

Europass Curriculum Vitae

First name(s) / Surname(s) **Valentina Nikolova**

Address(es) University of Mining and Geology "St. Ivan Rilski", Faculty of Geology and Exploration, Department of Geology and Geoinformatics, Student's town, 1700, Sofia, Bulgaria

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Nationality Bulgarian

Work experience

Dates November 2022 - present

Occupation or position held **Assoc. Professor**

Name and address of employer University of Mining and Geology "St. Ivan Rilski", Faculty of Geology and Exploration, Department of Geology and Geoinformatics, Prof. Boyan Kamenov Str. 1, 1700, Sofia, Bulgaria

Dates **November 2012 – October 2022**

Occupation or position held **Chief Assistant Professor**

Name and address of employer University of Mining and Geology "St. Ivan Rilski", Faculty of Geology and Exploration, Department of Geology and Geoinformatics, Prof. Boyan Kamenov Str. 1, 1700, Sofia, Bulgaria

Dates **September 2011 – August 2012**

Occupation or position held **Teacher in Geography**

Name and address of employer "Prof. V. Zlatarski" Secondary School, 49 Kliment Ohridski Bld., 1756 Sofia, Bulgaria

Dates **June 2007 – August 2011**

Occupation or position held **Technical expert**

Name and address of employer STEF 92 Technology Ltd., 14 Kliment Ohridski Bld., Sofia, Bulgaria

Dates **April 2003 – May 2007**

Occupation or position held **Expert on environmental assessment of plans and programmes**

Name and address of employer Ministry of Environment and Water, 67 Gladston Str., Sofia 1000, Bulgaria

Dates **July 2000 – March 2003**

Occupation or position held **Cartographer, expert on landscape ecology**

Name and address of employer GeoMarine Centre Ltd., 33 General Tottleben Bld., Sofia 1606, Bulgaria

Dates **September 1998 – June 2002**

Occupation or position held **Part-time Assistant Professor in Landscape ecology**

Name and address of employer St. Kliment Ohridski University of Sofia, Faculty of Geology and Geography; 15 Tsar Osvoboditel Bld., Sofia 1504, Bulgaria

Dates **September 1993 – June 2000**

Occupation or position held **Teacher in Geography**

Name and address of employer 164 Secondary School, 1 Sultan Tepe Str., Sofia, Bulgaria

Education and training

Dates	March 1996 – March 2000
Title of qualification awarded	PhD in Physical Geography and Landscapes PhD Thesis: Study of the Landscapes and the Environmental State in the Kamchia River Catchment by means of Geographical Information System. Defended 2005.
Educational institution	Sofia University "St. Kliment Ohridski"
Dates	March 1992 – February 1993
Title of qualification awarded	Postgraduate specialization in Fluvial Geomorphology and Paleogeography Fluviogeomorphological and Sedimentological Research of the Lom River Catchment in the Balkan and Pre-Balkan Area
Educational institution	Sofia University "St. Kliment Ohridski"
Dates	September 1986 – June 1991
Title of qualification awarded	MSc, Geomorphology and Cartography Diploma work: Analysis of Alluvial Deposits in the Basins of the River Preslavska and the River Chiprovka
Educational institution	Sofia University "St. Kliment Ohridski"

Mother tongue(s) Bulgarian

Other language(s) Russian, English

Self-assessment
European level ()*

English

Russian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production		Reading	
C1	Proficient level	C2	Proficient level	C1	Proficient level	C1	Proficient level	C2	Proficient level
C2	Proficient level	C2	Proficient level	B1	Working level	B1	Working level	B2	Working level

(*) [*Common European Framework of Reference for Languages*](#)

Professional information and applications

Professional and Research interests (key words) GIS, 3D point cloud analyses, geomorphological hazards and risk, geomorphology, fluvial geomorphology, cartographic analysis, environmental assessment

Publications Publications in the fields of geomorphology (geomorphological hazards, fluvial geomorphology, and morphometric analysis), cartography, landscape ecology, and GIS applications.

<https://www.scopus.com/authid/detail.uri?authorId=57199327739>;

https://www.researchgate.net/profile/Valentina-Nikolova?ev=hdr_xprf

Appendix 1

Projects Participation as a researcher and project leader in research projects focused on geomorphology, natural hazards, erosion processes, geoinformation technologies, photogrammetry and laser scanning, and risk management of adverse and catastrophic geological phenomena.

