

## PERSONAL INFORMATION

Rusu (married Șerdean) Maria Florina



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Sex Female | Date of birth 10/06/1986 | Nationality Romanian

## WORK EXPERIENCE

2015-present Lecturer

Technical University of Cluj-Napoca, Romania  
Faculty of Machine Building,  
Department of Mechanical Systems Engineering  
▪ Subjects: Mechanics I, II; Computer Programming I, II

2012-present Research Assistant

MiNaS Laboratory  
Technical University of Cluj-Napoca, Romania  
Faculty of Machine Building,  
Department of Mechanical Systems Engineering

2013-2015 Assistant Professor

Technical University of Cluj-Napoca, Romania  
Faculty of Machine Building,  
Department of Mechanical Systems Engineering  
▪ Subjects: Mechanics I, II; Computer Programming I, II

2011-2014 Mathematics Teacher

Theoretical Christian HighSchool "Pro Deo"  
Str. Alexandru Vaida Voievod nr. 55A, Cluj-Napoca, jud. Cluj, România

## EDUCATION AND TRAINING

2011-2014 **PhD in Industrial Engineering**  
Technical University of Cluj-Napoca, Romania  
Domain: Industrial Engineering  
Title: Optimizations under uncertainty with applications in rolling bearing industry

2008-2011 **Bachelor's Degree in Economics**  
Babes-Bolyai University, Cluj-Napoca, Romania

Faculty of Economics and Business Administration  
 Specialization: Accounting and Management Informatics

- Accounting
- Management Informatics
- Mathematics applied in Economics
- Statistics
- Marketing
- Finances

2008-2010 **Master's Degree in Data Bases**

Babes-Bolyai University, Cluj-Napoca, Romania  
 Faculty of Mathematics and Computer Science

- Databases
- Integrated Communications Networks
- Distributed Systems
- Computer Networking
- Web programming

2005-2008 **Bachelor's Degree in Mathematics**

Babes-Bolyai University, Cluj-Napoca, Romania  
 Faculty of Mathematics and Computer Science

- Mathematics
- Assembly programming
- Computer programming

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	C1	C1	B2
French	B1	B1	B1	A2	A2

Communication skills ▪ good communication skills gained through my experience as a teacher, assistant professor and lecturer

Organizational / managerial skills ▪ I coordinated a team of volunteers from a humanitarian foundation while helping some children in need  
 ▪ I coordinated the development of an E-learning Platform while studying to obtain a Bachelor's Degree.

Job-related skills ▪ identification of learning styles and their implications upon teaching-learning-evaluation strategies  
 ▪ implementation of teaching-learning plans centered on the student

Computer skills ▪ Matlab, C#, .NET  
 ▪ Microsoft Office™ tools

Other skills ▪ Playing the flute

Driving license ▪ B

## ADDITIONAL INFORMATION

Publications  
Presentations  
Projects  
Conferences  
Seminars  
Honours and awards  
Memberships  
References

**Publications:**

- 6 books/chapters in books

**Published articles:**

- Over 30 papers indexed in Web of Science Data Base
- Over 10 papers indexed in other International Data Bases such as Scopus, Copernicus etc.

**Projects:**

- 4 times member in research projects (3 regarding topics related to MEMS)
- 1 time main coordinator for a local research project regarding MEMS characterization.

