

PERSONAL INFORMATION



SCUTARU Maria Luminița

Str. Politehnicii nr.1, sala NP1, 500024 - Brasov, Romania

iscutaru@unitbv.ro

Sex Female || Nationality Român

Head of Mechanical Engineering Department

WORK EXPERIENCE

2016- present University Professor - Ph.D.Coordinator

2014-2016 University Associate Professor

2005-2014 University Lecturer

2000-2005 University Assistant

1998-2000 University Junior Assistant

Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro, Faculty of Mechanical Engineering, Department of Mechanical Engineering

- Teaching lectures, laboratory and project activities, scientific research
- Business or sector: education and scientific research

2019-present Head of Mechanical Engineering Department

Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro, Faculty of Mechanical Engineering, Department of Mechanical Engineering,

Business or sector: management, education and scientific research

2017-present Coordinator of the Quality Assurance Office

Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro,

- Assuring the appropriate framework for carrying on the academic activities evaluation and coordination of the evaluation process
- Assuring coordination of study activities, analyzes and reports on quality assurance

Business or sector: evaluation and quality assurance in higher education

2016-2022 Coordinator of the master's degree program STIM -IFR

Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro,

- Management of IFR activities at the faculty level;

Business or sector education, higher education

- 2013-present **Coordinator of bachelor degree program IM-IFR**
Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro,
▪ Management of IFR activities at the faculty level ;
Business or sector education, higher education

EDUCATION AND TRAINING

- 2015 **Certificate of ability in field of Mechanical Engineering**
Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro,
Skills in the field of scientific research
- 2014 **Attestation certificate of professional competencies**
Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro,
Blended-learning training technologies and modern educational technologies for university education
- 2010-2013 **Postdoctorat - POSTDOC-DD, ID59323**
Transilvania University of Brasov, B-dul Eroilor nr. 29, 500283 Braşov, România, www.unitbv.ro, Faculty of
Mechanical Engineering
Research activity in the field of composite materials with application in field of mechanical engineering
- 2009-2014 **Ph.D. in Engineering Science, field of Mechanical Engineering** Level 8 EQF
Universitatea Transilvania din Braşov, Facultatea de Inginerie Mecanică
▪ Skills in the field of scientific research
- 2006-2008 **Master in Mechanical Engineering** Level 7 EQF
Universitatea Transilvania din Braşov, Facultatea de Inginerie Mecanică
▪ Skills in the field of scientific research
- 1998-2006 **Ph.D. in Engineering Science, field of Industrial Engineering** Level 8 EQF
Universitatea Transilvania din Braşov, Facultatea de Industrializarea Lemnului
▪ Skills in the field of scientific research
- 1992-1997 **Engineer** Level 6 EQF
Universitatea Transilvania din Braşov, Facultatea de Industrializarea Lemnului
▪ Forestry skills

PERSONAL SKILLS

Mother Language	Romanian				
Other Language	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken Interaction	Spoken production	
Limba engleză	B2 independent user	B2 independent user	B2 independent user	B2 independent user	B2 independent user

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user Common European Framework of Reference for Languages

Communication skills

Good communication skills gained through personal experience as university professor, management experience and that of participant in many project teams at national and international level;
Mediation skills: positive and active attitude, within the activities carried out as a member in research teams and project coordinator

Organisational /managerial skills

Good organizational / managerial skills trained on the basis of the experience gained as coordinator of study programs but also as coordinator of DAC (Quality Assurance Office)

Good organizational / managerial skills trained on the basis of experience gained as a coordinator of scientific research project

Computer skills Post-graduate courses and other training

good command of e-office tools, internet , Matlab, linear and non-linear multi-scale material modelling

8-12 sept. 2008, Computational and Experimental Mechanics of Advanced Materials, Udine, ITALIA

19-23 nov. 2007, Optical Measuring Techniques GOM, Braunschweig, GERMANIA

9-12. dec. 2006, Strain Gage Installation Workshop, Darmstadt, GERMANIA

23 -27 oct. 2006, Dynamical Analysis of Vehicle System- Theoretical Foundations and Advanced Applications, Udine, ITALIA

