

## LISTĂ DE LUCRĂRI

**OLARU Adrian**

**Facultatea I.M.S.T., Departamentul M.S.P., Profesor 1998, Conferențiar din 1993, Șef de lucrări din 1990, doctor inginer din 1988**

### I. TEZA (E) DE DOCTORAT (T)

T1. **Olaru, A.** *Contribuții în analiza comportării dinamice a servoacționărilor electro-hidraulice la mașinile-unelte cu comanda numerică*, UPB, București, 1987.

### II. CĂRȚI PUBLICATE(C)

**Ca** – Cărți / cursuri (manuale) pentru uzul studenților, publicate în edituri recunoscute.

**Ca.01. Olaru, A.** *Dinamica Roboților Industriali- Modelarea comportării dinamice a elementelor și servosistemelor utilizate în construcția roboților și a manipuletoarelor*, Editura Bren, București, 2001, ISBN 973- 8143-65-9.

**Ca.02. Olaru, A.** *Instrumentația virtuală LabView în tehnica cercetării elementelor și servosistemelor roboților industriali*, Editura Bren, București, 2002, ISBN 973-648-088-7.

**Ca.03. Olaru, A., Mihai, N.** *Dinamica Roboților Industriali- Modelarea comportării dinamice a structurilor articulate utilizate în construcția roboților industriali*, Editura Bren, București, 1999, ISBN 973-9493- 35-1.

**Cb** - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

**Cb.01. Oprean, A., Dorin Al., Ispas C., Ciobanu E., Medar S., Olaru A., Prodan D.**

*Acționări și automatizări hidraulice*, Editura Tehnică, București, 1989, ISBN973- 31- 0080- 3, T III 38585, FD 5987.

**Cb.02. Oprean, A., Dorin, Al., Olaru, A., Prodan, D., Chiritoiu, R.** *Echipamente hidraulice de acționare*, Editura Bren, București, 1998, ISBN 973- 98652- 2- 4, FB 750899.

**Cb.03. Olaru, A., Olaru, S., Oprean, A.** *Optimizarea comportării dinamice a roboților industriali prin introducerea amortizoarelor inteligente*, Editura Printech, București, 2011, ISBN 978-606-521-649-5, Cod CNCIS 54, FB 750898.

### III. ALTE MATERIALE PUBLICATE (I,D)

**I** - Culegeri și Îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern).

**I1.** Olaru A. *Dinamica roboților industriali*- Îndrumar de laborator, litografia UPB, 1992.

**I2.** Oprean A., Dorin Al., Prodan D., Olaru A., Chiritoiu R. *Culegere de probleme sisteme hidraulice*, 1995, UPB.

**I3.** Oprean A., Prodan D., Dorin A., Olaru A. *Acționarea hidraulică a mașinilor unelte*. Culegere de probleme: pentru uzul studenților. Universitatea Politehnică București, 1992, T III 41541, FD 6727

**I4.** Olaru A. *Organologie: Mașini și utilaje notițe de curs pentru colegiu*. Vol.1. Universitatea "Politehnică" București, 1994, T III 42566, FD 6991

**I5.** Olaru A. *Dinamica roboților industriali. Modelarea comportării dinamice a elementelor și servosistemelor utilizate în construcția roboților și manipuletoarelor: pentru uzul studenților*. Vol.2. Universitatea Politehnică București, 1995, T III 45007, FD 7512

**I6.** Olaru A., Chiritoiu R., Mihai, N. *Dinamica elementelor, sistemelor și structurilor utilizate la roboți și manipuletoare. Lucrări de cercetare experimentală, modelare și simulare : pentru uzul studenților*. Universitatea Politehnică București, 1997, T III 45241, FD 7573.

### IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R, V)

**Ris** - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanță).

A). Reviste de specialitate indexate ISI Thomson Reuters Web of Science [ISI Web of Knowledge]

B). Reviste de specialitate indexate în alte Baze de Date Internaționale (BDI)

**Ris.01.** A Oprean, **A Olaru**, P Ioanid, Computer aided research for dynamic behavior of forging manipulators orientation modulus, IMEC, Manufacturing Engineering Jurnal, pg.345-352, <https://scolar.google.ro/citation>

**Ris.02.** **A Olaru**, Optimization of the robot space trajectory by using kinematics, dynamics, intelligent damper and proper neural network, Proceedings in Manufacturing Systems vol.7, (2) pg.10-12 [www.scolar.google.ro/citation](http://www.scolar.google.ro/citation), **CITARI: 1**

