

CURRICULUM VITAE – MILAN KILIBARDA

1. **Family name** Kilibarda
2. **First names** Milan
3. **Date of birth** 15/08/1983
4. **Nationality** Serbian
5. **Civil status**
6. **Education**

INSTITUTION [DATE FROM - DATE TO]	DEGREE(S) OR DIPLOMA(S) OBTAINED	REFERENCE
Faculty of Civil Engineering, University of Belgrade, Department of Geodesy and geoinformatics, 2008-2013	PhD, Title of Dissertation: <i>Automated Mapping of Climatic Variables Using Spatio-Temporal Geostatistical Methods</i>	A
Faculty of Civil Engineering, University of Belgrade, Department of Geodesy, 2002-2007	Title of diploma work: <i>Possibility of implementation LPIS and CwRS systems for control of subventions in agriculture in Republic of Serbia</i>	B

7. Language skills: Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

LANGUAGE	READING	SPEAKING	WRITING
Serbian	Mother tongue		
English	1	1	1
French	5	5	5
German	5	5	5

8. Membership of professional bodies: International Cartographic Association – ICA, "Geo for All", Serbian Chamber of Engineers

Other skills (e.g. Computer literacy, etc.): R, Python, JavaScript, OpenLayers, Django, QGIS, SAGA GIS, ArcGIS, PostgreSQL/PostGIS, Geoserver, Geonetwork, Geonode, istSOS

9. Present position: Associate professor at the Faculty of Civil Engineering, University of Belgrade, Department of Geodesy

10. Years with the firm: 11 years

11. Key qualifications (relevant to the assignment):

Milan is experienced in implementation of OGC services, spatial modelling of various phenomena in many fields.

12. Specific experience in the region:

COUNTRY	DATE FROM - DATE TO
Germany	2006
Bosna and Hercegovina	2010-2011
Slovenia	2014-2015
Croatia	2015-2017
The Netherlands	2013
Montenegro	2018-2019

13. Professional experience

REF	DATE	LOCATION	COMPANY	POSITION	DESCRIPTION
1	2014 - present	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Assistant professor	Lecturing courses on BSc, MSc, PhD studies: Information technology in cartography, Web cartography, Geostatistics, Spatio-temporal statistics Research in the domain Web cartography and spatio-temporal modelling.
2	2014 - present	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Head of Laboratory	Head of Laboratory for development of the open source geospatial technologies. http://osgl.grf.bg.ac.rs/
3	2015 - 2018	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Vice dean for research	Vice dean for research, Faculty of Civil Engineering, University of Belgrade
4	2019-	Serbia	Faculty of Civil Engineering, University of Belgrade	Resercher	WP leader in the Horizon2020 BEACON (Boosting Agricultural Insurance based on Earth Observation data) project. Tasks: user requirement analysis, service requirements specifications, EO data models development
5	2019	Belgrade	Gilab d.o.o.	Project manager	Technical solution and implementation of meteorological measurements database system. Automatic integration of different data formats and sensors, storing and displaying them through istSOS service which employs OGC SOS standard.
6	2018-2019	Belgrade	Gilab d.o.o.	Project manager	GILab team has developed LandGIS - Web GIS system that consists of (1) Web mapping client, which provides visualization of various spatio-temporal land-related datasets and enables querying per map click, to get layer values in time-series for the point of interest, (2) LandGIS REST API - lightweight, but powerful REST API written in R, that enables querying over multiple datasets (3) Data Store - Web application based on existing open source solution - GeoNode, that enables layers metadata preview, data download and preview directly or via OGC Web services. https://landgis.opengeohub.org http://openlandmap.org/
7	2018	Serbia and Denmark	Gilab d.o.o.	GIS expert	Project manager for Copernicus CORINE Land Cover 2018 project (CLC2018) implementation in Serbia and Denmark Managing activities of the contracted team in implementing updating of CORINE land cover maps for the reference year 2018 in Serbia and Denmark under the Copernicus land monitoring service. The activities included preparation of the remote sensing data (Sentinel-2 imagery), visual interpretation of satellite imagery and mapping of land cover changes between 2012-2018 and GIS processing to produce seamless and topologically correct national datasets.
8	2015-2017	Belgrade	Gilab d.o.o.	Project manager and developer	GILAB team made web mapping client for "Soil property maps at 250 m" based on the AngularJS and OpenLayers, 3D client based on the CesiumJS. We made upgrade of REST SoilGrids API. We implemented OGC web mapping services based on the Geoserver, download functionalities based on the Rasdaman and FTP, metadata catalog based on the Geonetwork. https://soilgrids.org

