

Project ON 144002 -Theoretical and Applied Mechanics of the Rigid and Solid Bodies. Mechanics of Materials (2006-2010)

Projekt ON144002 Teorijska i primenjena mehanika krutih i čvrstih tela. Mehanika materijala.

Support: *Ministry of Sciences and Environmental Protection of Republic of Serbia*

Institution Coordinator: *Mathematical Institute Serbian Academy of Sciences and Arts.*

Project Leader: *Katica (Stevanović) Hedrih*

Researchers: 37.

Researcher months: *approximately 162 months.* (by contract)

Report – Research Results in 2006.

I. Radovi u časopisima sa visokim impact faktorom - Publikovani

[1] Hedrih (Stevanović) K., (2006), *Transversal Vibration of a Parametrically Excited Beam: Influence of Rotatory Inertia and Transverse Shear on Stochastic Stability of Deformable Forms and Processes*, ©Freund Publishing House Ltd. *International Journal of Nonlinear Sciences and Numerical Simulation*, 7(1), 117-124, 2006. **Impact Factor 2,345 . (u 2005, vidi KOBSON) ***
(Vidi prilog) ISSN 1565-1339

[2] Hedrih (Stevanović) K., (2006), *Transversal Vibrations of Double-Plate Systems*, *Acta Mechanica Sinica*, Springer, (2006) 22, pp. 487-501 (hard cover and on line).

[3] Hedrih (Stevanović) K., Vukota Babović, Dragan Šarković, (2006), An auxiliary size distribution model for the ultrasonically produced water droplets, *Experimental Thermal and Fluid Science*, Elsevier, Volume 30, Issue 6, June 2006, Pages 559-564
<http://www.elsevier.com/locate/etfs> **R51**

[4] Hedrih (Stevanović) K., (2006), *Modes of the Homogeneous Chain Dynamics*, *Signal Processing*, Elsevier, 86(2006), 2678-2702.. ISSN: 0165-1684 www.sciencedirect.com/science/journal/01651684

[5] Maksimović, S., Zeljković, V., Ugrčić, M., "On Multilevel Optimization Method with Applications on Aircraft Landing Gears", *WSEAS-Transactions on applied and theoretical mechanics*, Volume Issue 2, Vol No1, 2006.

[6] D. Marinkovic, H. Köppe, U. Gabbert: "Numerically efficient finite element formulation for modeling active composite laminates", *Mechanics of Advanced Materials and Structures*, Volume 13, Number 5, pp. 379 - 392, 2006.

Rad je dostupan na sledecem linku:

[http://journalonline.tandf.co.uk/\(Oh325355ehze2hqg2zwwkrgra\)/app/home/contribution.asp?referrer=parent&backto=issue.4.8;journal.3.26;searcharticlesresult.16.39](http://journalonline.tandf.co.uk/(Oh325355ehze2hqg2zwwkrgra)/app/home/contribution.asp?referrer=parent&backto=issue.4.8;journal.3.26;searcharticlesresult.16.39);

Impact factor casopisa u 2005. je bio 1.093, a neka od rangiranja casopisa se mogu videti na sledecem linku:

<http://www.tandf.co.uk/journals/titles/15376494.html>

[7] Vujičić A. Veljko, Modification of the characteristic gravitational constants, *Astronomical and Astrophysical Transactions*, Vol. 25. NO.4, 2006. . **1**

[8] Knezevic-Miljanovic Julka : Asymptotic property of differential equations, *Differential equations (Differentsial'nye Uravneniya)* Vol 41, N 1, 2006, 139-140., ISSN 0012-2661 UDK 517,927.3.

[9] R. Selmic, P. Cvetkovic, R. Mijailovic and G. Kastratovic, Optimum Dimensions of Triangular Cross-Section in Lattice Structures, *Meccanica* (2006) 41:391-406.

[10] Radovanović M., Some Possibilities for Determining Cutting Data when Using Laser Cutting, *Strojniški vestnik, Journal of Mechanical Engineering*, Volume 52, Number 10, ISSN 0039-2480, Ljubljana, Slovenia, 2006, pp. 645-652

II. Radovi u časopisima sa visokim impact faktorom - prihvaćeni za štampu

[1] Hedrih (Stevanović), K., (2006), *Double plate system with discontinuity in the elastic layer*, *Acta Mechanica Sinica*, Springer (accepted)

[2] Hedrih (Stevanović), K., (2006), *Energy analysis in the nonlinear hybrid system containing linear and nonlinear subsystem coupled by hereditary element*, *Nonlinear Dynamics*, Springer, (accepted)

[3] Hedrih (Stevanović), K., (2006), *Transversal vibrations of the axially moving sandwich belts*, *Archive of Applied Mechanics*, Springer, (accepted)

[4] Hedrih (Stevanović), K., (2006), *Dynamics of coupled systems*, *Nonlinear Analysis: Hybrid Systems and Applications*, Elsevier (Invited and accepted)

[5] Hedrih (Stevanović), K., (2006), *Vibration modes of an axially moving double belt system with creep layer*, *Journal Vibration and Control*, Sage Publishing, (<http://www.sagepub.com/journal.aspx?pid=258>). (Invited and accepted)

[6] Hedrih (Stevanović), K., (2006), *Energy interaction between linear and nonlinear oscillators (Energy transient through the subsystems in the hybrid system)*, *Ukrainskii Matematicheskii Zhurnal*, (accepted)

[7] Gabbert U., Nestorović T., Wuchatsch J.: *Methods and possibilities of a virtual design for actively controlled smart systems*, International Journal Computers & Structures, Special Issue SMART05 (accepted, in print)

[8] Nestorović Trajkov T., Köppe H., Gabbert U.: Direct model reference adaptive control (MRAC) design and simulation for the vibration suppression of piezoelectric smart structures, Journal Communications in Nonlinear Science and Numerical Simulation (<http://ees.elsevier.com/cnsns/>) (accepted, in print)

