

Khalil Gholamnia

Date & place of birth, marital status: 26/06/1991, Iran, married, one child

Position: PhD student remote sensing and GIS at Charles University in the Czech Republic

Contact: ☎ (+420) 607998994 ✉ gholamnk@natur.cuni.cz

Home Address: Kolej Hvězda, Zvoníčková 5, 162 08 Praha, Czech Republic



Education:

2023 -now	Ph.D student , Department of Applied Geoinformatics and Cartography, Charles University, Praha, Czech Republic
2013-2015	M.A. Remote Sensing (RS) and Geographic Information System (GIS), University of Tabriz, Tabriz, Iran.
2009-2013	B.A. Geography Urban Planning, Department of Geography, University of Mazandaran, Babolsar, Iran.

Language:

Persian: (Native)

English: B2 (please check my papers)

International Prizes & Awards:

- **Best paper awards:**

01-07-2021	Best research paper award for 2021 by the editorial board of the journal of Remote Sensing for paper of: Ghorbanzadeh, O., Blaschke, T., Gholamnia, K. , Meena, S.R., Tiede, D. and Aryal, J. (2019). Evaluation of different machine learning methods and deep-learning convolutional neural networks for landslide detection. <i>Remote Sensing</i> , 11(2), p.196. [CrossRef]
03-09-2020	Best research paper award for 2021 by the editorial board of the journal of Spatial Science for the paper published in Vol 65 No 3 (September 2020): Ghorbanzadeh, O., Blaschke, T., Aryal, J., Gholamnia, K. 2019: A new GIS-based technique using an adaptive neuro-fuzzy inference system for land subsidence susceptibility mapping. <i>Journal of Spatial Science</i> , 1-17. [CrossRef]

Publications:

Author/ or co-author **15+** scientific publications, including **13+** ISI indexed journal papers (and **5** ISC indexed journal papers) with an h-index of **11** and **>2050** citations according to [Google scholar](#), January 2025. My papers are about the application and development of spatial decision support systems, object-based image analysis, machine learning/deep learning, information mining, and data fusion applications for **landslides, floods, multi-hazard, wildfire**, etc.

- **ISI indexed journal papers**

1. Nejatiyanpour, E., Ghorbanzadeh, O., Strobl, J., Yousefpour, R., Kakhki, M. D., Amirnejad, H., **Gholamnia, K.**, & Sabouni, M. S. (2025). Assessing Hyrcanian forest fire vulnerability: socioeconomic and environmental perspectives. *Journal of Forestry Research*, 36(1), 35.. [\[CrossRef\]](#) (Q1; IS: 3.4)
2. Barzani, A. R., Pahlavani, P., Ghorbanzadeh, O., **Gholamnia, K.**, & Ghamisi, P. (2024). Evaluating the Impact of Recursive Feature Elimination on Machine Learning Models for Predicting Forest Fire-Prone Zones. *Fire*, 7(12), 440. [\[CrossRef\]](#) (Q1; IS: 3.1)
3. Ghorbanzadeh, O., Blaschke, T., **Gholamnia, K.**, Meena, S.R., Tiede, D. and Aryal, J. (2019). Evaluation of different machine learning methods and deep-learning convolutional neural networks for landslide detection. *Remote Sensing*, 11(2), p.196. [\[CrossRef\]](#) (*This paper is recognized as the most cited paper of the journal in the last 36 months, November 2021.* [\[CrossRef\]](#)) (Q1; IS: 4)
5. Ghorbanzadeh, O., **Gholamnia, K.**, & Ghamisi, P. (2022). The application of ResU-net and OBIA for landslide detection from multi-temporal sentinel-2 images. *Big Earth Data*. [\[CrossRef\]](#) (Q1; IS: 4)