Professional associations affiliation

EUROMECH – 2006

SMRTA – 2014

Other skills

- Organizer of the International Conferences COMEC(2005,2007,2009, 2011, 2013, 2015, 2017, 2019, 2021) COMAT (2006, 2008, 2010, 2012, 2014, 2016, 2018)

- Organizer of the 9th International Conference on Advanced Composite Materials Engineering – COMAT 2022, COMEC 2023, COMAT 2024

- Organizer of the National Session of Student Scientific Communications SSING 2020, SSING 2021, SSING 2022, SSING 2023, SSING 2024, April in Brasov

- Organizer of the 2nd International Summer School on Sustainability SuSus 2023 - from Biodiversity to Energy, Biomechanical and Artificial Intelligence, 24-28 July 2023, Braşov

- Organizer of the National Student Competition in Mechanics, 15-17 mai 2023, Basov

- Coordinator of the Mechanical Engineering program – Bachelor Studies IM-IFR (2013-present)

- Coordinator of the Mechanical Engineering program – Master Studies (2016-present)

- Member of the Faculty Council (febr.2016-present)

- Member of the Senat of University (sept. 2016-present)

- Coordinator of the Quality Assurance Office - DAC (oct.2017-present)

- Member in Council for Doctoral University Studies (2020-present)

Driving licence

- B

ADDITIONAL INFORMATION

Publications

- Author and co-author of over 20 specialty books
- Author and co - author in over 100 scientific papers in the field of mechanics and composites (90 papers in ISI journals)

Indici Hirsch

IndiceHISI: 14
IndiceHScopus: 14
IndiceHGS: 16

Annex

Selected scientific papers/books/chapters in international books

Last up-date:

January 2025

Professor PhD, Eng. Maria Luminița SCUTARU

Annex

Books (Selection)

1. Sorin Vlase, Simona Lache, **Maria Luminița Scutaru**, Mircea Mihălcică, Mihaela Violeta Munteanu, Mechanics Problems - Statics, Editura Universității Transilvania Brașov, ISBN 978-606-19-1062-5, 2018
2. **Maria Luminița Scutaru** – Mechanics-Kinematics-Dynamics, Theory and Applications –E-learning course format, Editura Universității Transilvania Brașov, ISBN 978-606-19-0851-6, 2016
3. **Maria Luminița Scutaru** – Mechanical Elements for Engineers, Editura Universității Transilvania Brașov, ISBN 978-606-19-0852-3, 2016
4. **Maria Luminița Scutaru**, Gheorghe Deliu – Dynamics analysis of transmission used in low power wind turbines, Editura Universității Transilvania Brașov, ISBN 978-606-19-0548-5, 2015.
5. **Scutaru M.L.**, Chiru A., Vlase S., Cofaru C., Teodorescu H., Plastics and composite materials used in automotive engineering, Editura Matrix, ISBN 978-6-6-25-0023-8, 2013.
6. **Maria- Luminița Scutaru** – Heat transfer through sandwich panels used in house constructions, Editura Universității Transilvania Brașov, ISBN 978-973-635-877-7 2007.

Chapters in international publishing house books (selection)

1. Vlase,S.,Munteanu,V., **Scutaru,L.**, Kinematical Analysis of the Multibody Systems using Topological Description, DAAAM International Scientific Book 2008, Vol. 7, ISSN 1726-9687, ISBN 3-901509-69-0, Editor: B. Katalinic, hard cover, Publisher DAAAM International Vienna, Vienna.
2. Catalin Iulian Pruncu, Maria Luminița Scutaru, Failure Mechanisms of Fiber Composites, Hybrid Fiber Composites: Materials, Manufacturing, Process Engineering, pg 99-116, <https://doi.org/10.1002/9783527824571.ch6>, 2019

Papers indexed in ISI Web of Science-selection (selection)

1. Garziad, M; Saka, A; Moustabchir, H; **Scutaru, ML**, A New Approach for Modeling Vertical Dynamics of Motorcycle Based on Graph Theory, Mathematics, 2024, FI=2,3
2. Nouhaila, O ; Hassane, M ; **Scutaru, ML** ; Jelenschi, L , On the Accuracy of Turbulence Model Simulations of the Exhaust Manifold, Applied sciences-basel, 2024, FI=2,5
3. **Scutaru, ML** ; Vasile O , Method To Determine the Elastic Constants of Polymeric Fibers Reinforced Composite Using Finite Element Vibration Analysis, Romanian Journal of Acoustics and Vibration, 2024, FI=0,7