[9] Marinković D., Köppe H., Gabbert U.: “**Accurate modeling of the electric field within piezoelectric layers for active composite structures**”, accepted for publishing in “Journal of Intelligent Material Systems and Structures”, 2006

[10] Knezevic-Miljanovic Julka, Vertikalnwe asimptotw re[enij uravneni] >mdena-Faulera, Differentialnwe uravneni], 2007 (primljeno za štampu)

III. Radovi u časopisima sa liste Ministarstva za nauku i zaštitu životne sredine Republike Srbije

[1] Hedrih (Stevanović), K., (2006), THE FREQUENCY EQUATION THEOREMS OF SMALL OSCILLATIONS OF A HYBRID SYSTEM CONTAINING COUPLED DISCRETE AND CONTINUOUS SUBSYSTEMS, FACTA UNIVERSITATIS Series: Mechanics, Automatic Control and Robotics, Vol.5, No 1, 2006 pp. 25 - 41 UDC 534.1:534.012:534.013:

[2] Veljko A. Vujičić, THE ACTION OF FORCE AND COUNTERACTION PRINCIPLE, FACTA UNIVERSITATIS Series: Mechanics, Automatic Control and Robotics, Vol.5, No 1, 2006, pp. 59 – 70. UDC 531.011:531.31

[3] Milutin Marjanov, MOTION OF THE BODY IN AN INHOMOGENEOUS GRAVITATIONAL FIELD, FACTA UNIVERSITATIS Series: Mechanics, Automatic Control and Robotics, Vol.5, No 1, 2006, pp. 79 – 89, UDC 51:550.312:629.

[4] Tamara Nestorović Trajkov, Falko Seeger, Heinz Köppe, Ulrich Gabbert OPTIMAL LQ CONTROLLER WITH ADDITIONAL DYNAMICS FOR THE ACTIVE VIBRATION SUPPRESSION OF A CAR ROOF, FACTA UNIVERSITATIS Series: Mechanics, Automatic Control and Robotics, Vol.5, No 1, 2006, pp. 117 – 129. UDC 62-52

[5] Marinko Ugrčić, Stevan Maksimović, Zijah Burzić, From *Scientific Technical Review*- The 16th European Conference on Fracture, FACTA UNIVERSITATIS Series: Mechanics, Automatic Control and Robotics, Vol.5, No 1, 2006., UDC: 531:061.3(047)=20 COSATI: 20-04, 05-02

[6] **D. Mikičić**, B.Radičević, Ž. Đurišić, "Wind Energy potential in the World and Serbia and Montenegro", FACTA UNIVERSITATIS-Series: Electronics and Energetics, Vol. 19, N°1, April 2006., ISSN: 0353-3670, pp.(47-61).

[7] Knezevic-Miljanovic Julka, Ka-estvennwe svojstva uravneni] >mdena – Faulera, Matematički vesnik, (primljeno za štampu, za 2006 god)

[8] Ugrčić, M., "Destroying Probability of Armoured Targets by Firing the Infantry Antitank Rocket Weapons", Scientific Technical Review, Vol. LIV, Num. 3, Belgrade, 2006. (treba da bude štampan u broju 3 za 2006.)

[9] Knezevic-Miljanovic Julka, Vertikalnyie asimptoti reshenij uravneniy >mdena-Faulera, Differentialnyie uravneni]ya 2007 (primljeno za štampu)

IV. Poglavlja u monografijama međunarodnog značaja u 2005. i 2006:

(nisu ocenjivane u 2005)

A. 1. The Publications are listed under 2005. but was published at end of 2005. or in beginning of 2006.

[1] Hedrih (Stevanović) K., (2005), Partial Fractional Order Differential Equations of Transversal Vibrations of Creep-connected Double Plate Systems, in Monograph - Fractional Differentiation and its Applications, Edited by Alain Le Mahaute, J. A. Tenreiro Machado, Jean Claude Trigeassou and Jocelyn Sabatier, **U-Book**, pp. 289-302.

[2] Hedrih (Stevanović) K., (2005), *Nonlinear Dynamics of a Heavy Material Particle Along Circle which Rotates and Optimal Control*, **Chaotic Dynamics and Control of Systems and Processes in Mechanics** (Eds: G. Rega, and F. Vestroni), p. 37-45. IUTAM Book, in **Series Solid Mechanics and Its Applications, Edited by G.M.L. Gladwell, Springer**,. 2005, XXVI, 504 p., Hardcover ISBN: 1-4020-3267-6.

[3] Hedrih (Stevanović) K., (2005), *Homoclinic Orbits Layering in the Coupled Rotor Nonlinear Dynamics and Chaotic Clock Models*, SM17 – Multibody Dynamics (M. Geraldin and F. Pfeiffer), p. Lxiii – CD - SM10624, Mechanics of the 21st Century (21st **ICTAM**, Warsaw 2004) - CD ROM INCLUDED, edited by Witold Gutkowski and Tomasz A. Kowalewski, IUTAM, **Springer 2005**, ISBN 1-4020-3456-3, Hardcover., p. 421+CD. ISBN-13 978-1-4020-3456-5 (HB), ISBN-10 1-4020-3559-4(e-book), ISBN-13-978-1-4020-3559-3

[4] Nestorović Trajkov T., Köppe H., Gabbert U.: *Vibration control of a funnel-shaped shell structure with distributed piezoelectric actuators and sensors*, Smart Materials and Structures, **15**, pp. 1119-1132, doi:10.1088/0964-1726/15/4/026, <http://www.iop.org/EJ/abstract/0964-1726/15/4/026/>

A.2. Monograph: Fracture of Nano and Engineering Materials and Structures (p. 1416), Edited by E.E.Gdoutos, **Springer 2006**. p. 1416,