**Conferences:**

- 4<sup>th</sup> International Conference in Advanced Engineering in Mechanical Systems (ADEMS 2013), Cluj-Napoca, Romania, October 24<sup>th</sup>-25<sup>th</sup>, 2013
- 13<sup>th</sup> European Conf. on Spacecraft Structures, Materials & Environmental Testing, Braunschweig, Germany, April 1<sup>st</sup>-4<sup>th</sup>, 2014
- 6<sup>th</sup> International Conference on Advanced Concepts in Mechanical Engineering (ACME 2014), Iași, Romania, June 12<sup>th</sup>-13<sup>th</sup>, 2014
- International Conference on Production Research - Regional Conference Africa, Europe and the Middle East and 3<sup>rd</sup> International Conference on Quality and Innovation in Engineering and Management (ICPR-AEM 2014), Cluj-Napoca, Romania, July 1<sup>st</sup>-5<sup>th</sup>, 2014
- 9<sup>th</sup> International Conference on Materials, Science and Engineering, Brașov, Romania, March 5<sup>th</sup>-7<sup>th</sup>, 2015
- International Conference of Mechanical Engineering, ICOME 2015, Craiova, Romania, October 7<sup>th</sup>-9<sup>th</sup>, 2015
- 7<sup>th</sup> International Conference on Advanced Concepts in Mechanical Engineering (ACME 2016), Iași, Romania, June 8<sup>th</sup>-12<sup>th</sup>, 2016
- 10<sup>th</sup> International Conference on Materials, Science and Engineering, Brașov, Romania, March 8<sup>th</sup>-11<sup>th</sup>, 2017
- 5<sup>th</sup> INTERNATIONAL CONFERENCE ON POWDER METALLURGY & ADVANCED MATERIALS, Cluj-Napoca, Romania, September 17<sup>th</sup>-20<sup>th</sup>, 2017
- 13<sup>th</sup> INTERNATIONAL CONFERENCE ON MODERN TECHNOLOGIES IN MANUFACTURING, Cluj-Napoca, Romania, September 12<sup>th</sup>-13<sup>th</sup>, 2017
- 41<sup>st</sup> International Conference on Mechanics of Solids, Acoustics and Vibrations "Prof. P.P. Teodorescu" (ICMSAV), Cluj-Napoca, Romania, October 26<sup>th</sup>-27<sup>th</sup>, 2017
- 4<sup>th</sup> International Conference on Structural Nano Composites (NanoStruc 2018), Berlin, Germany, May 23<sup>rd</sup> - 24<sup>th</sup>, 2018
- 8<sup>th</sup> International Conference on Advanced Concepts in Mechanical Engineering (ACME 2018), Iași, Romania, June 6<sup>th</sup>-8<sup>th</sup>, 2018
- The IV<sup>th</sup> International Congress of Automotive and Transport Engineering (AMMA 2018), Cluj-Napoca, Romania, October 17<sup>th</sup>-19<sup>th</sup>, 2018
- 14<sup>th</sup> International Conference on Tribology (RoTrib), September 19-21, 2019 – Cluj Napoca, ROMANIA

**Awards:**

- PARK AFM scholarship winner in 2018 (<https://parksystems.com/medias/nano-academy/park-afm-scholarship-winner/1645-park-afm-scholarship-awards-florina-maria-serdean>)

