

# DR. SZABOLCS BEREZVAI

## CURRICULUM VITAE

### Personal particulars

Date and of birth: April 11, 1992  
Place of birth: Budapest, Hungary  
Nationality: Hungarian  
Address: Department of Applied Mechanics,  
Budapest, Muegyetem rkp. 5., H-1111, Hungary  
Phone: +36-20-348-2143, +361-463-2228  
E-mail: berezvai@mm.bme.hu  
Webpage: [www.mm.bme.hu/~berezvai](http://www.mm.bme.hu/~berezvai)



### Positions

2020 - **Assistant professor, Responsible for publication databases**  
Budapest University of Technology and Economics, Fac. of Mech. Eng., Dep. of Applied Mechanics  
2019 - 2020 **Phd Candidate and research engineer, Responsible for publication databases**  
Budapest University of Technology and Economics, Fac. of Mech. Eng., Dep. of Applied Mechanics

### Education

2016 – 2020 **PhD Programme**, Budapest University of Technology and Economics, Fac. of Mech. Eng., Dep. of Applied Mechanics, *Constitutive modelling of compressible solids including viscoelastic-viscoplastic effects*,  
Date of PhD: 2020.06.26. Qualification: 5.0 – *summa cum laude*  
2014 – 2016 **MSc in Mechanical Engineering Modelling** (in English),  
Budapest University of Technology and Economics, Faculty of Mechanical Engineering,  
Specialization in Solid Mechanics and Fluid Mechanics Qualification: 5.0 – *excellent with highest honour*  
2014 – 2016 **BSc in Mechatronics**, Budapest University of Technology and Economics, Faculty of Mechanical Engineering, Specialization in Mech. Eng. Modelling, Qualification: 4.94 – *excellent with highest honour*  
2004-2010 **Szent István Secondary School**, Budapest, District 14  
Special IT class, advanced mathematics and physics, Qualification of A-level exams: *excellent*

### Own Research Projects

2021-2024 NKFIH PD 137806, OTKA Postdoctoral Excellence Programme (~76 k€)  
Topic: *Constitutive modelling of soft material based artificial muscles*

### International Visits

2021 **University of California Santa Barbara** (UCSB), Materials Research Laboratory, 7 months  
Host: prof. Robert McMeeking, Topic: Modelling of biologically inspired heterogeneous soft materials, Funding: Scholarship of the Rosztoczy Foundation

### Participant in Research Projects

2020 - Participant in NRDI project, *Simulation and Emulation Framework for Vibration Attenuation of Milling Machines Based on Optimized Edge Geometry and Mechanical Contacts*, PI: dr. Gábor Stépán  
2019 – 2020 Participant in ERC ProExcer project (ERC PoC N°862308), PI: dr. Gábor Stépán  
2019 Participant in National Research, Development and Innovation Office Project, *Suppression of self-excited vibration in manufacturing processes*, PI: dr. Zoltán Dombóvári  
2018 – 2021 Participant in National Research, Development and Innovation Office Project, *Mechanics of Gecko-Inspired Dry Adhesives*, PI: dr. Attila Kossa  
2016 – 2019 Participant in ERC SIREN project (ERC Advanced Grant N°340889), *Stability Islands: Performance Revolution in Machining*, PI: dr. Gábor Stépán  
2013 – 2016 Participant in Hungarian Scientific Research Fund Project, *Constitutive modelling of cellular solids*, PI: dr. Attila Kossa

## Academic public activities, memberships

2022 –	BME Talent Support Council, Member
2021	Organizer, Secretary of the XV National Mechanics Educators' Conference (MOHR)
2020 –	Hungarian Academy of Sciences, Public Member, Department of Engineering Sciences, Solid Mechanics Committee