6. Tavakkoli, S., Einali, G., Ghorbanzadeh, O., Nachappa, T. G., **Gholamnia, K.**, Blaschke, T., & Ghamisi, P. (2022). A Google Earth Engine Approach for Wildfire Susceptibility Prediction Fusion with Remote Sensing Data of Different Spatial Resolutions. *Remote Sensing*, 14(3), 672. [\[CrossRef\]](#)(Q1; IF: 5.3) .
7. Gudiyangada Nachappa, T., Ghorbanzadeh, O., **Gholamnia, K.**, & Blaschke, T. (2020). Multi-Hazard Exposure Mapping Using Machine Learning for the State of Salzburg, Austria. *Remote Sensing*, 12(17), 2757. [\[CrossRef\]](#)(Q1; IF: 5.3)
8. Gudiyangada Nachappa, T., Tavakkoli Piralilou, S., **Gholamnia, K.**, Ghorbanzadeh, O., Rahmati, O., & Blaschke, T. (2020). Flood Susceptibility Mapping with Machine Learning, Multi-Criteria Decision Analysis and Ensemble Using Dempster Shafer Theory. *Journal of Hydrology*, 125275, 590. [\[CrossRef\]](#)(Q1; IF: 6.7)
9. Ghorbanzadeh, O., Blaschke, T., **Gholamnia, K.**, & Aryal, J. (2019). Forest fire susceptibility and risk mapping using social/infrastructural vulnerability and environmental variables. *Fire*, 2(3), (This paper is recognized as the third most cited paper of the journal in the last 36 months, November 2021. [\[CrossRef\]](#) (Q1:IF:3.1)
10. Ghorbanzadeh, O., Rostamzadeh, H., Blaschke, T., **Gholamnia, K.**, & Aryal, J. (2018). A new GIS-based data mining technique using an adaptive neuro-fuzzy inference system (ANFIS) and k-fold cross-validation approach for land subsidence susceptibility mapping. *Natural Hazards*, 94(2), 497-517. [\[CrossRef\]](#)(Q1; IF: 3.1)
11. **Gholamnia, K.**, Gudiyangada Nachappa, T., Ghorbanzadeh, O., & Blaschke, T. (2020). Comparisons of Diverse Machine Learning Approaches for Wildfire Susceptibility Mapping. *Symmetry*, 12(4), 604. [\[CrossRef\]](#) (Q2; IF: 2.9)
12. Ghorbanzadeh, O., Blaschke, T., Aryal, J., & **Gholamnia, K.** (2018). A new GIS-based technique using an adaptive neuro-fuzzy inference system for land subsidence susceptibility mapping. *Journal of Spatial Science*, 1-17. [\[CrossRef\]](#)(Q2; IF: 1.8)
- **ISC indexed journal papers:**
13. Yousefizadeh, R., Sehatkashani, S., **Gholamnia, K.**, Maleki, A., Einali, G. (2022). Investigating the trend of changes and snow prediction in Alborz heights of Mazandaran province in winter, using satellite image processing, journal of climate research in Persian journal, 12(48), 157. https://clima.irimo.ir/article_147865.html?lang=en
14. Feizizadeh, B., Didehban, K., & **Gholamnia, K.** (2016). Extraction of Land Surface Temperature (LST) based on landsat satellite images and split window algorithm Study area: Mahabad Catchment. *Scientific-Research Quarterly of Geographical Data (SEPEHR)*, 25(98), 171-181. [\[CrossRef\]](#)
15. Valizadeh Kamran, K., **Gholamnia, K.**, Eynali, G., & Moosavi, M. (2017). Estimation land surface temperature and extract heat islands using split window algorithm and multivariate regression analysis (Case Study of Zanjan). [\[CrossRef\]](#)
16. Mousavi, S. M., **Gholamnia, K.**, Mamashli, M., & Rustaei, S. (2017). Integration of the FSM method and morphometric analysis for ranking sub-basins using RS and GIS techniques, case study: Ozroud basin. *Iranian journal of Ecohydrology*, 4(1), 247-257. [\[CrossRef\]](#)
17. Mahmoudzadeh, H., **Gholamnia, K.** & Mosavi, S.M., (2018). Scenario-Based Approach in Urban Development Modeling (Case Study Sari City). *Geography and Planning* 4(1), V: 22, N: 64 [\[CrossRef\]](#)
- National and international conference papers/ poster presentations:**
18. **Gholamnia, K.**, & Kupkova, L. (2024), Predicting Future Land Use and Cover Changes in the Krkonoše Mts. National Park Using Machine Learning and Markov Chain Modelling, MedGU - 4th Mediterranean Geosciences Union, Barcelona, Spain.
19. **Gholamnia, K.**, & Kupkova, L. (2024), Modeling of future land use/land cover patterns in the Krkonose Mts. National Park using machine learning classification and CLUE-S model, The 10th Nordic Geographers Meeting, Copenhagen, Denmark
20. Nejatiyanpour, E., Ghorbanzadeh, O., Strobl, J., Yousefpour, R., Kakhki, M. D., Amirnejad, H., **Gholamnia, K.**, & Sabouni, M. S. (2024). Integrated Assessment of Forest Fire Vulnerability: A Multi-dimensional Approach. Conference: 9th ADVANCED ENGINEERING DAYS (AED)At: Mersin University, Turkey and University of Tabriz, Iran.

