Europass
Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Sorin VLASE**
Address(es)	
Telephone(s)	
Fax(es)	+40 268 418992
E-mail	svlase@unitbv.ro;
Nationality	Romanian
Date of birth	
Gender	Male

Desired employment / Occupational field	**Full professor in Mechanics/Research and Education**

Work experience

Date	1996- up today - full professor; 1991-1996-Assoc. professor; 1984-1991- Lecturer; 1980-1984- Assistant prof.; 1976-1980- research engineer in Automotive Research Institute, Brasov and Automotive Entreprise ROMAN SA Brasov
Occupation or position held	Full professor 2004-2011 Head of Department of Mechanics, 2011-2012 Head of Department of Automotive Engineering and Mechanics 2012- present , Head of Department of Mechanical Engineering
Main activities and responsibilities	Lectures in Mechanics, Computational Mechanics, Finite Element Method, Mechanical Stability, Numerical Methods, Kinematics and Dynamics of Multibody Systems.
Name and address of employer	Transilvania University of Brasov
Type of business or sector	Research and Education

Education and training

Dates	1989 PhD thesis, Transilvania University of Brasov; 1977-1982 Licence in mathematics, Faculty of Mathematics and Informatics, University of Bucharest; 1971-1976 MSc, domain Engineering Mechanics (specialisation Automotive Engineering), Faculty of Mechanical Engineering, Transilvania University of Brasov.
Title of qualification awarded	PhD
Principal subjects/occupational skills covered	Mechanics, Computational Mechanics, Finite Element Method, Vibrations, Multibody Systems
Name and type of organisation providing education and training	Transilvania University of Brasov

| | Level in national or international classification | Domain Mechanical Engineering at Transilvania University: Category A (best) |

| Level in national or international classification | Domain Mechanical Engineering at Transilvania University: Category A (best) |

Personal skills and competences

Mother tongue(s) | **Romanian**

Other language(s)

Self-assessment

European level (*)

	Understanding			Speaking			Writing	
	Listening		Reading	Spoken interaction		Spoken production		
B	English	B		B		C		B
A	French	B		A		B		B
B	German	B		B		C		C

(*) <u>Common European Framework of Reference for Languages</u>

Social skills and competences

Organisational skills and competences | Organiser of ten international conferences, participation in the scientific and organisating committees for 28 conferences.
Organizer of the International Conferences:
The 1st Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2005, Brasov ROMANIA
The 2nd Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2007, Brasov ROMANIA
The 3rd Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2009, Brasov ROMANIA
The 4th Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2011, Brasov ROMANIA
The 5th Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2013, Brasov ROMANIA
The 6th Int. Conf. COMPUTATIONAL MECH. and VIRTUAL ENG. - COMEC2015, Brasov ROMANIA
The 1st Int. Conf. ADVANCED COMPOSITE MAT. ENG. - COMAT2006, Brasov, ROMANIA
The 2nd Int. Conf. ADVANCED COMPOSITE MAT. ENG. - COMAT2008, Brasov, ROMANIA
The 3rd Int. Conf. ADVANCED COMPOSITE MAT. ENG. - COMAT2010, Brasov, ROMANIA
The 4th Int. Conf. ADVANCED COMPOSITE MAT. ENG. - COMAT2012, Brasov, ROMANIA
The 5th Int. Conf. ADVANCED COMPOSITE MAT. ENG. - COMAT2014, Brasov, ROMANIA
Director in more then 15 scientific projects. Member in more than 50 scientific projects.
Head of Department of Mechanics (2004-2011)
Head of Department of Automotive Engineering and Mechanics (2011-2012)
Head of Department of Mechanical Engineering (2012-)

Technical skills and competences | Mechanics, Computational Mechanics, Finite Element Method

Computer skills and competences | Using common Windows programmes at medium level, FORTRAN, Matlab, FEM programms

