Candidat: Prof. dr. ing. Cătălin ALEXANDRU

FIȘA DE AUTOEVALUARE PRIVIND ÎNDEPLINIREA STANDARDELOR MINIMALE
COMISIA INGINERIE MECANICĂ, MECATRONICĂ ȘI ROBOTICĂ (OMEN nr. 6129/2016 - Anexa 17)

A1. ACTIVITATEA DIDACTICĂ ȘI PROFESIONALĂ - DID

A1.1. Manuale suport de curs (min. 100 pagini pentru indicatorii N1.1 & N1.2)

A1.1		Manuale suport de curs	Nr. pag.
N1.1	1.	**Alexandru, C.**, Antonya, C. Bazele utilizării calculatorului. Editura Universității Transilvania din Brașov, 2000 https://www.worldcat.org/title/bazele-utilizarii-calculatorului/oclc/895055554	253
	2.	**Alexandru, C.** Mecanisme articulate. Analiză - sinteză - simulare cinematică. Editura Universității Transilvania din Brașov, 2000, ISBN 973-9474-83-7 https://www.worldcat.org/title/mecanisme-articulate-analiza-sinteza-simulare-cinematica/oclc/895045461	179
	3.	**Alexandru, C.** Simularea pe calculator a sistemelor mecanice articulate. Editura Lux Libris, 2000, ISBN 973-9428-25-8175 https://www.dmg-lib.org/dmglib/handler?docum=10987009	176
N.1.2	1.	Alexandru, P., Talabă, D., **Alexandru, C.** Teoria și proiectarea mecanismelor – vol. II. Editura Universității Transilvania din Brașov, 1998 https://www.worldcat.org/title/teoria-si-proiectarea-mecanismelor/oclc/895676261	151
N.1.3	1.	**Alexandru, C.** Programarea calculatoarelor și limbaje de programare I / Computer Basics https://elearning.unitbv.ro/course/view.php?id=1149	
	2.	**Alexandru, C.** Prototipare virtuală https://elearning.unitbv.ro/course/view.php?id=1495	
	3.	**Alexandru, C.** Virtual prototyping https://elearning.unitbv.ro/course/view.php?id=3799	
	4.	**Alexandru, C.** Modelare și simulare în inginerie https://elearning.unitbv.ro/course/view.php?id=1518	
TOTAL N1 (N1.1 + N1.2)			4
TOTAL N1.1			3
TOTAL N1.3			4

A1.2. Material didactic / Dezvoltare laboratoare, aplicații

A1.2		Material didactic / Dezvoltare laboratoare, aplicații
N2.1	1.	Contribuție la dezvoltarea - dotarea laboratorului CASMA (Conceperea, analiza și sinteza mecanismelor articulate) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.1_1.pdf

	2.	Contribuție la dezvoltarea - dotarea laboratorului TESTMEC (Testarea sistemelor mecanice) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.1_2.pdf
	3.	Stand pentru testarea sistemelor de suspensie & direcție auto https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.1_3.pdf
	4.	Stand pentru testarea mecanismelor ștergătoarelor de parbriz https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.1_4.pdf
	5.	Stand pentru testarea sistemelor de orientare a panourilor solare https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.1_5.pdf
N2.2	1.	**Alexandru, C.**, Barbu, I. Bazele utilizării calculatorului - Lucrări de laborator. Editura Universității Transilvania din Brașov, 2004 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.2_BUC_L_2004.pdf
	2.	**Alexandru, C.**, Popescu, M. Computer Bases – Utilization. Applications. Editura Universității Transilvania din Brașov, 2007 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.2_Computer_Bases_2007.pdf
	3.	Alexandru, P., Vișa, I., Bobancu, Ș., Talabă, D., **Alexandru, C.**, Neagoe, M., Brădău, H. Mecanisme - Lucrări de laborator. Editura Universității Transilvania din Brașov, 1998 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.2_Mecanisme_1998.pdf
	4.	Tănăsescu, I., Lihtetchi, I., Bârsan, A., Săvescu, D., Huidan, L., Budală, A., **Alexandru, C.**, Sava, R., Livezeanu, M. Mecanisme și organe de mașini - Îndrumar de proiectare. Editura Universității Transilvania din Brașov, 1997 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/N2.2_MOM_1997.pdf
N2.3	–	–
TOTAL N2 (N2.1 + N2.2 + N2.3)		**9**
TOTAL N2.1		**5**

Centralizator îndeplinire standarde minimale – domeniul DID (A1)

Domeniul de activitate		Indicatori	Punctaj minim	Punctaj realizat	Îndeplinire criteriu
Activitatea didactică / profesională (A1)	A1.1	N1	2	4	DA
		N1.1	1	3	DA
		N1.3	1	4	DA
	A1.2	N2	4	9	DA
		N2.1	2	5	DA

A2. ACTIVITATEA DE CERCETARE ȘTIINȚIFICĂ, DEZVOLTARE TEHNOLOGICĂ ȘI INOVARE – CDI

A2.1. Articole și publicații științifice indexate Web of Science Thomson Reuters

Precizare: s-a considerat factorul de impact din anul publicării (FI), respectiv la data raportării - JCR 2018 (FI*), punctajul fiind calculat cu factorul cel mai avantajos (conform OMEN nr. 6129/2016 - Anexa 17)

A2.1		Articole și publicații științifice indexate WOS	FI	FI*	Punctaj
P1.1	1.	**Alexandru, C.** The kinematic optimization of the multi-link suspension mechanisms used for the rear axle of the motor vehicles. Proceedings of the Romanian Academy: Series A-Mathematics Physics Technical Sciences Information Science, 2009, vol. 10, nr. 3, p. 244-253, ISSN 1454-9069, Accession Number WOS:000272661900006 http://www.academiaromana.ro/sectii2002/proceedings/doc2009-3/06-Alexandru.pdf	0.088	1.402	3.204
	2.	**Alexandru, C.**, Pozna, C. Simulation of a dual-axis solar tracker for improving the performance of a photovoltaic panel. Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, vol. 224, nr. 6/2010, p. 797-811, ISSN 0957-6509, DOI 10.1243/09576509JPE871, Accession Number WOS:000281794700006 http://journals.sagepub.com/doi/abs/10.1243/09576509JPE871	0.792	1.694	3.788
	3.	**Alexandru, C.**, Tatu, I.N. Optimal design of the solar tracker used for a photovoltaic string. Journal of Renewable and Sustainable Energy, vol. 5, nr. 2, 2013, p. 023133 (1-16), ISSN 1941-7012, DOI 10.1063/1.4801452, Accession Number WOS:000318242100055 https://aip.scitation.org/doi/full/10.1063/1.4801452	0.925	1.511	3.422
	4.	**Alexandru, C.** A novel open-loop tracking strategy for photovoltaic systems. The Scientific World Journal, vol. 2013, article ID 205396, p. 1-12, ISSN 1537-744X, DOI 10.1155/2013/205396, Accession Number WOS:000327336100001 https://www.hindawi.com/journals/tswj/2013/205396/	1.219	0	2.838
	5.	**Alexandru, C.** A comparative analysis between the tracking solutions implemented on a photovoltaic string. Journal of Renewable and Sustainable Energy, vol. 6, nr. 5, 2014, p. 053130 (1-17), ISSN 1941-7012, DOI 10.1063/1.4899078, Accession Number WOS:000344590600030 https://aip.scitation.org/doi/full/10.1063/1.4899078	0.904	1.511	3.422
	6.	**Alexandru, C.**, Țotu, V. Method for the multi-criteria optimization of car wheel suspension mechanisms. Ingeniería e Investigación, vol. 36, nr. 2, 2016, p. 60-67, ISSN 0120-5609, DOI 10.15446/ing.investig.v36n2.52517, Accession Number WOS:000385596700009 https://revistas.unal.edu.co/index.php/ingeinv/article/view/52517	0.28	0.598	1.596
	7.	**Alexandru, C.** A mechanical integral steering system for increasing the stability and handling of motor vehicles. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol. 231, nr. 8, 2017, p. 1465-1480, ISSN 0954-4062, DOI 10.1177/0954406215624465, Accession Number WOS:000399692000006 http://journals.sagepub.com/doi/abs/10.1177/0954406215624465	0.996	1.359	3.118
	8.	**Alexandru, C.** Method for the quasi-static analysis of beam axle suspension systems used for road vehicles. Proceedings of the Institution of Mechanical	1.275	1.275	2.95

