



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Nicolae Ajtai**
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E-mail nicolae.ajtai@ubbcluj.ro
Nationality Romanian
Date of birth 11.09.1985
Gender male

Work experience

Dates 01.04.2013 – present
Occupation or position held Assistant professor
Main activities and responsibilities Educational activities. Head of the remote sensing laboratory (<https://www.erris.gov.ro/RADO-Cluj>).
Name and address of employer Babes-Bolyai University, Cluj-Napoca, Romania
Type of business or sector Higher Education

Dates 01.11.2008 – 01.04.2013
Occupation or position held Research assistant
Main activities and responsibilities Research activities in remote sensing and risk and impact assessmen
Name and address of employer Babes-Bolyai University, Research Center for Disaster Management, Cluj-Napoca, Romania
Type of business or sector Research

Education and training

Dates 03.02.2014 – 02.02.2016
Occupation or position held **Marie Curie post-doctoral fellow** - Experienced Researcher within ITaRS ITN project
Main activities and responsibilities Active and passive remote sensing of the atmosphere
Name and address of employer Consiglio Nazionale delle Ricerche, Istituto di Metodologie per l'Analisi Ambientale, Potenza, Italy
Type of business or sector Research

Dates 01.10.2009 – 27.10.2012
 Title of qualification awarded **Ph.D. in Environmental Science (summa cum laude)**
 Principal subjects/occupational skills covered Aerosol research, Remote sensing, Atmospheric Monitoring and Modeling
 Name and type of organisation providing education and training Babes-Bolyai University, Cluj-Napoca, Romania

Dates 08.03.2013 – 22.03.2013
 Title of qualification awarded **Project manager**
 Principal subjects/occupational skills covered Project management, coordination and development
 Name and type of organization providing education and training FormAtest *Regional center for entrepreneurial and professional formation-evaluation-attestation*

Dates 01.04.2010 - 01.08.2010
 Title of qualification awarded **Marie Curie Early Research Training Stage**
 Principal subjects/occupational skills covered Atmospheric optics, Aerosol measurement techniques, Passive and active remote sensing, Remote sensing data analysis
 Name and type of organization providing education and training Université Lille 1, Laboratoire d'Optique Atmosphérique, Lille, France

Dates 01.10.2008 – 01.07.2009
 Title of qualification awarded **M.Sc.**
 Principal subjects/occupational skills covered Risk Assessment and Environmental Safety
 Name and type of organization providing education and training Babes-Bolyai University, Cluj-Napoca, Romania

Dates 01.10.2006 – 01.07.2011
 Title of qualification awarded **Eng.**
 Principal subjects/occupational skills covered Environmental Engineering
 Name and type of organization providing education and training Babes-Bolyai University, Cluj-Napoca, Romania

Dates 01.10.2004 – 01.07.2008
 Title of qualification awarded **B.Sc.**
 Principal subjects/occupational skills covered Environmental Science
 Name and type of organization providing education and training Babes-Bolyai University, Cluj-Napoca, Romania

| Self-assessment <i>European level (*)</i> | Understanding | | | | Speaking | | | | Writing | |
|--|---------------|-------------------|---------|-------------------|--------------------|-------------------|-------------------|-------------------|---------|-------------------|
| | Listening | | Reading | | Spoken interaction | | Spoken production | | | |
| English | C2 | Proficient User | C2 | Proficient User | C2 | Proficient User | C2 | Proficient User | C2 | Proficient User |
| French | B1 | Basic User | A2 | Basic User | B1 | Basic User | B1 | Basic User | A2 | Basic User |
| Hungarian | C1 | Proficient User | B2 | Intermediate User | C1 | Proficient User | C1 | Proficient User | B2 | Intermediate User |
| Italian | B2 | Intermediate User | B2 | Intermediate User | B1 | Intermediate User | B1 | Intermediate User | B1 | Intermediate User |

(*) [Common European Framework of Reference for Languages](#)

