

PERSONAL INFORMATION

Eliza CHIRCAN Transilvania University of Braşov chircan.eliza@unitbv.ro

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

- Course
- 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

Business or sector Education**Auxiliary professor**

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

- Seminar classes
- Laboratory sessions

Business or sector EducationEDUCATION
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(Abaqus software user)
- 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

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

Job-related skills ▪ 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 and video editing

Driving licence B

ADDITIONAL INFORMATION

Publications **Papers indexed ISI Web Of Science**

1. S. Vlase, M. Marin, A. Oechsner, **E. Chircan**, Matrix formalism used to describe the inertial proprieties in multibody dynamics, *Continuum Mechanics and Thermodynamics*, Volume 34, Issue 5, July, 2022, DOI 10.1007/s00161-022-01120-9, **IF 2,6**
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, Martie 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. Vlase, 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. Vlase, 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., Vlase, 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**

1. M. L. Scutaru, E. Chircan, M. Marin, H.-Șt. 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 Interdisciplinarity in Engineering. Publicata vol.46.
2. **E. Chircan**, M. L. Scutaru, A. Toderita, A. Modrea, Motion Equation of a Rectangular Finite Element with a Two-Dimension Motion in a Membrane State. The 13th International Conference INTER-ENG 2019 Interdisciplinarity in Engineering. Publicata vol.46.
3. **E. Chircan**, M. L. Scutaru, A. Toderiță, Dynamical response of a beam in a centrifugal field using the finite element method. „ACOUSTICS AND VIBRATION OF MECHANICAL STRUCTURES“, May 30-31, 2019 - Timisoara, Romania. In curs de publicare.
4. **Chircan, E.**, Scutaru ,M.L., Roșca, I.C., Vlase, S., Păun, M., Experimental analysis of an MBS system with two degrees of freedom used in an eolian water pump. *EUCOMES 2020*, Cluj-Napoca, 8-th European Conference on Mechanism Science, September 07-10, 2020.

Papers presented at conferences indexed BDI

1. Scutaru M.L., Gheorhe V., **Chircan E.**, Limbasan M.M., Experimental Study of the Coefficient of Thermal Conductivity for MAT Composite Materials Used in Automotive Engineering, Lecture Notes in Networks and Systems Volume 605 LNNS, Pages 174 - 182 2023 16th International Conference on Interdisciplinary in Engineering, INTER-ENG 2022 Târgu Mureş 6 October 2022, through 7 October 2022, 10.1007/978-3-031-22375-4_15
2. 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;
3. **Chircan E.**, Dimitriu Şt., Comparison between the mechanical properties of classic polyethylene tubes and composite polyethylene tubes, COMAT 2018;
4. **Chircan E.**, Dimitriu Şt., Optimisation of a greenhouse structure, COMEC 2017;
5. **Chircan E.**, Dimitriu Şt., Traction tests on samples made of polyethylene pipes with stress concentration points, COMAT 2016
6. 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.

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

Date
25.11.2023