Appendix 2

Specialization abroad **Erasmus + Teaching mobility**, Aristotle University of Thessaloniki, 22-25 April 2024
One-month mobility at the University of Craiova under the project "**Modernization of Higher Education in the Sustainable Use of Natural Resources in Bulgaria**" (12 June 2023 – 12 July 2023)

	Short term scientific mission, COST Action № CA16209 (Natural Flood Retention on Private Land), STSM title: Fluvial geomorphology in land use and flood risk management: on the example of Serbia and Bulgaria, University of Belgrade, Serbia, 4-16 March 2019 METHods of Interdisciplinary Environmental Research (METIER) - Marie Curie Series of Events. Course: Geo-visualization in Environmental Research, Wageningen University, Netherlands, 10 – 14 December 2007 Advanced International Training Programme on Environmental Impact Assessment for South Eastern Europe, organized by Ramboll Natura AB in collaboration with the Regional Environmental Center for Central and Eastern Europe and Swedish International Development Cooperation Agency, Sweden, 24 October – 25 November 2005
Other professional skills	ArcGIS Pro, CloudCompare, Word, Excel, PowerPoint, Adobe Photoshop
Memberships	Bulgarian Geological Society. Bulgarian Cartographic Association

SELECTED PUBLICATIONS

1. **Nikolova, V.**, Stefanova, M., Dimitrov, E., 2027. Erosion Susceptibility Assessment by Application of RUSLE and Analytic Hierarchical Process: A Case Study of the River Sarayardere Catchment (Eastern Rhodopes, Bulgaria). In: Ksibi, M., *et al.* Recent Advances in Environmental Science from the Euro-Mediterranean and Surrounding Regions (5th Edition). EMCEI 2023. Advances in Science, Technology & Innovation. Springer, Cham. https://doi.org/10.1007/978-3-032-16581-7_151
2. Rizova, R., **Nikolova, V.**, 2026. Geomorphological Investigation on Gully Erosion and Deposition in the River Mashkulova Catchment (Eastern Rhodopes, Bulgaria). In: Çiner, A., *et al.* Recent Research on Environmental Earth Sciences, Geomorphology, Soil Science, Paleoclimate, and Karst. MedGU 2023. Advances in Science, Technology & Innovation. Springer, Cham. https://doi.org/10.1007/978-3-032-20990-0_3
3. Milijašević Joksimočić, D., Petrović, A. M., **Nikolova, V.**, Babej, J., & Novković, I., 2026. Water Quality Assessment of the Jerma River: Application of the Water Pollution Index (WPI) Within a Torrential Catchment. *Earth*, 7(2), 58. <https://doi.org/10.3390/earth7020058>
4. **Nikolova, V.**, Rizova, R., Dimitrov, I., Babej, J., Dimitrov, D., & Petrović, A. M., 2026. Sedimentological and Mineralogical Signature of Torrential Flow Depositional Area: A Case Study from Eastern Rhodopes, Bulgaria. *Geographies*, 6(1), 2. <https://doi.org/10.3390/geographies6010002>
5. Petrović, A., Guerit, L., **Nikolova, V.**, Novković, I., Filipov, D., Jakubinsky, J. Quantifying torrential watershed behavior over time: A synergistic approach of classical and modern techniques. *Earth*. 2026, 7, 1. <https://doi.org/10.3390/earth7010001>
6. Rizova, R., **Nikolova, V.**, 2025. Geomorphological Investigation on Gully Erosion and Deposition in the River Mashkulova Catchment (Eastern Rhodopes, Bulgaria). In: Çiner, A., *et al.* Recent Research on Environmental Earth Sciences, Geomorphology, Soil Science, Paleoclimate, and Karst. MedGU 2023. Springer, Cham. https://doi.org/10.1007/978-3-031-86866-5_3
7. **Nikolova, V.**, Guerit, L., Kamburov, A., Filipov, D., Petrović, A.M., Babej, J., Jakubínský, J., 2025. Characterization of riverbed sediment through 3D point cloud processing and analysis. In A. Nina, S. Dragović, M. Kuzmanoski, M. Đorđević, & M. Đokić (Eds.), *International Conference on Recent Trends in Geoscience Research and Applications 2025: Book of abstracts and contributed papers*, Belgrade, 2025, ISBN 978-86-7518-253-5; pp 48-49
8. Stefanova, M., **Nikolova, V.**, Dimitrov, I. 2025. The influence of the lithological-tectonic factor on the erosion-drainage network in the catchment of the Byuyukdere River (the Eastern Rhodopes). *Annual of University of Mining and Geology "St. Ivan Rilski"*, 68/2025, 40-44, <https://doi.org/10.5281/zenodo.17155046>
9. Simulescu, D., Mititelu-Ionuș, O., Boengiu, S., **Nikolova, V.**, Vîlcea, C., Mazilu, M., Popescu, S.M., Marinescu, E., 2025. Mapping and Monitoring of Landforms Evolution. Case study: Breasta Landslide (Southwestern Romania). *Polish Journal of Environmental Studies*, Vol. 34, No. 2 (2025), 1733-1743, DOI: 10.15244/pjoes/188064
10. Беров, Б., Добрев, Н., Иванов, П., Николова, Н., **Николова, В.**, 2024. Оценка на опасността от неблагоприятни/катастрофални геоложки (вкл. хидрогеоложки) явления. В: Ганев, К., Кулов, Б. (ред.) Национална научна програма „Опазване на околната среда и намаляване на риска от неблагоприятни явления и природни бедствия“: Резултати и постижения. София: Национално издателство за наука и образование „Аз-буки“, 2024, 473 стр. ISBN 978-619-7667-71-4, стр. 300-336
11. **Nikolova, V.**, Filipov, D., Guerit, L., 2024. Roughness analysis of the riverbed in the study of torrential events using terrestrial photogrammetry data. *Rev. of the Bulgarian Geological Society*, vol. 85, part 3, 2024, p. 277–280, <https://doi.org/10.52215/rev.bgs.2024.85.3.277>
12. Rizova, R., **Nikolova, V.**, 2024. Grain size analysis of deposits in a debris flood area – Damdere River, Eastern Rhodopes, Bulgaria. *Rev. of the Bulgarian Geological Society*, vol. 85, part 3, 2024, p. 285–288, <https://doi.org/10.52215/rev.bgs.2024.85.3.285>
13. **Nikolova, V.**, Stefanova, M., Dimitrova, V., **2024**. Cover Management Soil Erosion Factor Using Multispectral Vegetation Indices: An Example of the River Sarayardere Watershed (Eastern Rhodopes, Bulgaria). *Inżynieria Mineralna*, 1(1), 583–591. <https://doi.org/10.29227/IM-2024-01-66>
14. **Nikolova, V.**; Gospodinova, V.; Kamburov, A., 2024. Assessment of Unmanned Aerial System Flight Plans for Data Acquisition from Erosional Terrain. *Geosciences* **2024**, 14, 75. <https://doi.org/10.3390/geosciences14030075>