**Ris.03.** **A Olaru**, Assisted research of the industrial robots global dynamic compliance with LabVIEW instrumentation, Proceedings ICMA S 2006, Published by Editura Academiei Romane, pg.175-178, ISSN 1842-3183, University Politehnica of Bucharest [www.icmas.eu/Journal\\_archive.../02-5-175-178.pdf](http://www.icmas.eu/Journal_archive.../02-5-175-178.pdf), [www.scolar.google.ro/citation](http://www.scolar.google.ro/citation)

**Ris.04.** **A Olaru**, S Olaru, A. Assisted Optimization Of The Hydraulic Cylinder By Using The Roots Locus Characteristics And LabVIEW Instrumentation. Hidraulica Magazine 2, pg.25-38, 2013, [www.hidraulica.fluidas.ro/2013/nr.../25\\_38.pdf](http://www.hidraulica.fluidas.ro/2013/nr.../25_38.pdf), [www.citefactor.org/.../assisted-optimization-](http://www.citefactor.org/.../assisted-optimization-)

**Ris.05.** **A Olaru**, Assisted Research With The Virtual Proper Fourier Analyzer, University Politehnica of Bucharest Scientific Bulletin, Series D, vol.72, Iss.2 pg.61-72, <https://scolar.google.ro/citation> [cking@proquest.com](mailto:cking@proquest.com), <http://www.serialssolutions.com> <http://www.ulrichsweb.com>, <http://www.info.sciverse.com/scopus/scopus-in-detail/facts> [http://www.csa.com/ids70/serials\\_source\\_list.php?db=metadex-set-c](http://www.csa.com/ids70/serials_source_list.php?db=metadex-set-c), [www.scientificbulletin.upb.ro/rev.../full4624.pdf](http://www.scientificbulletin.upb.ro/rev.../full4624.pdf)

**Ris.06.** Olaru S., Oprean A., **Olaru A.** Assisted Research Of The Fourier Spectrum Of The Robots With Magnetorheological Damper, U.P.B. Sci. Bull., Series D, Vol. 72, Iss. 3, pg.31-42, 2010 ISSN, 1454-2358, [cking@proquest.com](mailto:cking@proquest.com), <http://www.serialssolutions.com>, <http://www.ulrichsweb.com>, <http://www.info.sciverse.com/scopus/scopus-in-detail/facts> [http://www.csa.com/ids70/serials\\_source\\_list.php?db=metadex-set-c](http://www.csa.com/ids70/serials_source_list.php?db=metadex-set-c), [www.scientificbulletin.upb.ro/rev.../full4624.pdf](http://www.scientificbulletin.upb.ro/rev.../full4624.pdf), **CITARI: 1**

**Ris.07.** **A Olaru**, S Olaru. Assisted Optimization Of The Hydraulic Cylinder By Using The Roots Locus Characteristics And Labview Instrumentation, Hidraulica, 2013, vol.4, pg.22-32 – [www.Search.Proquest.Com](http://www.Search.Proquest.Com)

**Ris.08.** Tadeusz Mikolajczyk<sup>a</sup>, Tomasz Fas<sup>b</sup>, Adam Kłodowski<sup>c</sup>, Maciej Matuszewski<sup>a</sup>, **Adrian Olaru<sup>d</sup>**, Serban Olaru<sup>e</sup> Computer Aided System for Superfinishing Process Control , **Elsevier Procedia Technology**, Vol. 22, 2016, pg. 48–54, 9th International Conference Interdisciplinarity in Engineering, INTER-ENG 2015, 8-9 October 2015, Tirgu Mures, Romania [www.sciencedirect.com](http://www.sciencedirect.com)

**Ris.09.** **Olaru A.**, Assisted Research Of The Robot Vibration Behavior With The Virtual Labview Instrumentation, MOCM, Number 10, Volume I, [www.pubs.ub.ro](http://www.pubs.ub.ro), ID: MOCM200410V01S01A0050 [0000670]

**Ris.10.** **Olaru A.**, Olaru S., Mihai, N., Proper Jacobian Pseudo Inverse Neural Network Matrix Method Applied to Robot Inverse Kinematics Controlling, International Journal of Mechanical Engineering and Robotics Research Vol. 5, No. 2, pp. 120-123, April 2016. DOI:10.18178/ijmerr.5.2.120-123, [www.ijmerr.com/.../20160324111849965.pdf](http://www.ijmerr.com/.../20160324111849965.pdf), [www.search.proquest.com](http://www.search.proquest.com).