4. El Moutea, El Quadelfi, El Akkad, Nakbi, **M.L.Scutaru**, S.Vlase A Posteriori Error Estimators for the Quasi-Newtonian Stokes Problem with a General Boundary Condition, Mathematics, 2023, FI=2,4
5. Kautazian M, S Vlase, M.Marin **M.L.Scutaru** - Modeling Study of the Creep Behavior of Carbon Fiber Reinforced Composites A review, Polymers, 2023, FI=5
6. Campean S, Beschea GA, Tabacaru MB, **Scutaru ML**, Dragomir G, Brezeanu AI, Serban A, Nastase G, Preservation of black grapes by isochoric freezing, 2023, Heliyon, FI=4
7. **M.L.Scutaru**, Pruncu C.I., Mathematical Modeling and Simulation in Mechanics and Dynamic Systems, MATHEMATICS, 2022, FI=2,258
8. Ishfaq K, Asad M., Harris M., Alfaify A., Anwar S., Lamberti L., **Scutaru M.L.**, EDM of Ti-6Al-4V under Nano-Graphene Mixed Dielectric: A Detailed Investigation on Axial and Radial Dimensional Overcuts, NANOMATERIALS, 2022, FI=5,076
9. Montassir S., Maustabchir H., Elkhalfi A., **Scutaru M.L.**, Vlase S, Fracture Modelling of a Cracked Pressurized Cylindrical Structure by Using Extended Iso-Geometric Analysis (X-IGA), MATHEMATICS, 2021, FI=2,258
10. Singh B., Kumar R., Chohan J.S, Singh S., Pruncu C.I, **Scutaru M.L.**, Muntean R., Investigations on Melt Flow Rate and Tensile Behaviour of Single, Double and Triple-Sized Copper Reinforced Thermoplastic Composites, Materials, 2021, FI=3,623
11. Sorin Vlase, Marin Marin. Iuliu Negrean, **Maria Luminița Scutaru**, New analytical formalisms used in finite element analysis of robots with elastic elements, JOURNAL OF TAIBAH UNIVERSITY FOR SCIENCE, 2020, FI=1,863
12. Munteanu MV, Mihalica M, Itu C, Vlase S, **Scutaru M.L.**, Mechanical design of interaction chamber for the ELIADE array at ELI-NP, AIP ADVANCES, 2020, FI=1,337
13. Itu C, **Scutaru M.L.**, Pruncu CI, Muntean R, Kinematic and Dynamic Response of a Novel Engine Mechanism Design Driven by an Oscillation Arm, APPLIED SCIENCES-BASEL, 2020, FI=2,474
14. **Scutaru Maria Luminita**, Vlase Sorin, Marin Marin, Modrea Arina, New analytical method based on dynamic response of planar mechanical elastic systems, BOUNDARY VALUE PROBLEMS, 2020, FI=1,794
15. Mitu Gabriel Leonard, Chircan Eliza, **Scutaru Maria Luminita**, Vlase Sorin, Kane's Formalism Used to the Vibration Analysis of a Wind Water Pump, Symmetry-Basel, 2020, FI=2,645
16. Vlase Sorin, Marin Marin, **Scutaru Maria Luminita**, Maggi's Equations Used in the Finite Element Analysis of the Multibody Systems with Elastic Elements, MATHEMATICS, 2020, FI=1,747
17. Vlase Sorin, Marin Marin, **Scutaru Maria Luminita**, Maggi's Equations Used in the Finite Element Analysis of the Multibody Systems with Elastic Elements, MATHEMATICS, 2020, FI=1,747
18. Vlase Sorin, Marin Marin, **Scutaru Maria Luminita**, Scarlatescu Dumitru Daniel, Csatos Carol Study on the Mechanical Responses of Plastic Pipes Made of High Density Polyethylene (HDPE) in Water Supply Network, APPLIED SCIENCES-BASEL, 2020, FI=2,474
19. Eliza Chircan, **Maria Luminița Scutaru**, Catalin Iulian Pruncu, Two-Dimensional Finite Element in General Plane Motion Used in the Analysis of Multi-Body Systems, Symmetry-Basel Journal, Symmetry in Applied Continuous Mechanics, 2019, FI=2,143
20. Sorin Vlase, Mircea Mihălcică, **Maria Luminița Scutaru**, Determining the Functional Parameters of a Simple Speed Regulator, Romanian journal of acoustics and vibration, Vol 16, pg. 10-14, 2019, FI=0,74
21. Vlase S., Marin M, Ocshnar A., **Scutaru M.L.** Motion equation for a flexible one-dimensional element used in the dynamical analysis of a multibody system, Springer, Continuum mechanics and thermodynamics, Vol 31, pg 715-724, 2019, FI=1,578
22. A.Chiru, V.Gheorghita, S.Vlase **M.L.Scutaru**, M.Marin – Damping and Super-Elasticity Properties of a Memory Shape Alloy NiTi Used in Automotive Engineering, Journal of Vibration Engineering & Technologies, Vol.5, No 3 Published: 2017, FI=0,325
23. S.Vlase, M.Marin, **M.L.Scutaru**, I.R.Munteanu– Coupled transverse and torsional vibrations in a mechanical system with two identical beams, AIP Advances, Published: 2017, FI=1,653
24. **M.L.Scutaru**, B.Mitrica – Dynamical Analysis of the Mechanical System with Two Degree of Freedom Applied to the Transmission of the Wind Turbine, Mathematical Problems in Engineering, Article Number: 3821083 Published: 2016, FI=0,762 (la data publicarii articolului)
25. **M.L.Scutaru**, H.Teodorescu, S.Vlase, M.Marin – Advanced HDPE with increased stiffness used for water supply networks, Journal of Optoelectronics and Advanced Materials Volume: 17 Issue: 3-4 Pages: 484-488 Published: March-April 2015, FI=0,429
26. S. Vlase, C. Danasel, **M.L. Scutaru**, M. Mihalică, -Finite Element Analysis of a Two-Dimensional Linear Elastic Systems with a Plane "Rigid Motion", Romanian Journal of Physics Volume: 59 Issue: 5-6 Pages: 476-487 Published: 2014, FI=0,924
27. **M.L.Scutaru**, M.Baba –Investigation of the Mechanical Properties of Hybrid Carbon-Hemp Laminated Composites Used as Thermal Insulation for Different Industrial Application, Advances in Mechanical Engineering, Article Number: 829426 Published: 2014, FI= 0,575
28. **M. L. Scutaru**, M. Baba, M.I. Baritz – Irradiation influence on a new hybrid hemp bio-composite, Journal of Optoelectronics and Advanced Materials Volume: 16 Issue: 7-8 Pages: 887- 891 Published: July-August 2014, FI=0,429