		Engineers, Part D: Journal of Automobile Engineering, vol. 233, nr. 7, 2019, p. 1818-1833, ISSN 0954-4070, DOI 10.1177/0954407018790159, Accession Number WOS:000474052400012 http://journals.sagepub.com/doi/full/10.1177/0954407018790159			
9.		**Alexandru, C.** Optimal design of the dual-axis tracking system used for a PV string platform. Journal of Renewable and Sustainable Energy, vol. 11, nr. 4, 2019, p. 043501(1-14), ISSN 1941-7012, DOI 10.1063/1.5109390, Accession Number WOS:000482886400008 https://aip.scitation.org/doi/10.1063/1.5109390	1.511	1.511	3.422
10.		Alexandru, P., Macaveiu, D., **Alexandru, C.** Design and simulation of a steering gearbox with variable transmission ratio. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol. 226, nr. 10, 2012, p. 2538-2548, ISSN 0954-4062, DOI 10.1177/0954406211433984, Accession Number WOS:000309206200013 http://journals.sagepub.com/doi/abs/10.1177/0954406211433984	0.633	1.359	3.118
11.		Alexandru, P., Macaveiu, D., **Alexandru, C.** A gear with translational wheel for a variable transmission ratio and applications to steering box. Mechanism and Machine Theory, vol. 52, 2012, p. 267-276, ISSN 0094-114X, DOI 10.1016/j.mechmachtheory.2012.02.005, Accession Number WOS:000302783300019 https://www.sciencedirect.com/science/article/pii/S0094114X12000420	1.214	3.535	7.47
12.		Alexandru, P., Vişa, I., **Alexandru, C.** Modeling the angular capability of the ball joints in a complex mechanism with two degrees of mobility. Applied Mathematical Modelling, vol. 38, nr. 23, 2014, p. 5456-5470, ISSN 0307-904X, DOI 10.1016/j.apm.2014.04.032, Accession Number WOS:000345721900009 https://www.sciencedirect.com/science/article/pii/S0307904X14002029	2.251	2.841	6.082
13.		Ioniță, M., **Alexandru, C.** Dynamic optimization of the tracking system for a pseudo-azimuthal photovoltaic platform. Journal of Renewable and Sustainable Energy, vol. 4, nr. 5, 2012, p. 053117(1-15), ISSN 1941-7012, DOI 10.1063/1.4757630, Accession Number WOS:000314153400020 https://aip.scitation.org/doi/full/10.1063/1.4757630	1.514	1.511	3.428
14.		Enescu, M., **Alexandru, C.** Optimal algorithm for spray pyrolysis deposition of TiO2 films by using an industrial robot. Journal of Renewable and Sustainable Energy, vol. 4, nr. 5, 2012, p. 053126 (1-11), ISSN 1941-7012, DOI 10.1063/1.4763565, Accession Number WOS:000314153400029 https://aip.scitation.org/doi/full/10.1063/1.4763565	1.514	1.511	3.428
15.		Tatu, N.I., **Alexandru, C.** Design and simulation of a photovoltaic string with tracking mechanism. Environmental Engineering and Management Journal, vol. 10, nr. 9, 2011, p. 1363-1370, ISSN 1582-9596, Accession Number WOS:000296758400020 http://eemj.eu/index.php/EEMJ/article/view/889	1.004	1.186	2.772
16.		**Alexandru, C.**, Pozna, C. Virtual prototype of a dual-axis tracking system used for photovoltaic panels. Proceedings of the 2008 IEEE International Symposium on Industrial Electronics - ISIE, 2008, p. 1598-1603, ISBN 978-1-4244-1665-3, DOI 10.1109/ISIE.2008.4676923, Accession Number WOS:000266702100046 http://ieeexplore.ieee.org/document/4676923/	0	0	0.4

17.	**Alexandru, C.**, Pozna, C. Different tracking strategies for optimizing the energetic efficiency of a photovoltaic system. Proceedings of the 16-th IEEE International Conference on Automation, Quality and Testing, Robotics - AQTR / THETA, 2008, vol. 3, p. 434-439, ISBN 978-1-4244-2576-1, DOI 10.1109/AQTR.2008.4588958, Accession Number WOS:000259080200079 http://ieeexplore.ieee.org/document/4588958/	0	0	0.4
18.	**Alexandru, C.**, Comşiţ, M. The energy balance of the photovoltaic tracking systems using virtual prototyping platform. Proceedings of the 5-th IEEE International Conference on the European Electricity Market - EEM, 2008, p. 253-258, ISBN 978-1-4244-1743-8, DOI 10.1109/EEM.2008.4579038, Accession Number WOS:000259866500043 http://ieeexplore.ieee.org/document/4579038/	0	0	0.4
19.	**Alexandru, C.** The design and optimization of a photovoltaic tracking mechanism. Proceedings of the 2nd IEEE International Conference on Power Engineering, Energy and Electrical Drives - POWERENG, 2009, p. 436-441, ISBN 978-1-4244-4611-7, DOI 10.1109/POWERENG.2009.4915246, Accession Number WOS:000272212400078 http://ieeexplore.ieee.org/document/4915246/	0	0	0.4
20.	**Alexandru, C.** Software platform for analyzing and optimizing the mechanical systems. Proceedings of the 10th IFToMM International Symposium on Science of Mechanisms and Machines - SYROM, 2009, p. 665-677, DOI 10.1007/978-90-481-3522-6_56, Accession Number WOS:000289492600056 https://link.springer.com/chapter/10.1007/978-90-481-3522-6_56	0	0	0.4
21.	**Alexandru, C.** Modeling and simulation of the tracking mechanism used for a photovoltaic platform. New Trends in Mechanism Science, Mechanisms and Machine Science, 2010, vol. 5, part 10, p. 575-582, ISBN 978-90-481-9688-3, DOI 10.1007/978-90-481-9689-0_66, Accession Number WOS:000395597100066 https://link.springer.com/chapter/10.1007/978-90-481-9689-0_66	0	0	0.4
22.	**Alexandru, C.** Optimal design of the mechanical systems using parametric technique & MBS (Multi-Body Systems) software. Advanced Materials Research, vol. 463-464, 2012, p. 1129-1132, ISSN 1662-8985, DOI 10.4028/www.scientific.net/AMR.463-464.1129, Accession Number WOS:000308114100220 https://www.scientific.net/AMR.463-464.1129	0	0	0.4
23.	**Alexandru, C.** Modeling and simulation in virtual prototyping environment of a photovoltaic tracking system. Applied Mechanics and Materials, vol. 436, 2013, p. 100-107, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.436.100, Accession Number WOS:000332261000014 https://www.scientific.net/AMM.436.100	0	0	0.4
24.	Ioniţă, M.A., **Alexandru, C.** Optimal design of the mechanical device for a photovoltaic tracking mechanism. Applied Mechanics and Materials, vol. 186, 2012, p. 114-123, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.186.114, Accession Number WOS:000310934500014 https://www.scientific.net/AMM.186.114	0	0	0.4
25.	Ioniţă, M.A., **Alexandru, C.** Parametric optimization of a tracking system for the photovoltaic modules. Proceedings of the IEEE International Conference on	0	0	0.4