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|---------------------------------------|---|
| Social skills and competences | Teamwork: participated in several national and multi-national research project teams. Leadership: Representative of the Faculty of Environmental Sciences in the University's Senate (2006 – 2011). Representative of the Research Center for Disaster Management in the Faculty Council (2012-2014) |
| Organizational skills and competences | Good organizer, member in the organizing committee of several national and international conferences, workshops, measurement campaigns and trainings. |
| Technical skills and competences | Good general technical abilities |
| Computer skills and competences | Proficiency in using computers, hardware and software. Competences in using Microsoft Office Programs, HTML, Corel, Photoshop Risk and Impact Modeling Software: SEVEX View, ALOHA, SLAB View, EFFECTS 8, ISC AERMOD Programming language: Python. |
| Driving license | Yes, B-type, <3500 kg, <9 persons |
| Additional information | Principal Investigator of the Cluj_UBB EARLINET site (www.earlinet.org) Principal Investigator and Site Manager of the NASA AERONET site in Cluj-Napoca Romania http://aeronet.gsfc.nasa.gov/cgi-bin/type_one_station_opera_v2_new?site=CLUJ_UBB&nachal=0&year=18&month=6&day=18&aero_w ater=0&level=1&if_day=0&if_err=0&year_or_month=0 Researcher ID : B-9453-2012; http://www.researcherid.com/rid/B-9453-2012 Member of ASRM (The Romanian Environmental Association) 2010-present Member of TIEMS (The International Emergency Management Society) 2008-2012 Member of the Romanian Red Cross Society 2011-2012 |

Cluj-Napoca,
30.04.2016

Additional information

1. List of publications

Published books:

1. MIȘCA, B.R.H., AJTAI, N., 2013, *Caiet de seminar pentru disciplina Fenomene de transfer și operații unitare în ingineria mediului*, Editura EFES, Cluj-Napoca, ISBN: 978-606-526-145-7
2. TÖRÖK, Z., AJTAI, N., OZUNU, A., 2011, *Aplicații de calcul pentru evaluarea riscului producerii accidentelor industriale majore ce implică substanțe periculoase*, Editura EFES, Cluj-Napoca, ISBN: 978-606-526-078-8

Published research:

1. BELEGANTE, L., CAZACU, M., TIMOFTE, A., TOANCA, F., VASILESCU, J., RUSU, M., AJTAI, N., STEFANIE, H., VETRES, I., OZUNU, A., GURLUI, S., 2015, *Romanian participation to the volcanic ash exercise VOLCEX 2014*, Environmental Engineering and Management Journal, Vol. 14, No. 11, p. 2503 – 25014, ISSN: 1582-9596
2. ȘTEFĂNIE, H., AJTAI, N., BOTEZAN, C., ȚOANĂ, F., TÖRÖK, Z., OZUNU, A., 2015, *Detection of a desert dust intrusion over Cluj-Napoca, Romania using an elastic backscatter LIDAR system*, ECOTERRA - Journal of Environmental Research and Protection 12(2): 50-55
3. ȘTEFĂNIE, H., NICOLAE, D., NEMUC, A., BELEGANTE, L., TOANCA, F., AJTAI, N., OZUNU, A., 2015, *Application of the LIRIC algorithm for the characterization of aerosols during the Airborne Romanian Measurements of Aerosols and trace gases (AROMAT) campaign*, EGU General Assembly Conference Abstracts, Vol. 17, EGU 2015-484
4. ȘTEFĂNIE, H., AJTAI, N., OZUNU, A., 2014, *Long range transport of hazardous aerosol particles. Case study: intrusions over Romania*, Bulletin of Romanian Chemical Engineering Society, Vol. 1, Nr. 1, ISSN 2360-4697
5. ȘTEFĂNIE, H., AJTAI, N., TÖRÖK, Z., DEACONU, L.T., OZUNU, A., 2014, *Hazards associated to biomass fires in Romania*, Proceedings of 41st International Conference of Slovak Society of Chemical Engineering SSCHI, ISBN: 978-80-89475-13-1, pg. 58
6. AJTAI, N., STEFANIE, H., OZUNU, A., 2013, *Description of aerosol properties over Cluj-Napoca derived from AERONET sun photometric data*, Environmental Engineering and Management Journal 2/2013, ISSN: 1582-9596
7. MORTIER, A., GOLOUB, P., PODVIN, T., DEROO, C., CHAIKOVSKY, A., AJTAI, N., BLAREL, L., TANRE, D., DERIMIAN, Y., 2013, *Detection and characterization of volcanic ash plumes over Lille during the Eyjafjallajökull eruption*, Atmos. Chem. Phys., 13, 3705-3720, doi:10.5194/acp-13-3705-2013, ISSN 1680-7316
8. MĂRMUREANU, L., DEACONU, L., VASILESCU, J., AJTAI, N., TALIANU, C., 2013, *Combined optoelectronic methods used in the monitoring of SO₂ emissions and imissions*, Environmental Engineering and Management Journal 2/2013, ISSN: 1582-9596
9. DEACONU L.-T., AJTAI N., TÖRÖK Z., OZUNU A., 2013, *Sulphur dioxide emissions modeling and monitoring originating from a large combustion power plant*, AES Bioflux 5(2):141-147, Online ISSN 2065-7647, Printed ISSN 2066-7620
10. STEBEL, K., PRATA, F., DAUGE, F., AMIGO, A., AJTAI, N., 2012, *UV multispectral imaging cameras for validation of SO₂ emissions*, Proceedings of the EUMETSAT Meteorological Satellite Conference, Sopot, Poland, 03-07 September 2012
11. AJTAI N., TÖRÖK Z., OZUNU, A., 2012, *Air quality modeling Of SO₂ emissions associated to metallurgical processes*, Studia Universitatis Babeș-Bolyai Chemia, nr. 57, pp 57-65, ISSN (print): 1224-7154
12. UNGA, F., DĂNILĂ, M.N., GURLUI, S., DIMITRIU, D., AJTAI, N., TIMOFTE, A., CAZACU, M.M., 2012, *Optical parameters characterization of a volcanic ash intrusion over Northern Romania following the Grímsvötn volcano eruption in May 2011*, International Student Conference on Photonics 2012, Book of Abstracts
13. AJTAI N., TÖRÖK Z., COSTIN, D., ȘTEFĂNIE H., OZUNU, A., 2011, *Preliminary results of Modeling and Monitoring of SO₂ emissions from Rovinari Large Combustion Power Plant in September 2010*, , Papers presented at 5th International Workshop on optoelectronic Techniques for Environmental Monitoring, ISSN 20066-8651
14. AJTAI, N., TÖRÖK, Z., STEFANIE, H., OZUNU, A., 2011, *Integrated technologies for improving atmospheric risk and impact assessment models and studies*, Book of abstracts, 3rd iNTeg-Risk Conference in conjunction with 20th SRA-Europe Meeting, Steinbeis Edition, ISBN 978-3-941417-65-6, pp 42
15. STEZAR I.-C., MODOI O.-C., TÖRÖK Z., AJTAI N., CRISAN D.-A., COSARA G.-V., SENZACONI F., OZUNU A., 2011 *Preliminary investigation and risk assessment of contamination on an industrial site in Maramures County*, Environmental Engineering and Management Journal January 2011, Volume 10/2011, no.1, p. 65-73, ISSN: 1582-9596
16. AJTAI, N., BACIU, C., COSTIN, D., OZUNU, A., 2011, *Overview of the UBB-Cluj station of the Romanian Atmospheric 3D research Observatory (RADO) at the Faculty of Environmental Science, Babeș-Bolyai University, Cluj-Napoca*, 2nd GIST-European Universities

International Workshop New developments in the cooperation between GIST and the European Universities, 15-18 iunie 2011, Universitatea Babeş-Bolyai Cluj-Napoca

