

PERSONAL INFORMATION

Zoltán TÖRÖK



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 Zoltan.torok@ubbcluj.ro

Sex Male | Date of birth 12/04/1982 | Nationality Romanian, Hungarian

WORK EXPERIENCE

-
- 2015 - present **Manager at ISUMADECIP**
 Research Institute for Sustainability and Disaster Management based on High Performance Computing, Babes-Bolyai University Cluj-Napoca

 - Manager
 - Head of Technological Disaster Management Lab

Business or sector Research and Education
 - 2014 - 2016 **Researcher III**
 Research Center for Disaster Management, Babes-Bolyai University Cluj-Napoca

 - Technological disaster management
 - Modeling and simulation of chemical accidents
 - Atmospheric dispersion modeling

Business or sector Research
 - 2011 - present **Assistant Professor**
 School of Environmental Science and Engineering, Babes-Bolyai University Cluj-Napoca

 - Risk assessment and disaster management
 - Chemical reactions engineering

Business or sector Education
 - 2009 - present **Consultant**

 - Modeling and simulation of chemical accidents
 - Atmospheric dispersion modeling

Business or sector Environmental consultancy
 - 2009 - 2014 **Research Assistant**
 Research Center for Disaster Management, Babes-Bolyai University Cluj-Napoca

 - Technological disaster management
 - Modeling and simulation of chemical accidents
 - Atmospheric dispersion modeling

Business or sector Research
 - 2006 - 2009 **Chemical Engineer**

S.C. Ocon Ecorisc S.R.L., Turda (101 Dr. Ion Rațiu St., www.oconecorisc.ro)

- Technological disaster management
- Modeling and simulation of chemical accidents
- Atmospheric dispersion modeling

Business or sector Environmental consultancy

EDUCATION AND TRAINING

2014 - 2015 **Postdoctoral position** Replace with EQF (or other) level if relevant

Research Center for Disaster Management, Babes-Bolyai University Cluj-Napoca

- Modelling of ammonium nitrate explosions and determination of TNT equivalency

2006 - 2010 **PhD. degree** Replace with EQF (or other) level if relevant

Doctoral School of Environmental Science and Engineering, Babes-Bolyai University Cluj-Napoca

- Quantitative risk assessment of chemical accidents

2005 - 2006 **Master of science degree** Replace with EQF (or other) level if relevant

School of Environmental Science and Engineering, Babes-Bolyai University Cluj-Napoca

- MSc. in Risk assessment and Environmental Security

2000 - 2005 **Chemical engineering** Replace with EQF (or other) level if relevant

School of Chemistry and Chemical Engineering, Babes-Bolyai University Cluj-Napoca

- Chemical engineer, Informatics of chemical systems

1996 - 2000 **High School** Replace with EQF (or other) level if relevant

„Tamási Áron” theoretical high school, Odorheiu Secuiesc

- Chemistry and Biology profile

PERSONAL SKILLS

Mother tongue(s) Hungarian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C1	C1	B2	C1
	ALPHA certificate, Babes-Bolyai University				
Romanian	C2	C2	C2	C2	C2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills ▪ good communication skills gained through my experience as manager and assistant professor

Organisational / managerial skills ▪ leadership – manager of ISUMADECIP
▪ departmental Erasmus coordinator and

Job-related skills ▪ good IT skills
▪ modelling and simulation of chemical accidents
▪ air dispersion modeling

