





PERSONAL INFORMATION



ALEXANDRU-LUCIAN ONACA

-  Ion Ghica, 24, ap. 5, 300161, Timișoara
-  +40 0256 – 592117
-  alexandru.onaca@e-uvt.ro
-  http://geografie.uvt.ro/?page_id=10008

Sex Male | Date of birth 26/09/1982 | Nationality Romanian

WORK EXPERIENCE

Current position:

Lecturer at West University of Timișoara, Department of Geography, 2015 – present

- Teaching: Geomorphology, Meteorology-Climatology, Research methods in Physical Geography, Glaciology, Periglacial geomorphology.
- Research fields: Geomorphology, Dendrochronology, Applied Geophysics, Natural Hazards.
- Head of the Meteorology laboratory and vicehead of the Geomorphology, Geophysical investigations and Geoarchaeology laboratory at Geography Department

Teaching assistant at West University of Timișoara, Department of Geography, 2006 - 2015

- PhD in Geography at West University of Timișoara (2013). PhD thesis: *Periglacial processes and landforms from the Southern Carpathians. A geomorphological and geophysical approach*
- Msc in Territorial Planning and sustainable development at West University of Timișoara (2005-2007)
- Bachelor degree in Geography at West University of Timișoara, 2005.

Scholarships

- CEEPUS II Scholarship in Geoinformatics, March 2009, Jagiellonian University, Krakow, Poland.
- CEEPUS II Scholarship in Geoinformatics, March-April 2007, Salzburg University, Austria.
- CEEPUS II Scholarship in Geoinformatics, 2005-2006, West University of Hungary, Szekesfehervar, Hungary.

EDUCATION AND TRAINING

Summerschools/Courses

- Summer school *Understanding Earth-Surface Processes in the Alpine Environment from High Resolution Topography*, July 2013, San Vito di Cadore (Italy), EGU & University of Padova.
- Geochronology Summer School, *Dating anthropogenic and natural changes in a fragile Alpine Environment*, September 2009, Anzonico (Switzerland), University of Zurich.
- *Radar Remote Sensing Course*, ROSA/ESA/DLR, October 2009, Bucharest, University of Agronomic Sciences and Veterinary Medicine.
- Summer school *Climate Change in the Danube Watershed and the Tasks ahead of us*, September 2006, West University of Hungary, Sopron, Hungary.

Postdoc fellowship

- Postdoc fellowship financed by POSDRU/159/1.5/S/133391, 2014-2015 for the project entitled „Analysing present-day geomorphological processes in the the alpine domain of the Romanian Carpathians using geophysical, geomorphological and dendrochronological methods”.

Teamwork skills, planning and organizing, leadership and management

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1

Communication skills ▪ good communication skills gained through my 10 years' experience as a teacher

Digital competence

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Independent user	Independent user	Proficient user

- good command of office suite
- good command of GIS software (ArcMap, Idrisi, Surfer)
- good command of statistic software (SPSS)
- good command of geophysical software (Res2Dinv, Reflexw, MagMap2000)
- dendrochronology software (TSAP-Win, Coorecorder, CDendro, Cofecha)
- good command of photo editing software gained as an amateur photographer (Adobe Photoshop)

ADDITIONAL INFORMATION

Awards

- *Eminent Young Researcher Award 2014*, „Orizonturi Universitare” Association, Romanian Academy of Science, Timișoara City Council.
- *Romanian Association of Geomorphologists Prize* for the best article of a Romanian researcher in 2014 for the paper: Voiculescu, M. and Onaca, A., Spatio-temporal reconstruction of snow avalanche activity using dendrogeomorphological approach in Bucegi Mountains-Romanian Carpathians, Cold Regions Science and Technology, 140-141, 63-75.
- *5 UEFISCDI Prizes* for Research publications (PN-II-RU-PRECISI).

Relevant research information

- Main scientific skills: geophysical methods, geomorphological mapping, GIS modelling, dendrochronology.
- Hirsch Index (Scopus, Web of Knowledge): 7.
- Number of ISI papers: 21 and 3 ISI Proceedings
- Books: 1
- Book Chapters: 8, at Springer Publisher House, Elsevier and Maison des Sciences de l'Homme and Editura Universității de Vest din Timișoara
- BDI Articles: 10
- Research projects: Director – 1; Member in 5 national and 2 international projects.
- Reviewer at international journals, such as: Geomorphology, Geografiska Annaler,

Science of the Total Environment; Journal of Applied Geophysics; Biodiversitas; Environmental Science.

