



Europass Curriculum Vitae

Personal Information

Name / First Name **Kovács / Balázs**

Address Kis Kőkötő str. 61., 3519 Miskolc, Hungary

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Facsimile -

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Nationality Hungarian

Date of birth, place of birth 1965.08.02, Budapest

Sex Male



Professional experience

Period	2023-
Position	Associate professor
Job and tasks	Education and research: Courses of GW flow and contaminant transport modeling, Geothermal systems and transport modeling, supervision of PhD students
Workplace, address	University of Miskolc, H-3515 Miskolc-Egyetemváros, Hungary
Type of job	Higher education
Period	2019-2023
Position	Titular professor
Job and tasks	Education and research: Courses of GW flow and contaminant transport modeling, Geothermal systems and transport modeling, supervision of PhD students
Workplace, address	University of Miskolc, H-3515 Miskolc-Egyetemváros, Hungary
Type of job	Higher education
Period	2015-2020
Position	Red Mud Project manager, consulting research engineer
Job and tasks	Organizing project network formed from universities, research institutes and laboratories, supervision of red mud research, consultancy
Workplace, address	Envirotis Ltd., Budapest
Type of job	Private sector research activity
Period	1996-
Position	Consulting Engineer, hydrogeologist, CEO
Job and tasks	Consultancy, Planning and Design,
Workplace, address	GÁMA-GEO Ltd., Miskolc
Type of job	Private sector
Period	2015-2019
Position	titular associate professor
Job and tasks	Education and research: Courses of GW flow and contaminant transport modeling, Geothermal systems and transport modeling, supervision of PhD students

Workplace, address	University of Miskolc, H-3515 Miskolc-Egyetemváros, Hungary
Type of job	Higher education
Period	1992-2015
Position	assistant, lecturer, associate professor, head of institute
Job and tasks	Education and research: Groundwater prospecting, Groundwater management, GW flow and contaminant transport modeling
Workplace, address	University of Miskolc, H-3515 Miskolc-Egyetemváros, Hungary
Type of job	Higher education
Period	2004-2014
Position	Scientific research fellow, invited lecturer
Job and tasks	Education and research: Hydrogeology, GW flow and contaminant transport modeling, development of laser drilling of laterals from boreholes
Workplace, address	University of Szeged, H-6720 Szeged, Dugonics sq. 13.
Type of job	Higher education
Period	2002-2009
Position	invited lecturer
Job and tasks	Lecturing, GW flow and contaminant transport modeling
Workplace, address	Szent István University, H-2701 Gödöllő, Páter Károly str. 1.
Type of job	Higher education

Education

Period	1996-1999
Type of education	PhD Scholarship
Qualification awarded	PhD in Earth Sciences, 1999
Topic	Hydrogeology, GW flow and contaminant transport modelling
Institution	Mikoviny Sámuel Doctoral School, University of Miskolc, Miskolc
Period	1993-1995
	Postgraduate course in Environmental Engineering
	Certified Environmental Engineer, 1995
	Environmental Engineering
	Gödöllő Agricultural University
Period	1989-1992
	Academic scholarship in geology
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	Hydrogeology & Engineering Geology
	University for Heavy Industry, Miskolc
Period	1984-1989
	MSc in Mining Engineering Branch of Hydrogeology & Engineering Geology
	Certified Mining Engineer, 1989
	Hydrogeology, Engineering Geology, Geophysics, Geology
	University for Heavy Industry, Miskolc

Personal skills and competencies

Mothertongue **Hungarian (Magyar)**

Other languages
 Önértékelés
 Európai szint (*)
 Language
 Language
 Language
 Language

English, German, French, Russian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
1	English	1	English	1	English	1	English	2	English
4	Russian	4	Russian	5	Russian	5	Russian	5	Russian
1	German	2	German	2	German	2	German	4	German
2	French	5	French	3	French	4	French	5	French

(*)Levels: 1 - Proficient user 5 – Basic user
 Common European Framework of Reference for Languages

Engineering and consultant skills

Licensed design engineer in Geotechnics, Water Engineering, Environmental Engineering
 Licensed professional consultant in Geotechnics, Water Engineering, Environmental Engineering
 awarded by the Hungarian Chamber of Engineers

Study trips

National Geological Institute of Greece, Athén, Greece, 3 months, Remote sensing in Geology
 TITÁN Cement Factory, Thessaloniki, Greece, 2 months, Prospecting clay pits and limestone quarries
 TU Berlin, West-Berlin, 1989, 6 months, Expert systems in mining
 Montanuniversität Leoben, 1993, Austria, 3 months, Numerical methods in hydrogeology
 Montanuniversität Leoben, 1995, Austria, 1 month, Numerical methods in hydrogeology
 LU Wageningen, 1996, The Netherlands, 1 month, Contaminant transport modeling