**LIST OF PUBLISHED PAPERS & PROJECTS**
**A. PAPERS INDEXED IN WOS DATA BASE**

1. Marius PUSTAN, Corina BIRLEANU, **Florina RUSU**, Cristian DUDESCU, Ovidiu BELCIN, Size effect on the microbridges quality factor tested in free air space, 15th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, EuroSimE 2014, ISBN:978-1-4799-4790-4
2. Iuliu NEGREAN, Kalman KACSO, **Florina RUSU**, Energies of higher order in advanced dynamics of mechanical systems, Proceedings of 2014 International Conference on Production Research - Regional Conference Africa, Europe and the Middle East and 3<sup>rd</sup> International Conference on Quality and Innovation in Engineering and Management (ICPR-AEM 2014), Cluj-Napoca, Romania, July 1<sup>st</sup> -5<sup>th</sup>, 2014, pp. 346-351, ISBN: 978-973-662-978-5.
3. **Florina RUSU**, Marius PUSTAN, Corina BIRLEANU, Raluca MULLER, Rodica VOICU, Angela BARACU, Analysis of the surface effects on adhesion in MEMS structures, Applied Surface Science, 358, 2015, 634-640
4. **Florina RUSU**, Ioana CRĂCIUN, Lucian TUDOSE, Statistical evaluation of aesthetic shapes, ACTA TECHNICA NAPOCENSIS – Series : APPLIED MATHEMATICS AND MECHANICS, ISSN 1221-5872, Vol. 58, Issue IV, 2015, pp. 553-558
5. **Florina RUSU**, Lucian TUDOSE, Cristina TUDOSE, Bearing life approximation using Kriging, ACTA TECHNICA NAPOCENSIS – Series : APPLIED MATHEMATICS AND MECHANICS, ISSN 1221-5872, Vol. 58, Issue II, 2015, pp. 219-224
6. Ioana CRĂCIUN, **Florina RUSU**, Lucian TUDOSE, Aesthetic optimization of a basic shape, ACTA TECHNICA NAPOCENSIS – Series : APPLIED MATHEMATICS AND MECHANICS, ISSN 1221-5872, Vol. 58, Issue II, 2015, pp. 257-262
7. Radu JELER, **Florina RUSU**, Radu BĂLAN, Comfort index calculation using artificial neural networks, ACTA TECHNICA NAPOCENSIS – Series : APPLIED MATHEMATICS AND MECHANICS, ISSN 1221-5872, Vol. 58, Issue II, 2015, pp. 263-266
8. Lucian TUDOSE, **Florina RUSU**, Cristina TUDOSE, Optimal design under uncertainty of bearing arrangements, Mechanism and Machine Theory, 98, 2016, pp. 164-179
9. **Florina Maria RUSU**, Violeta Valentina MERIE, Ioana Mihaela PINTEA, Andreea MOLEA, Adhesion analysis for chromium nitride thin films deposited by reactive magnetron sputtering, IOP Conf. Series: Materials Science and Engineering 147 (2016) 012023, pp. 1-7, doi:10.1088/1757-899X/147/1/012023
10. Marius PUSTAN, Cristian DUDESCU, Corina BİRLEANU, **Florina RUSU**, Radu CHIOREAN, Ștefan CRĂCIUN, Effect of geometrical dimensions on the tribomechanical response of a gold micromembrane with bent beam hinges, IOP Conf. Series: Materials Science and Engineering 147 (2016) 012022, pp. 1-9, doi:10.1088/1757-899X/147/1/012022
11. Simion HARAGAS, Ovidiu BUIGA, Claudiu POPA, **Florina RUSU**, Demolding moment calculation for injected parts with internal saw thread, Materiale Plastice, Vol. 53, pp. 378-381, 2016, ISSN 0025-5289
12. Marius PUSTAN, Cristian DUDESCU, Corina BIRLEANU, **Florina RUSU**, Dynamic response of a polysilicon microbridge driven by different electrostatic forces, Proceedings of 2016 International Semiconductor Conference, Sinaia, Romania, 2016, pp. 95-100, ISBN 978-1-5090-1207-7
13. Corina BIRLEANU, Marius PUSTAN, **Florina RUSU**, Cristian DUDESCU, Raluca MULLER, Angela BARACU, Relative humidity effect on pull-off forces in mems flexible structures measured by afm. In 2017 Symposium on Design, Test, Integration and Packaging of MEMS/MOEMS (DTIP) Proceedings, 1–8 (IEEE, 2017)
14. Marius PUSTAN, Corina BİRLEANU, Cristian DUDESCU, **Florina RUSU**, Investigation on the contact behaviour of MEMS micromembrane with serpentine hinges, IOP Conf. Series: Materials Science and Engineering 174 (2017) 012028, pp. 1-8, 10.1088/1757-899X/174/1/012028
15. **F. M. Șerdean**, V. V. Merie, M. S. Pustan, C. Bîrleanu, Ș. Bojan, Mechanical properties prediction for titanium nitride thin films, ACTA Technica Napocensis. Series: Applied Mathematics and Mechanics, vol. 60, Issue IV, 2017, pp. 627-632
16. **F. M. Șerdean**, R. Morariu-Gligor, A. V. Crișan, Enhanced KGCS for engineering design, ACTA Technica Napocensis. Series: Applied Mathematics and Mechanics, vol. 60, Issue IV, 2017, pp. 621-626
17. V. V. Merie, **F. M. Șerdean**, N. V. Burnete, A. V. Crișan, Ș. I. Crăciun, *Deposition temperature influence on the mechanical properties of niobium nitride thin films*, ACTA Technica Napocensis. Series: Applied Mathematics and Mechanics, vol. 60, Issue IV, 2017, pp. 585-590
18. A. V. Crișan, **F. M. Șerdean**, R. Morariu-Gligor, The analysis of geometrical errors based on polynomial interpolation functions for a 5 DOF serial robot, ACTA Technica Napocensis. Series: Applied Mathematics and Mechanics, vol. 60, Issue IV, 2017, pp. 573-578
19. R. Morariu-Gligor, A. V. Crișan, **F. M. Șerdean**, Optimal design of an one-way plate compactor, ACTA Technica Napocensis. Series: Applied Mathematics and Mechanics, vol. 60, Issue IV, 2017, pp. 557-565
20. Corina Birleanu, Marius Pustan, Rodica Voicu, **Florina Șerdean**, Violeta Merie, Humidity influence on the adhesion of SU-8 polymer from MEMS applications, MATEC Web of Conferences 137, 08002 (2017)
21. Marius Pustan, Corina Birleanu, **Florina Șerdean**, Impact of environmental conditions on the reliability of MEMS components from optical applications, MATEC Web of Conferences 137, 07006 (2017)
22. **Florina Maria ȘERDEAN**, Violeta Valentina MERIE, Gavril NEGREAN, Horea George CRIȘAN, Adhesion analysis for niobium nitride thin films deposited by reactive magnetron sputtering, Powder Metallurgy and Advanced Materials –

