

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name	KOTSEV, TSVETAN KOSTADINOV
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Nationality	Bulgarian
Date of birth	16.12.1971

WORK EXPERIENCE

• Dates (from – to)	
2018 -now	Assoc. Professor, Head of Section Physical Geography, Department of Geography, NIGGG
2010 - 2018	Assoc. Professor, Section Physical Geography, Department of Geography, NIGGG
2003 – 2010	Research Fellow, II-I degree
2003	Geographer
1998-1999	Teacher in Geography, 81 st High school "Victor Hugo", Sofia

EDUCATION AND TRAINING

• Dates (from – to)	
2011	Training course entitled: Applied Databases – Use, Management, and Design of databases within the field of Geography (3 ECTS). Lecturer Dr. Sabine Henning, Institute for Geographic Information Science, Austrian Academy of Sciences, Salzburg, Austria
2009	Training course entitled: Geographic Information Systems - I and II level. Lecturer Todor Lyubenov, Department "Geoinformatics" of the Institute of Solar-Terrestrial Influences, Bulgarian

2003 Academy of Sciences
PhD in Physical Geography and Landscape Studies, Institute of Geography, BAS
1998 MSc Physical Geography, Landscape Ecology; Second major: Pedagogy, Sofia University "St. Kliment Ohridski"

MOTHER TONGUE

BULGARIAN

OTHER LANGUAGES

ENGLISH, RUSSIAN

ORGANISATIONAL SKILLS
AND COMPETENCES

Experience in managing teams and projects acquired in the course of research work
Adviser of 2 PhD students and Co-Advisor of 1 MSc student

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

TECHNICAL SKILLS
AND COMPETENCES

Construction and management of automatic environmental monitoring systems. Application of software Maxent for modelling the spatial distribution of geographical objects and variables.
Application of ArcGIS for spatial analysis.

With computers, specific kinds of equipment, machinery, etc.

- Gerginov, P., Antonov, D., Benderev, Al., Stoyanova, V., Kotsev, Ts. Analysis and prognosis of the aqueous migration of arsenic based on complex study of Ogosta river valley's hydrogeological elements (at specific floodplain site). *Comptes rendus de l'Academie bulgare des Sciences* 73(10):1409-1415.
- Kotsev, T., V. Stoyanova, Z. Aidarova, St. Genchev (2020) Concept of arsenic monitoring in the soil-groundwater-river water system in the mining affected Ogosta river valley. *Problems of Geography* 1-2: 101-126.
- Antonov, D., T. Kotsev, A. Benderev, N. van Meir, P. Gerginov, V. Stoyanova, E. Tcherkezova (2019). Estimating the moisture regime in variably-saturated arsenic contaminated alluvial sediments by using HYDRUS-1D with daily meteorological data. *European Journal of Geography* 10(2):42-55
- Stoyanova, V., T. Kotsev, G. Zhelezov, M. Sima, E.A. Levei (2019) Copper concentration in the soils of the Danube floodplain between the Timok River and the Vit River, Northwestern Bulgaria. *European Journal of Geography* 10 (2):134-149
- Stoyanova, V., T. Kotsev, R. Kretzschmar, K. Barmettler (2018) Concentration of arsenic in the soils of the Danube floodplain between the Timok river and the Vit river. *Proceedings of SGEM Conference Vol. 3.2, 30 June -06 July, 2018, res. Albena, Bulgaria, p. 71-78.*
- Antonov, D., Kotsev, T., Meir, N.V., Stoyanova, V., Aidarova, Z. (2018) Arsenic migration analysis in polluted riverine terraces during flooding event – innovative modeling approach using HYDRUS-1D code. *Problems of Geography, issue 3-4: 19-40 (in Bulgarian).*
- Simmler, M., J. Bommer, S. Frischknecht, I. Christl, T. Kotsev, R. Kretzschmar (2017) Reductive solubilization of arsenic in a mining-impacted river floodplain: Influence of soil properties and temperature. *Environmental Pollution* 231(1):722-731.
- Simmler, M., E. Suess, I. Christl, T. Kotsev, R. Kretzschmar (2016) Soil-to-plant transfer of arsenic and phosphorus along a contamination gradient in the mining-impacted Ogosta River floodplain. *Science of Total Environment* 572:742-754.
- Stoyanova, V., T. Kotsev (2016) GIS-based assessment of groundwater vulnerability to arsenic contamination in the floodplain of the Ogosta River, NW Bulgaria. *Proceedings, 6th International Conference on Cartography and GIS, Vol.1, 13-17 June, Albena, Bulgaria, p. 668-677.*
- Senila, M., Kotsev, T., Levei, E., Roman, M., Mladenova, V., Cholakova, Z., Senila, L. (2016) Preliminary investigation on arsenic fractionation in soil from Ogosta River floodplain using a seven-step extraction procedure. *Studia UBB Chemia* 61(3):333-344.
- Kotsev, T., V. Stoyanova, Y. Petkova, N. Dyakova (2015) Concentration of heavy metals and metalloids in the river sediment of the lower stretches of Vardar, Struma, Mesta and Maritsa rivers close to the Aegean Sea. *Problems of Geography issue 1-2:133-153 (in Bulgarian).*
- Добрев, Н., А. Бендерев, Г. Железов, Ц. Коцев, Б. Беров, П. Иванов, М. Кръстанов, М. Николова, С. Недков, Е. Черкезова (2015) Геологические и экологические риски на речных террасах в западной части болгарского участка реки Дуная. *Труды конгресса международного научно-промышленного форума „Великие реки 2014”, 13-16 мая 2014, Нижний Новгород, Россия, с. 408-422.*
- Mandaliev P., C. Mikutta, K. Barmettler, T. Kotsev and R. Kretzschmar (2014) Arsenic species formed from arsenopyrite weathering along a contamination gradient in circumneutral river floodplain soils. *Environmental Science & Technology* 48 (1): 208–217.
- Mikutta C., P.N. Mandaliev, N. Mahler, T. Kotsev, R. Kretzschmar (2014) Bioaccessibility of Arsenic in Mining-Impacted Circumneutral River Floodplain Soils. *Environmental science & technology* 48 (22):13468–13477
- Kotsev, T., G. Zhelezov (2014) Potential sources of chemical pollution of Danube floodplain sector between Vidin-Calafat and Nikopol-Turnu Magurele. *Problems of Geography №1-2:113-127 (in Bulgarian).*
- Kotsev T., A. Benderev, G. Zhelezov, R. Cecilia, A. Bela, M. Miclean, M. Slma, M. Dimitrascu (2013) Technological hazards. In: Zhelezov, G. (ed.) *Hazard assessment and mitigation in the Danube floodplain (Calafat-Vidin – Turnu Magurele-Nikopol sector)*. TerArt, Sofia, pp. 186-256
- Jordanova, D., S.R. Goddu, T. Kotsev, N. Jordanova (2013) Industrial contamination of alluvial soils near Fe-Pb mining site revealed by magnetic and geochemical studies. *Geoderma* 192: 237-248.

