

FIȘĂ DE VERIFICARE
a îndeplinirii standardelor minimale

Comisia CNATDCU nr.17 –Inginerie mecanică, mecatronică și robotică și inginerie genistică și de armament

Prof.univ.dr.ing. TRANĂ Eugen

Nr. crt.	Domeniul activităților	Rezultatele activităților	Subcategoriile		Indicatori	Indicatori realizați	
1	Activitate didactică și profesională DID (A1)	Manuale suport de curs (conform fișei disciplinei de concurs)	A1.1	Format tipărit/ electronic (min.100 pag.)	Coordonator/ prim autor	N1.1= număr	2
				Co-autor	N1.2= număr	0	
			Format electronic disponibil pe platform universității/departamentului (autor)	N1.3= număr	2		
		Material didactic / Dezvoltare laboratoare, aplicații	A1.2	Standuri laborator (construcție/modernizări) certificate de directorul de departament	N2.1= număr	2	
				Îndrumar de laborator/carte aplicații format tipărit sau electronic (autor, co-autor)	N2.2= număr	2	
Aplicație informatică educațională	N2.3= număr			0			
2	Activitate de cercetare științifică, dezvoltare tehnologică și inovare CDI (A2)	Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS)	A2.1	Autor corespondent / prim autor	$n \leq 3$	$P1.1 = 2 \cdot (0,2 + FI)$	0
				$n \geq 4$	$P1.2 = 2 \cdot 3 \cdot (0,2 + FI) / n$	4,87	
			Co-autor	$n \leq 3$	$P1.3 = 0,2 + FI$	1,72	
				$n \geq 4$	$P1.4 = 3 \cdot (0,2 + FI) / n$	5,83	
		Articole și publicații științifice BDI neincluse la A2.1	A2.2	Autor corespondent / prim autor	N3.1= număr	8	
				Co-autor	N3.2= număr	12	
		Brevete de invenții indexate	A2.3	Internaționale indexate în Web of Science – Derwent Innovation	P2.1= același calcul cu A2.1 și FI=2	0	
				Nationale indexate OSIM	P2.2= același calcul cu A2.1 și FI=0,5	0	
		Produce, tehnologii, platform și servicii inovative (validate conform procedurilor specific unităților de învățământ superior sau de cercetare)	A2.4	Coordonator/prim autor	N4.1= număr	0	
				Co-autor	N4.2= număr	0	
Monografii/cărți de specialitate, format tipărit/electronic (min.100 pag.)	A2.5	Coordonator/prim autor	N4.3= număr	2			
		Co-autor	N4.4= număr	0			
3	Recunoașterea și impactul activității RIA (A3)	Atragere resurse financiare prin granturi/proiecte/contracte cu terți	A3.1	Director sau responsabil partener la grant/proiect câștigat prin competiție națională sau internațională	S1= sumă echivalentă în mii Euro	169	
				Membri în echipă la grant/proiect câștigat prin competiție națională sau internațională, proiecte/contracte terți	S2= sumă echivalentă în mii Euro	0	
		Prezentare/Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor/co-autor de lucrări, profesor invitat	A3.2	Congrese/conferințe/workshopuri internaționale, profesor invitat la universități/institute din străinătate	N5= număr	27	
		Citări în publicații BDI (se exclud autocitările)	A3.3	C1= numărul de citări S _{FI} = suma factorilor de impact al publicațiilor WOS în care apar citările	C= C1+S _{FI}	81,05	

Condiții minimale și obligatorii				Indicatori realizați
Domeniul de activitate		Indicatori		
Activitate didactică și profesională DID (A1)	A1.1	N1	2	4
		N1.1	1	2
		N1.3	1	2
	A1.2	N2	4	4
		N2.1	2	2
Activitate de cercetare științifică, dezvoltare tehnologică și inovare CDI (A2)	A2.1 + A2.3	P1+P2	10	12,46
		P1	6	12,46
	A2.2	N3	10	20
		N3.1	6	8
	A2.4 + A2.5	N4	2	2
		N4.3	1	2
Recunoașterea și impactul activității – RIA (A3)	A3.1	S1+S2	50	169
	A3.2	N5	10	27
	A3.3	C	25	81,05

unde:

$P1=P1.1+P1.2+P1.3+P1.4$; $P2=P2.1+P2.2$;

$N1=N1.1+N1.2$; $N2=N2.1+N2.2+N2.3$; $N3=N3.1+N3.2$;

$N4=N4.1+N4.2+N4.3+N4.4$.