		Automation, Quality and Testing, Robotics - AQTR, 2012, p. 313-318, ISBN 978-146730702-4, DOI 10.1109/AQTR.2012.6237723, Accession Number WOS:000400227100056 http://ieeexplore.ieee.org/document/6237723/			
	26.	Ioniță, M., **Alexandru, C.** Control system design for a mechatronic solar tracker. Applied Mechanics and Materials, vol. 332, 2013, p. 248-253, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.332.248, Accession Number WOS:000345269700037 https://www.scientific.net/AMM.332.248	0	0	0.4
	27.	Tatu, N.I., **Alexandru, C.** Modeling and simulation of the tracking mechanism for a PV string. Proceedings of the IEEE International Conference on Automation, Quality and Testing, Robotics - AQTR, 2012, p. 428-433, ISBN 978-146730702-4, DOI 10.1109/AQTR.2012.6237748, Accession Number WOS:000400227100078 http://ieeexplore.ieee.org/document/6237748/	0	0	0.4
	28.	Țoțu, V., **Alexandru, C.** Multi-criteria kinematic optimization of a front multi-link suspension mechanism using DOE screening and regression model. Applied Mechanics and Materials, vol. 332, 2013, p. 351-356, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.332.351, Accession Number WOS:000345269700051 https://www.scientific.net/AMM.332.351	0	0	0.4
P1.2	-	-	-	-	0
	29.	Alexandru, P., **Alexandru, C.** Correlating requirements regarding the command and the mechanical structure of the automotive steering system. Proceedings of the 10th International Symposium on Science of Mechanisms and Machines - SYROM, 2009, p. 217-226, ISBN 978-90-481-3521-9, DOI 10.1007/ 978-90-481-3522-6_17, Accession Number WOS:000289492600017 https://link.springer.com/chapter/10.1007/978-90-481-3522-6_17	0	0	0.2
	30.	Enescu, M., **Alexandru, C.** Virtual prototyping of a spraying robotic system. Environmental Engineering and Management Journal, vol. 10, nr. 8, 2011, p. 1197-1205, ISSN 1582-9596, Accession Number WOS:000296758300029 http://eemj.eu/index.php/EEMJ/article/view/867	1.004	1.186	2.772
P1.3	31.	Enescu, M., **Alexandru, C.**. Modeling and simulation of a 6 DOF robot. Advanced Materials Research, vol. 463-464, 2012, p. 1116-1119, ISSN 1662-8985, DOI 10.4028/www.scientific.net/AMR.463-464.1116, Accession Number WOS:000308114100217 https://www.scientific.net/AMR.463-464.1116	0	0	0.2
	32.	Enescu, M., **Alexandru, C.** Design of the user interface for a robotic spray pyrolysis system to deposit thin films. Applied Mechanics and Materials, vol. 332, 2013, p. 194-199, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.332.194, Accession Number: WOS:000345269700028 https://www.scientific.net/AMM.332.194	0	0	0.2
	33.	Enescu (Balaș), M.L., **Alexandru, C.** Parametric optimization in virtual prototyping environment of the control device for a robotic system used in thin layers deposition. IOP Conference Series: Materials Science and Engineering, vol. 147, 2016, p. 012087 (1-7), ISSN 1757-8981, DOI 10.1088/1757-	0	0	0.2

		899X/147/1/012087, Accession Number WOS:000390720200087 http://iopscience.iop.org/article/10.1088/1757-899X/147/1/012087			
	34.	Tatu, N.I., **Alexandru, C.** Designing the tracking system for a string of photovoltaic modules. Advanced Materials Research, vol. 463-464, 2012, p. 1589-1592, ISSN 1662-8985, DOI 10.4028/www.scientific.net/AMR.463-464.1589, Accession Number WOS:000308114100313 https://www.scientific.net/AMR.463-464.1589	0	0	0.2
P1.4	35.	Geonea, I.D., **Alexandru, C.**, Margine, A., Ungureanu, A. Design and simulation of a single DOF human-like leg mechanism. Applied Mechanics and Materials, vol. 332, 2013, p. 491-496, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.332.491, Accession Number: WOS:000345269700070 https://www.scientific.net/AMM.332.491	0	0	0.15
TOTAL P1 (P1.1+P1.2+P1.3+P1.4)					**63.18**

A2.2. Articole și publicații științifice BDI neincluse la A2.1

A2.2		Articole și publicații științifice indexate BDI
N3.1	1.	**Alexandru, C.** Dynamic analysis of the guiding mechanisms used for the rear axle of the commercial vehicles. International Review of Mechanical Engineering - IREME, 2009, vol. 3, nr. 1, p. 1-6, ISSN 1970-8734 https://www.praiseworthyprize.org/latest_issues/IREME-latest/IREME_vol_3_n_1.html
	2.	**Alexandru, C.** Testing the guiding-suspension system of the motor vehicles in virtual environment. International Review of Mechanical Engineering - IREME, 2009, vol. 3, nr. 5, p. 521-528, ISSN 1970-8734 http://www.praiseworthyprize.org/latest_issues/IREME-latest/IREME_vol_3_n_5.html
	3.	**Alexandru, C.**, Alexandru, P. A comparative analysis between the vehicles' passive and active suspensions. International Journal of Mechanics, vol. 5, nr. 4, 2011, p. 371-378, ISSN 1998-4448 https://pdfs.semanticscholar.org/2720/3f225577b141c4d27e698f7d93f7d6a87e1d.pdf
	4.	**Alexandru, C.**, Tatu, I.N. Simulating the virtual prototype of a photovoltaic tracking mechanism. Academic Journal of Manufacturing Engineering, Vol. 9, Nr. 1, 2011, p. 6-11, ISSN 1583-7904 https://www.researchgate.net/publication/286995361_Simulating_the_virtual_prototype_of_a_photovoltaic_tracking_mechanism
	5.	**Alexandru, C.**, Alexandru, P. Control strategy for an active suspension system. Proceedings of World Academy of Science, Engineering and Technology, vol. 79, 2011, p. 126-131, ISSN 2010-376X https://publications.waset.org/5393/pdf
	6.	**Alexandru, C.** Dynamic simulation in mechatronic concept of a photovoltaic string equipped with solar tracker. Applied Mechanics and Materials, vol. 555, 2014, p. 425-433, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.555.425 https://www.scientific.net/AMM.555.425
	7.	**Alexandru, C.** Multi-criteria dynamic optimization of a front wheels suspension system. Applied Mechanics and Materials, vol. 656, 2014, p. 129-136, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.656.129 https://www.scientific.net/AMM.656.129
	8.	Enescu, M., **Alexandru, C.** Regression model for optimizing the thin films deposition on planar photovoltaic cells. Mechanisms and Machine Science, 2014, vol. 18, p. 277-285, ISSN 2211-0984, DOI 10.1007/978-3-319-01845-4_28 https://link.springer.com/chapter/10.1007/978-3-319-01845-4_28