- Filcheva E., Ts. Kotsev, Z. Cholakova, K. Chakalov, T. Popova (2011) Content and composition of organic matter in heavy metal polluted alluvial soils from Ogosta river basin, *Soil science agrochemistry and ecology* 45 (Supplement 1-4): 196-204 (in Bulgarian).
- Mladenova, V., T. Kotsev, Z. Cholakova, R.-T. Schmitt, I. Ivanova, D. Dimitrova (2010) Pollution with arsenic and heavy metals of soils and some components of the food chain in the environment of Goliam Bukovets mine tailings impoundment, Chiprovtsi mining area, NW Bulgaria. *Proceedings of the XIX Congress of the Carpathian-Balkan Geological Association*, 23-26 September 2010, Thessaloniki, Greece, Special Volume 100 General Session G11, p. 105-111.
- Bird G., P. Brewer, M. Macklin, M. Nikolova, T. Kotsev, M. Mollov, C. Swain (2010) Contaminant-metal dispersal in mining-affected river catchments of the Danube and Maritsa drainage basins, Bulgaria. *Water Air and Soil Pollution* 206: 105-127.
- Bird G., P. Brewer, M. Macklin, M. Nikolova, T. Kotsev, M. Mollov, C. Swain (2010) Quantifying sediment-associated metal dispersal using Pb isotopes: application of binary and multivariate mixing models at the catchment-scale. *Environmental Pollution* 158(6):2158-2169.
- Bird G., P. Brewer, M. Macklin, M. Nikolova, T. Kotsev, M. Mollov, C. Swain (2010) Pb isotope evidence for contaminant-metal dispersal in an international river system: the lower Danube catchment, Eastern Europe. *Applied Geochemistry* 25(7):1070-1084.
- Kotsev, T., M. Nikolova (2009) Heavy metal content in the river channel and floodplain sediment accumulated within the Natura 2000 sites in Bulgaria, *Proceedings of International Conference "NATURA 2000" in the Transborder Region Bulgaria-Romania. Problems and Perspectives*, 22 November 2008, Vratsa, Bulgaria, p. 86-98 (in Bulgarian).
- Kotsev, T., V. Chatalbasheva (2008) Concentrations of As, Pb, Cd, Cu and Zn in cow's milk from the upper reach of the River Ogosta, North-Western Bulgaria. *Ecology & Safety* 2 (1): 456-468.
- Kotsev, T., M. Nikolova, Z. Cholakova, S. Nedkov (2009) Heavy metal contamination in Malki Iskar river basin during floods and high waves, *Soil Science Agrochemistry and Ecology* 43 (2): 78-95 (in Bulgarian).
- Kotsev, T., V. Mladenova, Z. Cholakova, B. Blazhev (2009) Heavy metal and arsenic content in sheep's and goat's milk from the upper reach of the Ogosta River. *Geography* 21, No 3:10-19 (in Bulgarian).

