

PERSONAL INFORMATION Eliza CHIRCAN



Str. Politehnicii, Nr.1, Faculty of Mechanical Engineering, Corp N Transilvania University of Braşov

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Sex female | Date of birth | Nationality Romanian

WORK EXPERIENCE

- 01.10.2021-present **Lecturer**
Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering
- Lectures
 - Seminar classes
 - Laboratory sessions
 - Research activities
- 01.10.2019-09.2021 **Assistant professor**
Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering
- Seminar classes
 - Laboratory sessions
 - Research activities
- 01.10.2015-2019 **Auxiliary professor**
Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering
- Seminar classes
 - Laboratory sessions
- Business or sector Education

EDUCATION AND TRAINING

- 2015-2020 **PhD student**
Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering
- Thesis title: Contributions to the study of technical mechanical systems with two degrees of freedom
- 2013-2015 **Master**
Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering
- Dynamics
 - Finite element analysis
 - Composite materials
 - Catia design
- 2014(80 hours) **Work related security and health specialist**
Trade and industry chamber, Braşov, Romania

- Prevention of work related accidents
- First aid
- Organizing activities related to work and health issues
- Investigate work related accidents

2009-2013 Engineer

Transilvania University of Braşov, Faculty of Mechanical Engineering , Department of Mechanical Engineering

- Mechanics
- Strength of materials
- Finite element analysis
- Composite materials
- Fatigue of materials
- Elasticity and plasticity

2005-2009 Computer user

National College of Informatics Grigore Moisil, Braşov, Romania

- Visual Basic
- C++ programing
- Web design

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	B2
German	A2	A2	A1	A1	A2

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 teaching experience

Organisational / managerial skills ▪ Leadership (currently responsible for my apartment building as a member of the owners association)

Job-related skills ▪ Finite element analysis software usage
 ▪ Implementing programs using Matlab software

Digital competence

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

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Good command of office suite
- Photo & video editing

Driving license B

ADDITIONAL INFORMATION

- Erasmus+ Coordinator, Faculty of Mechanical Engineering (2021- present)
- Responsible for promotion, Faculty of Mechanical Engineering, Department of Mechanical Engineering (2023-present)
- Member of the organizing committee of the International Conferences COMEC (2019,2021,2023) and COMAT (2020, 2022, 2024)
- Member of the organizing committee of the National Student Session SSING (2020,2021, 2022, 2023, 2024)
- Member of the organizing committee of the Summer School on Sustainability (second edition) SuSus 2023- from Biodiversity to Energy. Biomechanical and Artificial Intelligence,24-28 July 2023, Braşov
- Member of the Romanian Association of Engineers (AGIR) - 2024
- Secretary of the Romanian Association of Fracture Mechanics (ARMR) - 2023

Publications **Papers indexed ISI Web Of Science**

1. Vlas S., Marin M., Ochsner A, **Chircan E.**, Matrix formalism used to describe the inertial proprieties in multibody dynamics, Continuum Mechanics and Thermodynamics, Vol.34, Issue 5, doi:10.1007/s00161-022-01120-9, September 2022
2. Gheorghe V., Scutaru, M.L., Ungureanu, V.B., **Chircan, E.**, Ulea, M., New Design of Composite Structures Used in Automotive Engineering, Symmetry-Basel 13 (3), 383, doi: 10.3390/sym13030383, March 2021.
3. **E. Chircan**, M.-L. Scutaru and C. I. Pruncu, Two-Dimensional Finite Element in General Plane Motion Used in the Analysis of Multi-Body Systems, *Symmetry* , 11(7), 848, Symmetry in Applied Continuous Mechanics 2019. **IF 2,645.**
4. M. L. Scutaru, **E. Chircan**, M. Marin, STUDY OF AN ELASTIC BEAM, IN CENTRIFUGAL FIELD, USING FINITE ELEMENT METHOD, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics, and Engineering, Vol. 62, Issue II, June, 2019, p. 251-256.
5. **E. Chircan**, M. L. Scutaru, C. Simionescu, S. Vlas, INFLUENCE OF THE NUMBER OF FINITE ELEMENTS ON DETERMINATION THE MODAL RESPONSE IN THE ANALYSIS OF MULTIBODY SYSTEMS WITH ELASTIC ELEMENTS, ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics , and Engineering, Vol. 62, Issue III, September, 2019, p. 489-496.
6. M.L. Scutaru, **E. Chircan**, S. Vlas, M. Marin, FINITE ELEMENT USED IN THE DYNAMIC ANALYSIS OF A MECHANICAL PLANE MBS WITH A PLANAR "RIGID MOTION", ACTA TECHNICA NAPOCENSIS, Series: Applied Mathematics, Mechanics , and Engineering, Vol. 63, Issue I, March, 2020.
7. Mitu, G.L., **Chircan, E.** , Scutaru M.L., Vlas,S., Kane's Formalism Used to the Vibration Analysis of a Wind Water Pump. Symmetry 2020, 12 (6), 1030; doi:10.3390/sym12061030. **IF 2,645.**

Conference **Papers presented at conferences indexed Web Of Science**

8. M. L. Scutaru, **E. Chircan**, M. Marin, H.-Şt. Grif, Liaison Forces Eliminating and Assembling of the Motion Equation in the Study of Multibody System with Elastic Elements. The 13th International Conference INTER-ENG 2019 Inter disciplinarity in Engineering. vol.46.
9. **E. Chircan**, M. L. Scutaru, A. Toderita, A. Modrea, Motion Equation of a Rectangular

Papers presented at conferences indexed BDI

10. P. N. Borza, S. Vlase, C. Petcu, G. Suliman, M. L. Scutaru, **E. Chircan**, V. B. Ungureanu, INTERACTION CHAMBER DESIGN AT ELI-NP Măgurele, COMEC 2019, Brasov;
11. **Chircan E.**, Dimitriu Șt., Comparison between the mechanical properties of classic polyethylene tubes and composite polyethylene tubes, COMAT 2018;
12. **Chircan E.**, Dimitriu Șt., Optimization of a greenhouse structure, COMEC 2017;
13. **Chircan E.**, Dimitriu Șt., Traction tests on samples made of polyethylene pipes with stress concentration points, COMAT 2016
14. Cerbu C., **Chircan E.**, Boboc A., Modelarea și simularea materialelor composite de tip sandwich cu miez din diferite profile, CREATIVITATE, INVENTICĂ, ROBOTICĂ, An XXI, Agir, nr.1/2016.

- Publications**
1. **Chircan E.**, Scutaru M.L. Multibody systems with elastic elements with two degrees of freedom, Transilvania University Publishing, ISBN 978-606-19-1360-2, Brasov 2021
 2. Gheorghe V., **Chircan E.**, High rigidity materials used in vehicle structures, Transilvania University Publishing, ISBN 978-606-19-1361-9, Brasov 2021
 3. **Chircan E.**, Theory of Elasticity- Applications for engineers, Transilvania University Publishing, ISBN 978-606-19-1362-6, Brasov 2021

- Projects**
- Member in project: **Structural Health Monitoring and Self-Healing of Wind Turbine Blades and other Smart Composite Structures**. PN-II-PT-PCCA-2013-4-0656

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