15. **Nikolova, V.**; Nikolova, N.; Stefanova, M.; Matev, S., 2024. Annual and Seasonal Characteristics of Rainfall Erosivity in the Eastern Rhodopes (Bulgaria). *Atmosphere* **2024**, 15, 338. <https://doi.org/10.3390/atmos15030338>
16. **Nikolova, V.**, Rizova, R., Gospodinova, V., Kamburov, A., 2023. Geomorphological and Sedimentological Indicators of Contemporary Erosion Processes: An Example of the Eastern Rhodopes Mountains (Bulgaria). *WSEAS Transactions on Environment and Development*, vol. 19, pp. 762-773, DOI: [10.37394/232015.2023.19.72](https://doi.org/10.37394/232015.2023.19.72)
17. Rizova, R., **Nikolova, V.**, 2023. Debris flows in the watershed of the Borovitsa river, the Eastern Rhodopes. *Annual of the University of Mining and Geology "St. Ivan Rilski"*, 66/2023, 171–176, <https://doi.org/10.5281/zenodo.8334662>
18. **Nikolova, V.**, Sachkov, D., Rizova, R., 2022. Morphometric indicators for erosion and debris flows propagation: a case study of the river Byuyukdere watershed, northwest of Kardzhali town (Bulgaria). *Rev. Bulg. Geol. Soc.*, 83, 3, p. 303-306, <https://doi.org/10.52215/rev.bgs.2022.83.3.303>
19. **Nikolova, V.**, Kamburov, A., 2022. Geoinformation technologies in the evaluation of short-term geomorphic change: An example of Damdere debris flood area (Bulgaria). *J. Geogr. Inst. Cvijic*. 2022, 72(2), pp. 133–145, <https://doi.org/10.2298/IJGI2202133N>
20. **Nikolova, V.**, Zareva, E. (2022). Geodiversity Assessment by Application of Geoinformation Approach (on the Example of Golo Bardo Mountain, Western Bulgaria). *Forum geografic*, XXI(1), 18-26. doi:10.5775/fg.2022.137.i (Scopus, Q4, SJR 2021 - 0.178)
21. **Nikolova, V.**, Mitova, M., Dimitrov, E., 2022. Topographic factor of water erosion – analysis of watershed morphometry and RUSLE LS factor in GIS environment. *Rev. Bulg. Geol. Soc.*, 83, 1, p. 3-14, <https://doi.org/10.52215/rev.bgs.2022.83.1.3>
22. **Nikolova, V.**, Gospodinova, V., Kamburov, A., 2021. Impact of Data Processing and DTM Resolution on Determining of Small Erosional Landforms, *IOP Conf. Ser.: Earth and Environmental Sciences*, 906, 012127, doi:10.1088/1755-1315/906/1/012127, SJR 2020 0.179
23. Gospodinova, V., **Nikolova, V.**, Kamburov, A., 2021. Using TLS and UAV data for geomorphic change detection: Case study of Eastern Rhodopes, Bulgaria. 21st International Multidisciplinary Scientific GeoConference SGEM 2021, pp. 657 – 664, <https://doi.org/10.5593/sgem2021/2.1/s10.77>, SJR 2020 0.217
24. Rizova, R., **Nikolova, V.**, 2021. Geomorphological and sedimentological characteristics of debris flows in the river Buyukdere watershed (Eastern Rhodopes, Bulgaria). 21st International Scientific Conference – SGEM 2021, pp. 53-60, <https://doi.org/10.5593/sgem2021/1.1/s01.007>, SJR 2020 0.217
25. Petrović A., **Nikolova V.**, Novković I. 2021. The impact of watershed morphometry on occurrence of torrential floods: case study of Serbia and Bulgaria. 7th International Scientific Conference GEOBALCANICA 2021 Proceedings, ISSN 1857-7636 pp. 15-28, <https://doi.org/10.18509/GBP210015p>
26. **Nikolova V.**, Kamburov A., Rizova R., 2021. Morphometric analysis of debris flows basins in the Eastern Rhodopes (Bulgaria) using geospatial technologies. *Natural Hazards*, 105, 159-175, <https://doi.org/10.1007/s11069-020-04301-4>, Springer, Electronic ISSN: 1573-0840; SJR 2019: 0.814, IF2019: 2.427
27. **Nikolova V.**, Kamburov A., Rizova R., 2020. Modelling and assessment of debris flow erosion and deposition using geoinformation technologies. *Journal of Mining and Geological Sciences*, Vol. 63, pp. 232-237, ISSN 2682-9525 (print), ISSN 2683-0027 (online), University of Mining and Geology "St. Ivan Rilski"
28. Kamburov, A., **Nikolova, V.**, 2020. 3D modelling in GIS environment for the purpose of debris flow analysis – a case study of the Eastern Rhodopes (Bulgaria). 8th International Conference on Cartography and GIS, Vol. 1., ISSN: 1314-0604, pp. 278 - 286
29. **Nikolova V.**, Zlateva P., Berov B., Kamburov A., Velez D. 2020. **Conceptual Model of Debris Flow Information System**. In: Murayama Y., Velez D., Zlateva P. (eds) *Information Technology in Disaster Risk Reduction*. ITDRR 2019. IFIP Advances in Information and Communication Technology, vol 575, pp. 146 - 158. Springer, Cham, Print ISBN 978-3-030-48938-0, Online ISBN 978-3-030-48939-7, DOI: https://doi.org/10.1007/978-3-030-48939-7_13

