of well field Krašić and spring Pribić-Puškarov Jarak“ (2013)</p> <p>„Žumberak - sanitary protection zones of springs Rijeka, Kostanjevac, Bojići and Tratine“ (2013)</p> <p>„Krapina-Zagorje County - Hydrogeological research for determining the possibility of groundwater abstraction in the southern slopes of Ivanščica Mountain“ (2013)</p> <p>„Hydrogeological research in the area of Golf & Country Club Zagreb“ (2012)</p> <p>„The first phase of the development of a program of measures for the protection and remediation in the sanitary zones of Zagreb aquifer“ (2010)</p>
Conferences	<p>„The Sixth International Conference on Radiation and Applications in Various Fields of Research“ (Ohrid, Macedonia, 2018)</p> <p>„8th Croatian-Hungarian and 19th Hungarian geomathematical congress“ (Trakošćan, Croatia, 2016)</p> <p>„AQUA 2015 – Hydrogeology: Back to the future“ (Rim, Italija, 2015)</p> <p>„Integrated Management of Groundwater Resources and Dependent Ecosystems“ (Prag, Češka, 2014)</p> <p>„5th consultation of geologists from Bosnia i Hercegovina“ (Jahorina, Bosnia and Hercegovina, 2013)</p> <p>„Waters in Sensitive & Protected Areas“ (Zagreb, Croatia, 2013)</p>
Workshops	<p>„Hydrogeology of groundwater dependent ecosystem (GDEs): novel techniques for hydrological and ecological monitoring, assessment and analysis“ (FP-7 GENESIS, Prague, 2014)</p> <p>„Active learning and critical thinking in high education“ (Forum for Freedom in Education, Zagreb, 2014)</p> <p>„Climate change and natural resource management“ (Faculty of Agriculture, University of Zagreb, Zagreb, 2012)</p> <p>„Unsaturated Soil Mechanics“ (FMGPE, University of Zagreb, Zagreb, 2012)</p> <p>„Climate Change and Impacts on Water Supply“ (CCWaterS - 1st Student Training Course, Nyiregyhaza, 2010)</p>

Doctoral thesis	„Nitrate origin in groundwater of the Zagreb alluvial aquifer“ (Defended in October 4th 2017)
Master`s thesis	„Quality of groundwater of Samobor`s alluvial aquifer“ (Defended in December 15th 2010)
Bachelor`s thesis	„Liquefaction possibility at location Nova Loza, Zagreb“ (Defended in September 19th 2008)
Awards	Dean`s Award for Achievement in Graduate Studies of Geological Engineering (2008/2009) Dean`s Award for Achievement in Science (2017/2018) – for young scientist in technical sciences
Memberships	Croatian Water Pollution Control Society Croatian Geological Society The International Association of Hydrogeologists Croatian Hydrological Society
Other	Secretary of Croatian Geological Society (2018-2019) Secretary of the Commission on Bachelor`s and Master`s Exams in Geological Engineering and Geology Studies (2015 – 2017)
Publications	http://bib.irb.hr/lista-radova?autor=335142

List of main scientific papers:

- Barešić J., Parlov J., **Kovač Z.** & Sironić A. (2020): Use of nuclear power plant released tritium as groundwater tracer. Rudarsko-geološko-naftni zbornik 35 (1), 25-34. Doi: 10.17794/rgn.2020.1.3.
- Parlov J., **Kovač Z.**, Nakić Z. & Barešić J. (2019): Using Water Stable Isotopes for Identifying Groundwater Recharge Sources of the Unconfined Alluvial Zagreb Aquifer (Croatia). Water 11 (10), 2177. Doi: 10.3390/w11102177.
- Ružičić S., **Kovač Z.**, Perković D., Bačani L. & Majhen LJ. (2019): The Relationship between the Physicochemical Properties and Permeability of the Fluvisols and Eutric Cambisols in the Zagreb Aquifer, Croatia. Geosciences 9 (10), 1-19. Doi: 10.3390/geosciences9100416.
- Huljek L., Perković D. & **Kovač Z.** (2019): Nitrate contamination risk of the Zagreb aquifer. Journal of Maps 15 (2), 570-577. Doi: 10.1080/17445647.2019.1642248.
- Ružičić S., **Kovač Z.** & Borovčak T. (2019): Possible Influence of Agriculture on an Unsaturated Zone in Croatia. Polish journal of environmental studies 28 (6), 4341-4349. Doi: 10.15244/pjoes/99305.
- Kovač Z.**, Nakić Z., Barešić, J. & Parlov, J. (2018): Nitrate Origin in the Zagreb Aquifer System. Geofluids (2789691). Doi: 10.1155/2018/2789691.
- Kovač Z.**, Nakić Z., Špoljarić D., Stanek D. & Bačani A. (2018): Estimation of Nitrate Trends in the Groundwater of the Zagreb Aquifer. Geosciences 8. Doi: 10.3390/geosciences8050159.
- Ružičić S., **Kovač Z.** & Tumara D. (2018): Physical and chemical properties in relation with soil permeability in the area of Velika Gorica well field. Rudarsko-geološko-naftni zbornik 33 (2), 73-81. Doi: 10.17794/rgn.2018.3.1.
- Kovač Z.**, Cvetković M. & Parlov J. (2017): Gaussian simulation of nitrate concentration distribution in the Zagreb aquifer. Journal of Maps 13 (2), 727-732. Doi: 10.1080/17445647.2017.1354786.
- Kovač Z.**, Nakić Z. & Pavlić K. (2017): Influence of groundwater quality indicators on nitrate concentrations in the Zagreb aquifer system. Geologia Croatica 70 (2), 93-103. Doi: 10.4154/gc.2017.08.
- Ružičić S., **Kovač Z.**, Nakić Z. & Kireta D. (2017): Fluvisol permeability estimation using soil water content variability. Geofizika 34 (1), 141-155. Doi: 10.15233/gfz.2017.34.9.
- Pavlić K., **Kovač Z.** & Jurlina T. (2017): Trend analysis of mean and high flows in response to climate warming - evidence from karstic catchments in Croatia. Geofizika 34 (1), 157-174. Doi: 10.15233/gfz.2017.34.11.
- Parlov J., **Kovač Z.**, Bačani L. & Bačani A. (2016): Hydrogeological characteristics of south hills, Ivanščica Mountain. Journal of Maps 12 (1), 53-57. Doi: 10.1080/17445647.2016.1157833.