17. AJTAI, N., STEFANIE, H., COSTIN, D., OZUNU, A., 2010, *Comparative study of regional aerosols from columnar sunphotometric data in Romania*, "Papers presented at the 4th Workshop on Optoelectronic Techniques for Environmental Monitoring", page 37, ISSN 2066-8651
18. TÖRÖK, Z., AJTAI, N., TURCU, A., T., OZUNU, A., 2010, *Comparative consequence analysis of the BLEVE phenomena in the context on Land Use Planning; Case study: The Feyzin accident, Process Safety and Environmental Protection*, ISSN: 0957-5820, Imprint: ELSEVIER
19. AJTAI N., ŞTEFĂNIE H., STOIAN L. C., OPREA M. G., 2010, *The volcanic ash and its impact on European air transport industry. A case study on the detection and impact of the the Eyjafjallajökull volcanic ash plume over North-Western Europe between 14th and 21st April 2010*. AES Bioflux 2(1):57-68
20. CHERECHES, R.M., BABA, C.O., RUS, D., AJTAI, N., SIRLINCAN, E.O., 2010, Environmental measures for traffic injury prevention. GIS methodology, European Journal of Public Health (ISI Proceedings) 3RD European Public Health Conference Integrated Public Health Amsterdam, 10–13 November 2010, Online ISSN 1464-360X Print SSN 1101-1262
21. CHERECHEŞ, R.M., RUS, D., AJTAI, N., ŞIRLINCAN, E.O., Traffic Injury Prevention in Cluj-Napoca, Romania, Injury Prevention, 2010, 16:1 Supp., p. A147
22. MIHĂIESCU, R., MIHĂIESCU, T., AJTAI, N., TÖRÖK, Z., OZUNU, A., 2010, *Air quality modelling as a tool used in selecting technological alternatives for developing a new abrasive facility*, AES Bioflux 3(2):123-128, Online ISSN 2065-7647, Printed ISSN 2066-7620
23. OZUNU, A., COSTIN, D., AJTAI, N., COSTAN, C., STEZAR, C., STEFANIE, H., 2010, *Historical pollution risk assessment for industrial sites*, PRO INVENT Catalogue, Cluj-Napoca
24. AJTAI, N., OZUNU, A., COSTIN, D., COSTAN, C., STEFANIE, H., 2009, *The implementation of the Romanian Atmospheric 3D research Observatory (RADO) at The Faculty of Environmental Sciences, Babeş-Bolyai University Cluj-Napoca*, The 10th International Conference on Gas Geochemistry, 14-21 September 2009, Cluj-Napoca, ISBN: 978-973-0-06984-6
25. TÖRÖK, Z., AJTAI, N., OZUNU, A., CORDOŞ, E., 2009, *Chemical Risk Area Estimation as a Tool for Efficient Emergency Planning*, Studia Universitatis Babeş-Bolyai Chemia, ISSN: 1224-7154
26. TÖRÖK, Z., AJTAI, N., 2009, *Programe de simulare utilizate în Evaluarea Riscului si Evaluarea Impactului asupra Mediului*, Revista de protecție civilă, nr. 3-4, ISSN: 1223-575X
27. AJTAI, N., TÖRÖK, Z., OZUNU, A., 2009, *Fire and Explosion Risk Identification at a Degasification Station*, 36th Edition of the Slovak Society of Chemical Engineering, ISBN: 978-80-227-3072-3
28. TÖRÖK, Z., AJTAI, N., OZUNU, A., 2008, *Risk area estimation and consequence analysis using a complex 3D model, case study: an accidental release of phosgene near Râmnicu-Vâlcea, Romania*, 35th Edition of the Slovak Society of Chemical Engineering, ISBN: 978-80-227-3072-3
29. AJTAI, N., HAIDUC, I., 2006, *Paradoxul Cromului*, ECOTERRA nr. III, 9, pp.12, ISSN: 1584-7071
30. BRIŞAN, N., PETRESCU, I., AJTAI, N., 2005, *Aspecte privind impactul exploatării sării asupra mediului în aria Ocna Dej (nord-vestul Bazinului Transilvaniei)*, Environment and Progress, 5: 33-42, September 2006

2. Experience in research projects

| Program / Project | Position | Period: |
|---|---------------------|----------------|
| SAMIRA - SATellite based Monitoring Initiative for Regional Air quality - ESA/RFQ/3-14446/16/I-NB | Partner responsible | 2016 - present |
| ACTRIS-2 (Aerosols, Clouds, and Trace gases Research InfraStructure Network) - H2020 - 654109/2015 | associated partner | 2015 - present |
| ACTRIS (Aerosols, Clouds, and Trace gases Research InfraStructure Network) - FP7 - 262254/2011 | associated partner | 2011 - 2015 |
| Improving the of industrial tailings facilities in Ukraine - Technical Assistance Programme of the German Ministry of the Environment, project number 26206 | expert | 2013-2015 |
| IMPACTMIN (Impact monitoring of mineral resources exploitation) FP7 - 244166/2010 | member | 2011 - 2012 |
| Inovative remediation technologies for soils contaminated by the metallurgical industry., RESOLMET, Contract 32-161/2008, PN II, Priority Axis 4 | member | 2008 - 2011 |
| Romanian 3D Atmospheric Observatory (RADO), funded by the Norwegian Cooperation Program, STVES115266 | member | 2009 - 2011 |
| Traffic Injury Prevention in Cluj-Napoca, Romania - project supported by NIH Research Grant # D43 TW007261-02, funded by Fogarty International, USA | member | 2007 - 2008 |