[1] Hedrih (Stevanović), K., (2006), *Measurements of Dynamical System Integrity and Fracture Mechanics*, Invited Key Lecture in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 793-794, plus CD- Full paper 1-15. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[2] Ugrčić Marinko, (2006), *Clock Mechanism as Base of Artillery Safety and Arming Devices*, Invited Lecture in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 799-800, plus CD Full paper. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[3] Atanasovska I. and Nikolić-Stanojević V., (2006), Influence of addendum modification Coefficient of the Gear's Load Capacity, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 787-788, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[4] Maksimović K., Maksimović S., and Nikolić-Stanojević V., (2006), Modeling of the Surface Cracks and Fatigue Life Estimation, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 795-796, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[5] Nikolić R. and Veljković J.M., (2006), *Some Aspects Dynamics Interfacial Cracks Growth*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 807-808, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[6] Mitić S., (2006), *On stability of problems of periodic impact motions*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp.809-810, plus CD Full paper. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[7] Trajković M., Šumarac D., Mijalkovic M., Structural via subspace identification method, amage detection, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp.797-798, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

A.3. Publikacija međunarodnog značaja:

[1] Booklet of Abstracts - *Minisymposium - Integrity of Dynamical Systems- ECF16*, Edited by Katica (Stevanović) Hedrih, invited organizer of Minisymposia *IDS-ECF - the 16th European Conference of Fracture*, Greece 2006, Centre for Nonlinear Dynamics and Active Structures, Faculty of Mechanical Engineering University of Niš and Democritus University of Thrace, Xanthi, Greece, 2006. p. 324. ISBN 86-80587-57-5. BarCod 9 788680 587578. COBIS. SR - ID 130756620. UDK 531:01 /048); 530:182(048); 530:42 (048); 53:005.745 (100)

V. Monografije nacionalnog značaja:

- [1] Mitić S., (2006), *Vibroudarni sistemi (Vibroimpact systems)*, Fakultet zaštite na radu, Niš, p. 250. (in Serbian)
- [2] Drašković Z., *On the invariance in Mechanics*, Posebna izdanja 22. Matematički institut SANU, 2005, p- 95., ISBN86-80593-38č9.
- [3] R. Selmic, P. Cvetkovic, R. Mijailovic, (2006), *Optimizacija poprečnih preseka metalnih konstrukcija*, monografija, Saobraćajni fakultet Univerziteta u Beogradu (finansiralo Ministarstvo nauke i zaštite životne sredine Republike Srbije).

VI. Nije ocenjavano u 2005.

[1] Nestorović-Trajkov T., Köppe H., Gabbert U.: *Active Vibration Control Using Optimal LQ Tracking System with Additional Dynamics*, International Journal of Control, Vol. 78, No. 15, 15 October 2005, pp. 1182–1197, ISSN 0020–7179 print/ISSN 1366–5820, DOI: 10.1080/00207170500163383

[http://taylorandfrancis.metapress.com/\(wje2a155kuxotz55ce3ysb55\)/app/home/contribution.asp?referrer=parent&backto=issue.4.8;journal.3.158;linkingpublicationresults.1:100662.1](http://taylorandfrancis.metapress.com/(wje2a155kuxotz55ce3ysb55)/app/home/contribution.asp?referrer=parent&backto=issue.4.8;journal.3.158;linkingpublicationresults.1:100662.1)

[2] Gabbert U., Nestorović-Trajkov T., Köppe H.: *Controller Design and Implementation for Active Vibration Suppression of a Piezoelectric Smart Shell Structure*, Journal of Theoretical and Applied Mechanics (until 1997 – Mechanika Teoretyczna i Stosowana, ISSN 0079-3701), Control in Mechanics, No. 3, Vol. 43, Warsaw 2005, pp. 487-500, ISSN 1429-2955, Indeks 365238, http://www.ptmts.org.pl/ptmts_pl/kwartalnik.htm, http://www.ippt.gov.pl/%7Ewnowacki/koisar_1.htm

[3] Nestorović T., Köppe H., Gabbert U.: *Transfer Function and the State Space Model Identification of a Funnel Shaped Piezoelectric Structure for the Controller Design Purposes*, GAMM 2005, 28.03–01.04 2005, Luxembourg, PAMM · Proc. Appl. Math. Mech. 5, 509–510 (2005) / DOI 10.1002/pamm.200510231 <http://www3.interscience.wiley.com/cgi-bin/abstract/112217827/ABSTRACT>

[4] Veljko A. Vujičić, *On a generalization of Kepler's third law*, *Astronomical and Astrophysical Transaction*, Vol 24, No. 6. December 2005, 489-495; Teylor & Francis.

VII. Doktorske disertacije

[1] Nestorović T. *Controller Design for the Vibration Suppression of Smart Structures (Ph.D. thesis)*, Fortschritt-Berichte VDI Reihe 8, Nr. 1071, Düsseldorf: **VDI Verlag** 2005, ISSN 0178-9546, ISBN 3-18-507108-5, http://www.vdi-nachrichten.com/onlineshops/buchshop/literaturshop/langanzeige.asp?vr_id=7095

[2] Marinković Z. Dragan, „**A new finite composite shell element for modeling and simulation of piezoelectric active structures**”, doktorska disertacija, Otto-von-Guericke Universität at Magdeburg, Magdeburg, disertacija odbranjena decembar 2006.

VIII. Publikovana predavanja, apstrakti i predavanja po pozivu, kao i saopštenja na međunarodnim skupovima u 2006. u organizaciji

- * Evropskog društva za mehaniku (EUROMECH),
- * IFAC (Internacionalne federacija za automatsko upravljanje),
- * IFNA (Internacionalne federacije nelinearnih analizista) i Elsevier-a J. NA,
- * Tensor Society (Međunaridnog Tenzor društva),
- * ESIS-a (Evropsko društvo za integritet konstrukcija) kao i prestižnog
- * Kharkovskog Univerziteta (osnovan 1885) na kojem je radio A.M.Ljapunov. i drugih

[1] Hedrih (Stevanović), K. (2006), *Dynamics of coupled systems*, The International Conference of Hybrid Systems and Applications, date: May 22-26, 2006, Place: The University of Louisiana, Lafayette, LA, USA, 45 minutno predavanje po pozivu predsednika IFNE i predsednika naucnog odbora konferencije. Organizator IFNA i Elsevier-Journal Nonlinear Analysis.