**Ris.11.** **Olaru, A.** Assisted research of the dynamic industrial robot transfer function, *Acta Mechannica Slovaca, Kosice*, pg.22-28, 2003, [www.scholargoogle.com](http://www.scholargoogle.com).

**Ris.12.** **Olaru, A.**, Staicu, St. Theoretical and experimental research dynamic behavior of industrial robots, *University "Politehnica" of Bucharest Scientific Bulletin Series D: Mechanical Engineering*, Volume 63 Number 2, pg.5-14, 2001, ISSN 1454- 2358, [cking@proquest.com](mailto:cking@proquest.com), <http://www.serialssolutions.com>, <http://www.ulrichsweb.com>, <http://www.info.sciverse.com/scopus/scopus-in-detail/facts> [http://www.csa.com/ids70/serials\\_source\\_list.php?db=metadex-set-c](http://www.csa.com/ids70/serials_source_list.php?db=metadex-set-c),

[www.scientificbulletin.upb.ro/rev.../full4624.pdf](http://www.scientificbulletin.upb.ro/rev.../full4624.pdf).

**Ris.13. Olaru, A.,** Olaru S., Paune D. Optimisation Of The Industrial Robot Inverse Kinematics Solutions With The Proper Neural Network And LabVIEW Instrumentation, Bucuresti, ICMAS 2011, vol.6, 2011, pg.16-21, ISSN 2067-9238, Ed. Academiei Romane [www.scholargoogle.com](http://www.scholargoogle.com).

**Ris.14. Olaru A, Olaru S.** Optimize The Robots' Space Trajectory By Using Kinematics, Dynamics, Intelligent Damper And Proper Neural Network- ICMAS 2012, Proceedings in Manufacturing Systems, Volume 7, Issue 1, pg.22-26, 2012, Ed.Academiei Romane, ISSN 2067-9238, [www.scholargoogle.com](http://www.scholargoogle.com).

**Ris.15. Ciupitu L., Olaru A.,** Dynamic model with friction of the robot arm balanced by a helical spring, Applied Mechanics, Tome 49, special number 2004, ICMAS2004, pg.393-397, Ed. Academiei Romane, ISBN 973-27-1102-7, ISSN 0035-4074, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation) .

**Ris.16. Olaru A.,** Tanase, I. Vibration research with LabVIEW instrumentation of the industrial robots modules, Applied Mechanics, Tome 49, special number 2004, ICMAS2004, pg.421-425, Ed. Academiei Romane, ISBN 973-27-1102-7, ISSN 0035-4074, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation) .

**Ris.17. Olaru A.,** Research the vibration modes of the industrial robots with LabVIEW instrumentation, Applied Mechanics, Tome 47, special number 2002, ICMAS2002, pg.371-375, Ed. Academiei Romane, ISBN 973-27-0932-4, ISSN 0035-4074, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation) .

**Ris.18.Olaru A.,** Olaru S., Oprean A. Assisted optimization of the dynamic behavior of industrial robots, ICMAS 2009, vol.4, pg.107-113, ISSN 1842-3183, Ed. Academiei Romane, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation) .

**Ris.19. Olaru A.,** Olaru S., Mantea T., Paune D. Design and experimental assisted digital command and control trajectory for perirobots components- Proc.of the 17<sup>th</sup> Conf.on Manufacturing Systems, ICMAS 2008, Tome 53, pg.103-106, Ed. Academiei Romane, ISSN 1842-3183, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation).

**Ris.20. Oprean A., Olaru S., Olaru A.** Assisted research of the damped dynamic behavior of the industrial robot, Proc.of the 17<sup>th</sup> Conf.on Manufacturing Systems, ICMAS 2008, Tome 53, pg.107-111, Ed. Academiei Romane, ISSN 1842-3183, [www.scholargoogle.com/citation](http://www.scholargoogle.com/citation).

**Ris.21. A Olaru, S Olaru, A. A,** rev. Hidraulica 3, pg.25-38, 2013, ISSN 1453 – 7303 “HIDRAULICA” (No. 2/2013) Magazine of Hydraulics, Pneumatics, Tribology, Ecology, Sensorics, Mechatronics, [www.scholar.google.ro](http://www.scholar.google.ro), [www.search.proquest.com](http://www.search.proquest.com) .