- Member in the board of scientific journals: Acta Geobalcanica
- Member in Professional Association: Association of Romanian Geomorphologists, South Eastern Europe Mountain Research Initiative, International Permafrost Association, Permafrost Young Research Network

01.09.2018



Publications

Books

Onaca, A., 2017, *Procese și forme periglaciare din Carpații Meridionali. Abordare geomorfologică și geofizică*. Editura Universității de Vest, Timișoara, 264 p.

ISI articles

1. Hegyi, A., Urdea, P., Floca, C., Ardelean, A., **Onaca, A.**, in press. Mapping the subsurface structures of a lost medieval village in South-Western Romania by combining conventional geophysical methods, *Archaeological Prospection*. <https://doi.org/10.1002/arp.1720>
2. Popescu, R., Vespremeanu-Stroe, A., **Onaca, A.**, Vasile, M., Cruceru, N., Pop, O., 2017. Low-altitude permafrost research in an overcooled talus slope-rock glacier system in the Romanian Carpathians (Detunata Goală, Apuseni Mountains), *Geomorphology*, 295, 840-854. <https://doi.org/10.1016/j.geomorph.2017.07.029>
3. **Onaca, A.**, Ardelean, F., Urdea, P., Magori, B., 2017. Southern Carpathian rock glaciers: inventory, distribution and environmental controlling factors, *Geomorphology*. 293, 391-404. doi.org/10.1016/j.geomorph.2016.03.03.
4. Ardelean, **A.**, **Onaca, A.**, Urdea, P., Sărășan, A., 2017. Quantifying postglacial sediment storage and denudation rates in a small alpine catchment of the Făgăraș Mountains (Romania), *Science of the Total Environment*, 599-600, 1756-1767. <http://dx.doi.org/10.1016/j.scitotenv.2017.05.131>
5. Voiculescu, M., **Onaca, A.**, Chiroiu, P., 2016. Dendrogeomorphic reconstruction of past snow avalanche events and identification of triggering weather conditions in the Bâlea glacial valley - Făgăraș massif (Southern Carpathians), *Romanian Carpathians. Quaternary International*, **415**, 286-302. doi:10.1016/j.quaint.2015.11.115
6. Necșoiu, M., Mîndrescu, M., **Onaca, A.**, Wigginton, S., 2016. Recent morphodynamics of alpine lakes in Southern Carpathians Mountains using high-resolution optical imagery. *Quaternary International*, **415**, 164-174 doi:10.1016/j.quaint.2015.12.032
7. Necșoiu, M., **Onaca, A.**, Wigginton, S., Urdea, P., 2016, Rock glacier dynamics in Southern Carpathian Mountains from high-resolution optical and multi-temporal SAR satellite imagery, *Remote Sensing of Environment*, **177**, 21–36. doi:10.1016/j.rse.2016.02.025
8. Chiroiu, P., Ardelean, A., **Onaca, A.**, Voiculescu, M., Ardelean, F., 2016. Assessing the anthropogenic impact on geomorphic processes using tree-rings: a case study in the Făgăraș Mountains (Romanian Carpathians). *Carpathian Journal of Earth and Environmental Sciences*, **11**, 1, 27-36.
9. **Onaca, A.**, Ardelean, A.C., Urdea, P., Ardelean, F., Sărășan, A., 2016. Genetic typologies of talus deposits derived from GPR measurements in the alpine environment of Făgăraș Mountains, *Carpathian Journal of Earth and Environmental Sciences*, **11**, 2, 609-616.
10. Timofte, F., **Onaca, A.**, Urdea, P., Pravetz, T., 2016. The evolution of Mureș channel in the lowland section between Lipova and Nădlac (in the last 150 years), assessed by GIS analysis. *Carpathian Journal of Earth and Environmental Sciences*, **11**, 2, 319-330.
11. Popescu, M., Șerban, R.D., Urdea, P., Onaca, A., 2016. Conventional geophysical surveys for landslide investigations: two case studies from Romania. *Carpathian Journal of Earth and Environmental Sciences*, **11**, 1, 281-292.
12. Chiroiu, P., Stoffel, M., **Onaca A.**, Urdea, P., 2015, Testing dendrogeomorphic approaches and thresholds to reconstruct snow avalanche activity in the Făgăraș Mountains (Romanian Carpathians), *Quaternary Geochronology*, **27**, 1–10.
13. **Onaca, A.**, Ardelean, A. C., Urdea, P., Ardelean, F., Sîrbu, F., 2015, Detection of mountain permafrost by combining conventional geophysical methods and thermal monitoring in the Retezat Mountains, Romania, *Cold Regions Science and Technology*, **119**, 111-123
14. Popescu, R., Vespremeanu-Stroe, A., **Onaca, A.**, Cruceru, N., 2015. Permafrost in the granitic massifs of Southern Carpathians (Parâng Mountains). *Zeitschrift für Geomorphologie*, 59, 1, 1-20. doi.org/10.1127/0372-8854/2014/0145
15. Ardelean, A.C., **Onaca, A.**, Urdea, P., Șerban, R.D., Sîrbu, F., 2015. A first estimate of permafrost distribution from BTS measurements in the Romanian Carpathians (Retezat Mountains). *Géomorphologie: Relief, Processus, Environment*, **21 (4)**, 297-312. DOI: 10.4000/geomorphologie.11131
16. Șerban, R.D., **Onaca, A.**, Urdea, P., Popescu, M., 2015, Multivariate prediction model for block streams occurrence in Retezat Mountains (Southern Carpathians), *Carpathian Journal of Earth and Environmental Sciences*, **10**, **1**, 113-122
17. Voiculescu, M., **Onaca, A.**, 2014, Spatio-temporal reconstruction of snow avalanche activity using dendrogeomorphological method in Bucegi Mountains-Romanian Carpathians, *Cold Region Science and Technology*, **104-105**, 63-75.
18. **Onaca, A.**, Urdea, P., Ardelean, A.C., 2013, Internal structure and permafrost characteristics of the rock glaciers of Southern Carpathians (Romania) assessed by geoelectrical soundings and thermal monitoring, *Geografiska Annaler, Series A: Physical Geography*, 95, 3, 249-266.
19. Voiculescu, M., **Onaca, A.**, 2013, Snow avalanche assessment in the Sinaia ski area (Bucegi Mountains, Southern Carpathians) using the dendrogeomorphology method, *Area*, 45 (1), 109-122, doi:10.1111-area.12003.
20. **Onaca, A.**, Urdea, P., Ardelean, A., Șerban, R., 2013, Assessment of internal structure of periglacial landforms from southern carpathians (romania) using dc resistivity tomography, *Carpathian Journal of Earth and Environmental Sciences*, **8 (2)**, 113-122.