[2] Hedrih (Stevanović), K. i Simonović J., (2006), *Free Transversal vibrations of double circular plate system*, The Sixth European Solid Mechanics Conference ESMC Budapest 2006. EuroMech Main Conference.

[3] Hedrih (Stevanović), K. (2006), *Transversal forced vibration of an axially moving sandwich double belt system*, The Sixth European Solid Mechanics Conference ESMC Budapest 2006. EuroMech Main Conference., prededava u zasedanju sekcije Multibody Dynanucs.

[4] Hedrih (Stevanović), K. (2006), *Transversal vibrations of the axially moving sandwich double belt system with creep layer*, 2nd Workshop on Fractional Calculus and Its Applications – IFAC FDA 2006. 19 - 21 July, 2006, Porto, Portugal, <http://www.gecad.isep.ipp.pt/FDA06/> predsedavlja jednim zasedanje sekcije.

[5] Hedrih (Stevanović), K. (2006), DYNAMICS OF THE AXIALLY MOVING SANDWICH MULTI BELT SYSTEM, International Conference "Actual Problems of Applied Mathematics and Mechanics", devoted 80-anniversary from birthday Ac. Rvachev V.L, on October 23-26,2006 in Kharkov., Član naučnog odbora konferencije i sa radom.

[6] Hedrih (Stevanović), K. (2006), TENSOR EQUATIONS OF THE DYNAMICS OF THE DISCRETE SYSTEMS WITH HEREDITARY AND CREEP LIGHT ELEMENTS, 9th International Conf. of TENSOR 2006., THE 9th INTERNATIONAL CONFERENCE OF TENSOR SOCIETY ON DIFFERENTIAL GEOMETRY, FUNCTIONAL&COMPLEX, INFORMATICS AND THEIR APPLICATIONS, Japan, Sept. 4-8, 2006. Tensor Society. 30.minutno predavanje po pozivu.

[7] Hedrih (Stevanović), K., (2006), *Measurements of Dynamical System Integrity and Fracture Mechanics*, Invited Key Lecture in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp. 793-794, plus CD- Full paper 1-15. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[8] Ugrčić Marinko, (2006), *Clock Mechanism as Base of Artillery Safety and Arming Devices*, Invited Lectute in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp. 799-800, plus CD Full paper. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[9] Atanasovska I. and Nikolić-Stanojević V., (2006), Influence of addendum modification Coefficient of the Gear's Load Capacity, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp. 787-788, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[10] Maksimović K., Maksimović S., and Nikolić-Stanojević V., (2006), Modeling of the Surface Cracks and Fatigue Life Estimation, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp. 795-796, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[11] Nikolić R. and Veljković J.M, (2006), *Some Aspects Dynamics Interfacial Cracks Growth*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp. 807-808, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[12] Mitić S., (2006), *On stability of problems of periodic impact motions*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), Springer 2006, pp.809-810, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[13] Trajković M., Šumarac D., Mijalkovic M., Structural via subspace identification method, amage detection, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th

European Conference of Fracture (p. 1416), *Springer 2006*, pp.797-798, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[14] Hedrih (Stevanović) K. and Simonović, J., (2006), *Characteristic Eigen Numbers and Frequencies of the Transversal Vibrations of Sandwich System*, SEECCM 06 –First South-East European Conference on Computational Mechanics, Proceedings, Editors – M. Kojic and M Papadrakakis, Kragujevac, pp. 90-94. + CD. <http://www.seeccn.kg.ac.yu>. ISBN 86-81037-13-7, COBISS.SR-ID 131758092, udc 531/533(082)

[15] Ugrčić, M., Dimitrijević, D. (2006), *Kill Probability of Armoured Targets by Firing the Airborne Antitank Warfare Systems*, 1st Conference NACORT, National Committee of Range Testing, Air Range Testing centre, Chandipur, INDIA, 2006.

[16] Gabbert U., Nestorović T., Wuchatsch J.: *Virtual designing of actively controlled machines*, 8. IFF Wissenschaftstage, Virtual Reality und Augmented Reality zum Planen, Testen und Betreiben technischer Systeme, Tagungsband (8th IFF Science Days, Virtual Reality and Augmented Reality for Planning, Testing and Operating Technical Systems, Proceedings), 22–24 June 2005, Magdeburg, Fraunhofer-Institut für Fabrikbetrieb und -automatisierung IFF, pp. 29-38, ISBN 3-8167-6849-0

[17] Ulrich Gabbert, Heinz Koepe, Jean Lefevre, Dragan Marinkovic, Tamara Nestorovic: "**Overall computational design of smart composite lightweight structures for vibration and noise control**", 7th World Congress on Computation Mechanics, Los Angeles, California, june, 2006.