9.	Ioniță, M., **Alexandru, C.** Optimal design of the motion law for a pseudo-azimuthal tracking system. Mechanisms and Machine Science, 2014, vol. 18, p. 135-143, ISSN 2211-0984, DOI 10.1007/978-3-319-01845-4_14 https://link.springer.com/chapter/10.1007/978-3-319-01845-4_14
10.	Țoțu, V., **Alexandru, C.** Study concerning the effect of the bushings' deformability on the static behavior of the rear axle guiding linkages. Applied Mechanics and Materials, vol. 245, 2013, p. 132-137, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.245.132 https://www.scientific.net/AMM.245.132
11.	Țoțu, V., **Alexandru, C.** Optimal design of the front suspension mechanism used for a race car. Mechanisms and Machine Science, 2014, vol. 18, p. 243-253, ISSN 2211-0984, DOI 10.1007/978-3-319-01845-4_25 https://link.springer.com/chapter/10.1007/978-3-319-01845-4_25
12.	Țoțu, V., **Alexandru, C.** Dynamic simulation of a motor vehicle in virtual prototyping environment. Applied Mechanics and Materials, vol. 555, 2014, p. 369-374, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.555.369 https://www.scientific.net/AMM.555.369
13.	Țoțu, V., **Alexandru, C.** Dynamic optimization of a single-seater car suspension system. Applied Mechanics and Materials, vol. 658, 2014, p. 147-152, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.658.147 https://www.scientific.net/AMM.658.147
14.	**Alexandru, C.** Method for the kinetostatic analysis of the road vehicles axle suspensions. Mechanisms and Machine Science, vol. 57, 2018, p. 57-65, ISSN 2211-0984, DOI 10.1007/978-3-319-79111-1_6 https://link.springer.com/chapter/10.1007/978-3-319-79111-1_6
15.	**Alexandru, C.** Optimizing the mechanical device of a mono-axial sun tracking mechanism. MATEC Web of Conferences, vol. 184, 2018, Article Number 01001, ISSN 2261-236X, DOI 10.1051/matecconf/201818401001 https://doi.org/10.1051/matecconf/201818401001
16.	**Alexandru, C.** Optimizing the control system of a single-axis sun tracking mechanism. MATEC Web of Conferences, vol. 184, 2018, Article Number 01002, ISSN 2261-236X, DOI 10.1051/matecconf/201818401002 https://doi.org/10.1051/matecconf/201818401002
17.	**Alexandru, C.**, Alexandru, P. Dynamic analysis of a half-car model with active suspension. Proceedings of the 2nd International Conference on Circuits, Systems, Control, Signals - CSCS'11, 2011, p. 36-41, ISBN 978-1-61804-035-0 https://pdfs.semanticscholar.org/cf87/b9fff35c7cca91964cb54d3be712255d02df.pdf
18.	**Alexandru, C.**, Alexandru, P. Dynamic modeling and simulation in virtual environment of an active suspension system. Proceedings of the 14th International Conference on Systems - Latest Trends on Systems, 2010, vol. 1, p. 81-86, ISBN 978-960-474-199-1, ISSN 1792-4235 https://pdfs.semanticscholar.org/230b/3533136935a879dc20f643385e23ad04cfa3.pdf
19.	**Alexandru, C.**, Alexandru, P. The virtual prototype of a mechatronic suspension system with active force control. WSEAS Transactions on Systems, vol. 9, nr. 9, 2010, p. 927-936, ISSN 1109-2777 http://www.wseas.us/e-library/transactions/systems/2010/88-216.pdf
20.	**Alexandru, C.**, Pozna, C. A mechatronic model for the dynamic analysis of the windshield wiper linkages used for the motor vehicles. Proceedings of the 2nd International Conference on Engineering Mechanics, Structures and Engineering Geology - EMESEG, 2009, p. 60-65, ISSN 1790-2769, Accession Number WOS:000276584000007 https://pdfs.semanticscholar.org/ae4f/c3aed34e8719a4451e364016a28d271a4eff.pdf

21.	**Alexandru, C.**, Pozna, C. Dynamic modeling and control of the windshield wiper mechanisms. WSEAS Transactions on Systems, vol. 8, nr. 7, 2009, p. 825-834, ISSN 1109-2777 http://www.wseas.us/e-library/transactions/systems/2009/29-486.pdf
22.	**Alexandru, C.**, Pozna, C., Alexandru, P. Virtual mechatronic simulator for the dynamic analysis of the automotive guiding & suspension system. Annals of DAAAM for 2009 & Proceedings of the 20th International DAAAM Symposium p. 0263-0264, ISBN 978-3-901509-70-4, ISSN 1726-9679, Accession Number WOS:000282335600132 https://go.gale.com/ps/anonymous?id=GALE%7CA224712323
23.	**Alexandru, C.**, Pozna, C. Improving the energetic efficiency of the photovoltaic arrays using mechatronic solar trackers. Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium, p. 13-14, ISSN 1726-9679, ISBN 978-3-901509-68-1, Accession Number WOS:000262860100006 https://go.gale.com/ps/anonymous?id=GALE%7CA225315976
24.	**Alexandru, C.**, Pozna, C. The optimization in virtual environment of the mechatronic tracking systems used for improving the photovoltaic conversion. Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium, 2007, p. 007-008, ISBN 3-901509-58-5, ISSN 1726-9679, Accession Number WOS:000252067400004 https://go.gale.com/ps/anonymous?id=GALE%7CA177174467
25.	Marcu, A., **Alexandru, C.** Novel control design algorithm for a PV sun tracking mechanism. IOP Conference Series: Materials Science and Engineering, vol. 444, 2018, p. 052005(1-8), ISSN 1757-8981, DOI 10.1088/1757-899X/444/5/052005, Accession Number WOS:000467443600061 http://iopscience.iop.org/article/10.1088/1757-899X/444/5/052005
26.	**Alexandru, C.**, Comşiţ, M. Virtual prototyping of the solar tracking systems. Renewable Energy and Power Quality Journal, vol. 1, nr. 5, 2007, p. 105-110, ISSN 2172-038X, DOI 10.24084/repqj05.226 http://icrepq.com/icrepq07/226-alexandru.pdf
27.	**Alexandru, C.**, Comşiţ, M., Alexandru, P. Dynamic optimization of a 2-DOF pseudo-equatorial tracking system in virtual prototyping concept. Renewable Energy and Power Quality Journal, vol. 1, nr. 6, 2008, p. 40-45, ISSN 2172-038X, DOI 10.24084/repqj06.215 http://icrepq.com/icrepq-08/215-alexandru.pdf
28.	**Alexandru, C.**, Pozna, C. The optimization of the tracking mechanism used for a group of PV panels. Renewable Energy and Power Quality Journal, vol. 1, nr. 7, 2009, p. 245-249, ISSN 2172-038X, DOI 10.24084/repqj07.312 http://icrepq.com/ICREPQ%2709/312-alexandru.pdf
29.	**Alexandru, C.** Multi-body system simulation of the sun trackers used for PV panels. IOP Conference Series: Materials Science and Engineering, vol. 568, 2019, p. 012001(1-5), ISSN 1757-899X, DOI 10.1088/1757-899X/568/1/012001 https://iopscience.iop.org/article/10.1088/1757-899X/568/1/012001
30.	**Alexandru, C.** Dynamic simulation of the adaptive sun tracking system used for an electric unmanned ground vehicle. IOP Conference Series: Materials Science and Engineering, vol. 568, 2019, p. 012019(1-5), ISSN 1757-899X, DOI 10.1088/1757-899X/568/1/012019 https://iopscience.iop.org/article/10.1088/1757-899X/568/1/012019
31.	Marcu, A., **Alexandru, C.**, Barbu, I. Modeling and simulation of a dual-axis solar tracker for PV modules. IOP Conference Series: Materials Science and Engineering, vol. 514, 2019, p. 012036(1-6), ISSN 1757-899X, DOI 10.1088/1757-899X/514/1/012036 https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012036
32.	Marcu, A., **Alexandru, C.**, Barbu, I. Dynamic optimization of a dual-axis solar tracker for PV modules. IOP Conference Series: Materials Science and Engineering, vol. 514, 2019, p. 012037(1-6), ISSN 1757-