SELECTED PROJECTS

1. **Debris Flows: Mechanisms of Formation, Dynamics, and Risk Management – A Case Study from the Byuyukdere River Catchment, Eastern Rhodopes**, Contract No GPF-255 – 01.04.2025, University of Mining and Geology “St. Ivan Rilski” (April – December 2025), project leader, member of the project team
2. **Monitoring of slope processes through remote sensing and field investigations, and modelling**, Contract No GPF-253 – 08.03.2024, University of Mining and Geology “St. Ivan Rilski” (March – December 2024) , member of the project team
3. **Geomorphological interpretation of photogrammetry and laser scanning data in the study of torrential watersheds**, funded by National Science Fund, Ministry of Education and Science (Bulgaria), Multilateral Scientific and Technological Cooperation in the Danube region (2023-2025 Joint Projects), Contract № КП-06-Дунав/5, 14.08.2023 (August 2023 – November 2025), project leader, , member of the project team
4. **Smart risk management for business from adverse events and natural disasters**, funded by National Science Fund, Ministry of Education and Science (Bulgaria), Competition for financial support for basic research projects – 2021, Contract No КП-06-H34/3, signed on 15.11.2021 (November 2021 – October 2024) , member of the project team
5. **Application of geoinformation technologies in erosion research in mountain areas - Case studies of Eastern Rhodopes (Bulgaria)**, funded by National Science Fund, Ministry of Education and Science (Bulgaria), Competition for financial support for basic research projects – 2019, Contract No КП-06-H34/3, signed on 5.12.2019 (December 2019 – November 2026)project leader, member of the project team
6. National Science Program "**Environmental Protection and Reduction of Risks of Adverse Events and Natural Disasters**", approved by the Resolution of the Council of Ministers № 577/17.08.2018 and supported by the Ministry of Education and Science (MES) of Bulgaria (Agreement № D01-230/06.12.2018; № D01-363/17.12.2020). ***Participation in Work Package Assessment of the hazard of adverse / catastrophic geological (including hydrogeological) phenomena*** (2018 – 2023) , member of the project team