[18] Nestorović Trajkov T., Gabbert U.: Overall virtual design and testing of adaptive mechatronic systems (Ganzheitliche virtuelle Entwicklung und Testung adaptiver mechatronischer Systeme) Konferenz "Mechatronische Systeme - Entwurf, Anwendungen und Perspektiven", organisiert im Rahmen des TEMPUS-Projektes "Restrukturierung und Einführung der Mechatronik an den Universitäten in Serbien", 27.-28. September 2006, Niš (Proceedings in print)

[19] Laugwitz F., Lefèvre J., Schmidt G., Nestorović T., Gabbert U.: Experimental and numerical investigation of a smart acoustic box, ISMA2006 International Conference on Noise and Vibration Engineering, September 18-20, 2006, Katholieke Universiteit Leuven, Belgium

[20] Gabbert, U.; Koepe, H.; Lefèvre, J.; Marinković, D.; Nestorović, T.: *Overall computational design of smart composite lightweight structures for vibration and noise control*, 7th World Congress on Computational Mechanics, WCCM VII-2006, Los Angeles, California July 16 - 22, 2006

[21] Nestorović Trajkov T., Köppe H., Gabbert U.: A direct model reference adaptive control system design and simulation for the vibration suppression of a piezoelectric smart structure, International Conference on Nonlinear Science and Complexity, August 7 - 12, 2006, Beijing, China (Proceedings in print)

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[9] Knezevic-Miljanovic Julka, *Asymptotic property of differential equations*, *Internacional Conference Tikhonov and Contemporary Mathematics, Moskva*, 19-25.06.2006. *stamoan program i izlagala sam, organizator : MGU i RAS*

[9] Knezevic-Miljanovic Julka, *naziv saopštenja??????????*, *International Congress of mathematicians, Madrid*, 22-30.06.2006., *stampan abstrakt, program i izlagala sam, organizator: Evrpska i svetska unija matematicara*

XI. Apstrakti i predavanja po pozivu, kao i saopštenja na domaćim skupovima

[1] Katica R. (Stevanović) Hedrih, DYNAMICS OF SANDWICH STRUCTURES (DINAMIKA SENDVIČ STRUKTURA), Invited Plenary Lecture, Medjunarodne konferencije Savremeni problemi u građevinarstvu - Current Problems in Civil Engineering, Građevinski fakultet u Subotici, Univerzitetu u Novom Sadu, 2 i 3. jun 2006. Abstracts and CD Full paper.

[2] Veljko Vujičić, MODIFIKACIJE GEOCENTRIČNE KONSTANTE GRAVITACIJE (THE MODIFICATION OF GEOCENTRIC GRAVITATION CONSTANT), Invited Lecture, Medjunarodne konferencije Savremeni problemi u građevinarstvu - Current Problems in Civil Engineering, Građevinski fakultet u Subotici, Univerzitetu u Novom Sadu, 2 i 3. jun 2006. Abstracts and CD Full paper. 15. EII,5

[3] Katica R. (Stevanović) Hedrih, ENERGY OSCILLATIONS IN THE SUBSYSTEM DYNAMICS OF THE HYBRID SYSTEM (OSCILACIJE ENERGIJE U DINAMICI PODSISTEMA HIBRIDNOG SISTEMA), *To the Memory of my Professors Tatomir P. Andjelic and Danilo P. Raskovic First Heads of the Department of Mechanics at Mathematical Institute SASA*, Jubilarni seminar . '60 godina Matematičkog instituta SANU'' a 40-to minutno predavanje po pozivu, publikovan Apstrakt.

[4] Katica R. (Stevanović) Hedrih, *Theoretical and Applied Mechanics of the Rigid and Solid Bodies. Mechanics of Materials (2006-2010) (Teorijska i primenjena mehanika krutih i čvrstih tela. Mehanika materijala.)*, savremeni problemi, prikaz rezultata projekta ON144002 i Matematički institut SANU, Jubilarni seminar -'60 godina Matematičkog instituta SANU'' a 30-to minutno predavanje po pozivu, publikovan Apstrakt.

[5] Nestorović Trajkov T., Gabbert U.: *Overall virtual design and testing of adaptive mechatronic systems (Ganzheitliche virtuelle Entwicklung und Testung adaptiver mechatronischer Systeme) Konferenz "Mechatronische Systeme - Entwurf, Anwendungen und Perspektiven"*, organiziert im Rahmen des TEMPUS-Projektes "Restrukturierung und Einführung der Mechatronik an den Universitäten in Serbien", 27.-28. September 2006, Niš (Proceedings in print)

[6] Ž. Đuričić, N. Rajaković, D. Mikičić, M. Bubnjević, *Feasibility Analysis of Wind-plant in the Region of Deliblatska Peščara (Serbia)*, Zbornik radova (na CD-u), ISBN: 961-243-040-3, 6th Balcan Power Conference, Ohrid, Macedonia, June 2006.

[7] Knezevic-Miljanovic Julka, Lj. Lallovic, D. Lalovic: *Application of differential equations International Conference on Numerical and Applied mathematics ICNAM-2006, Septembar, 27-30, 2006, Kragujevac, Serbia; Conference is dedicated to Professor Bosko Jovanovic on the occassion of his 60th birthday*, <http://www.pmf.kg.ac.yu/~icnam06>, organizator:Ministarstvo nauke Srbije stampan apstrakt i program a i rad ce biti stampan

Istraživači sa projekta u 2006. godini su održali veći broj saopštenja na seminarima Odeljenja za mehaniku i odeljenja za matematiku Matematičkog instituta SANU, kao i na seminaru projekta ON144002A Nonlinear Dznamics – Milutin Milanković na Mašinskom fakultetu u Nisu, kao i na seminarima Stosastika i Filozofija i istorija matematike i mehanike u Matematičkom institutu SANU. Vidi linkove:

<http://www.masfak.ni.ac.yu/sitegenius/topic.php?id=863>

XI. a* U okviru projekta ON144002 radi seminar Nonlinear Dynamics - Milutin Milankovic na Mašinskom fakultetu. Vidi publikaciju: Booklet of Abstracts - Minisymposium - Integrity of Dynamical Systems- ECF16 ' 2006.