[http://vechi.cnscis.ro/cenaposs/2006/arhiva/reviste\\_cat\\_B\\_06.pdf](http://vechi.cnscis.ro/cenaposs/2006/arhiva/reviste_cat_B_06.pdf),

[http://vechi.cnscis.ro/cenaposs/2008/Arhiva/reviste\\_cat\\_B\\_08.pdf](http://vechi.cnscis.ro/cenaposs/2008/Arhiva/reviste_cat_B_08.pdf)

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### C) Alte categorii de reviste

**Rns** - Reviste de specialitate de circulație națională recunoscute de CNCSIS.

**Vis-** Volumele unor manifestări științifice internaționale recunoscute , organizate în țară și străinătate, indexate ISI Thomson Reuters sau indexate în alte Baze de Date Internaționale - BDI specifice domeniului, care fac un proces de selecție a publicațiilor pe baza unor criterii de performanță.

### A). ISI Thomson Reuters – Proceedings [ISI Web of Knowledge]

**Vis.1. Olaru, Adrian;** Olaru, Serban, Assisted Research of the Robots Kinematics and Dynamics Behavior with LabVIEW Instrumentation, Conference: 8th IEEE/ IACSIT/ SCIEI International Conference on Optimization of the Intelligent Systems and Their Applications in Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechanics and Neurorehabilitation (OPTIROB), 2013, Book Series: Applied Mechanics and Materials, Volume: 332 Pages: 276-285 Published: 2014, Accession Number: **WOS:000345269700041**

**Vis.2.** Niculescu, Dan Florin; Olaru, Adrian; Ghionea, Adrian; et al. Assisted research of the centrifugal pump's vibration behavior, Conf on Smart Syst in all Fields of the Life-Aerospace, Robot, MechEngn, MfgSyst, Biomechatron, Neurorehabilitat and Human Motricities, Location: IntAssoc Comp Sci& Inform Technol Singapore, Bucharest, ROMANIA, (ICMERA) Engineering Decisions And Scientific Research In Aerospace, Robotics, Biomechanics, Mechanical Engineering And Manufacturing, Applied Mechanics and Materials, Volume: 436 Pages: 85-91 Published: 2013, Accession Number: **WOS:000332261000012**

**Vis.3.** Hajduk, Mikulas; Niculescu, Dan Florin; Olaru, Adrian; et al., Research On Vibratory Behavior Assessment And Maintenance Of Drilling And Threading Machine Va20a, IntConf on Smart Syst in all Fields of the Life-Aerospace, Robot, MechEngn, MfgSyst, Biomechatron, Neurorehabilitat and Human Motricities, Bucharest, ROMANIA Date: OCT 24-27, 2013, ENGINEERING DECISIONS AND SCIENTIFIC RESEARCH IN AEROSPACE, ROBOTICS, BIOMECHANICS, MECHANICAL ENGINEERING AND MANUFACTURING, Applied Mechanics and Materials Volume: 436 Pages: 205-212 Published: 2013, Accession Number: **WOS:000332261000028**

**Vis.4.** Mikolajczyk, Tadeusz; Olaru, Adrian; Krainski, Piotr, Adaptive Control System for Drill Machine, Conf on Smart Syst in all Fields of the Life-Aerospace, Robot, MechEngn, MfgSyst, Biomechatron, Neurorehabilitat and Human Motricities Location, Bucharest, ROMANIA, OCT 24-27, 2013, Engineering Decisions And Scientific Research In Aerospace, Robotics, Biomechanics, Mechanical Engineering And Manufacturing, Applied Mechanics and Materials ,Volume: 436 Pages: 445-450 Published: 2013 Accession Number: **WOS:000332261000058 -CITARI: 4**

**Vis.5.** Olaru, Adrian, Optimal Solving of the Contradictory Problem between Hydraulic Cylinder's Precision and Stability with Extenics Theory, IntConf on Smart Syst in all Fields of the Life-Aerospace, Robot, MechEngn, MfgSyst, Biomechatron, Neurorehabilitat and Human Motricities Location: IntAssoc Comp Sci& Inform Technol Singapore, Bucharest, ROMANIA Date: OCT 24-27, 2013, ENGINEERING DECISIONS AND SCIENTIFIC RESEARCH IN AEROSPACE, ROBOTICS, BIOMECHANICS, MECHANICAL ENGINEERING AND MANUFACTURING, Applied Mechanics and Materials, Volum 436 Pages: 518-530, 2013, Accession Number: **WOS:000332261000067**

**Vis.6.** Olaru, Adrian; Olaru, Serban, Assisted Research of the Neural Network with LabVIEW Instrumentation, 7th International Conference on MEMS, NANO and Smart Systems (ICMENS 2011) Location: Kuala Lumpur, MALAYSIA Date: NOV 04-06, 2011, MEMS, NANO AND SMART SYSTEMS, PTS 1-6, Advanced Materials Research , Volume: 403-408 Pages: 97-104 Published: 2012, Accession Number: **WOS:000310764700020**.