Driving licence B

ADDITIONAL INFORMATION

Trainings and Workshop

1. Operational Management Training - European Civil Protection Mechanism, 19-26 May, 2017, Dublin, Ireland.
2. Invited Lecturer: 10th block course on "Towards Climate Resilience", Organized by DIMTEC – The Free State University and UN-University, 13-24 February 2017 - Bloemfontein, South Africa.
3. EUMODEX Exercise – Excon member, March 2017, Timisoara, Bulgaria.
4. Invited International Expert: International project "Raising Knowledge among Students and Teachers on Tailings Safety and its Legislative Review in Ukraine", November 2016, Dnipro, Ukraine.
5. CMI - European Civil Protection Mechanism Introductory Course, 29.05-03.06, Rome, Italy.
6. EUMODEX Exercise – TAST member, March 2016, Montana, Bulgaria.
7. Invited International Expert: International Summer school on "Aspects of Risk Management and Ensuring Environmental Safety in Industrial Enterprises", Perm, Russia, 29 September – 4 October 2014, Organized by National Technical University of Perm and Federal Environmental Agency of Germany.
8. Invited International Expert: Steering Committee Meeting of the International Project "Improving the safety of industrial Tailings Management Facilities based on the example of Ukrainian facilities", Ivano-Frankivsk, Ukraine, 04-07 November 2014.
9. Training - Quantitative risk assessment in the process industries, 06-10 Mai 2013, CK-Trikolor, Budapest, Hungary.
10. Invited Lecturer: Workshop on Technological Risk Assessment in the context of SEVESO Directives, 30 Mai – 1 June 2012, Sinaia, Romania.
11. Trainer of Trainers Course on Disaster Risk Reduction, Organized by DPPI (Disaster Preparedness and Prevention Initiative in South East Europe) 2-7 April 2011, Sofia, Bulgaria.
12. „Emergency Situations Management” Workshop, 19-21 October 2008, Lepuş, Romania – Organized by CN-APELL and IGSU (General Inspectorate for Emergency Situations)
13. International Workshop on „Emergency Management Situations”, 13-14 March 2008, Cluj-Napoca, Organized by TIEMS (The International Emergency Management Society) and CCMD (Research Center for Disaster Management – Universitatea Babeş-Bolyai).
14. „Training of Trainers in Environmental Safety Management” Workshop , 1-4 August 2006, Baia-Mare, Romania, Organized by DPPI (Disaster Preparedness and Prevention Initiative in South East Europe), CCMD (Research Center for Disaster Management – Universitatea Babeş-Bolyai) and IGSU (General Inspectorate for Emergency Situations).

Publications
 Presentations
 Projects
 Conferences
 Seminars
 Honours and awards
 Memberships
 References
 Citations
 Courses
 Certifications