21. Pirailou, S. T., Einali, G., Kiani, S., & **Gholamnia, K.** (2022). Assessing the importance of variable selection in land subsidence susceptibility mapping. *Intercontinental Geoinformation Days*, 4, 188-191.
22. Kiani, S., Mazidi, A., **Gholamnia, K.**, & Einali, G., (2019), Evaluating the efficiency of logistic regression model in landslide risk zoning Case study: Hashtchin catchment in Ardabil province, *National Conference on Watershed Management Science and Engineering of Iran*, 15, 209 – 2023.
23. **Gholamnia, K.**, Einali, G., & Didban, K. (2018) Location of wind power plant using fuzzy hierarchical analysis and GIS, *Second National Conference on Energy Infrastructure, Electrical Engineering and Nanotechnology*, 2, 151-167.
24. **Gholamnia, K.**, Sehat, S., Yousefizadeh, R., Maleki, M., A., Soltani, S. B., & Asadi, A., 2018, Investigating the trend of snow changes in the border of Alborz highlands in Mazandaran province using satellite image processing, the 6th regional conference O climate change, Tehran, 6, 148 - 161

Technical Skills:

Programming

- Python
- Google Earth Engine (JavaScript and Python)
- Libraries: Tensorflow, Pytorch, GDAL, Rasterio, GeoPandas Scikit-Learn, Numpy, Pandas, Matplotlib
- MATLAB

Software:

- ArcGIS, ArcGISpro QGIS, Terrset
- ENVI, eCognition, ERDAS
- AutoCAD, AutoCAD Civil 3D
- SNAP, SARscape, Orfeo Toolbox
- SPSS, SAS

Database:

- PostgreSQL

Employment & Research Assistantships:

2015-2023	GIS Analyst at ACTM Company, Amol , Iran, www.coactm.ir .
2018–2023	GIS Analyst at Surveying Company Aryan Kesht Kohpaye, Isfahan, Iran
2018–2019	GIS Analyst at PeAzma Consulting Engineering Company, Tehran, Iran Projects: Location of geotechnical, hydrological and geoelectric engineering services Construction of 400 kV substation in District 22 of Tehran Municipality Iran Projects: Geotechnical studies of water and sewage projects in the southwest of the province Tehran, Iran
May. 2014 - Oct. 2015	Surveyor at Tabriz University, Tabriz, Iran, Projects: Mapping and creating a geodatabase of East Azerbaijan villages Iran
May. 2013 - Oct. 2013	Surveyor at Company of analysts Amard, Amol, Iran, Projects: Update the cadaster of Firoozkooh county Iran using aerial images-

Oct. 2018 – Mazandaran Meteorological Organization, Sari, Iran Project: Investigating the trend of changes and snow forecasting of Alborz heights in Mazandaran province using satellite image processing. Projects:
Jun. 2019 Locationing snowsites suitable for tourism development (case study: Mazandaran province) Iran

Teaching assistant:

2017 - 2019 Lecturer: (fundamental GIS) Department of Surveying and Geomatics, Faculty of Engineering and Technology, Shomal University, Iran

2017- 2019 Lecturer: (Advanced GIS) Department of Surveying and Geomatics, Faculty of Engineering and Technology, Shomal University, Iran

2017 - 2019 Lecturer: (fundamental Remote sensing) Department of Surveying and Geomatics, Faculty of Engineering and Technology, Shomal University, Iran

2017 - 2019 Lecturer: (Applied GIS) Department of Surveying and Geomatics, Faculty of Engineering and Technology, Shomal University, Iran

2017 - 2019 Lecturer: (Image processing) Department of Surveying and Geomatics, Faculty of Engineering and Technology, Shomal University, Iran

2017-2019 Lecturer (fundamental GIS) Department of civil engineering, Faculty of Engineering and Technology, Shomal University, Iran

2018 - 2020 Lecturer (Thermal remote sensing) Aban Haraz Institute of Higher Education, Amol, Iran

2018 - 2020 Lecturer (Satellite image processing) Aban Haraz Institute of Higher Education, Amol, Iran

2018 - 2020 Lecturer (Radar remote sensing) Aban Haraz Institute of Higher Education, Amol, Iran

International cooperation:

I have cooperated with several professors and researchers from all over the world like

Name	Affiliation
doc. RNDr. Lucie Kupková, Ph.D.	The Department of Applied Geoinformatics and Cartography is a stable part of the Faculty of Science at Charles University in Prague. tillspec
Thomas Blaschke	Department of Geoinformatics Z-GIS , GIScience Doctoral College , University of Salzburg, Austria.
Omid Ghorbanzadeh	Institute of Advanced Research in Artificial Intelligence (IARAI), Vienna, Austria.
Pedram Ghamisi	Helmholtz-Zentrum Dresden-Rossendorf, Helmholtz Institute Freiberg for Resource Technology, MachineLearning Group, Freiberg, Germany.
Jagannath Aryal	University of Melbourne.
Thimmaiah Gudiyangada	Swiss Re, Zurich, Switzerland.

Courses:

Name	Associated with	YEAR
Introduction to Machine Learning with Python	Charles University, NPFL129	May, 2024
Machine Learning in Geosciences	CharlesUniversity,MZ370G24	December, 2024
Machine Learning with Scikit-Learn	LinkedIn Learning	Apr 2024
Python for Data Visualization	LinkedIn Learning	May 2024

PyTorch Essential Training: Deep Learning	LinkedIn Learning	May 2024
AI Workshop: Build a Neural Network with PyTorch Lightning	LinkedIn Learning	May 2024
NumPy Essential Training: Foundations of NumPy	LinkedIn Learning	Jul 2024
Machine Learning Foundations: Statistic	LinkedIn Learning	Jul 2024
Artificial Intelligence Foundations: Machine Learning	LinkedIn Learning	Jul 2024

References:

- **Prof. Lucie Kupková**, Department of Applied Geoinformatics and Cartography, is a stable part of the Faculty of Science at Charles University in Prague, lucie.kupkova@natur.cuni.cz, Phone: 221 951 400
- **Prof. Aliakbar Rasuli**, Faculty of Geography & Planning, University of Tabriz, Iran.
Email: aarasuly@yahoo.com, Phone number: +989141165767
- **Prof. Karim Soleimani**, Faculty of Agricultural Sciences and Natural Resources, University of Sari, Iran.
Email: solaimani2001@yahoo.co.uk, Phone number: +989111521858
- **Prof. Khalil Valizadeh Kamran**, Professor, Department of remote Sensing and GIS, Faculty of Planning and Environmental Sciences University of Tabriz, Tabriz, Iran
Email address: Valizadeh@tabrizu.ac.ir, Phone number: +989144123849
- **Dr. Omid Ghorbanzadeh**, Researcher, Institute of Advanced Research in Artificial Intelligence (IARAI), Vienna, Austria. Email address: omid.ghorbanzadeh@iarai.ac.at, Phone number: +436607843555