**Vis.7.** Olaru, Adrian; Olaru, Serban, Assisted Optimization Of The New Robot Dynamic Parameters With Neural Smart Damper, 7th International Conference on MEMS, NANO and Smart Systems (ICMENS 2011) Location: Kuala Lumpur, MALAYSIA Date: NOV 04-06, 2011, MEMS, NANO AND SMART SYSTEMS, PTS 1-6 Book Series: Advanced Materials Research Volume: 403-408 Pages: 4167-4173 Published: 2012 Accession Number: **WOS:000310764702091**.

**Vis.8.** Olaru, Adrian; Olaru, Serban; Paune, Dan, Optimizing the Global Dynamic Compliance by Using the Smart Damper and LabVIEW Instrumentation, 7th International Conference on Optimization of the Mechanical Engineering, Manufacturing Systems, Robotics and Aerospace (OPTIROB 2012), Location: Mamaia, ROMANIA Date: JUN 21-23, 2012, OPTIMIZATION OF THE MECHANICAL ENGINEERING, MANUFACTURING SYSTEMS, ROBOTICS AND AEROSPACE, Applied Mechanics and Materials Volume: 186 Pages: 26-34 Published: 2012- Accession Number: **WOS:000310934500004**

**Vis.9.** Olaru, Adrian; Olaru, Serban; Paune, Dan; et al., Assisted Research and Optimization of the proper Neural Network Solving the Inverse Kinematics Problem, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, ADVANCED MATERIALS RESEARCH II, PTS 1 AND 2, Advanced Materials Research, Volume: 463-464 Pages: 827-832 Published: 2012- Accession Number: **WOS:000308114100159- CITARI: 8**

**Vis.10.** Ciupitu, Liviu; Simionescu, Ion; Olaru, Adrian, Static Balancing of Mechanical Systems Used in Medical Engineering Field - Continuous Balancing, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, Advanced Materials Research I, PTS 1 AND 2, Advanced Materials Research, Volume: 463-464 Pages: 890-894, Published: 2012- Accession Number: **WOS:000308114100171**.

**Vis.11.** Olaru, Adrian; Olaru, Serban; Paune, Dan; et al., Optimization of the Neural Network by using the LabVIEW Instrumentation, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, ADVANCED MATERIALS RESEARCH II, PTS 1 AND 2, Advanced Materials Research Volume:463-464Pages:1011-1016 Published: 2012, Accession Number: **WOS:000308114100195-CITARI: 2**

**Vis.12.** Olaru, Adrian; Olaru, Serban; Paune, Dan, Assisted research of the Dynamic Neural Networks with Time-Delays and Recurrent Links, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, ADVANCED MATERIALS RESEARCH II, PTS 1 AND 2, Advanced Materials Research Volume:463-464Pages:1094-1097 Published: 2012, Accession Number: **WOS:000308114100212**.

**Vis.13.** Olaru, Adrian; Olaru, Serban; Paune, Dan; et al., Assisted research of the Neural Network, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, ADVANCED MATERIALS RESEARCH II, PTS 1 AND 2, Advanced Materials Research, Volume: 463-464 Pages: 1098-1101 Published: 2012- Accession Number: **WOS:000308114100213- CITARI: 1**

**Vis.14.** Olaru, Adrian; Olaru, Serban; Ciupitu, Liviu, Research of the Neural Network by Back Propagation Algorithm, 2nd International Conference on Advanced Material Research (ICAMR 2012) Location: Chengdu, PEOPLES R CHINA Date: JAN 07-08, 2012, ADVANCED MATERIALS RESEARCH II, PTS 1 AND 2, Advanced Materials Research, Volume: 463-464 Pages: 1151-1154, Published: 2012- Accession Number: **WOS:000308114100225 - CITARI: 2**

**Vis.15.** Dan, Niculescu; Marek, Vagas; Adrian, Olaru; et al., Establishing the State of Operation on Vibration Behavior of Industrial Robot, 7th International Conference on Optimization of the Mechanical Engineering, Manufacturing Systems, Robotics and Aerospace (OPTIROB 2012) Location: Mamaia, Romania, Jun 21-23, 2012, Optimization Of The Mechanical Engineering, Manufacturing Systems, Robotics And Aerospace, Applied Mechanics and Materials Volume: 186 Pages: 247-253 Published: 2012- Accession Number: **WOS:000310934500035**.