21. Voiculescu, M., Ardelean, F., **Onaca, A.**, Török-Oance, M., 2011, Analysis of snow avalanche potential in Bâlea glacial area - Făgăraș massif, (Southern Carpathians - Romanian Carpathians), *Zeitschrift für Geomorphologie*, Stuttgart, 55 (3): 291-316, doi:10.1127/0372-8854/2011/0054

Book chapters

1. **Onaca, A.**, Urdea, P., Ardelean, A.C., Șerban, R., Ardelean, F., 2017. 3.4. *Present-day periglacial processes in the alpine zone*. In: Landform dynamics and evolution in Romania, Eds. Rădoane, M., Vespremeanu-Stroe, A., 147-176, Springer Verlag.
2. Popescu, R., **Onaca, A.**, Urdea, P., Vespremeanu-Stroe, A., 2017. 3.2. *Spatial distribution and main characteristics of alpine permafrost from Southern Carpathians*, In: Landform dynamics and evolution in Romania, Eds: Rădoane, M., Vespremeanu-Stroe, A., 117-146. Springer Verlag.
3. Mreyen A-S., Micu, M., **Onaca, A.**, Cerfontaine, P., Havenith, H-B., 2017, *Integrated geological-geophysical models of unstable slopes in seismic areas*, In: The 4th World Landslide Forum, Ed. M. Mikos, Springer Nature.
4. Voiculescu, M., **Onaca, A.**, Chiroiu, P., 2013, Dynamique forestiere et impact des avalanches par la methode dendrochronologique. Vallée glaciaire Bâlea, Massif de Făgăraș (Carpates Meridionales, Roumanie), în: A. Decaulne (ed.), *Arbres & dynamiques*, **Maison des Sciences de l'Homme**, Clermont-Ferrand, 89-102
5. Urdea, P., **Onaca, A.**, Ardelean F., Ardelean, M., 2011, New Evidence on the Quaternary Glaciation on the Romanian Carpathians (Chapter 24) în *Developments in Quaternary Science*, vol. 15 (Quaternary Glaciations - Extent and Chronology), ed.: J. Ehlers, P.L. Gibbard, P.D. Hughes, **Elsevier**, 305-323, doi:10.1016/B978-0-444-53447-7.00024-6;
6. **Onaca, A.**, Urdea, P., Ardelean A.C., Timofte, R., 2014. Geoelectric surveying, in: Sipos, G., Urdea, P., Blanka, V., Selected geophysical and geochronological techniques serving earth sciences and archaeology. Szegedi Tudományegyetem, Természeti Földrajzi és Geoinformatikai Tanszék, 119-140.
7. Urdea, P., Sipos, G., Kiss, T., **Onaca, A.**, 2012, The Maros/Mureș, în: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureș River*, Editura Universității de Vest din Timișoara, 9-33 / 159-167;
8. Kiss, T., Urdea, P., Sipos, G., Sümeghy, B., Katona, O., Tóth, O., **Onaca, A.**, Ardelean, F., Timofte, F., Ardelean, C., 2012, The past of the river, în: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureș River*, Editura Universității de Vest din Timișoara, 33-64 / 167-178;
9. Sipos, G., Právetz, T., Katona, O., Ardelean, F., Timofte, F., **Onaca, A.**, Kiss, T., Kovács, F., Tobak, Z., 2012, The ever changing river, în: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureș River*, Editura Universității de Vest din Timișoara, 65-106 / 179-192;
10. Blanka, V., Mezösi, G., Sipos, G., van Leeuwen, B., Urdea, P., **Onaca, A.**, 2012, Climatic perspectives, , în: G. Sipos (ed.), *Past, Present, Future of the Maros/Mureș River*, Editura Universității de Vest din Timișoara.