Scientific papers

1. Muntean A., Smical I., Török Z., 2017, Validation of an alternative method for Total Nitrogen analysis in water samples, *Studia Universitatis Babes-Bolyai Chemia*, LXII, 1, pp. 101-110.
2. Radovici A – T., Roman E., Török Z., Ozunu A., 2016, A risk assessment study for local critical infrastructures used in hazmat transportation, *Studia Universitatis Babes-Bolyai Chemia*, vol.3, pp. 379-389.
3. Smical I., Muntean A., Török Z., 2016, Human Health Risk Associated with the Transfer of Heavy Metals into the Trophic Chain by Cattle Grazing on the Area in the Vicinity of the Tailing Ponds in the East of Baia Mare City, Romania, *Studia Universitatis Babes-Bolyai Chemia*, vol.2, pp. 89-102.
4. Török Z., Ozunu A., 2015, Hazardous properties of ammonium nitrate and modeling of explosions using TNT equivalency, *Environmental Engineering and Management Journal*, Vol.14/11, pp. 2671-2678.
5. Torok Zoltan, KOVACS Larisa - Alexandra, Ozunu Alexandru, 2015, Ammonium Nitrate explosions. Case study: the Mihăilești accident (2004), Romania, *Ecoterra*, 56-60.
6. KOVACS Larisa - Alexandra, Brisan Nicoleta-Sanda, Malos Cristian-Valeriu, Torok Zoltan, Ozunu Alexandru, 2015, Prerequisites of a NaTech event at a production gas well in Romania, *Ecoterra*, 36-43.
7. Crăciun I., Török Z., Ozunu A., 2015, Comparative analysis of individual risk using different Probit functions in estimating heat radiation consequences, *AES BIOFLUX*, 7/2, pp. 223-229.
8. Ștefănie H.I., Ajtai N., Botezan C., Țoancă F., Török Z., Ozunu A., 2015, Detection of a desert dust intrusion over Cluj-Napoca, Romania using an elastic backscatter LIDAR system, *Ecoterra*, 12(2), pp. 50-55.
9. Török Z., Ozunu A., Cordoș R., 2014, Chemical risk analysis for land-use planning. I. storage and handling of flammable materials, *Environmental Engineering and Management Journal*, Vol.10, No. 1, 81-88.
10. Gheorghiu A.-D., Török Z., Ozunu A., Antonioni G., Cozzani V., 2014, Comparative Analysis of Technological and Natech Risk for two Petroleum Products Tanks Located in a Seismic Area, *Environmental Engineering and Management Journal*, Vol.13/8, pp. 1887-1892.
11. Gheorghiu A.-D., Török Z., Ozunu A., Antonioni G., Cozzani V., 2014, NaTech Risk Analysis in the Context of Land Use Planning. Case Study: Petroleum Products Storage Tank Farm Next to a Residential Area, *Chemical Engineering Transaction*, Vol. 36, pp.439-444.
12. Roba C., Ștefănie H., Török Z., Kovacs M., Roșu C., Ozunu A., 2014, Determination of volatile organic compounds and particulate matter levels in an urban area from Romania, *Environmental Engineering and Management Journal*, Vol.13/9, pp. 2261-2265.
13. Modoi O.-C., Roba C., Török Z., Ozunu A., 2014, Environmental risks due to heavy metal pollution of water resulted from mining wastes in NW Romania, *Environmental Engineering and Management Journal*, Vol.13/9, pp. 2325-2336.
14. Gheorghiu A.-D., Török Z., Ozunu A., 2013, How Can Existing Risk Assessment Methodologies Be Used in a Systematic Manner, in the Extractive Mining Industry? *Journal of Environmental Protection and Ecology*, 14/4, 1597 - 1607
15. Stefanescu Niculina Lucrina, Torok Zoltan, Senzaconi Francisc - Emil, Ozunu Alexandru, 2013, Quantitative Fire Risk Assessment Procedure at Pesticide Storage Facilities in Romania, *Environmental Security Assessment and Management of Obsolete Pesticides in Southeast Europe*, NATO Science for Peace and Security Series C: Environmental Security, 249-256.
16. 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(3): 141-147.
17. OLAH (cas. VASILE) Alexandrina – Silvia, Torok Zoltan, Stezar Ileana - Codruta, Ozunu Alexandru, 2013, Soil remediation comparative analysis on two historically contaminated industrial sites in Romania, *Advances in Environmental Sciences – AES BIOFLUX*, 178-188.
18. Nicolae AJTAI, Zoltán TÖRÖK, Alexandru OZUNU, 2012, Air Quality Modelling of SO₂ Emissions Associated to Metallurgical Processes, *Studia Universitas Babeș – Bolyai, seria Chemia*, LVII, 1, p 57-66.
19. Zoltán TÖRÖK, Nicolae AJTAI, Adrian T. TURCU, Alexandru OZUNU, 2011, Comparative consequence analysis of the BLEVE phenomena in the context on Land Use Planning; Case study: The Feyzin accident, *Process Safety and Environmental Protection*, 89, pp. 1-7.
20. Stezar I. – C., Modoi C., Török Z., Ajtai N., Cosara V., Senzaconi F. – E., Ozunu A., Gheorghiu A. – D., 2011, Preliminary investigation and risk assessment of contamination on an industrial site in Maramures county, *Environmental Engineering and Management Journal*, Vol.10, pp. 65-73.
21. Mihaiescu Radu, Mihaiescu Tania, Ajtai Nicolae, Torok Zoltan, Ozunu Alexandru, 2011, Air quality modelling as a tool used in selecting technological alternatives for developing a new abrasive facility, *Advances in Environmental Sciences – AES BIOFLUX*, 123-128.
22. Torok Zoltan, Ozunu Alexandru, 2010, Chemical risk assessment for storage of hazardous materials in the context of Land Use Planning, *Advances in Environmental Sciences – AES BIOFLUX*, 33-56.
23. Zoltán TÖRÖK, Nicolae AJTAI, Alexandru OZUNU, 2009, Chemical Risk Area Estimation as a Tool for Efficient Emergency Planning, *Studia Universitatis Babes-Bolyai Chemia*, vol.1, pp. 49-59.
24. Ozunu Alexandru, Torok Zoltan, Cosara Viorel, Cordos Emil, 2008, Vulnerability Mitigation and Risk Assessment of Technological Disaster, *NATO Science for Peace and Security Series, E: Human and Societal Dynamics*, 177-186.