#### **B). Proceedings indexate în alte Baze de Date Internationale - BDI**

**Vis.16.** **Olaru A.**, Olaru S. Assisted Optimisation of the Robot Dynamic Behavior with Magnetorheological Damper, Fifth International Conference on MEMS, NANO, and Smart Systems (ICMENS), Dubai, 2009, pg.37-43, E-ISBN :978-1-4244-5616-1, DOI:10.1109/ICMENS.2009.37, ieeexplore.ieee.org **INSPEC Accession Number: 11375918**

**Vis.17.** **Olaru A.**, Olaru S., Mihai N. Application of a new Iterative pseudo-inverse Jacobian Neural Network Matrix technique for controlling Geckodrive DC motors of manipulators, 3rd RSI International Conference on Robotics, Page(s): 114–120, ieeexplore.ieee.org DOI:10.1109/ICRoM.2015.7367770, **INSPEC Accession Number: 15686594**

**Vis.18.** **A Olaru**, The optimizing space trajectory by using the inverse kinematics, direct dynamics and intelligent damper controlling with proper neural network Advanced Mechatronic Systems (ICAMechS), 2012 International Conference on Mechatronics Systems The 2012 International Conference on Advanced Mechatronic Systems, Japonia, IEEE Conference Publications, 504 – 509 pag. ISSN :2325-0682,**INSPEC Accession Number:13072113,CITARI: 2**

**Vis.19.** **Olaru A.**, Olaru S. Assisted research of the industrial robot Fourier spectrum with LabVIEW instrumentation, Annals of DAAAM & Proceedings, DAAAM International Vienna, Magazine /Journal, pg.1102-1105, 2005, **Accession Number: 176688385**, [www.freepatentsonline.com/.../176688385.html](http://www.freepatentsonline.com/.../176688385.html)

**Vis.20.** **A Olaru**, S Olaru, Research of the global dynamic compliance and the viscose

global dynamic damper coefficient of the industrial robot- Applied Mechanics and Materials, vol.186, 247-253 <http://search.ebscohost.com>, **CITARI: 2**

**Vis.21.** L Nae, C Ibraim, **A Olaru**, N Predinca, Construction and direct kinematics model of parallel robots, Proceedings of the 16 th International Conference on Manufacturing Systems-ICMaS, Published by Editura Academiei Române , ISSN 1842-3183, pg.124-128, 2007, [www.scolar.google.ro/citation](http://www.scolar.google.ro/citation), **CITARI: 1**

**Vis.22.** **A Olaru**, Solving of the contradictory problem of the precision-stability by using the extension theory, Extenics and Innovation Methods CRCPress Book, ISEIM, Beijing, China-CRC Press, pg.167- 175, 2013, SUA, ISBN 978-1-138-00049-0, [www.scolar.google.ro/citation](http://www.scolar.google.ro/citation), [www.crcnetbase.com/doi/abs/10.../b15394-25](http://www.crcnetbase.com/doi/abs/10.../b15394-25), [www.books.google.com](http://www.books.google.com)

**Vis.23.** T Malinowski, T Mikołajczyk, **A Olaru**, Control of articulated manipulator model using ATMEGA16, Applied Mechanics and Materials 555, 147-154, – <http://search.ebscohost.com>, **CITARI: 1**

**Vis.24.** **A Olaru**, S Olaru, N Mihai, Proper Assisted Research Method Solving of the Robots Inverse Kinematics Problem, Applied Mechanics and Materials 555, pg.135-146, <http://search.ebscohost.com>

**Vis.25.** **A Olaru**, Assisted Analyze of the Extenics Dependent Functions in 1D, 2D, 3D and nD Dimensions with LabVIEW Instrumentation, Advanced Materials Research 748, pg.535-543, [www.scolar.google.ro/citation](http://www.scolar.google.ro/citation), <http://search.ebscohost.com>

**Vis.26.** DF Niculescu, A Ghionea, **A Olaru**, Diagnosis and Predictive Maintenance of Machinery and Equipment, by Measuring Vibration, Applied Mechanics and Materials 325, pg.186-191, <http://search.ebscohost.com>