- RoPM&AM 2017 Materials Research Forum LLC, Materials Research Proceedings 8 (2018) 212-218 doi: <http://dx.doi.org/10.21741/9781945291999-24>
23. Oana Adriana CRIȘAN, Horea George CRIȘAN, Viorel DAN, **Florina Maria ȘERDEAN**, APPROACHING THE CIRCULAR ECONOMY IN ROMANIA - A HIGHER ALTERNATIVE TO THE LINEAR ECONOMY, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 62, Issue I, 2019, pp.193-200
  24. **Florina ȘERDEAN**, Adina CRIȘAN, A BENCHMARK STUDY OF KGCS OPTIMIZATION ALGORITHM, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 62, Issue I, 2019, pp.163-168
  25. **F. M. Șerdean**, V. V. Merie, A. V. Crișan, C. Bîrleanu, H. G. Crișan, The influence of deposition time and testing temperature on mechanical proprieties of niobium nitride thin films, IOP Conference Series: Materials Science and Engineering, November 2018, IOP Conference Series Materials Science and Engineering 444(3):032003
  26. Corina Birleanu, Marius Pustan, **Florina Rusu**, Cristian Dudescu, Raluca Muller, Angela Baracu, Relative humidity influence on adhesion effect in MEMS flexible structures, (2018) *Microsystem technologies*, pp. 1-11
  27. Corina Bîrleanu, Marius Pustan, **Florina Șerdean**, Violeta Merie, Ștefan Crăciun, Temperature effect on pull-off force for gold cantilevers array, IOP Conference Series Materials Science and Engineering 499(1):012004, 2019, DOI: 10.1088/1757-899X/499/1/012004
  28. **Florina Șerdean**, Marius Pustan, Violeta Merie, Corina Bîrleanu, Horea Crișan, Analysis of humidity influence on adhesion and tribological properties of niobium nitride thin films, IOP Conf. Series: Materials Science and Engineering 499(1): 012006, 2019, DOI:10.1088/1757-899X/499/1/012006
  29. Violeta Merie, Marius Pustan, Gavril Negrea, Corina Bîrleanu, **Florina Șerdean**, Temperature effect on the mechanical characteristics of niobium nitride thin films, IOP Conf. Series: Materials Science and Engineering 499(1): 012005, 2019, DOI:10.1088/1757-899X/499/1/012005
  30. **Florina Maria Șerdean**, Violeta Valentina Merie, Corina Julieta Bîrleanu, Cătălin Ovidiu Popa, Marius Sorin Pustan, Estimation of Tribological Properties for Fe-Cu-Graphite-Ni-TiO<sub>2</sub> Composites for Automotive Industry, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pp.421-428, 2018, DOI: 10.1007/978-3-319-94409-8\_49
  31. Nicolae Vlad Burnete, **Șerdean Florina**, Burnete Nicolae, Dan Moldovanu, Combustion Analysis for Single Cylinder Engine Running on Various Types of Diesel, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pp. 593-600, 2018, DOI: 10.1007/978-3-319-94409-8\_69
  32. OANA-ADRIANA CRIȘAN, MARIUS SORIN PUSTAN, CORINA JULIETA BÎRLEANU, ANCUȚA ELENA TIUC, IOANA SUR, HOREA-GEORGE CRIȘAN, **FLORINA MARIA ȘERDEAN**, LAZĂR FLĂMÎND, TIBERIU RUSU, QUALITATIVE ANALYSIS OF FILTERS FOR THE MECHANICAL NANOFILTRATION OF HOUSEHOLD DRINKING WATER, *STUDIA UBB CHEMIA*, LXV, 1, 2020 (p. 253-266)
  33. **Serdean F.**, Pustan M., Dudescu C., Birleanu C., Serdean M. (2020) Analysis of the Thermoelastic Damping Effect in Electrostatically Actuated MEMS Resonators, *Mathematics* 2020, 8(7), 1124; <https://doi.org/10.3390/math8071124>
  34. Șerdean, M., **Șerdean, F.**, Mândru, D., An Overview of Grippers in Agriculture Robotic Systems, *Mechanisms and Machine Science*, 2021, 88, pp. 212-225
  35. Crăciun, I.; Popa, D.; **Serdean, F.**; Tudose, L. On Approximate Aesthetic Curves. *Symmetry* **2020**, *12*, 1394.