		899X, DOI 10.1088/1757-899X/514/1/012037
	.	https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012037
	33.	Alexandru, P., Macaveiu, D., **Alexandru, C.** Structure of linkages and cam gear for integral steering of vehicles. Proceedings of World Academy of Science, Engineering and Technology, vol. 80, 2011, p. 466-472, ISSN 2010-376X https://pdfs.semanticscholar.org/a82c/403f61fe3568a97a3eaf9f23020bc1ad8fc2.pdf
	34.	Enescu, M., **Alexandru, C.** Optimal design of the control system for an industrial robot using DOE technique and regression model. Applied Mechanics and Materials, vol. 658, 2014, p. 626-631, ISSN 1660-9336, DOI 10.4028/www.scientific.net/AMM.658.626 https://www.scientific.net/AMM.658.626
	35.	Niculescu, A., Dumitriu, D., Sireteanu, T., **Alexandru, C.** On "VZN" shock absorber concept performances. Proceedings of the 32nd FISITA World Automotive Congress, vol. 5, 2008, p. 304-313, , code 92497 https://www.researchgate.net/publication/275970008_on_vzn_shock_absorber_concept_perform ances
	36.	Thierheimer, A., **Alexandru, C.**, Thierheimer, W. Aspects regarding the experimental research of the stressors of the human pregnancy in case of road events. MATEC Web of Conferences, vol. 184, 2018, Article Number 01006, ISSN 2261-236X, DOI 10.1051/matecconf/201818401006 https://doi.org/10.1051/matecconf/201818401006
	37.	Lateş, M.T., **Alexandru, C.** Autonomous hybrid renewable energy system. Proceedings of the 3rd International Conference on Maritime and Naval Science and Engineering - MNSE, 2010, p.154-159, ISSN 1792-4707, Accession Number WOS:000290247500031 http://www.wseas.us/e-library/conferences/2010/Constantza/MN/MN-28.pdf
N3.2	38.	Pozna, C., **Alexandru, C.** A behaviorist knowledge representation. Proceedings of the 13th WSEAS International Conference on Systems, 2009, p. 196-201, ISSN 1790-2769, ISBN 978-960-474-097-0 http://www.wseas.us/e-library/conferences/2009/rodos/SYSTEMS/SYSTEMS24.pdf
	39.	Pozna, C., **Alexandru, C.** An epistemological comparison between fuzzy logic engines and bayesian filters. WSEAS Transactions on Systems and Control, vol. 3, nr. 6, 2008, p. 527-536, ISSN 1991-8763 https://pdfs.semanticscholar.org/0af6/ba45c1ce55ab55d78b70d392a05840776cc1.pdf
	40.	Pozna, C., **Alexandru, C.** Avoidance trajectory design for mobile robots. Annals of DAAAM for 2008 & Proceedings of the 19th International DAAAM Symposium p. 1135-1136, ISSN 1726-9679, ISBN 978-3-901509-68-1 https://go.gale.com/ps/anonymous?id=GALE%7CA225316537
	41.	Pozna, C., **Alexandru, C.** Mobile robot control by lerned behaviour. Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium, 2007, p. 605-607, ISBN 3-901509-58-5, ISSN 1726-9679 https://go.gale.com/ps/anonymous?id=GALE%7CA177174766
	42.	Tatu, N.I., **Alexandru, C.** Mono-axis vs bi-axis tracking for a string of photovoltaic modules. Renewable Energy and Power Quality Journal, vol. 1, nr. 9, p. 1448-1451, ISSN 2172-038X, DOI 10.24084/repqj09.696 http://icrepq.com/icrepq'11/696-tatu.pdf
	43.	Tatu, N.I., **Alexandru, C.**, Dombi, V.E. A step-by-step tracking program for a string of photovoltaic modules. Renewable Energy and Power Quality Journal, vol. 1, nr. 9, p. 1444-1447, ISSN 2172-038X, DOI 10.24084/repqj09.695 http://icrepq.com/icrepq'11/695-tatu.pdf

TOTAL N3 (N3.1+N3.2)	43
TOTAL N3.1	32

A2.3. Brevete de invenții indexate

Precizare: pentru brevete de invenții naționale (P2.2), FI = 0.5

A2.3		Brevete de invenții indexate	FI	Punctaj
P2.1	-	-	-	-
P2.2	1.	**Alexandru, C.**, Macaveiu, M.D., Alexandru, P. Dispozitiv de direcție. Brevet nr. RO 127279 B1, 2016 http://pub.osim.ro/publication-server/pdf-document?PN=RO127279%20RO%20127279&iDocId=8415&iepatch=.pdf	0.5	1.4
	2.	Macaveiu, M.D., Alexandru, P., Buta, A.C., **Alexandru, C.** Dispozitiv de direcție. Brevet nr. RO 127183 B1, 2016 http://pub.osim.ro/publication-server/pdf-document?PN=RO127183%20RO%20127183&iDocId=8413&iepatch=.pdf	0.5	0.525
	3.	Tatu, I.N., **Alexandru, C.** Mecanism de orientare pentru un șir de module fotovoltaice. Brevet nr. RO 128543 B1, 2019 https://osim.ro/wp-content/uploads/Publicatii-OSIM/BOPI-Inventii/2019/bopi_inv_12_2019.pdf	0.5	1.4
TOTAL P2 (P2.1 + P2.2)				**3.325**
TOTAL P1 + P2				**66.505**

Precizare: P1 este calculat la subcategoria A2.1 (Articole și publicații științifice indexate Web of Science Thomson Reuters)

A2.4. Produse, tehnologii, platforme și servicii inovative

A2.4		Produse, tehnologii, platforme și servicii inovative	Punctaj
N4.1	-	-	0
N4.2	-	-	0

A2.5. Monografii/cărți de specialitate, format tipărit/electronic (min. 100 pagini)