Artistic skills and competences

Other skills and competences

Driving licence | B, C categories, Romania

Additional information

Annexes

VLASE SORIN

PUBLISHED WORKS

I.a. Books (17) - selection

1. Vlase, S., Finite Element Elastodynamic. Editura LUX LIBRIS, 1996.
2. Vlase, S., Mechanics. Statics/Kinematics/Dynamics Ed. INFOMARKET, 2004,2007,2005.
3. Vlase, S., Computational Mechanics. Ed. INFOMARKET, 2006. ISBN 973-8204-75-5
4. Vlase,S., s.a., Composite Materials. Computational Methods. Editura Universităţii TRANSILVANIA, 2007. ISBN 978-973-635-890-6.
5. Vlase,S., Teodorescu-Drăghicescu,H.,Scutaru,L.,ş.a., Kinematics and Dynamics. Problems. Ed. Infomarket, 2009.
6. Chiru, A., Scutaru, L., Vlase, S., Cofaru, C., Compusite Materials in Automotive Engineering, TRANSILVANIA Univ. Press, 2013.
7. Vlase S., Mechanical Identifiability in Automotive Engineering. Derc Publishing House, 2014, Boston.

I.b. Chapter in books (3)- selection

1. Vlase, S., Finite Element Analysis of the Planar Mechanisms: Numerical Aspects. In Applied Mechanics - 4. Elsevier, 1992,p.90-100.
2. Teodorescu H., Vlase, S., Rosu, D., Ulea, M. , Residual Internal Stresses determined Experimentally in Hollow Composite Laminates , in E. E. Gdoutos (Editor), Experimental Analysis of Nano and Engineering Materials and Structures. Springer. Alexandroupolis, Greece, July 1-6, 2007, Springer, Dordrecht, The Netherlands, ISBN 978-1-4020-6.

I.c. Editor (10)- selection

1. **S. Vlase**, S.Lache, Gh. Radu, The 2nd International Conference ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. Universităţii TRANSILVANIA din Braşov, 2008.
2. **S. Vlase**, A. Chiru, The 2nd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2007. Ed. Universităţii TRANSILVANIA, Braşov,2007.
3. **S. Vlase**, A. Chiru, Yasushi Niitsu, The 3rd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2009. Ed. Universităţii TRANSILVANIA, Braşov,2009.
4. D. Bigoni, **S. Vlase**, A. Chiru, The 3rd International Conference COMAT2010 - ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. **Infomarket**, 2010.
5. **S. Vlase**, C. Papalettere, The 3rd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2011. Ed. Lux Libris, Braşov, 2011.

II. Didactical books (14)

III. Papers ISI indexed (75)-selection

1. Marin I Marin, Samy R Mahmoud and Sorin Vlase, Effect of internal state variables in thermoelasticity of microstretch bodies. Boundary Value Problems, in curs de publicare.
2. Marin,M., Vlase,S., Paun,M., Considerations on double porosity structure for micropolar bodies. AIP Advanced, vol.5, Issue 3, 037113 (2015), DOI: 10.1063/1.4914912.
3. Horatiu Teodorescu-Draghicescu, Sorin Vlase, Mariana Domnica Stanciu, Ioan Curtu, Mircea Mihalcica, Advanced Pultruded Glass Fibers-Reinforced Isophtalic Polyester Resin. Materiale Plastice 52 (1), 2015, p. 62-64.
4. Scutaru,L., Teodorescu-Draghicescu, H.,Vlase, S., JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 17,IS 3-4,2015.
5. Heitz, T., Teodorescu-Draghicescu, H., Lache, S., Chiru, A., Vlase, S., Calin, M. R., Advanced T700/ XB3585 UD carbon fibers-reinforced composite. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 16,IS 5-6,p.568-573, 2014.
6. Radu, I. S., Vlase, S., Calin, M. R., Developing shape-memory materials using fast acting cyclic stresses for memory stabilizing. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 8, IS 3-4, p.251-254, 2014.
7. Vlase, S., EIGENVALUES AND EIGENMODES OF AN INCLINED HOMOGENEOUS TRUSS IN A ROTATIONAL FIELD. ROMANIAN JOURNAL OF PHYSICS, VL 59, IS 7-8, p. 699-714, 2014.
8. Vlase, S., Danasel, C., Scutaru, M. L., Mihalcica, M., FINITE ELEMENT ANALYSIS OF A TWO-DIMENSIONAL LINEAR ELASTIC SYSTEMS WITH A PLANE "RIGID MOTION". ROMANIAN JOURNAL OF PHYSICS, VL 59, IS 5-6, p. 476-487, 2014.
9. Vlase, S., Purcarea, R., Teodorescu-Draghicescu, H., Calin, M. R., Szava, I., Mihalcica, M., Behavior of a new Heliopol/Stratimat300 composite laminate. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 7, IS 7-8, p.569-572, 2013.
10. Modrea, A., Vlase, S., Teodorescu-Draghicescu, H., Mihalcica, M., Calin, M. R., Astalos, C., Properties of advanced new materials used in automotive engineering. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 7, IS 5-6, p. 452-455, 2013.