## B. PAPERS INDEXED IN OTHER INTERNATIONAL DATABASES

1. **Florina RUSU**, Cristina TUDOSE, Lucian TUDOSE, A new proof of rule of thumb regarding clearance variation with temperature in two tapered roller bearings in O-arrangement, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 56, Issue IV, 2013, pp.789-794
2. Cristina TUDOSE, **Florina RUSU**, Lucian TUDOSE, Influence of rotation angle on bearing rolling bodies load distribution. Part 1: Mathematical model, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 56, Issue III, 2013, pp.469-474
3. **Florina RUSU**, Cristina TUDOSE, Lucian TUDOSE, Influence of rotation angle on bearing rolling bodies load distribution. Part 2: Simulation results, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 56, Issue IV, 2013, pp.795-800
4. Cristina TUDOSE, **Florina RUSU**, Lucian TUDOSE, Influence of appropriate calculation of shaft support reactions on bearing life prediction, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 56, Issue IV, 2013, pp.807-812
5. Marius PUSTAN, **Florina RUSU**, Optimization of MEMS structures using Cuckoo Search Algorithm, *ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS*, ISSN 1221-5872, Vol. 56, Issue IV, 2013, pp.785-788
6. **Florina RUSU**, Marius PUSTAN, Corina BIRLEANU, Analysis of the environmental conditions on the dynamical behavior

of MEMS resonators, Proc. '13th European Conf. on Spacecraft Structures, Materials & Environmental Testing', Braunschweig, Germany, April 1–4, 2014 (ESA SP-727, June 2014), ISBN 978-92-9221-291-9, ISSN 1609-042X