## Teaching experience

Lecturer	Statics, Experimental Methods in Solid Mechanics
Instructor	Statics, Strength of Materials, Dynamics, Vibrations, Fundamentals of Finite Element Analysis
Supervisor	BSc Thesis (15 pcs.), MSc Final Project (5 pcs.), Scientific Students' Associations Project (2 pcs.)
Education Quality	Best Teacher (2018, 2019), Ranked in the Top100 list 10 times (out of ~1200 lecturers)
Other	Founder and coordinator - MeMento Mechanical Mentoring Program (2017-2020)

## Additional projects

2018 – 2020	Participant at EU-funded <i>Complex Polytechnic Career Guidance and Continuing Education Programs</i>
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## Scientometry

Publications		Citations		Web of Science		Scopus		Google Scholar	
Journal paper	10	Independent	82	Documents	13	Documents	18	Citations	146
Conference paper	14	Total	132	Citations	81	Citations	112	h-index	8
Abstract/misc.	17	h-index	8	h-index	6	h-index	7	i-10 index	7

## Further professional experience

2019 –	eCon Engineering Ltd. - <i>Simulation Engineer</i>
2014 –	Edubase Online Ltd. – online education platform: <i>Contribution in online teaching material development</i>
2012 – 2016	ElmeMater Talent Management Centre, <i>Research mathematics education at university level</i>
2012 – 2016	Teacher's assistant – Department of Applied Mechanics – <i>Consultations in Dynamics and Vibrations</i>
2012 – 2016	Junior Tutor – Department of Geometry, Faculty of Natural Sciences – <i>Tutor of Mathematics</i>
2013	Furukawa Electric Institute of Technology (FETI Kft.) – Summer internship
2011-2014	Mechatronics Division (Student association), Department of Tutoring and Communication

## Awards and academic scholarships

2021-2022	Scholarship for the Young Talents of Hungary – National Talent Programme
2021	Scholarship of the Rosztoczy Foundation – Research visit at University of California Santa Barbara
2020-2021	Scholarship for the Young Talents of Hungary – National Talent Programme
2019-2020	Scholarship for the Young Talents of Hungary – National Talent Programme
2019	Award of Excellent Lecturer at Budapest University of Technology and Economics, Student Council
2016-2018	Scholarship of the New National Excellence Programme – Ministry of Human Capacities – 3 times
2018	Excellent Lecturer of the Faculty of Mechanical Engineering Award, Student Council
2017	Dean's Award, Faculty of Mechanical Engineering
2017	3rd Place, National Student Research Conference, Section Applied Mechanics, Engineering Sciences
2016	MSc Thesis Award, Mechanical Engineering Section of the Hungarian Chamber of Engineers
2016	Title of Junior Templeton Fellow, The First Hungarian Templeton Program (talent identifying program)
2015	<b>1st Prize</b> , Student Research Conference, Applied Mechanics, György Kozmann Special Award and the Special Award of the Student Council
2015	<b>3rd Prize</b> , Student Research Conference, Applied Pedagogy
2015	Scholarship for the Young Talents of Hungary – National Talent Programme
2015	Distinguished Scholarship of the University
2014 – 2015	Distinguished Scholarship of the Faculty – two times
2012 – 2015	Distinguished Scholarship of the Republic (2012, 2013, 2014, 2015) – 4 subsequent years
2010	11th Place, National Secondary School Studies Competition (OKTV) – Informatics
2009	19th Place, National Secondary School Studies Competition (OKTV) – Informatics
2009	Student Scholarship of Budapest

**Languages**

English	Proficient, Advanced Language Certificate (C1), 2009, BME
Italian	Intermediate, Intermediate Language Certificate (B2), 2011, CILS
German	Elementary

**Computing skills**

Advanced	Wolfram Mathematica, ABAQUS, ANSYS, LaTeX, Microsoft Office
Intermediate	CorelDraw, SolidWorks, Inventor, Adobe InDesign,
Beginner	Python, LabVIEW, Adobe Premiere Elements, Adobe After Effects

**Interests**

Professional	Solid mechanics, constitutive equations, finite element analysis, continuum mechanics
Personal	Formula-1, travelling, reading, sports

Budapest, March 5, 2022