# EUROPEAN CURRICULUM VITAE FORMAT

## PERSONAL INFORMATION

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| Name | KOTSEV, TSVETAN KOSTADINOV |
| Address | 1712 SOFIA, BULGARIA |
| Telephone | |
| Fax | +359 2 8700204 |
| E-mail | tsvetankotsev@mail.bg |
| Nationality | Bulgarian |
| Date of birth | 16.12.1971 |

## WORK EXPERIENCE

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| • Dates (from – to) | Since 28.10.2010 |
| • Name and address of employer | National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences, Akad. Georgi Bonchev str.,bl. 3, Sofia 1113 |
| • Type of business or sector | Science |
| • Occupation or position held | Associate Professor |
| • Main activities and responsibilities | Management and realization of scientific and applied research programs and projects. Provide scientific assistance to state and local authorities |
| • Dates (from – to) | 17.11.2003 – 27.10.2010 |
| • Name and address of employer | Institute of Geography, Bulgarian Academy of Sciences (along with other research units formed National Institute of Geophysics, Geodesy and Geography at the Bulgarian Academy of Sciences in 2010), Akad. Georgi Bonchev str.,bl. 3, Sofia 1113 |
| • Type of business or sector | Science |
| • Occupation or position held | 2006-2010: Research Fellow, I degree<br>2003-2006: Research Fellow, II degree |
| • Main activities and responsibilities | Carries out independent scientific researches. Responsible for achieving their goals and for the quality of results |
| • Dates (from – to) | 07.07.2003 – 16.11.2003 |
| • Name and address of employer | Institute of Geography, Bulgarian Academy of Sciences, Akad. Georgi Bonchev str.,bl. 3, Sofia 1113 |

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| • Type of business or sector | Science |
| • Occupation or position held | Geographer |
| • Main activities and responsibilities | Supports scientific studies |
| • Dates (from – to) | 01.09.1998-01.02.1999 |
| • Name and address of employer | 81st High school "Victor Hugo", Badnina str., Sofia 1712 |
| • Type of business or sector | Education |
| • Occupation or position held | Teacher in Geography |
| • Main activities and responsibilities | Teaching geography to children of sixth and ninth grade |

## EDUCATION AND TRAINING

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| • Dates (from – to) | 29.04-16.05.2011 |
| • Name and type of organization providing education and training | National Institute of Geophysics, Geodesy and Geography, Bulgarian Academy of Sciences |
| • Principal subjects/occupational skills covered | Design and operation with data bases |
| • Title of qualification awarded | 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, Zalzburg, Austria |
| • Level in national classification (if appropriate) | |
| • Dates (from – to) | 15.12.2008 – 05.02.2009 |
| • Name and type of organization providing education and training | Institute of Geography, Bulgarian Academy of Sciences |
| • Principal subjects/occupational skills covered | Mapping and spatial analysis using ArcGIS program |
| • Title of qualification awarded | Training course entitled: Geographic Information Systems - I and II level. Lecturer Assis. Prof. Todor Lyubenov, Department "Geoinformatics" of the Institute of Solar-Terrestrial Influences, Bulgarian Academy of Sciences |
| • Level in national classification (if appropriate) | |
| • Dates (from – to) | 1999-2003 |
| • Name and type of organization providing education and training | Institute of Geography, Bulgarian Academy of Sciences |
| • Principal subjects/occupational skills covered | PhD in "Physical Geography and Landscape Studies", code 01:08:01<br>PhD Thesis: Geochemical changes of the landscapes in the "Ogosta" reservoir drainage basin, NW Bulgaria, induced by the mining activity (in Bulgarian). |
| • Title of qualification awarded | Scientific and educational degree "Doctor" |
| • Level in national classification (if appropriate) | |
| • Dates (from – to) | 1992-1998 |
| • Name and type of organization providing education and training | Sofia University "St. Kliment Ohridski " |
| • Principal subjects/occupational skills covered | Department of Landscape and Environmental Protection, Geology and Geography Faculty |
| • Title of qualification awarded | MSc, Geography, Pedagogy |
| • Level in national classification (if appropriate) | |

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| **PERSONAL SKILLS AND COMPETENCES**<br>*Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.* | |
| MOTHER TONGUE | BULGARIAN |
| OTHER LANGUAGES | |
| | ENGLISH |
| • Reading skills | excellent |
| • Writing skills | excellent |
| • Verbal skills | good |
| | RUSSIAN |
| • Reading skills | excellent |
| • Writing skills | basic |
| • Verbal skills | basic |
| SOCIAL SKILLS AND COMPETENCES<br>*Living and working with other people, in multicultural environments, in positions where communication is important and situations where teamwork is essential (for example culture and sports), etc.* | SOCIABLE, TOLERANT, WORK WELL IN A TEAM |
| ORGANISATIONAL SKILLS AND COMPETENCES<br>*Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.* | Experience in managing teams and projects acquired in the course of research work<br>Adviser of 1 PhD student (Velimira Stoyanova, 2012-2015) and Co-Advisor of 1 MSc student |
| TECHNICAL SKILLS AND COMPETENCES<br>*With computers, specific kinds of equipment, machinery, etc.* | Microsoft Office, ArcGIS, DEMASole, DEMASdb |