PROJECTS

Relationship of the spatial distribution of heavy metals in the soil with the morphology of contaminated river floodplains (TOPOMET). PI: G. Zhelezov, NIGGG-BAS, National Science Fund, project No КП-06-H 24/2, 2018-2022.

Arsenic fate in riverine environment: linking river and groundwater dynamics with arsenic mobilization in contaminated river floodplain (ARSENT). PI: T. Kotsev, NIGGG-BAS, National Science Fund, project No ДН04/3, 2016-2019.

Arsenic contamination of Ogosta River: linking biogeochemical processes in floodplain soils with river system dynamics; PIs: R. Kretzschmar, ETH Zurich, Institute of Biogeochemistry and Pollutant Dynamics; T. Kotsev, National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences, Bulgarian-Swiss Research Programme, project No IZEBZO_142978, 2012-2016.

Romanian-Bulgarian cross-border joint natural and technological assessment in the Danube floodplain (ROBUHAZ-DUN). The Calafat-Vidin_Turnu Magurele-Nikopol sector. PI: G. Zhelezov from the side of the National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences as a project partner, Romania-Bulgaria Cross-Border Cooperation Programme, 2012-2013.

Arsenic pollution and speciation in the Ogosta River floodplain. PIs: R. Kretzschmar, ETH Zurich, Institute of Biogeochemistry and Pollutant Dynamics; T. Kotsev, National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences, Bilateral scientific agreement, 2010-2013.

Environmental status and transformation dynamics of the Lower Danube wetlands proposed for ecological reconstruction. PI: T. Kotsev, Institute of Geography, Bulgarian Academy of Sciences, in cooperation with the Institute of Geography, Romanian Academy, 2009-2011.

Environmental impact assessment of the tailings impoundments in the Chiprovtsi mine region, NW Bulgaria (soils, waters, plants). PI: V. Mladenova, Sofia University "St. Kl. Ohridski", Bulgarian National Science Fund, project No BY-H3-04/05, 2005-2009.

Implementation of the KINEROS model for estimation of the flood prone regions in the Malak Iskar river catchment (Stara Planina Mt.). PI: M. Nikolova, Institute of Geography, Bulgarian Academy of Sciences, MSPDA, 2007-2008.

Environmental trends and nature protection along the Danube in Romania and Bulgaria. PI: M. Nikolova, Bulgarian Academy of Sciences, in cooperation with the Institute of Geography, Romanian Academy, 2006-2008.

Geographical Atlas of Bulgaria. PI: Ilija Koprlev, Institute of Geography, Bulgarian Academy of Sciences, 2006-2009.

Studies into Protected Natural Mountain Areas in Romania and Bulgaria with a View to EU Integration. PI: M. Nikolova, Institute of Geography, Bulgarian Academy of Sciences, in cooperation with the Institute of Geography, Romanian Academy, Bulgarian National Science Fund, project No П3605, 2005 – 2007.

Source to Sink River Pollution Assessment and Control in Bulgaria. PIs: M. Macklin, Institute of Geography and Earth Sciences, University of Wales, Aberystwyth, UK; M. Nikolova, Institute of Geography, Bulgarian Academy of Sciences, Royal Society, 2004/R1-EU, 2004-2006.

Preliminary assessment of the effectiveness of the humic fertilizer "Humustim" for remediation of alluvial soils contaminated with heavy metals and arsenic. PIs: T. Kotsev, Institute of Geography, Bulgarian Academy of Sciences; Z. Cholakova, Sofia University, ordered by AGROSPACE Ltd., 2004-2005.