7. Marius PUSTAN, Corina BIRLEANU, **Florina RUSU**, Simion HARAGAS, Dynamic Behavior of MEMS Resonators, Applied Mechanics and Materials, 658, 2014, pp. 694-699
8. Iuliu NEGREAN, Kalman KACSO, **Florina RUSU**, Formulations in Advanced Systems Dynamics, ACTA TECHNICA NAPOCENSIS – Series: APPLIED MATHEMATICS AND MECHANICS Vol. 57, Issue II, 2014, ISSN 1221-5872, pp.149-158
9. Lucian TUDOSE, Cristina TUDOSE, **Florina RUSU**, Systemic approach of bearing arrangement life, Academic Journal of Manufacturing Engineering, ISSN 1583-7904, Vol. 13, Issue 1, 2015, pp. 69-76
10. **Florina RUSU**, Ioana CRĂCIUN, Lucian TUDOSE, Aesthetic shapes generated by piecewise continuous Bézier curves, Annals of the Tiberiu Popoviciu Seminar of Functional Equations, Approximation and Convexity, ISSN 1584-4536, Vol. 13, 2015
11. Iuliu NEGREAN, Kalman KACSO, Claudiu SCHONSTEIN, Adina DUCA, **Florina RUSU**, Felicia CRISTEA, Simion HARAGAS, New Formulations on Acceleration Energies in Analytical Dynamics, Applied Mechanics and Materials, 823, 2016, pp. 43-48
12. Iuliu NEGREAN, Kalman KACSO, Claudiu SCHONSTEIN, Adina DUCA, **Florina RUSU**, Felicia CRISTEA, Simion HARAGAS, New Formulations on Motion Equations in Analytical Dynamics, Applied Mechanics and Materials, 823, 2016, pp. 49-54
13. Simion HARAGAS, Iuliu NEGREAN, Dumitru POP, Ovidiu BUIGA, **Florina RUSU**, Demolding Moment Calculation for Injected Parts with Internal Trapezoidal Thread, Key Engineering Materials, Vol. 699, pp. 104-109, 2016
14. J. Bilbao, E. Bravo, O. García, C. Rebollar, C. Varela, A. Uukkivi, O. Labanova, M. Latõnina, E. Safiulina, A. Cellmer, J. Cymerman, Igor Kierkosz, K. Brown, G. Kelly, A.p. Lopes, F. Soares, C. Feniser, V. Bocanet, **F. Rusu**, Exploring and Developing a Shared Understanding of the Issues Surrounding Engineering Mathematics, WSEAS Transactions on Information Science and Applications, ISSN / E-ISSN: 1790-0832 / 2224-3402, Volume 17, 2020, Art. #4, pp. 32-40, <https://www.doi.org/10.37394/23209.2020.17.4> [COPERNICUS]

### C. OTHER PAPERS

1. Lucian Tudose, Constantin Ursache, Cristina Tudose, **Florina Rusu**, Optimal 2ZB approximation of optimal profile of rolling bearings cylindrical rollers, Proceedings of the 5th International Conference on Power Transmissions BAPT2016, Ohrid, Macedonia, 2016, pp. 99-113
2. Filomena Soares, Ana Paula Lopes, Ken Brown, Anne Uukkivi, Elena Safiulina, Anna Cellmer, Cristina Feniser, Carolina Rebollar, Concepción Varela, Eugenio Bravo, Gerry Kelly, Javier Bilbao, Joanna Cymerman, Olatz García, Oksana Labanova, Vlad Bocanet, Errol Martin, **Florina Serdean**, Igor Kierkosz, Volodymyr Sushch, Using STACK to promote random questions in Practice Moodle Quizzes, The 3rd International STACK Conference, April 2020, DOI: 10.13140/RG.2.2.30525.82407
3. J. Bilbao, E. Bravo, O. García, C. Rebollar, C. Varela, A. Uukkivi, O. Labanova, M. Latõnina, E. Safiulina, A. Cellmer, J. Cymerman, Igor Kierkosz, K. Brown, G. Kelly, A.p. Lopes, F. Soares, C. Feniser, V. Bocanet, **F. Rusu**, Bringing Mathematics to Engineering: Online Learning-Teaching Model

### D. RESEARCH PROJECTS

1. Nanomechanical and nanotribological characterizations for reliability design of MEMS resonators, PN-II-RU-TE-2011-3-0106/2011-2013, project member
2. Advanced design of micromembranes with multiple degrees of freedom for optical MEMS applications, PN-II-RU-TE-2014-4-1271, project member
3. Elaborarea și caracterizarea structurală, tribomecanică și optică a unor filme subțiri de nitruri pentru aplicații MEMS, type C.I.5/1.2/2015, project member
4. Elaborarea și nano-caracterizarea unor filme subțiri de nitrură de niobiu pentru aplicații MEMS (NioMEMS), contract no. 2003/12.07.2017, Technical University of Cluj-Napoca, Romania, code CI2017\_CM\_1, main coordinator
5. ERASMUS+ project Mathematics on-line learning model in engineering education – EngiMath, 1 November 2018 - 31 August 2021, Lab: Ken Brown's Lab, project member