A2.4		Monografii/cărți de specialitate	Nr. pag.
N4.3	1.	**Alexandru, C.**, Repanovici, A. Bazele utilizării calculatoarelor în inginerie & biblioteconomie. Editura InfoMarket, 2000, ISBN 973-99827-1-9 https://www.worldcat.org/title/bazele-utilizarii-calculatoarelor-in-inginerie-in-biblioteconomie/oclc/895716921	247
	2.	**Alexandru, C.**, Todor, I. Sisteme ale automobilelor și autovehiculelor speciale. Modelarea cinematico - dinamică a sistemului de ghidare a punților auto. Editura Universității Transilvania din Brașov, 2002, ISBN 973-8124-83-2 https://www.worldcat.org/title/sisteme-ale-automobilelor-si-autovehiculelor-speciale/oclc/895108965	185
	3.	**Alexandru, C.**, Pozna, C. Dinamica sistemelor mecanice pe baza prototipării virtuale, cu aplicare la mecanismele suspensiei vehiculelor. Editura Universității Transilvania din Brașov, 2003, ISBN 973-635-225-0 https://www.worldcat.org/title/dinamica-sistemelor-mecanice-pe-baza-prototiparii-virtuale-cu-aplicare-la-mecanismele-suspensiei-vehiculelor/oclc/895763524	257

	4.	**Alexandru, C.**, Buta, A.C. Mecanismele ştergătoarelor de parbriz. Modelare şi prototipare virtuală. Editura Universităţii Transilvania din Braşov, 2006, ISBN 973-635-635-3 https://www.worldcat.org/title/mecanismele-stergatoarelor-de-parbriz-modelare-si-prototipare-virtuala-lucrare-realizata-in-cadrul-grantului-de-cercetare-cncsis-cod-1321/oclc/895544735	285
N4.4	1.	Alexandru, P., Vişa, I., **Alexandru, C.**, Talabă, D. Proiectarea funcţională a mecanismelor. Editura Lux Libris, Braşov, 1999, ISBN 973-9240-60-7 https://scholar.google.ro/scholar?hl=ro&as_sdt=0,5&cluster=6755720641163075254	286
	2.	Alexandru, P., Vişa, I., Talabă, D., **Alexandru, C.**, Antonya, C. Modelarea statico - dinamică a mecanismelor de ghidare ale roţilor automobilelor. Editura Lux Libris, 2005, ISBN 973-9458-32-7 https://www.dmg-lib.org/dmglib/handler?docum=11256009	354
	3.	Săvescu, D., Budală, A., **Alexandru, C.** Managementul firmei. Editura Universităţii Transilvania din Braşov, 2004, ISBN 973-635-352-4 https://www.worldcat.org/title/managementul-firmei/oclc/895268891	121
	4.	Vişa, I., Alexandru, P., Talabă, D., **Alexandru, C.** Proiectarea funcţională a mecanismelor. Metode clasice şi moderne. Editura Lux Libris, 2004, ISBN 973-9458-17-3 https://www.dmg-lib.org/dmglib/handler?docum=11254009	359
TOTAL N4 (N4.1 + N4.2 + N4.3 + N4.4)			8
TOTAL N4.3			4

Centralizator îndeplinire standarde minimale – domeniul CDI (A2)

Domeniul de activitate		Indicatori	Punctaj minim	Punctaj realizat	Îndeplinire criteriu
Activitatea de cercetare (A2)	A2.1 + A2.3	P1 + P2	10	**66.505**	DA
		P1	6	**63.18**	DA
	A2.2	N3	10	43	DA
		N3.1	5	32	DA
	A2.4 + A2.5	N4	2	8	DA
		N4.3	1	4	DA

A3. RECUNOAȘTEREA ȘI IMPACTUL ACTIVITĂȚII - RIA

A3.1. Atragere resurse financiare prin granturi/proiecte/contracte terți

Precizare: s-a considerat cursul valutar mediu pe perioada de derulare a proiectului, conform http://www.zf.ro/zf-utile/curs-valutar-cursul-de-schimb-al-pietei-valutare-8189477

Director sau responsabil partener la grant/proiect câștigat prin competiție națională sau internațională	LEI / RON	Curs mediu	EUR
Proiectarea funcțională a mecanismelor cu ghidare multiplă a roților nedirectoare ale automobilelor. Grant de cercetare CNCSIS - tip AT, cod 122/2000 & 66/2001, 2000-2001 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_122-66.pdf	7000	2.299	3044.80
Prototiparea virtuală a mecanismelor articulate, cu aplicabilitate la sistemele de ghidare - suspensie ale roților vehiculelor. Grant de cercetare CNCSIS - tip AT, cod 311/2002 & 150/2003, 2002-2003 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_311-150.pdf	8600	3.441	2499.27
Cercetarea, proiectarea și testarea mecanismelor ștergătorului de parbriz pe baza tehnologiilor moderne (modelare digitală, prototipare virtuală). Grant de cercetare CNCSIS - tip A, cod 1321/2004, 2004-2006 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_1321.pdf	39500	3.734	10578.47
Analiza și optimizarea în mediu virtual, pe platforme de prototipare digitală, a sistemelor mecatronice utilizate pentru eficientizarea conversiei radiației solare în energie electrică. Grant de cercetare CNCSIS - tip A, cod 892/2007, 2007-2008 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_892.pdf	168000	3.510	47863.25
Design de produs pentru dezvoltare durabilă. Platformă de cercetare CNCSIS, Consiliul Național al Cercetării Științifice din Învățământul Superior, contract nr. 14/2006, cod CNCSIS 79/2006, 2006-2007 (director administrativ) - *conform structurii de management a proiectului, se raporteaza 1/3 din valoarea totală (2962500 lei)* https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_79_06.pdf	987500	3.515	280938.83
TOTAL EUR			344924.62
TOTAL S1			344.92

Membru în echipă la grant/proiect câștigat prin competiție națională sau internațională, proiecte/contracte terți	LEI / RON	Curs mediu	EUR
Cercetarea teoretică și experimentală a mecanismelor articulate de ghidare cu aplicabilitate la mașini rutiere și agricole. Program major de cercetare, cod CNCSIS 5/1998, 1999-2001, director proiect Petre Alexandru (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_C_5.pdf	55075	2.076	26529.38
Studiul unor structuri noi de mecanisme articulate și roți dințate pentru suspensia - direcția auto, în context mecatronic. Proiect PNII - IDEI - PCE, cod 607/2008, 2009-2011, director proiect Petre Alexandru (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/PNII_PCE_607.pdf	182000	4.228	43046.36
Cercetări privind noi sisteme cognitive bazate pe experimentarea relațiilor cauzale. Proiect PNII - IDEI - PCE, cod 842/2008, 2009-2011, director proiect Claudiu Pozna (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/PNII_PCE_842.pdf	169500	4.228	40089.88

Modelarea şi simularea comportamentului unui sistem electric de reducere a tensiunilor. Contract cu terţi, beneficiar AUTOLIV Romania, contract nr. 16244/2016, 2016-2017 (responsabil contract) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/Autoliv_16244.pdf	5610	4.529	1238.68
Dezvoltarea metodologiilor de proiectare a roboţilor industriali modulari. Grant de cercetare CNCSIS - tip A, cod 895/2007, 2007-2008, director proiect Claudiu Pozna (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CNCSIS_895.pdf	30000	3.510	8547.00
Sisteme mecanice noi pentru creşterea eficienţei conversiei energiei solare în energie electrică. Planul Naţional Cercetare-Dezvoltare-Inovare (PNCDI) - programul CEEX, cod 752/2006, 2006 - 2008, director de proiect Ion Vişa (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/CEEX_752.pdf	39800	3.515	11322.90
Creşterea eficienţei conversiei energiei solare în platforme fotovoltaice orientabile (PLATSOL-PV). Planul Naţional Cercetare-Dezvoltare-Inovare II (PNCDI II) - programul Parteneriate, cod 21-003/2007, director de proiect Ion Vişa (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/PNII_PART_21.pdf	20000	4.043	4946.82
Building a Web-Based Trainers Wide Open Resource for Learning and Development. ANPCDEFP - programul Leonardo da Vinci, 2004-2006, proiect pilot RO/02/B/F/PP 141053, director de proiect Mircea Neagoe (membru echipă) https://intranet.unitbv.ro/Portals/0/UserFiles/User108/WBT.pdf	-	-	6935
TOTAL EUR			142656.02
TOTAL S2			142.66
TOTAL S1 + S2			487.58