9	2015-2017	Belgrade, Zagreb	Croatian Foundation	Science		CARE-Climate of the Adriatic Region / Croatian Science Foundation Main project features: Consulting, lectures, workshops Activities performed: Consulting, lectures, workshops in field of geostatistics and web GIS and web mapping
10	2015-2016	Belgrade	Gilab d.o.o.		Project manager	Development of web/Android/iOS app realization of the SoilInfo app. The SoilInfo App is the mobile component of the Global Soil Information Facilities (GSIF). Its main purpose is to provide access to soil data coming from the SoilGrids project, but it also allows display, distribution and query of all other data components (e.g. soil profiles and samples). https://soilinfo-app.org
11	2016-2019	Serbia	Faculty of Engineering	Civil	Senior researcher	APOLLO - Advisory platform for small farms based on earth observation / H2020 EO 687412 Main project features: The APOLLO project aims to bring the benefits of precision agriculture to farmers through affordable information services, making extensive use of free and open Earth Observation data, such as those provided by the European Union's Copernicus programme. These services will help farmers to make better decisions by monitoring the growth and health of crops, providing advice on when to irrigate and till their fields and estimating the size of their harvest. Positions held: Senior researcher Activities performed: Algorithms for earth observation remote sensing data preprocessing and serving in APOLLO system, development of system architecture. Algorithms for automated interpolation of temperature and precipitation data. http://apollo-h2020.eu/
12	2018	Montenegro	Gilab d.o.o.		Consultant	Working on the report: "A multi-purpose land information and monitoring service for Montenegro" for the purpose of establishing strategic documentation for developing environmental monitoring system in Montenegro. NGO "Protection of Environment and Soil" ProES
13	2016-2017	Serbia	World Bank Group		Short Term Consultant	Serbia National Disaster Risk Management Program: Open Data for Resilience Initiative (OpenDRI) The overall objective of the OpenDRI assessment for Serbia is to support the development of a strategy for enhancing data sharing and open data practices related to Disaster risk management in Serbia. Activities performed: Review on existing regulations and initiatives at the national level, identify which DRM datasets are currently available in the country and how are they managed and shared, workshops with key GIS stakeholders in Serbia.
14	2016	Serbia	Joint Research Centre (JRC)		External expert	External expert for Danube Reference Data and Service Infrastructure – DRDSI (Serbian pilot) project. Main project features: To create catalogue service for the web, creating and establishing GIS data sharing platform in Serbia as 'DRDSI local node' Activities performed: Creation and reuse of metadata according to INSPIRE, Serve and maintain CSW endpoint inline with OGC standards, provide user stories related to platform, final report. http://drdsi.jrc.ec.europa.eu/ , http://osgl.grf.bg.ac.rs/geonetwork
15	2015 -		Gilab d.o.o.		Founder and CEO	Founder and CEO of GILAB DOO company
16	2014-2015	Serbia	Evrogeomatika d.o.o.		GIS expert	Implementation of the CORINE Land Cover 2012 project in Serbia (CLC2012)
17	2014-2015	Serbia	Faculty of Engineering,	Civil	Researcher	Name of assignment or project: METEO package -methodological/ software solution for automated mapping of climatic variables. https://cran.r-project.org/web/packages/meteo Activities performed: Research, programming, publications, workshops