BDI / CNCS B+ articles

1. **Onaca, A.**, Magori, B., Urdea, P., Chiroiu, P., 2015, Near surface thermal characteristics of alpine steep rockwalls in the Retezat Mountains, *Forum geografic. Studii și cercetări de geografie și protecția mediului*, XIV, 2, 124-133.
2. Șerban, R.D., Sipos, G., Popescu, M., Urdea, P., **Onaca, A.**, Ladányi, Z., 2015, Comparative grain-size measurements for validating sampling and pretreatment techniques in terms of solifluction landforms, Southern Carpathians, Romania, *Journal of Environmental Geography*, 8, 1-2, 39-47.
3. Șerban, R.D., **Onaca, A.**, Urdea, P., Popescu, M., 2015, Generation and accuracy assessment of Digital Elevation Models in mountain area, *Geographica Timisiensis*, 24(1).
4. Timofte, F., **Onaca, A.**, 2016, Paleo discharge of Mureș River in the lowland area, *Ecoterra journal of environmental research and protection*, 13 (1), 7-13.
5. Katona, O., Sipos, G., **Onaca, A.**, Ardelean F., 2012, Reconstruction of palaeo-hydrology and fluvial architecture at the Orosháza palaeo-channel of river Maros, Hungary, *Journal of Environmental Geography*, 5 (1-2): 29-38.
6. Ardelean, F., Török-Oance, M., Urdea, P., **Onaca, A.**, 2011, Application of object based image analysis for glacial cirques detection. Case study: the Țarcu Mountains (Southern Carpathians). *Forum geografic. S.C.G.P.M.*, 10(1): 20-26, doi:10.5775/fg.2067-4635.2011.007.i
7. Voiculescu, M., Popescu, F., Török-Oance, M., Olaru, M., **Onaca, A.**, 2011, Features of the ski area from the Romanian Banat, *Forum geografic. Studii și cercetări de geografie și protecția mediului*, 10, 1 / June, 58-69.
8. Voiculescu, M., Popescu, F., **Onaca, A.**, Török-Oance M., 2011, Ski activity in western part of Southern Carpathians. Case study: Straja ski area, *Analele Universității din Oradea – Seria Geografie*, XXI, 2 (December), 159-171.
9. Voiculescu, M., **Onaca, A.**, Milián, N., Ardelean, F., Török-Oance, M., Stăncescu, M., 2010, Analysis of Snow Avalanche from Mars, 07, 2007 within the Căluș-Negoiu Area, in the Făgăraș Massif (Southern Carpathians), *Analele Universității din Oradea – Seria Geografie*, XX, 1 (June), 22-33.
10. Török-Oance, M., Ardelean, F., **Onaca, A.**, 2009, The semiautomated Identification of the planation surfaces on the basis of the digital terrain model. Case study: The Mehedinți Mountains (Southern Carpathians), *Forum Geografic. Studii și cercetări de geografie și protecția mediului*, 8: 5-13.