JUSTIFICAREA INDICATORILOR

I. Activitate didactică și profesională DID (A1)

A1.1 Manuale suport de curs

Criteriul N1.1

1. **Eugen Trană**, *Curs de construcția și exploatarea rachetelor*, Editura Academiei Tehnice Militare, 2019, ISBN 978-973-640-303-3, 133 pag. – punctaj 1
2. **Eugen TRANĂ**, Bogdan-Gheorghe PULPEA *Muniții și focoase*, Editura Academiei Tehnice Militare, 2017, ISBN 978-973-640-264-7, 204 pag. – punctaj 1

Criteriul N1.2

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Criteriul N1.3

1. **Eugen Trană**, *Curs balistica interioară a motoarelor rachetă*, 2015, Platforma e-learning a Academiei Tehnice Militare, „Ferdinand I”, 62 pag. – punctaj 1
2. **Eugen Trană**, - *Curs concepte avansate privind modelarea și simularea comportării materialelor la șoc și impact*, 2019, Platforma e-learning a Academiei Tehnice Militare, „Ferdinand I”, 47 pag.– punctaj 1

Punctaj criteriu N1.1–2p

Punctaj criteriu N1.3–2p

Punctaj criteriu N1 –4p

A1.2 Material didactic / Dezvoltare laboratoare, aplicații

Criteriul N2.1

1. **Echipament gazodinamic cu un singur etaj** –Laboratorul de testare în regim dinamic al materialelor – punctaj 1
2. **Echipament gazodinamic cu două etaje** – Laboratorul de testare în regim dinamic al materialelor – punctaj 1

Criteriul N2.2

1. **Eugen Trană**, Adrian Rotariu, Bogdan Pulpea, *Calculul și construcția munițiilor. Îndrumar de laborator*, Editura Academiei Tehnice Militare, 2019, ISBN 978-973-640-302-6– punctaj 1
2. Sorinel Bălășoiu, **Eugen Trană**, *Calculul și construcția focoaselor. Îndrumar de laborator*, Editura Academiei Tehnice Militare, 2019, ISBN 978-973-640-304-0– punctaj 1

Criteriul N2.3

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Punctaj criteriu N2.1–2p

Punctaj criteriu N2–4p

II. Activitate de cercetare științifică, dezvoltare tehnologică și inovare CDI (A2)

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

Criteriul P1

Nr.c rt.	Autori, denumire articol, revista	Factor de impact / an	Criteriul P1.1	Criteriul P1.2	Criteriul P.1.3	Criteriul P1.4
1	G. B. Pulpea, I. Vedinaș, T. Zecheru, E. Trană , R. Ștefănoiu, R.M. Lungu, T. Rotariu, <i>Thermal systems capabilities using infrared obscurants, Journal of optoelectronics and advanced materials</i> , ISSN 1454-4164, vol.19, ISS 1-2/2017, pp. 16-26, WOS:000400880700004	0,631 / 2019-2020	-	-	-	0,36
2	Constantin Enache, Eugen Trană , Traian Rotariu, Adrian Rotariu, Viorel Tudor Țigănescu, Teodora Zecheru, <i>Numerical simulation and experimental tests on explosively-induced water jets phenomena</i> , Propellants, Explosives, Pyrotechnics, ISSN 0721-3115 (Online ISSN: 1521-4087), vol.41(6), pp. 1020-1028, 2016, WOS:000390799100009	1,908 / 2016	-	-	-	1,05
3	Traian Rotariu, Constantin Enache, Doru-Adrian Goga, Gabriela Toader, Izabela-Cristina Stancu, Andrada Serafim, Sorin Eșanu, Eugen Trană , <i>Theoretical and experimental studies on new plastic pyrotechnic compositions</i> , Materiale plastice, ISSN 0025-5289 (On-line ISSN 2668-8220), vol.53 (2), pp. 240-246, 2016, WOS:000380629300013	1,517 / 2019-2020	-	-	-	0,64
4	Waldemar A. Trzcinski, Qi-Long Yan, Stanislaw Cudzilo, Eugen Trană , Liviu Matache, Traian Rotariu, Robert Matyas, Svatopluk Zeman, Michael Gozin, <i>Thermobaric effects formed by aluminium foils enveloping cylindrical charges</i> , Combustion and Flame, ISSN 0010-2180, vol.166, pp. 148-157, 2016, WOS:000372768300014	4,570 / 2019-2020	-	-	-	1,79