X. Članstvo u redakcijama časopisa, uredništvima, naučnim društvima

Project Leader Katica (Stevanović) Hedrih

Editorial of Journals:

Editor in Chief of the Following Journals:

Facta Universitatis (1990-2001)

Facta Universitatis Series Mechanics, Automatic Control and Robotics, University of Niš (1991-)

Member of Editorial Board of the Following Journal:

International Journal of Nonlinear Sciences and Numerical Simulations, Freund Publishing House LTD (from 1999-) impact factor 2,345

Facta Universitatis Series Living and Working Environmental Protection, University of Niš (2001-)

Nauka Tehnika Bezbednost (Science Technique Security), Institut bezbednosti, Beograd (2001-)

Journal of Non Linear Modelling in Science and Engineering, <http://www.demon.co.uk/cambsci/ijnms.html>

Associate Editor

Mathematical Problems in Engineering, Hindawi Publishing Corp.<http://www.hindawi.com/>

The European Union Control Association Conference Management System

Expert FP6 and FP7 (Registered)

Referee of Following Journals and Information Data-Base:

Archive of Applied Mechanics - Manuscript Central Account Info (SY-23)-Springer, (4 recenzije u 2006)

Nonlinear Dznamics , Springer više recenzija u 2006

Workshop Preprints/Proceedings No 2006-2 IFAC workshop on Fractional Differentiation and its Applications FDA 06, Porto (desetak recenzija)

The European Union Control Association (32 recenzija u 2996)

ESIS European Conference of fracture 2006 (31 recenziju u 2006)

Zentralblatt fur Mathematik und ihre Grenzgebiete Berlin (desetak recenzija u 2006)

Journals *Theoretical and Applied Mechanics*, JDM, Beograd.(1975-1997, 2003-)

Facta Universitatis Series Mechanics, Automatic Control and Robotics, University of Niš (1990-)

Facta Universitatis Series Living and Working Environmental Protection, University of Niš (1995-)

Facta Universitatis Series Mechanical Engineering, University of Niš (1993-)

Neurosciences letters, Elsevier, Journal of Sound and Vibrations, Elsevier,

European Polymer Journal,Elsevier,

FME Transaction, Faculty of Mechanical Engineering Universitz of Belgrade,

Material Letters, Elsevier,

Journal Nonlinear Analysis - Theory, Methods and Applications, Series B: Real-world Applications, Pergamon Press,

Signal Processing, Elsevier,

Scientific Societies:

American Academy of Mechanics
Member of GAMM – Germany (since 1972)
Member of Tensor Society - Japan
Member of International ASME – International American Society of Mechanical Engineers USA
Member of European Society for Mechanics – EuroMech
Member of M.C.Chaki Centre for Mathematics and Mathematical Sciences – Calcutta, India
Member of SSM'JDM
Member of SITJ
Member of JUPIM

XI. Učešće projektima SANU i NANU (Ukrajina) i u inostranim istraživačkim projektima (Nemačka)

XI.1. Projekat SANU i NANU (Ukrajina)- potpisam ugovor

Veljko A. Vujičić

Hedrih (Stevanović) Katica

Teme

* *Qualitative, analytical and asymptotical theory of differential and functional-differential equations, koji su nosioci Matematički institut NANU (Kiev) i Matematički institut SANU (Beograd) (Rukovodioci projekata sa ukrajinske strane A.M. Samolenko i O.M.Sarkovski)*

* *Investigation of periodical, asymptotical motions and oscillations of complicated mechanical systems and connected problems of chaotic regimes appearance in nonlinear systems, koji su nosioci Institut za primenjenu matematiku i mehaniku NANU (Donetsk) i Matematički institut SANU (Beograd) (Rukovodioci projekata sa ukrajinske strane A.M. Kovaljov)*

* *Forced oscillations research for hybrid mechanical systems with application to classical and celestial mechanics, koji su nosioci Institut za primenjenu matematiku i mehaniku NANU (Donetsk) i Matematički institut SANU (Beograd) (Rukovodioci projekata sa ukrajinske strane A.M. Kovaljov)*

XI.2. Projekat:

ENTWICKLUNG EINES FLEXIBLEN VIRTUAL-REALITY-OPERATIONS-SIMULATORS ZUR AUSBILDUNG UND INDIVIDUELLEN OPERATIONSPLANUNG BEIM EINSATZ IN DER LAPAROSKOPISCHEN CHIRURGIE UND VERWANDTEN FACHGEBIETEN, Institut für Mechanik, Otto-von-Guericke Universität, Magdeburg, 2006. –

Učesnici Dragan Marinković

Tamara Nestorović

XII. Subject: Citrate

* Hedrih (Stevanović) K., Filipovski A., (2002), *Longitudinal Vibration of a Fractional Derivative Order Rheological Rod with Variable Cross Section*, Facta Universitatis, Series Mechanics, Automatic Control and Robotics, Vol. 3 No. 12, 2002, pp.327-350. YU ISSN 0534-2009.
<http://facta.junis.ni.ac.yu/facta/macar/macar2002/macar2002-02.html>

* **Cited (quoted) in:**

Jakšić N., Boltežar M., (2005), *Viscously damped transverse vibrations of a moving string*, Journal of Mechanical Engineering – Strojniški vestnik, 560-569. **ISI List**

19. Hedrih (Stevanović) K.: Interpretation of the transfer of energy from high-frequency to low-frequency modes by averaging asymptotic method Krilov-Bogolybov-Mitropolsky. In.: Proc. of the Second International Conference "Asymptotics in Mechanics", pp. 97-104. Saint-Petersburg State Marine Technological University, Saint-Petersburg (1997)

20. Hedrih (Stevanović) K.: Multifrequency forced vibrations of thin elastic shells. In: CD Proc. of the Fifth EUROMECH Nonlinear Dynamics Conference, pp. 2417-2426. Eindhoven University of Technology (2005)

* **Cited (quoted) in:**

Kozmin A., Mikhlin Yu. and C. Pierre, *Transient in a two DOF nonlinear Systems*, Nonlinear Dynamics, 2006; **ISI List**.

Hedrih (Stevanović) K.: veliki broj samocitata u časopisima sa visokim impact faktorom (preko 30 u 2006).