## ADDITIONAL INFORMATION

SELECTED ARTICLES IN THE FIELD OF ENVIRONMENTAL QUALITY ASSESSMENT AND ECOLOGICAL RISK ASSESSMENT

Simmler, M., Suess, E., Christl, I., Kotsev, T., Kretzschmar, R. (2016) Soil-to-plant transfer of arsenic and phosphorus along a contamination gradient in the mining-impacted Ogosta River floodplain. Science of Total Environment (accepted)

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 №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-промишленного 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 polluition 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. SIma, 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).

Nikolova, M., S. Nedkov, V. Nikolov, I. Zuzdrov, M. Genev, T. Kotsev, R. Vatseva, Y. Krumova (2009) Implementation of the "KINEROS" model for the estimation of the flood prone territories in the Malak Iskar River basin. Information&Security. An international Journal 24:76-88.

Ivanova, I., V. Mladenova, T. Kotsev (2008) Assessment of arsenic and heavy metals concentration in Ogosta dam lake water (Montana region, NW Bulgaria) based on water quality guidelines. Proceedings of the Scientific Conference „60 years Geology", Sofia University "St. Kl. Ohridski", Sofia, Bulgaria, 17 Jan. 2008, p. 45-50.

Dimitrova D., Z. Cholakova, N. Velitchkova, T. Kotsev, V. Mladenova, T. Kerestedjian, D. Antonov (2007) Heavy Metal and Metalloid Concentration Dynamics in Mine and Surface Waters in the Vicinity of Chiprovtsi and Martinovo Mines, Northwestern Bulgaria. Bulletin of the Geological Society of Greece, vol. XXXVII. Proceedings of the 11th International Congress, Athens, Greece, May, 2007, p.1397-1408.

Cholakova Z, T. Kotsev, V. Mladenova, D. Dimitrova, I. Georgieva (2007) Assessment of heavy metal and arsenic concentrations in the waters of Chiprovska river catchment. Proceedings of the Third International Conference "Global Changes and Regional Challenges", Sofia, Bulgaria, 28-29 April 2006, p. 180-185.

Kotsev, T., Z. Cholakova, K. Chakalov, T. Popova, G. Sengalevich (2007). Assessment of the efficiency of the humate fertilizer "Humustim" for remediation of arsenic and heavy metal contaminated alluvial soil. In: Sengalevich, G. (ed.). Humustim – a gift from the Nature. DIMI99 Ltd., Sofia, Bulgaria, p. 152-158 (in Bulgarian).

Kotsev, T., Z. Cholakova, T. Popova, K. Chakalov (2005). As and Pb forms in the contaminated soils of the Ogosta river valley affected by mining activities. Problems of Geography, №1-2: 55-63 (in Bulgarian).

Jokova M., T. Kotsev (2003) Distribution of Cu, Cd and Zn along depth of polluted alluvial-meadow soils from the valley of Ogosta river. Soil science agrochemistry and ecology 38 (2): 7-11.

Jokova M., T. Kotsev (2003) Behavior of oxalate extractable forms of some pollutants in alluvial-meadow soils from the valley of Ogosta river. Soil science agrochemistry and ecology 38 (2): 12-15.

Kotsev, T., M. Jokova (2002) Distribution of As, Pb, Fe and Mn along depth of polluted alluvial soils from the valley of the river of Ogosta. Proceedings of the International scientific conference in memory of prof. Dimitar Jaranov. Part 2: Development and state of the environment, Varna, Bulgaria, 8-11 September 2002, p. 348-354 (in Bulgarian).

Kotsev (2001) Contemporary heavy metal and arsenic river pollution in the "Ogosta" reservoir drainage basin after the end of the mining activities. Proceedings of the Balkan scientific-applied conference "Natural potential and mountain regions sustainable development", Natural park "Vratchanski Balkan", Bulgaria, June 2001, p. 415-426 (in Bulgarian).

PROJECTS

Arsenic fate in riverine environment: linking river and groundwater dynamics with arsenic mobilization in contaminated river floodplain (ARSENT). National Science Fund, project NoДН04/3, 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 ВУ-Н3-04/05, 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: Ilia Kopralev, 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.