**Vis.27.** **A Olaru**, S Olaru, A Oprean, Assisted Optimization of the Servo Driving by Using Virtual Labview Instrumentation and the Elementary Transfer Functions and Neural Network Methods, Applied Mechanics and Materials 325, pg.970-983, <http://search.ebscohost.com>

**Vis.28.** L Ciupitu, **A Olaru**, S Toyama, On the Controlling of Spherical Ultrasonic Motor, Applied Mechanics and Materials 325, pg.1115-1125, <http://search.ebscohost.com>

**Vis.29.** **A Olaru**, S Olaru, A Oprean, Optimization of the Robots Fourier Spectrum by Using the Assisted Research, Neural Network, Smart Damper and LabVIEW Instrumentation, Applied Mechanics and Materials 245, 2013, pg.24-32, <http://search.ebscohost.com>

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### C). Alte categorii de manifestări științifice

**Vi -** Volumele unor manifestări științifice internaționale recunoscute, organizate în țară și străinătate;

**Vi.01. Olaru, A.** Dynamic behavior research of the industrial robots with aid of the Labview virtual instrumentation, *International Conference MOCM-8, Bacau, Romanian Academy branch Iasi 2003.*

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**Vi.05. Olaru, A., Olaru, S.** Research of the industrial robot Fourier spectrum with LabVIEW instrumentation , *Ajad, Isfahan, Iran 2005.*

**Vi.06. Olaru A, Olaru S,** Assisted optimization of the electro-hydraulic servo driving with LabVIEW instrumentation, *The 6<sup>th</sup> Iranian Aerospace Society Conference- Feb. 2007-K.N.Toosi University of Technology, Teheran, Iran, 2007.*

**Vi.07. Olaru A, Olaru S,** Assisted dynamic behavior optimization of the robots elements and systems with the virtual instrumentation, *15<sup>th</sup> Annual (International) Mechanical Engineering Conference May 2007, Amirkabir University of Technology, Tehran, Iran, 2007.*

**Vi.08. Olaru S, Olaru A,** Contribution of the modeling and simulation of the rheological dampers, *DECOM2007, Turcia, 2007.*

**Vi.09. Oprean A, Olaru S, Olaru A,** Some contributions on the magnetorheological damper assisted research , *OPROTEH2007, Bacau, Romania, 2007.*

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- Vi.14. Olaru, A.** Assisted research in the frequency domain of the dynamic behavior in the ascending or the descending in movements with Labview instrumentation, *CMEM 2003, Halkidiki, Greece.*
- Vi.15. Olaru, A.** Assisted research with LabVIEW instrumentation of the electrical and hydraulic systems of the industrial robots, *SISOM 2004, Bucharest, Romanian Academie, Romania, 2004.*
- Vi.16. Olaru, A.** Virtual LabVIEW instrumentation for the simulation of elements and systems of the industrial robots, *SISOM 2004, Bucharest, Romanian Academy, Romania, 2004.*
- Vi.17. Olaru, A.** Theoretical and experimental research of cinematic and dynamic behaviour of industrial robots, *Annals of DAAAM for 2001 & Proceedings of the 12<sup>th</sup> International DAAAM Symposium*, pp.333-334, 2001, ISBN 3-901509-19-4, Vienna.
- Vi.18. Olaru, A.** Research the dynamic behaviour of the industrial robots in the frequency domain, *SISOM 2002, Romanian Academy, Proc. of the Annual Symposium of the Institute of Solid Mechanics*, Editura Academiei, ISBN 973-27-1006-3, pp.114-121, 2002.
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- Vi.25. Olaru A., Olaru S.** Assisted optimization of the industrial robot vibration spectrum, *CMEM 2005, Malta, 2005.*
- Vi.26. Olaru A., Olaru S.,** Research of the industrial robot fourier spectrum with labview instrumentation- *ISME2006- Isfahan University IRAN 2006*
- Vi.27. Olaru A., Olaru S.,** Optimization of the industrial robot dynamic behavior with LabVIEW instrumentation, *ROBTEP2006- Slovacia*
- Vi.28. Olaru A., Olaru, S.,** Assisted research of the industrial robots kinematics with LabVIEW instrumentation, *TMT2006, Barcelona, Spania*
- Vi.29. Olaru, A., Olaru S.** Assisted research of the Bouc-Wen damper new mathematical model with LabVIEW instrumentation, *SLS 2011, TEHERAN, IRAN.*
- Vi.30. Olaru A,** Optimizing the 3D Space Trajectory by Using the Intelligent Controlling of the Kinematics, Dynamics and Fourier Spectrum with Proper Neural Network -*Conference AERO2013-16799, Teheran, Iran, 2013.*

## **V. BREVETE DE INVENȚIE / INOVAȚII (B, A)**

**B – Brevete de invenție**

**A - Inovații și alte creații**

**A1.** Masina de rabotat suprafete torice prin copiere- Ministerul Industriei si Economiei-Directia Tehnica 7.02.1989. autori: Olaru A., Mateescu I.