XIII. Project Leader Katica (Stevanović) Hedrih give series of the Plenary or Invited lectures and was member of scientific Committees or Organizer of Minisymposia or invited participant as session chairman in area of Project research results at following European or international scientific meetings:

1* The 16th European Conference of Fracture – *Integrity of Dynamical Systems* Alexandroupolis Greece 2006;

2* IFNA – Elsevier Journal Nonlinear Analysis Symposia – *Hybrid Systems and Applications*, University of Louisiana, Lafayette, USA 2006;

3* The 9th International Conference on Tensor Society on *Differential Geometry, Functional and Complex Informatics and their Applications*, Sapporo, September 4-8, 2006. Hokkaido Tokai University Sapporo;

- 4* Conference *Applied Mathematics and Mechanics* KPH, Kharkov 2006;
 5* 2nd IFAC Workshop on *Fractional Differentiation and its Applications*, 19-21 July, 2006, Porto, Portugal, as well as Contributed Lectures:
 6* *EuroMech - European Solid Mechanics Conference* ESMC 2006 – Budapest Hungary;
 7* SEECM 06 – First South-East European Conference on *Computational Mechanics*, Kragujevac 2006.

XIV. Rukopisi

- [1] Hedrih (Stevanović) K., Veljović Lj., *NONLINEAR DYNAMICS OF THE HEAVY GYRO-ROTOR WITH TWO SKEW ROTATING AXES*, *Prihvaćeno za KONGRES TEORIJSKE I PRIMENJENE MEHANIKE*, Kopaonik 2007.
<http://www.ssm.org.yu/congress2007/authors.html> ssm.congress2007@sf.bg.ac.yu
- [2] Hedrih (Stevanović) K., Knežević R., *PLIVANJE SUNĀEVOG ZUPĀNIKA KAO UTICAJNI FAKTOR DINAMIKE PLANETARNOG PRENOSNIKA*, *Prihvaćeno za KONGRES TEORIJSKE I PRIMENJENE MEHANIKE*, Kopaonik 2007 .
<http://www.ssm.org.yu/congress2007/authors.html> ssm.congress2007@sf.bg.ac.yu
- [3] Ugrčić, M., Some Characteristics of Arming Process Depending on Design Parameters of SAD, 12th IFToMM World Congress, Besançon (France), June 18-21, 2007.
- [4] Hedrih (Stevanović) K., Knežević R., *Dinamika planetarnih prenosnika*
- [5] Ugrčić, M., (and others): "*Proposal of the reorganisation of the Military Technical Institute*", VTI, Belgrade, 2006. (in Serbian);
- [6] Ugrčić, M.: "*Editorial and publishing activities on the Military Technical Institute – Actual situation and future aims*", VTI-08-1234-1234567, Belgrade, 2006. (in Serbian).
- [7] Julka Knezevic-Miljanovic: On a Nonlinear Differential Equation with periodic boundary conditions, *Applied Mathematical Modelling* (predato za recenziju 2006 god)
- [8] Julka Knezevic-Miljanovic, *Ka-estvenne svojstva uravneni >mdena – Faulera*, *Matematički vesnik*, 2006 god
 YU ISSN 025-5165 UDK 517.911
- [9] Julka Knezevic-Miljanovic, Lalovic R Ljubica, Lalovic M Dragomir: *DYNAMICS OF BRAKED VEHICLE ON REAL SURFACE*, *Facta Universitatis, Series mech, Automata Control and Robotics*, (predato na recenziju)
- [10] Vujičić A. Veljko, *Kritička analiza rukopisa "O jednom opstem zakonu uzajamnog dejstva za centralne sile"*, Matematički institut SANU, Seminar za istoriju i filozofiju matematike i mehanike, Beograd, oktobar 2006, str. 45, (stampano u 30 primeraka). *(Po mojoj oceni (autora) ovo je bolje od mnogih radova u najvisim casopisima)*
- [11] Vujičić A. Veljko, *Nekotore probleme razvitiya teorii nelinejne mehaniki*. Special Issue of the Journal "*Nonlinear Dynamics and Systems Theory*" (9. april 2006)
- [12] Vujičić A. Veljko, *TENSORNOE INTEGRIROVANIE V MEHANIKE., PRIMLJENO ZA SAOPSTENJE I PUBLIKOVANJE ZA INTERNACIONALNI KONGRES NELINEARNE ANALIZE*, Saint PETERSBURG, 2007.
- [13] Vujičić A. Veljko, *Essencial'nye voprosi analiticheskoj mehaniki*; Predato i primljeno 2006., za IX Internacional Chetay Conference, Irkutsk 2007.
- [7] Vujičić A. Veljko, *Hamilton'sinverse problem*; *Zbornik radova I srpskog (26.yu) Kongresa teorijske i primenjene mehanike*, (Predato i primljeno 2006 za stampu martamarta 2007.
10. V. Vujicic and A. Tomic, *The paradox of the Lunar orbit: One possible solution*. (Prihvaceno 2006, za Kongres mehanike Kop'07.