29. **M. L. Scutaru**, - Toward the use of irradiation for the composite materials properties improvement, Journal of Optoelectronics and Advanced Materials Volume: 16 Issue: 9-10, Pages: 1165-1169 Published: September-October 2014, FI=0,429
30. **M. L. Scutaru**, M. Baritz, B. P. Galfi- Radiation influence on micro-structural mechanics of an advanced hemp carbon hybrid composite Optoelectronics and Advanced Materials Volume: 8 Issue: 11-12 Pages: 1145-1149 Published: Nov. – Dec. 2014, FI=0,394
31. Teodorescu-Draghicescu, H.; **Scutaru, M. L.**; Rosu, D.; et al. – New Advanced Sandwich Composite with twill weave carbon and EPS Journal of Optoelectronics and Advanced Materials Volume: 15 Issue: 3-4 Pages: 199-203 Published: MAR-APR 2013, FI=0,563
32. Niculita, C ; Gabor, A ; Gheorghe, V Calin, MR ; **Scutaru, M.L** – A new epoxy glass roving fabric material with a nonwoven PES fibers structure used in a composite laminates, Journal of Optoelectronics and Advanced Materials, Volume: 15 Issue: 3-4 Pages: 176-181 Published: MAR-APR 2013, FI=0,563
33. S. Vlase, P.P. Teodorescu, C. Itu, **M.L. Scutaru** –Elasto-Dynamics of a Solid with a General “Rigid” Motion Using FEM Model. Part II. Analysis of a Double Cardan Joint, Romanian Journal of Physics , Volume: 58 Issue: 7-8 Pages: 882-892 Published: 2013, FI=0,745