

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Sorin VLASE**
 Address(es) 30, Castelului Street, 500014, Brasov, ROMANIA
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 Fax(es) +40 268 418992
 E-mail svlase@unitbv.ro; svlase@yahoo.com
 Nationality Romanian
 Date of birth 10.07.1952
 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 Factory 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- 2020, 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 2015 Habilitare in domeniul INGINERIE MECANICA la Universitatea din Pitesti
 1989 PhD Thesis, Transilvania University of Brasov;
 1977-1982 Licence in mathematics, Faculty of Mathematics and Informatics, University of Bucharest;
 1971-1976 MSc, domain Mechanical Engineering (Automotive Engineering), Faculty of Mechanical Engineering, Transilvania University of Brasov.
 1967-1971, High School **Andrei Saguna** Brasov

Title of qualification awarded B.Sc., M.Sc., PhD



Principal subjects/occupational skills covered
 Name and type of organisation providing education and training
 Level in national or international classification

Mechanics, Computational Mechanics, Finite Element Method, Vibrations, Multibody Systems

Transilvania University of Brasov

Domain Mechanical Engineering at Transilvania University: Category A (best)

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment

European level (*)

Language

Language

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	

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences

Organisational skills and competences

Organiser of ten international conferences, participation in the scientific and organising 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

Principal investigator in more than 15 scientific projects. Member in more than 50 scientific projects.

Technical skills and competences

Mechanics, Computational Mechanics, Finite Element Method

Computer skills and competences

Using common Windows programmes at medium level, FORTRAN, Matlab, FEM programmes

Artistic skills and competences

Other skills and competences

Driving licence

B, C categories, Romania

Additional information

Annexes



VLASE SORIN

PUBLISHED WORKS

Books (21) - selection

1. Vlas, S., Finite Element Elastodynamic. Editura LUX LIBRIS, 1996.
2. Vlas, S., Mechanics. Statics/Kinematics/Dynamics Ed. INFOMARKET, 2004,2007,2005.
3. Vlas, S., Computational Mechanics. Ed. INFOMARKET, 2006. ISBN 973-8204-75-5
4. Vlas, S., s.a., Composite Materials. Computational Methods. Editura Universității TRANSILVANIA, 2007. ISBN 978-973-635-890-6.
5. Vlas, S., Teodorescu-Drăghicescu, H., Scutaru, L., ș.a., Kinematics and Dynamics. Problems. Ed. Infomarket, 2009.
6. Chiru, A., Scutaru, L., Vlas, S., Cofaru, C., Composite Materials in Automotive Engineering, TRANSILVANIA Univ. Press, 2013.
7. Vlas S., Mechanical Identifiability in Automotive Engineering. Derc Publishing House, 2015, Boston.
8. Vlas, S., Marin, M., Ochsner, A., Eigenvalues and eigenvectors in Applied Mechanics, Springer, 2018

Chapter in books (5)- selection

1. Vlas, S., Finite Element Analysis of the Planar Mechanisms: Numerical Aspects. In Applied Mechanics - 4. Elsevier, 1992, p.90-100.
2. Teodorescu H., Vlas, 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.

Editor (10)- selection

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

Didactical books (14)

Papers ISI indexed (WOS) (191)

Other papers:

Papers published in international proceedings (53)

Papers published to international conferences(55)

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 Environment**

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 COMPOSITE MATERIALS

Director: **VLASE SORIN**

LISTA LUCRĂRILOR PUBLICATE
(ordonate cronologic)

I.a. Cărți (18)