A3.2. Prezentarea/Diseminarea rezultatelor: prezenţă la manifestări ştiinţifice în calitate de autor/co-autor de lucrări, profesor invitat - Congrese/conferinţe/workshopuri internaţionale

Precizare: se raportează participarea la congrese / conferinţe internaţionale desfăşurate în străinătate după ultima promovare (2004) şi respectiv la conferinţe internaţionale desfăşurate în ţară în calitatea de keynote/invited speaker

A3.2		Congres / conferinţă internaţională	Lucrare(-ări) prezentată(-e)
N5	1.	IX IFToMM International Conference on the Theory of Machines and Mechanisms – TMM, Liberec, Czech Rep., 2004 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/TMM_2004.pdf	Functional design of the windshield wiper mechanisms using virtual models Modeling of the windshield wiper mechanisms as multibody systems
	2.	4th International Conference Research and Development in Mechanical Industry – RaDMI Zlatibor, Serbia and Montenegro, 2004 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/RADMI_2004.pdf	Kinematic analysis of the guiding axle linkages modelled as multibody systems Kinematic optimization of the four-bar steering linkage used for off-road vehicles
	3.	9th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology – TMT, Antalya, Turkey, 2005 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/TMT_2005.pdf	Equilibrium position of car suspension McPherson type

	4.	K-55 International Scientific Conference, VSB - Technical University of Ostrava, Czech Rep., 2005 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/K55_2005.pdf	Kinematic analysis and optimization of the windshield wiper mechanisms using MBS software
	5.	10th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology – TMT, Lloret de Mar, Spain, 2006 https://www.tmt.unze.ba/proceedings2006.php	Simulation and control of the tracking systems used for the photovoltaic panels Design algorithm of the windshield wiper mechanisms of the passenger vehicles
	6.	21st European Photovoltaic Solar Energy Conference – EUPVSEC, Dresden, Germany, 2006 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/EUPVSEC_2006.pdf	The virtual prototype of a complex PV panels - system with tracking
	7.	5th International Conference on Renewable Energy and Power Quality – ICREPQ, Sevilla, Spain, 2007 http://icrepq.com/icrepq07-papers.htm	Virtual prototyping of the solar tracking systems
	8.	11th European Automotive Congress – EAEC, Budapest, Hungary, 2007 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/EAEC_2007.pdf	The virtual prototyping of the windshield wiper systems in mechatronic concept
	9.	11th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology – TMT, Hammamet, Tunis, 2007 https://www.tmt.unze.ba/proceedings2007.php	Dynamic analysis & simulation of the photovoltaic tracking systems Design of the photovoltaic tracking systems by considering the energy balance
	10.	22st European Photovoltaic Solar Energy Conference – EUPVSEC, Milano, Italy, 2007 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/EUPVSEC_2007.pdf	Evaluating the energetic efficiency of a dual-axis tracking system by using virtual prototyping tools
	11.	18th International Danube Adria Association for Automation and Manufacturing Symposium, Zadar, Croatia, 2007 https://go.gale.com/ps/anonymous?id=GALE%7CA177174467	The optimization in virtual environment of the mechatronic tracking systems used for improving the photovoltaic conversion
	12.	12th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology – TMT, Istanbul, Turkey, 2008 https://www.tmt.unze.ba/proceedings2008.php	The dynamic optimization of the tracking mechanisms used for increasing the photovoltaic conversion
	13.	6th International Conference on Renewable Energy and Power Quality – ICREPQ, Santander, Spain, 2008 http://www.icrepq.com/papers-icrepq08.htm	Dynamic optimization of a 2-DOF pseudo-equatorial tracking system in virtual prototyping concept
	14.	7th International Symposium on Tools and Methods of Competitive Engineering – TMCE, Izmir, Turkey, 2008 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/TMCE_2008.pdf	Dynamic analysis and optimization of the photovoltaic tracking systems using virtual prototyping tools
	15.	5th IEEE International Conference on the European Electricity Market – EEM, Lisbon, Portugal, 2008 https://ieeexplore.ieee.org/document/4579038	The energy balance of the photovoltaic tracking systems using virtual prototyping platform

16.	IEEE International Symposium on Industrial Electronics – ISIE, Cambridge, England, 2008 http://ieeexplore.ieee.org/document/4676923/	Virtual prototype of a dual-axis tracking system used for photovoltaic panels
17.	23rd European Photovoltaic Solar Energy Conference – EUPVSEC, Valencia, Spain, 2008 https://www.eupvsec-proceedings.com/proceedings?char=S&paper=2552	Strategy for optimizing the dynamic behavior of a polar tracking system
18.	10th World Renewable Energy Congress – WREC X, Glasgow, Scotland, 2008 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/WREC_2008.pdf	Developing the virtual prototype of the tracking system used for a PV array in mechatronic concept
19.	International Conference on Theory of Machines and Mechanisms – TMM, Bielsko Biała, Poland, 2008 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/TMM_2008.pdf	Dynamic analysis of the windshield wiper mechanisms in mechatronic concept Testing the solar tracking mechanisms in virtual environment
20.	19th International Danube Adria Association for Automation and Manufacturing Symposium, Trnava, Slovakia, 2008 https://go.gale.com/ps/anonymous?id=GALE%7CA225315976	Improving the energetic efficiency of the photovoltaic arrays using mechatronic solar trackers
21.	7th International Conference on Renewable Energy and Power Quality – ICREPQ, Valencia, Spain, 2009 http://www.icrepq.com/papers-icrepq09.htm	The optimization of the tracking mechanism used for a group of PV panels
22.	2nd International Conference on Engineering Mechanics, Structures and Engineering Geology – EMESEG, Rodos Island, Greece, 2009 https://pdfs.semanticscholar.org/ae4f/c3aed34e8719a4451e364016a28d271a4eff.pdf	A mechatronic model for the dynamic analysis of the windshield wiper linkages used for the motor vehicles
23.	2nd IEEE International Conference on Power Engineering, Energy and Electrical Drives – POWERENG, Lisbon, Portugal, 2009 http://ieeexplore.ieee.org/document/4915246/	The design and optimization of a photovoltaic tracking mechanism
24.	12th European Automotive Congress - EAEC, Bratislava, Slovakia, 2009 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/EAEC_2009.pdf	The dynamic analysis & simulation of the guiding - suspension system of the motor vehicles using the virtual prototyping technique
25.	20th International Danube Adria Association for Automation and Manufacturing Symposium, Vienna, Austria, 2009 https://go.gale.com/ps/anonymous?id=GALE%7CA224712323	Virtual mechatronic simulator for the dynamic analysis of the automotive guiding & suspension system
26.	IEEE International Symposium on Industrial Electronics – ISIE, Bari, Italy, 2010 http://www.isie2010.it/program.html#p01029	Design and simulation of an active - mechatronic tracking system
27.	25th European Photovoltaic Solar Energy Conference and Exhibition / 5th World Conference on Photovoltaic Energy Conversion, Valencia, Spain, 2010	Tracking mechanism for a group of photovoltaic modules