11. Modrea, A., Vlase, S., Calin, M. R., Peterlicean, A., The influence of dimensional and structural shifts of the elastic constant values in cylinder fiber composites. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 15, IS 3-4, p. 278-283, 2013.

12. Vlase, S., Teodorescu, P. P., ELASTO-DYNAMICS OF A SOLID WITH A GENERAL "RIGID" MOTION USING FEM MODEL. PART I. THEORETICAL APPROACH. ROMANIAN JOURNAL OF PHYSICS, VL 58, IS 7-8, p. 872-881, 2013.

13. Vlase, S., Teodorescu, P. P., Itu, C., Scutaru, M. L., 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. VL 58, IS 7-8, p. 882-892, 2013.

14. Vlase, S., Teodorescu-Draghicescu, H., Calin, M. R., Scutaru, M. L., Advanced Polylite composite laminate material behavior to tensile stress on weft direction. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 14, IS 7-8, p. 658-663, 2012.

15. Calin, M. R., Calin, M. A., Vlase, S., Radulescu, I., Advanced materials in experimental equipments for absolute measurement of X and gamma-ray exposure rate with free-air and cavity ionization chambers. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 14, IS 3-4, p. 282-286, 2012.

16. Stanciu, A., Teodorescu-Draghicescu, H., Vlase, S., Scutaru, M. L., Calin, M. R., Mechanical behavior of CSM450 and RT800 laminates subjected to four-point bend tests. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 6, IS 3-4, p. 495-497, 2012.

17. Scutaru, Maria Luminita, Vlase, Sorin, Some Properties of Motion Equations Describing the Nonlinear Dynamical Response of a Multibody System with Flexible Elements. JOURNAL OF APPLIED MATHEMATICS, AR 628503, DI 10.1155/2012/628503, 2012.

18. Vlase, S, DYNAMICAL RESPONSE OF A MULTIBODY SYSTEM WITH FLEXIBLE ELEMENTS WITH A GENERAL THREE-DIMENSIONAL MOTION. ROMANIAN JOURNAL OF PHYSICS, VL 57, IS 3-4, p. 676- 693, 2012.

19. Niculita, C., Vlase, S., Bencze, A., Mihalcica, M., Calin, M. R., Serbina, L., Optimum stacking in a multi-ply laminate used for the skin of adaptive wings. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 5, IS 11, p. 1233-1236, 2011.

20. Calin, M. R., Calin, M. A., Vlase, S., Radulescu, I., Simion, C. A., Advanced materials and technologies for high-pressure krypton detectors in industrial use. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 13, IS 9-10, p. 1181-1184, 2011.

21. Katouzian, M., Vlase, S., Calin, M. R., Experimental procedures to determine the viscoelastic parameters of laminated composites. JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, VL 13, IS 9-10, p. 1185-1188, 2011.

22. Teodorescu-Draghicescu, H., Stanciu, A., Vlase, S., Scutaru, L., Calin, M. R., Serbina, L., Finite element method analysis of some fibre-reinforced composite laminates. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 5, IS 7, p. 782-785, 2011.

23. Teodorescu-Draghicescu, H., Vlase, S., Scutaru, L., Serbina, L., Calin, M. R., Hysteresis effect in a three-phase polymer matrix composite subjected to static cyclic loadings. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 5, IS 3-4, p. 273-277, 2011.