1. Vlas, S., **Elastodinamica elementelor finite**. Editura LUX LIBRIS, 1996.
2. În colectiv, **Statica. Culegere de probleme**. Ed. ELIDA, 2000.
3. În colectiv, **Cinematica, Culegere de probleme**, Ed. LUX LIBRIS, 2001.
4. Vlas, S., **Mecanica. Statica**. Ed. INFOMARKET, 2004. ISBN 973-8204-52-6
5. Vlas, S., **Mecanică computațională**. Ed. INFOMARKET, 2006. ISBN 973-8204-75-5
6. Deliu, Gh., Vlas, S., **Mecanica. Statica. Culegere de probleme**. Ed. Alabastră, Cluj, 2004. ISBN 973-650-139-6.
7. Vlas, S., **Mecanica. Dinamica**. Ed. Infomarket, 2005. 973-8204-74-7.
8. Vlas, S., s.a., **Materiale compozite. Metode de calcul**. Editura Universității TRANSILVANIA, 2007. ISBN 978-973-635-890-6.
9. Goia, I., Vlas, S., Tiorean, M., Dimitriu, St., Teodorescu, H., Pop, O., Plămădeală, R., **Culegere de probleme de rezistența materialelor**. Ed. Lux Libris, 2007. ISBN 978-973-9458-92-4.
10. Vlas, S., **Mecanica. Cinematica**. Ed. Infomarket, 2007. ISBN 978-973-8204-96-6
11. Vlas, S., **Mecanica. Statica**. Ed. a II-a, revăzută și adăugită, Ed. Infomarket, 2008. ISBN 973-973-1747-01-9.
12. **Vlas, S.**, Teodorescu, H., Purcărea, R., Modrea, A., **Mecanica materialelor compozite armate cu fibre**, Ed. Infomarket, 2008. ISBN 978-973-8204-98-0.
13. Burcă, I., Tofan, M., **Vlas, S.**, Munteanu, V., **Mecanica mișcărilor atletice**. Ed. Infomarket, 2009.
14. Scutaru, L., Teodorescu-Drăghicescu, H., Vlas, S., **Mecanica tehnică**. Ed. Infomarket, 2009.
15. **Vlas, S.**, Teodorescu-Drăghicescu, H., Scutaru, L., s.a., **Culegere de probleme de cinematică și dinamică**. Ed. Infomarket, 2009.
16. Chiru, A., Scutaru, L., **Vlas, S.**, Cofaru, C., **Materiale compozite utilizate in constructia de autovehicule**, Ed. Universității TRANSILVANIA din Brașov, 2010.
17. Burcă, I., Tofan, M., **Vlas, S.**, Munteanu, V., **Mecanica mișcărilor atletice**. Ed. Infomarket, 2013.
18. Scutaru, M.L., Chiru, A., **Vlas, S.**, Cofaru, C., Teodorescu, H., **Materiale plastice si compozite in ingineria autovehiculelor**, Editura Matrix, 2013.

I.b. Cărți în străinătate – capitole (5)

- 19 **Vlas, S.**, Finite Element Analysis of the Planar Mechanisms: Numerical Aspects. In Applied Mechanics - 4. Elsevier, 1992, p.90-100.
20. **Vlas, S.**, Munteanu, V., Scutaru, L., Kinematical Analysis of the Multibody Systems using Topological Description, DAAAM 2008, **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.
21. Teodorescu H., **Vlas, 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.
22. Szava and all, Mechanics of Composite Materials, II, Praga, 2012
23. Szava and all, Mechanics of Composite Materials, III, Capitol de 53 pag., Derc Publishing, Boston, 2013.

I.c. Editor carti(9)

24. **S. Vlas**, D. Cotoros, INTERNATIONAL WORKSHOP ON COMPUTATIONAL MECHANICS, Ed. Universității TRANSILVANIA din Brașov, 2006.
25. **S. Vlas**, I. Curtu, The 1st International Conference ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. Universității TRANSILVANIA din Brașov, 2006.
26. **S. Vlas**, S. Lache, Gh. Radu, The 2nd International Conference ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. Universității TRANSILVANIA din Brașov, 2008.

27. **S. Vlase**, A. Chiru, The 2nd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2007. Ed. Universității TRANSILVANIA, Brașov, 2007.
28. **S. Vlase**, A. Chiru, Yasushi Niitsu, The 3rd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2009. Ed. Universității TRANSILVANIA, Brașov, 2009.
29. D. Bigoni, **S. Vlase**, A. Chiru, The 3rd International Conference COMAT2010 - ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. **Infomarket**, 2010.
30. **S. Vlase**, C. Papalettere, The 3rd International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2011. Ed. Lux Libris, Brașov, 2011.
31. COMAT2012. The 4th International Conference COMAT2012 - ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. **Derc Publishing, Boston**, 2012.
32. COMEC2013. The 4th International Conference COMPUTATIONAL MECHANICS and VIRTUAL ENGINEERING, COMEC2013. Ed. **Derc Publishing, Boston**, Brașov, 2013.
33. COMAT2014. The 4th International Conference COMAT2014 - ADVANCED COMPOSITES MATERIALS ENGINEERING, Ed. **Derc Publishing, Boston**, 2014.

II. Lucrări cu caracter didactic multiplicat în reprografia Universității (14)

1. Tofan, M., Vlase, S., **Vibrațiile sistemelor mecanice**. Curs, reprografia Universității Transilvania, 1985.
2. Mosu, N., Candea, I., Vlase, S., **Mecanică. Dinamica**. Curs reprografia Universității Transilvania. 1986.
3. În colectiv, **Mecanică. Lucrări de Laborator**. Reprografia Universității Transilvania 1987.
4. În colectiv, **Statica. Culegere de probleme**. Reprografia Universității Transilvania 1988.
5. În colectiv, **Cinemática și Dinamica. Culegere de probleme**. Reprografia Universității Transilvania 1988.
6. Moșu, N., Candea, I., Vlase, I., **Mecanică. Statica**. Curs, reprografia Universității Transilvania, 1989.
7. Moșu, N., Candea, I., Vlase, I., **Mecanică. Cinematica**. Curs, reprografia Universității Transilvania, 1991.
8. Vlase, S., **Mecanică. Cinematica**. Curs, reprografia Universității Transilvania, 1993.
9. În colectiv, **Statica. Culegere de probleme**. Reprografia Universității Transilvania 1996.
10. Vlase, S., **Mecanică tehnică. IDD**, Curs pentru Inginerie Economică, reprografia Universității Transilvania, 2002.
11. Vlase, S., **Mecanică III. Dinamica**. Curs. Reprografia Universității Transilvania, 2003.
12. Vlase, S., **Mecanică. IDD**, Mecanica I, Statica, Curs pentru Autovehicule Rutiere, Învățământ cu frecvență redusă, Mecanica, reprografia Universității Transilvania, 2007.
13. Vlase, S., **Mecanică. IDD**, Mecanica II, Cinematica și Dinamica, Curs pentru Autovehicule Rutiere, Învățământ cu frecvență redusă, reprografia Universității Transilvania, 2008.
14. Vlase, S., **Mecanică**. Învățământ la Distanță, reprografia Universității Transilvania, 2008.