## **VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P, F)**

**P –** Proiecte de cercetare-dezvoltare – inovare obtinute prin competitie, pe bază de contract/grant, in tara/strainatate (**P<sub>n</sub>** – nationale, **P<sub>i</sub>** – internationale, **Pos** – Programul Operațional Sectorial). Proiecte de cercetare-dezvoltare (P<sub>n1</sub>, P<sub>n2</sub> etc.) pe bază de contract/grant nationale (P<sub>n</sub>) in calitate director/responsabil de proiect de cercetare

**Pi.1. CEEPUS CII-RO-0105-02-0708-M-19280**, Optimization of the Robots and Manipulators in the Scientific and Pedagogical Process at the Central and East European Universities 2002-2008

**Pi.2.** Robotica pentru neuroreabilitare- program european **E-COST actiunea TD-1006**, 2010-2015-

**Pi.3.** Erasmus+ **RUSOS- PROJECT nr. 2015-1-SK01-KA202-008970** – Robotics for teachers of secondary vocational schools- 2015-2017.

**Pi 4.** Erasmus<sup>+</sup> Bilateral - **Universitatea Tehnica din LUBLIN-UPB**, 2016-2020.

**Proiecte de cercetare-dezvoltare (Pn1, Pn2 etc.) pe bază de contract/grant naționale (Pn) in calitate de membru în echipa de cercetare**

**Pn1.** OPTIMIZAREA COMPORTĂRII DINAMICE A SERVOSISTEMELOR DIN SISTEMELE FLEXIBILE DE PRODUCTIE Responsabil Contract: Aurel Oprean, Beneficiar: Ministerul Învățământului, Nr. 5001/96 Tema B25.

**Pn2.**PROIECTAREA ASISTATĂ ȘI OPTIMIZAREA COMPORTĂRII DINAMICE A POMPELOR(MOTOARELOR) ROTATIVE, Responsabil Contract: Aurel Oprean, Beneficiar: Ministerul Învățământului, Nr. 4001/95,96,1995,1996,Tema A77 Contract 5001-96.

**Pn3.**CERCETĂRI PRIVIND REDUCEREA CONSUMULUI ENERGETIC, CREȘTEREA RANDAMENTULUI LA SISTEMELE HIDROSTATICE DE ACȚIONARE, Responsabil contract: Aurel Oprean, Beneficiar : Ministerul Învățământului, Nr.4001/95,96,1995,1996.Tema A86 Contract 5001-96

**Pn4.**CERCETAREA ASISTATĂ A COMPORTĂRII MODULULUI DE ROTAȚIE LA MANIPULATOARELE DE FORJARE, Responsabil Contract: Aurel Oprean, Beneficiar: INTEC-26-01-1996

**Pn5.**CERCETAREA ASISTATĂ A COMPORTĂRII ROBOȚILOR DE FORJARE, Responsabil Contract : Aurel Oprean, CoautorI :Dan Prodan, Olaru Adrian Beneficiar : INTEC nr.26-02/1996

**Pn6.**ELABORAREA DE PROGRAME DE CALCUL ȘI VERIFICARE A UNOR MODELE MATEMATICE ÎN VEDEREA ÎMBUNĂȚĂȚIRII PARAMETRILOR DE PERFORMANȚĂ LA MAȘINI-UNELTE ȘI ROBOȚI, Responsabil Contract : Aurel Oprean, Beneficiar : Ministerul Învățământului Nr.26-91-3/1994

**Pn7.**GRANT NR. 26-91-8/1991: CERCETAREA, PROIECTAREA ȘI EXPERIMENTAREA ȘURUBELNITELOR PNEUMOHIDRAULICE, Responsabil Contract : Aurel Oprean, Beneficiar: INCDMTM.

Declar pe proprie răspundere că datele sunt adevărate.

Data, 15.05.2016

Nume și prenume,

Prof.dr.ing.Adrian OLARU