					https://cran.r-project.org/web/packages/meteo
18	2014-2015	Belgrade, Ljubljana	Faculty of Civil Engineering,	Researcher	Consideration of spatial effect in mass valuation of residential properties. Slovenian-Serbian bilateral research project, No. 451-03-3095/2014-09/34
19	2013	The Netherlands	ISRIC-World Information	Soil Guest researcher	Guest researcher at ISRIC World Soil Information. Worldgrids—A public repository and a WPS for global environmental layers.
20	2012-2015	Serbia	Evrogeomatika d.o.o.	Consultant	EU CIP-ICT-PSP project i-SCOPE: managing the activities assigned to Evrogeomatika as a partner in the consortium implementing the research and development project. Based on interoperable 3D Urban Information Models, i-SCOPE delivers an open platform on top of which it develops, within different domains, three 'smart city' services. These will be piloted and validated, within a number of EU cities which will be actively engaged throughout the project lifecycle. http://www.iscopeproject.net
21	2012-2014	Serbia	Evrogeomatika d.o.o.	Consultant	EU CIP-ICT-PSP project eEnviPer: managing the activities assigned to Evrogeomatika as a partner in the consortium implementing the research and development project. eEnviPer is an integrated web-based platform for the application, administration and consultation of environmental permits. In 2012-2014, eEnviPer set-up and tested its existing multi-purpose cloud platform in five pilot communities, supported by the European Commission's ICT Policy Support Programme. In making the environmental permits process more transparent, accessible and efficient, eEnviPer will help to reduce the environmental impact of economic activities through the environmental permits process in a cost-effective manner. http://www.eenviper.eu/
22	2011 - present	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Researcher	Research project: Spatial, ecological, energetic and social aspects of settlement development and climate changes - mutual influence; Serbian Ministry of Science, project No: TR36035 http://e-science.amres.ac.rs/TP36035/?paged=3
23	2008 - 2014	Serbia	University of Belgrade	Teaching assistant	Teaching assistant at the Faculty of Civil Engineering, University of Belgrade, Department of Geodesy; Courses: Mathematical cartography, General cartography, Information technologies in cartography and State cartography
24	2010-2011	Banja Luka	University of Banja Luka	Teaching assistant	Faculty of Architecture, Civil Engineering and Geodesy; Banja Luka. Course: Mathematical cartography
25	2008-2010	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Junior researcher	Research project: Developing the software system for adjustment and analyses geodetic networks in surveying, Serbian Ministry of Science and Technical Development, project No: TR 16015
26	2009-2011	Belgrade	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy	Junior researcher	Preparation of the methodology proposal for preliminary flood risk mapping in accordance to the Directive 2007/60/EC of the European Parliament and of the Council of 23 October 2007 on the assessment and management of flood risks, Serbian Ministry of Science
27	2007-2009	Serbia	Evrogeomatika d.o.o.	GIS expert	CORINE land cover project (CLC2006 update) in Serbia, funded by European Commission and European Environment Agency (EEA)

28	2005-2007	Serbia	University of Belgrade	demonstrator	Faculty of Civil Engineering, University of Belgrade, Department of Geodesy(worked as a demonstrator on several cartography courses)
29	2006	Germany	Ingenieurgesellschaft Prof. Dr.-Ing. E. Macke mbH, Braunschweig	practice	Practical training: Ingenieurgesellschaft Prof. Dr.-Ing. E. Macke mbH, Braunschweig, Germany

14. Other relevant information (e.g. publications):

Book:

1. Kilibarda M., Protić D. (2018) Geovisualisation and web cartography. University of Belgrade. Faculty of civil engineering

Chapters in books:

1. Bajat B., Kilibarda M., Pejović M., Petrović M.S. (2018) Spatial Hedonic Modeling of Housing Prices Using Auxiliary Maps. In: Thill JC. (eds) Spatial Analysis and Location Modeling in Urban and Regional Systems. Advances in Geographic Information Science. Springer, Berlin, Heidelberg [M13]
2. Krunic N., Bajat B., Kilibarda M. (2015) Dasymetric Mapping of Population Distribution in Serbia Based on Soil Sealing Degrees Layer. In: Růžičková K., Inspektor T. (eds) Surface Models for Geosciences. Lecture Notes in Geoinformation and Cartography. Springer, Cham [M14]

Papers in journals:

1. Hengl T., de Jesus J. M., Heuvelink G. BM, Gonzalez M.R., Kilibarda M., Blagotić A., Shangguan W., Wright M.N., Geng X., Bauer-Marschallinger B. and others (2017) SoilGrids250m: Global gridded soil information based on machine learning. *PLOS ONE*. **12**(2), pp.e0169748. [M21]
2. Luković J., Blagojević D., Kilibarda M., Bajat B. (2015) Spatial pattern of North Atlantic Oscillation impact on rainfall in Serbia. *Spatial Statistics*. **14**(), pp.39--52. [M21]
3. Kilibarda M., Tadić Perčec M., Hengl T., Luković J., Bajat B. (2015) Global geographic and feature space coverage of temperature data in the context of spatio-temporal interpolation. *Spatial Statistics*. **14**(), pp.22--38. [M21]
4. Čujić M., Dragović S., Sabovljević M., Slavković-Beškoski L., Kilibarda M., Savović J., Onjia A. (2014) Use of mosses as biomonitors of major, minor and trace element deposition around the largest thermal power plant in Serbia. *CLEAN–Soil, Air, Water*. **42**(1), pp.5--11. [M21]
5. Kilibarda M., Hengl T., Heuvelink G., Graeler B., Pebesma E., Perčec Tadić M., Bajat B. (2014) Spatio-temporal interpolation of daily temperatures for global land areas at 1 km resolution. *Journal of Geophysical Research: Atmospheres*. (), pp.. [M21]
6. Dragović S., Čujić M., Slavković-Beškoski L., Gajić B., Bajat B., Kilibarda M. , Onjia A. (2013) Trace element distribution in surface soils from a coal burning power production area: A case study from the largest power plant site in Serbia. *Catena*. **104**(), pp.288--296. [M21]
7. Bajat B., Hengl T., Kilibarda M. , Krunic N. (2011) Mapping population change index in Southern Serbia (1961–2027) as a function of environmental factors. *Computers, Environment and Urban Systems*. **35**(1), pp.35--44. [M21]
8. Čeh M., Kilibarda M., Lisec, A. , Bajat B. (2018) Estimating the Performance of Random Forest versus Multiple Regression for Predicting Prices of the Apartments. *ISPRS International Journal of Geo-Information*. **7**(5), pp.. DOI: 10.3390/ijgi7050168 [M22]
9. Pejović M., Bajat B. , Gospavić Z., Saljnikov E., Kilibarda M. , Čakmak D. (2017) Layer-specific spatial prediction of As concentration in copper smelter vicinity considering the terrain exposure. *Journal of Geochemical Exploration*. (), pp.. [M22]

10. Buric D., Lukovic J., Bajat B., Kilibarda M. , Živkovic N. (2015) Recent trends in daily rainfall extremes over Montenegro. *Nat. Hazards Earth Syst. Sci.* **15**(), pp.2069--2077. [M22]
11. Luković J., Bajat B., Kilibarda M., Filipović D. (2015) High resolution grid of potential incoming solar radiation for Serbia. *Thermal Science.* **19**(suppl. 2), pp.427--435. [M22]
12. Bajat B., Blagojević D., Kilibarda M. , Luković J., Tošić, I. (2015) Spatial analysis of the temperature trends in Serbia during the period 1961–2010. *Theoretical and Applied Climatology.* **121**(1-2), pp.289--301. [M22]
13. Luković J., Bajat B., Blagojević D., Kilibarda M. (2014) Spatial pattern of recent rainfall trends in Serbia (1961–2009). *Regional environmental change.* **14**(5), pp.1789--1799. [M22]
14. PROTIĆ D., KILIBARDA M., NENKOVIĆ-RIZNIĆ M., Nestorov I. (2017) 3D URBAN SOLAR POTENTIAL MAPS-CASE STUDY OF THE i-SCOPE PROJECT. *THERMAL SCIENCE.* (), pp.. [M23]
15. Bajat B., Krunic N., Samardžić-Petrović M. , Kilibarda M. (2013) Dasymetric modelling of population dynamics in urban areas. *Geodetski vestnik.* **57**(4), pp.777--792. [M23]
16. Protic D. , Kilibarda, M. , Nestorov I. (2012) Super resolution mapping of agricultural parcel boundaries based on localized partial unmixing. *Geodetski List.* **89**(4), pp.259--271. [M23]
17. Kilibarda M. and Bajat B. (2012) plotgooglemaps: The r-based web-mapping tool for thematic spatial data. *Geomatica.* **66**(1), pp.37--49. [M24]
18. Krunic N., Bajat B., Kilibarda M. , Tošić D. (2011) Modelling the spatial distribution of Vojvodina's population by using dasymetric method. *Spatium.* (24), pp.45--50. [M24]