PRILOG KoBSON

XV. Integralni spisak publikovanih referenci publikovanih u 2006 i neocenjenih u 2005.

- [1] Hedrih (Stevanović) K., (2006), *Transversal Vibration of a Parametrically Excited Beam: Influence of Rotatory Inertia and Transverse Shear on Stochastic Stability of Deformable Forms and Processes*, ©Freund Publishing House Ltd. *International Journal of Nonlinear Sciences and Numerical Simulation*, 7(1), 117-124, 2006. **Impact Factor 2,345** .
- [2] Hedrih (Stevanović) K., (2006), *Transversal Vibrations of Double-Plate Systems*, *Acta Mechanica Sinica*, Springer, (2006) 22, pp. 487-501 (hard cover and on line). **ISI List**
- [3] Hedrih (Stevanović) K., (2006), *Modes of the Homogeneous Chain Dynamics*, *Signal Processing, Elsevier*, 86(2006), 2678-2702.. ISSN: 0165-1684 www.sciencedirect.com/science/journal/01651684 **ISI List**
- [4] Hedrih (Stevanović) K., (2006), Vukota Babović, Dragan Šarković, (2006), *An auxiliary size distribution model for the ultrasonically produced water droplets*, *Experimental Thermal and Fluid Science - ETF, Elsevier*, Volume 30, Issue 6, June 2006, Pages 559-564. <http://www.elsevier.com/locate/etfs> **ISI List**
- [5] Hedrih (Stevanović) K., (2006), *Transversal vibrations of the axially moving double belt system with creep layer*, *Preprints, 2nd IFAC Workshop on Fractional Differentiation and its Applications*, 19-21 July, 2006, Porto, Portugal, pp.230-235. +CD. IFAC WS 2006 0007 PT, ISBN 972-8688-42-3, 978-972-8688-42-4. ISBN . <http://www.iser.ipp.pl>
- [6] Hedrih (Stevanović) K., (2006), *Measurements of Dynamical System Integrity and Fracture Mechanics*, Invited Key Lecture in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th *European Conference of Fracture* (p. 1416), Springer 2006, pp. 793-794, plus CD 1-15. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>
- [7] Booklet of Abstracts - *Minisymposium - Integrity of Dynamical Systems- ECF16*, Edited by Katica (Stevanović) Hedrih, invited organizer of Minisymposia *IDS-ECF - the 16th European Conference of Fracture*, Greece 2006, Centre for Nonlinear Dynamics and Active Structures, Faculty of Mechanical Engineering University of Niš and Democritus University of Thrace, Xanthi, Greece, 2006. p. 324. ISBN 86-80587-57-5. BarCod 9 788680 587578. COBIS. SR - ID 130756620. UDK 531:01 /048); 530:182(048); 530:42 (048); 53:005.745 (100)

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[10] Ugrčić, M., Dimitrijević, D. (2006), *Kill Probability of Armoured Targets by Firing the Airborne Antitank Warfare Systems*, 1st Conference NACORT, National Committee of Range Testing, Air Range Testing centre, Chandipur, INDIA, 2006.

[11] Nestorović T. *Controller Design for the Vibration Suppression of Smart Structures (Ph.D. thesis)*, Fortschritt-Berichte VDI Reihe 8, Nr. 1071, Düsseldorf: *VDI Verlag* 2005, ISSN 0178-9546, ISBN 3-18-507108-5, http://www.vdi-nachrichten.com/onlineshops/buchshop/literaturshop/langanzeige.asp?vr_id=7095

[12] D. Marinkovic, H. Köppe, U. Gabbert: *Numerically efficient finite element formulation for modeling active composite laminates*, *Mechanics of Advanced Materials and Structures*, Volume 13, Number 5, pp. 379 - 392, 2006.

[13] Atanasovska I. and Nikolić-Stanojević V., (2006), Influence of addendum modification Coefficient of the Gear's Load Capacity, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 787-788, plus CD. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[14] Maksimović K., Maksimović S., and Nikolić-Stanojević V., (2006), Modeling of the Surface Cracks and Fatigue Life Estimation, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 795-796, plus CD. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[15] Nikolić R. and Veljković J.M., (2006), *Some Aspects Dynamics Interfacial Cracks Growth*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp. 807-808, plus CD. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[16] Mitić S., (2006), *On stability of problems of periodic impact motions*, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp.809-810, plus CD. ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[17] Trajković M., Šumarac D., Mijalkovic M., Structural via subspace identification method, amage detection, Invited Contribution in *Fracture of Nano and Engineering Materials and Structures* (p. 1416), Edited by E.E.Gdoutos, Proceedings of the 16th European Conference of Fracture (p. 1416), *Springer 2006*, pp.797-798, plus CD Full paper . ISBN 1-4020-4971-4, BARCOD 9 781402 049712. <http://ecf16.civil.duth.gr>

[18] Mitić S., (2006), *Vibroimpact systems*, Fakultet zaštite na radu, Niš, p. 250. (in Serbian)

[19] Gabbert U., Köppe H., Nestorović Trajkov T.: *Finite Element Based Overall Design of Controlled Smart Structures*, Schriftenreihe der Technischen Universität Wien, Proceedings of the Third European Conference on Structural Control, July 12-15th 2004, Vienna, Austria, editors R. Flesch, H. Irschik and M. Krommer, ISBN-3-901167-90-0, Vol. II, pp. S1(127-130), 2005, Technische Universität Wien, ISBN-3-901167-90-0

[20] Nestorović-Trajkov T., Köppe H., Gabbert U.: *Active Control of Flexible Structures using Piezoelectric Actuators and Sensors with an Application to a Funnel-Shaped Structure*, Schriftenreihe der Technischen Universität Wien, Proceedings of the Third European Conference on Structural Control, July 12-15th 2004, Vienna, Austria, editors R. Flesch, H. Irschik and M. Krommer, ISBN-3-901167-90-0, Vol. II, pp. S1(19-22), 2005, Technische Universität Wien, ISBN-3-901167-90-0

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<http://facta.junis.ni.ac.yu/facta/macar/macar200501/macar200501-06.pdf>

[22] Gabbert U., Nestorović T., Wuchatsch J.: *Methods of Virtual Engineering for Smart Systems Design* (Plenary lecture), II ECCOMAS Thematic Conference on Smart Structures and Materials Lisbon, Portugal, July 18–21, 2005, Editors: C. A. Mota Soares et. al, CD-Proceedings, pp. 1-12, 2005.

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<http://www3.interscience.wiley.com/cgi-bin/abstract/112100644/ABSTRACT>

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- [26] *Development of a smart finite shell element and its numerical verification*, Marinković D., Köppe H., Gabbert U., *First South-East European Conference on Computational Mechanics, SEECCM-06*, in Kragujevac, June 2006., Proceedings, Editors – M. Kojic and M Papadrakakis (zbornik radova je kod Profesora Gabbert-a, a on je na putu, 2 nedelje na Kubi, tako da ne znam broj strana, ako Vam nije tesko pogledajte u zborniku paginaciju)
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