III. Articole in ISI Web of Science (190) Selectie

1. **Vlase, S.**, A Method of Eliminating Lagrangean Multipliers from the Equation of Motion of Interconnected Mechanical System. ASME Transaction. Journal of Applied Mechanics, Vol. 54, 1987, p.235-236.
2. **Vlase, S.**, Elimination of Lagrangean Multipliers. Mech. Research Communications, Vol. 14, 1987, p.17-20.
3. Brüller, O., Katouzian, M., **Vlase, S.**, Some results on the nonlinear viscoelastic behaviour of fiber reinforced composite. Congres - Recent Advances in Experimental Mechanics, A.A. Balkema, Barcelona., 1994, p.1025-1029, ISBN 90-5410-395-7.
4. **Vlase, S.**, Finite Element Analysis of the Planar Mechanisms: Numerical Aspects. In Applied Mechanics - 4. Elsevier, 1992, p.90-100, ISBN 1-85166-725-3.
- Heitz, T., Teodorescu-Draghicescu, H., Lache, S., Cheru, 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).
- 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).
- 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).
- Vlase, S.**, Danasel, C., Scutaru, M. L., Mihalca, 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).
- Vlase, S.**, Purcarea, R., Teodorescu-Draghicescu, H., Calin, M. R., Szava, I., Mihalca, M., Behavior of a new

Heliopol/Stratimat300 composite laminate. OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, VL 7, IS 7-8, P 569-572 (2013).

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)

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).

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, P872- 881 (2013).

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).

Motoc, Dana Luca, **Vlase, Sorin**, ASME, MICROMECHANICAL BASED SIMULATION AND EXPERIMENTAL APPROACHES IN. THE THERMAL CONDUCTIVITIES ASSESSMENT OF HYBRID POLYMERIC COMPOSITE MATERIALS. PROCEEDINGS OF THE ASME 11TH BIENNIAL CONFERENCE ON ENGINEERING SYSTEMS DESIGN AND ANALYSIS, 2012, VOL 3, P 21-26 (2013). the 11th ASME Biennial Conference on Engineering Systems Design and Analysis, (ESDA 2012), JUL 02-04, 2012, Nantes, FRANCE.

Vlase, S., Teodorescu-Draghicescu, H., Calin, M. R., Scutaru, M. L., Advanced Polylyte 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).

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).

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).

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, 628503, DI 10.1155/2012/628503 (2012).

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).

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).

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)

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).

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).

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).

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).

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).

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.commat.2010.04.040 (2011).

Teodorescu-Draghicescu, Horatiu, **Vlase, Sorin**, Motoc, Dana Luca, Rosu, Dorin, Purcarea, Ramona, Thermal Behaviour of a Thin Sandwich Composite Structure With Nonwoven Polyester Mat Core. NEW ASPECTS OF FLUID MECHANICS, HEAT TRANSFER AND ENVIRONMENT, 8th International Conference on Fluid Mechanics and Aerodynamics/8th IASME/WSEAS International Conference on Heat Transfer, Thermal Engineering and Environment (2010).

Teodorescu-Draghicescu, Horatiu, **Vlase, Sorin**, Chiru, Anghel, Scutaru, Maria Luminita Popa, Ionatan, On the Elastic Properties of Some Fibre-Reinforced Composite Structures. ADVANCES IN MANUFACTURING ENGINEERING, QUALITY AND PRODUCTION SYSTEMS, VOL II, Mathematics and Computers in Science and Engineering, P 445-448 (2009).

Teodorescu-Draghicescu, Horatiu, **Vlase, Sorin**, Chiru, Anghel, Purcarea, Ramona, Munteanu, Violeta, Theoretical and Experimental Approaches Regarding the Stiffness Increase of Fibre-Reinforced Composite Structures. ADVANCES IN MANUFACTURING ENGINEERING, QUALITY AND PRODUCTION SYSTEMS, VOL II, Mathematics and Computers in Science and Engineering, P 449-452 (2009).

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VI. Teza de doctorat

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