24. Vlase, S., Teodorescu-Draghicescu, H., Motoc, D. L., Scutaru, M. L., Serbina, L., Calin, M. R., Behavior of multiphase fiber-reinforced polymers under short time cyclic loading. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 5, IS 3-4, p. 419-423, 2011.

25. Vlase, S., Teodorescu-Draghicescu, H., Calin, M. R., Serbina, L., Simulation of the elastic properties of some fibre-reinforced composite laminates under off-axis loading system. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 5, IS 3-4, p. 424-429, 2011.

26. Teodorescu-Draghicescu, Horatiu, Vlase, Sorin, Homogenization and averaging methods to predict elastic properties of pre-impregnated composite materials. COMPUTATIONAL MATERIALS SCIENCE, VL 50, IS 4, p. 1310-1314, DI 10.1016/j.commatsci.2010.04.040, 2011.

27. Vlase, S., METHOD OF ELIMINATING LAGRANGIAN MULTIPLIERS FROM THE EQUATION OF MOTION OF INTERCONNECTED MECHANICAL SYSTEM. Journal of Applied Mechanics, Transactions ASME 54 (1), pp. 235-237, 1987.

28. Vlase, S., Discussion: "A Method of Eliminating Lagrangian Multipliers from the Equation of Motion of Interconnected Mechanical Systems". J. Appl. Mech. -- March 1988 -- Volume 55, Issue 1, 250 (2 pages) , http://dx.doi.org/10.1115/1.3173650.

29. Vlase, S., Elimination of Lagrange multipliers. Mechanics Research Communications 14 (1), pp. 17-22, 1987.

IV. a.Papers published in international proceedings (53)
IV.b.Papers published to international conferences(55)
IV.c. Papers in romanian 133 (40+93)
Journals, Universities journals, Journal of Romanian Academy(40):
National conferences (93):

PROJECTS AND GRANTS

NATIONAL GRANTS (55) (selections):

1. Title: **Modeling and Simulation of Mechanical Behavior, using FEA, of the Composite Materials to Identify the Elastics/Viscoelastic properties.**
   Number of project: CEEX MODULUL I 42/2005. Director: **VLASE SORIN**

2. Title: **Modern Results and Tendencies in the Mechanics of Polymeric Composite reinforced with Fibres**

Number of project: CEEX Modulul III, 35/2006, Director: **VLASE SORIN**
3. Title: **Nonlinear Analysis, Experimental Analysis and Optimal Control of the Multibody Systems with Elastic Elements, with Application in Mechanical Engineering – ADEL**
   Number of project: CEEX MODULUL I, 61/2006. Director: **VLASE SORIN**
4. Title: **Virtual Analysis of the Multibody Systems with Applications in Automotive Engineering**
   Number of project: 930/2007, CNCSIS, Tip A, 2007. Director: **VLASE SORIN**
5. Title contract: **Promoting the Interdisciplinarity Research in the Field of the Multibody Systems in the frame of FP7- CISEM.**
   Number of project: 12555/2006, CEEX Modulul III, Director: **VLASE SORIN**
6. Title: **White Noise in Urban Enviroment**
   Number of project :4165AK/2007, Director **VLASE SORIN**
7. Title: **Dezvoltare laborator interdisciplinar pentru modelarea si   identificarea mecanica a materialelor compozite multifunctionale avansate- COMLAB.O2.1.**
   Number of project: **IMPACT 784-iunie 2007,** Director: **VLASE SORIN**
8. Title: **Cresterea fiabilitatii rulmentilor utilizati in industria autovehiculelor. AUTORUL. O1.1.**
   Number of project: **IMPACT-1358/2008 –** sesiunea iunie 2008,   Director: **VLASE SORIN**
9. Title: **The 2nd Advanced Composite Materials Engineering - COMAT2008.**
   Number of project: 710/2008 – MCT, Director: **VLASE SORIN**
10. Title: **Noise Map for the City Targu-Mures**. Director: **VLASE SORIN**

INTERNATIONAL GRANTS

1. NATO-EV: CPB.EAP.EV.982300/21/ 2006. FINITE ELEMENT ANALYSIS OF FIBROUS COMPOZITE MATERIALS
   Director: **VLASE SORIN**