Membership and position in professional associations

Society, Committee	Status	Period
Hungarian Academy of Sciences Sci. Committee for Mining	member	2023-
Sci. Subcommittee for Groundwater excavation and Balneology	chairman	2023-
Sci. Subcommittee for Hydrogeology	member	2019-
Miskolc Committee of Hungarian Academy of Sciences, C. of computer sciences in mining	member	1990-2001
C. of mining chemistry	member	2000-
C. of spatial information systems	member	2003-
Hungarian Chamber of Engineers Geotechnical section	member	1990-
BAZ County Environmental Engineering Chapter	board	1990-
	member	2010-2022
BAZ County Earth Science Engineering Chapter	president	2022-
	board	2014-
	member	
IMWA(International Mine Water Association)	member	1993-1998
ISSMGE (Int. Soc. of Soil Mechanics and Geotechnical Eng.)	member	1993-
Hungarian Hydrological Association	member	2003-
Hungarian Geological Association	member	2003-
Chapter of Engineering and Environmental Geology	board	2009-
	member	
IAH (International Association of Hydrogeologists)	member	2004-
IAH HNC(International Association of Hydrogeologists Hungarian National Chapter)	board	2006-2008,
	member,	2008-
	member	
COST629 EU	member	2004-2007
COST CA19116	MC	2020-
	member	
Hydrogeological Subcommittee of the HAS	member	2012-
Interdisciplinary Hydrogeological Committee of HAS	member	2012-
European Federation of Geologists	member	2015-

Present educational portfolio	<p>Years spent in academia: 25 (full member)+7 (invited lecturer) years, Courses taught previously or recently in Hungarian: UoM: Groundwater Management, Practical GW Flow Modeling, Groundwater Prospecting, GW Flow and Contaminant Transport Modeling, Soil mechanics - Geotechnics, UoSz: Hydrogeology, Applied Hydrogeology, Modeling Hydrodynamics Courses taught in a foreign language: Groundwater Flow and Contaminant Transport Modeling, Modeling Geothermal Systems and Transport Modeling</p>
Research	<p>New methods in groundwater prospection Groundwater-surface water interaction dynamics Geotechnical behavior of communal and industrial wastes and secondary raw materials Transient geotechnics Non-destructive investigation methodology applications in hydrogeology and engineering geology Laser beam powered drilling methodology applications in contaminant site remediation and in geothermics Hydrodynamics of laser beam drilled laterals Hydrogeology of geothermal systems Applications of laser beams in geosciences</p>
Relevant publications	<p>Vass, I ; Tóth, TM ; Szanyi, J ; Kovács, B Hybrid numerical modelling of fluid and heat transport between the overpressured and gravitational flow systems of the Pannonian Basin GEOTHERMICS 72 pp. 268-276. , 9 p. (2018) Szanyi, János ; Kovács, Balázs Utilization of geothermal systems in South-East Hungary GEOTHERMICS 39 pp. 357-364. , 8 p. (2010) Csilla, Tari ; János, Szanyi ; Balázs, Kovács Effects of Geological and Hydrogeological Conditions on the Performance of Vertical Ground Coupled Heat Exchanger Systems CARPATHIAN JOURNAL OF EARTH AND ENVIRONMENTAL SCIENCES 10 : 1 pp. 5-14. , 10 p. (2015) Kovács, Balázs Hidrodinamikai és transzportmodellezés 1: Processing MODFLOW környezetben Miskolc, Magyarország : Miskolci Egyetem (2004) , 159 p. ISBN: 963661637X Kovács, Balázs ; Szanyi, János Hidrodinamikai és transzportmodellezés 2: Processing Modflow és Surfer for Windows környezetben Miskolc, Magyarország : Miskolci Egyetem (2005) , 213 p. ISBN: 9636616388 Kovács, Balázs ; Szabó, Imre Hulladékéelhelyezés Budapest, Magyarország : Ipar a Környezetért Alapítvány (1995) Szanyi, J ; Kovács, B ; Scharek, P Geothermal Energy in Hungary: potentials and barriers. EUROPEAN GEOLOGIST 27 pp. 15-19. , 5 p. (2009) V, Mikita ; T, Madarász ; K, Szita Tóthné ; B, Kovács Cost and risk assessment of treatment facilities: Chapter 4 In: Ivan, Kozyatnik (szerk.) Filtration Materials for Groundwater: A Guide to Good Practice London, UK / England : IWA Publishing, (2016) pp. 71-101. , 30 p. Bajcsi, P ; Bozsó, T ; Bozsó, R ; Molnár, G ; Tábor, V ; Czinkota, I ; M, Tóth T ; Kovács, B ; Schubert, F ; Bozsó, G et al. New geothermal well-completion and rework technology by laser CENTRAL EUROPEAN GEOLOGY 58 : 1-2 pp. 88-99. , 12 p. (2015) Mucsi, Gábor ; Szabó, Roland ; Ambrus, Mária ; Kovács, Balázs The development of fly ash – red mud based geopolymer REVIEW OF FACULTY OF ENGINEERING ANALECTA TECHNICA SZEGEDINENSIA 12 : 1 pp. 30-38. , 9 p. (2018)</p>
Publication statistics	<p>In professional journals 41 Book chapters: 31 Books: 5 Conference papers: 93 Total publications 259 Patents: 3 Independent citations: 174</p>