		https://www.eupvsec-proceedings.com/proceedings?tagged&paper=7126	
	28.	14th International Conference on Systems - Latest Trends on Systems, Corfu, Greece, 2010 https://pdfs.semanticscholar.org/230b/3533136935a879dc20f643385e23ad04cfa3.pdf	Dynamic modeling and simulation in virtual environment of an active suspension system
	29.	World Academy of Science, Engineering and Technology International Conference - WASET, Paris, France, 2011 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/WASET-1_2011.pdf	Control strategy for an active suspension system
	30.	2nd International Conference on Circuits, Systems, Control, Signals – CSCS, Prague, Czech Rep., 2011 https://pdfs.semanticscholar.org/cf87/b9fff35c7cca91964cb54d3be712255d02df.pdf	Dynamic analysis of a half-car model with active suspension
	31.	26th European Photovoltaic Solar Energy Conference and Exhibition, Hamburg, Germany, 2011 https://www.eupvsec-proceedings.com/proceedings?char=D&paper=11052	Designing and optimizing the control system of the tracking mechanism for a string of photovoltaic modules
	32.	15th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology - TMT, Prague, Czech Rep., 2011 http://www.tmt.unze.ba/proceedings2011.php	Gear mechanisms for integral steering of vehicles
	33.	21st International Research/Expert Conference Trends in the Development of Machinery and Associated Technology - TMT, Karlovy Vary, Czech Rep., 2018 https://www.tmt.unze.ba/proceedings2018.php	Numerical method for the kinematic analysis of the McPherson guiding mechanisms used for the rear wheels of the passenger cars Modeling and simulation as multi-body system of a complex windshield wiper mechanism for motor vehicles
Keynote/invited speaker la conferințe internaționale		
	34.	4th International Conference on Smart Systems in all Fields of the Life-Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechanics, Neurorehabilitation, and Human Motricities, 2013 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/KS_ICMERA_2013.pdf	Modeling and simulation in virtual prototyping environment of a photovoltaic tracking system
	35.	9th International Conference on Modeling and Optimization of the Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechanics, Neurorehabilitation, and Human Motricities – OPTIROB, Mangalia, 2014 https://intranet.unitbv.ro/Portals/0/UserFiles/User108/KS_OPTIROB_2014.pdf	Dynamic simulation in mechatronic concept of a photovoltaic string equipped with solar tracker
	36.	5th International Conference on Monitoring, Controlling and Architecture of Cyber Physical Systems and Their Applications in Aerospace, Robotics, Manufacturing Systems,Mechanical Engineering, Biomechatronics,Neurorehabilitation,	Multi-criteria dynamic optimization of a front wheels suspension system

		and Human Motility – ICMERA, București, 2014 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_ICMERA_2014.pdf	
37.	10th International Conference on Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechanics, Neurorehabilitation and Human Motricities - OPTIROB, Jupiter, 2015 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_OPTIROB_2015.pdf	Analytical algorithm for the optimal kinematic design of the wheel suspension mechanisms
38.	6th International Conference on Smart Systems in Aerospace, Robotics, Manufacturing Systems, Mechanical Engineering, Bioengineering, Neurorehabilitation, Materials Engineering, Renewable Energy, Bioenergy, Civil Engineering and Human Motricities – ICMERA, București, 2015 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_ICMERA_2015.pdf	Dynamic modeling and simulation of a 4-wheel integral steering vehicle
39.	11th International Conference on Cyber Systems in the fields of Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechanics, Biomechatronics, Neurorehabilitation and Bioengineering - OPTIROB, Jupiter, 2016 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_OPTIROB_2016.pdf	Analytical method for determining the static equilibrium position of the rear axles guiding mechanisms of the motor vehicles
40.	7th International Conference on Cyber Systems in All Fields of the Life Aerospace, Robotics, Mechanical Engineering, Manufacturing Systems, Biomechatronics, Neurorehabilitation and Human Motricities – ICMERA, București, 2016 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_ICMERA_2016.pdf	Simulation of a mechatronic dual-axis tracking system for PV panels
41.	12th International Conference on Design, Modeling and Optimization in the field of Aerospace, Robotics, Manufacturing Systems,Mechanical Engineering, Bioengineering, Power and Energy Engineering, Materials Engineering and Neurorehabilitation – OPTIROB, Jupiter, 2017 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_OPTIROB_2017.pdf	Multi-criteria optimization of the mechanical systems by virtual prototyping tools
42.	13th International Conference on Design, Modeling and Optimization in the fields of Aerospace, Robotics, Manufacturing Systems, Mechanical Engineering, Biomechanics, Power Energy, Materials Technology and Neurorehabilitation – OPTIROB, Jupiter, 2019 https://intranet.unitbv.ro/Portals/0/UserFiles/User1 08/KS_OPTIROB_2019.pdf	Design of the mechatronic system used for improving the efficiency of the solar energy conversion devices
TOTAL N5			42

A3.3. Citări în publicații BDI (WOS/Clarivate Analytics & SCOPUS)

Precizări:

- s-a considerat factorul de impact (FI) din anul publicării articolului în care apare citarea (pentru articolele publicate în 2019-2020, s-a considerat ultimul factor de impact disponibil - JCR 2018).
- nu s-au introdus link-uri pentru citările WOS/Clarivate Analytics deoarece link-urile în această bază de date se generează pe sesiune de lucru, fără a mai fi valabile la accesare ulterioară.

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Citări WOS		
TOTAL C1		279
TOTAL S$_{FI}$		321.792
TOTAL A3.3 (C = C1 + S$_{FI}$)		600.792

Centralizator îndeplinire standarde minimale – domeniul RIA (A3)

Domeniul de activitate		Indicatori	Punctaj minim	Punctaj realizat	Îndeplinire criteriu
Recunoașterea impactului activității (A3)	A3.1	S1 + S2	50	487.58	DA
	A3.2	N5	10	42	DA
	A3.3	C	25	600.792	DA

CENTRALIZATOR ÎNDEPLINIRE STANDARDE MINIMALE – DID (A1), CDI (A2), RIA (A3)

Domeniul de activitate		Indicatori	Punctaj minim	Punctaj realizat	Îndeplinire criteriu
Activitatea didactică / profesională (A1)	A1.1	N1	2	4	DA
		N1.1	1	3	DA
		N1.3	1	4	DA
	A1.2	N2	4	9	DA
		N2.1	2	5	DA
Activitatea de cercetare (A2)	A2.1 + A2.3	P1 + P2	10	66.505	DA
		P1	6	63.18	DA
	A2.2	N3	10	43	DA
		N3.1	5	32	DA
	A2.4 + A2.5	N4	2	8	DA
		N4.3	1	4	DA
Recunoașterea impactului activității (A3)	A3.1	S1 + S2	50	487.58	DA
	A3.2	N5	10	42	DA
	A3.3	C	25	600.792	DA
TOTAL PUNCTAJ			129*	1372.057*	*

*) nu există indicator minimal pe punctajul total

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