Nr. crt.	Autori, denumire articol, revista	Factor de impact / an	Criteriul P1.1	Criteriul P1.2	Criteriul P.1.3	Criteriul P1.4
5	Lavinu Haller, Boumedienne Nedjar, Ziad Moumni, Ioan Vedinaș, Eugen Trană , <i>A thermomechanical model accounting for the behavior of shape memory alloys in finite deformations</i> , Continuum Mechanics and Thermodynamics, ISSN 0935-1175 (Online ISSN: 1432-0959), vol.28, issue 4, pp. 957-975, 2015, WOS:000378783100003	2,139 / 2019-2020	-	-	-	1,40
6	Rotariu Adrian, Trană Eugen , Dima Cornel, Enache Constantin, Timplaru Florin, Matache Liviu, <i>Uninstrumented measurement method for granular porous media blast mitigation assessment</i> , Experimental Techniques, ISSN 0732-8818 (Online ISSN: 1747-1567), vol.40, issue 3, pp. 993-1003, 2016, WOS:000384753400009	1,058 / 2019-2020	-	-	-	0,63
7	Eugen TRANĂ , Adrian-Nicolae Rotariu, Paul Lixandru, Liviu-Cristian Matache, Constantin Enache, Teodora Zecheru, <i>Experimental and numerical investigation on 6082 0 temper aluminium alloy cartridge tubes drawing</i> , Journal of Materials Processing Technology, ISSN 0924-0136, vol.216, pp. 59-70, 2015, WOS:000347020800007	4,669 / 2019-2020	-	4,87	-	-
8	Florina BUCUR, Eugen TRANĂ , Adrian ROTARIU, <i>Numerical and experimental study on the locally blast loaded polyurea coated steel plates</i> , Materiale Plastice, ISSN 0025-5289 (On-line ISSN 2668-8220), Vol.56 (3), pp. 492-499, 2019, WOS:000487764000005	1,517 / 2019-2020	-	-	1,72	-
TOTAL CRITERII			0	4,87	1,72	5,87
TOTAL GENERAL			12,46			

Punctaj criteriu P1–12,46p

A2.3 Brevete de invenții indexate

Criteriaul P2.1

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Criteriaul P2.2

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Punctaj criteriu P2–0p

Punctaj criteriu P1+P2–12,46p

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

Criteriaul N3.1

Nr. crt.	Autori, Denumire lucrare științifică, revista	Baza de date	Punctaj
1	Eugen TRANĂ , Adrian N. ROTARIU, Traian ROTARIU, Bogdan Gh. PULPEA, Cristian E. MOLDOVEANU , Florina BUCUR , Liviu C. MATACHE, Michael GOZIN, <i>Experimental study on aluminum foils use in blast enhancement application</i> , Proceedings of the Romanian Academy, Series A, ISSN 1454-9069, vol.20, no.3, pp.275-282, 2019, WOS:000485880200008	WOS	1
2	Eugen TRANĂ , Florina BUCUR, Adrian N. ROTARIU, <i>On the fragmentation of explosively-driven plastic/steel layered cylinders</i> , Materiale Plastice, ISSN 0025-5289 (On-line ISSN 2668-8220), vol.55 (4), pp 521-523, 2018, WOS:000454987400013	WOS	1
3	Trană Eugen , Cherecheș Tudor, <i>Aspects regarding terminal ballistics in Taylor tests</i> , Annals of DAAAM for 2007 & Proceedings of the 18th International DAAAM Symposium: Intelligent Manufacturing & Automation: Focus on creativity, responsibility, and ethics of engineers, Zadar, Croația, 2007 (pp 84-89, ISBN 978-3-90150-958-2), WOS:000252067400388	WOS	1
4	Trană Eugen , Cherecheș Tudor, Bugaru Mihai, Zecheru Teodora, <i>Johnson-Cook Constitutive Model for OL 37 Steel</i> , Proceedings of 6 th WSEAS Int.Conf. on System Science and Simulation in Engineering, Veneția, Italia, 2007 (ISSN 1790-5117, ISBN 978-960-6766-14-5, pp 269-274), WOS:000254162400043	WOS	1
5	Rotariu, A.-N., Matache, L., Bucur, F., Cirmaci-Matei, M.V., Mărmureanu, M., Trană, E.^{a,c} , <i>Implementation of a Gumbel distribution function in interior ballistic calculations for deterred propellants</i> , UPB Scientific Bulletin, Series B: Chemistry and Materials Science, ISSN 1454-2331, Volume 82, Issue 1, pp 167-178, 2020, WOS:000550837300014	WOS	1
6	Bucur F., Rotariu A., Trană E.^{a,c} , Ștefan A., <i>Experimental and numerical study on the mitigation capability of some special design structures</i> , International Journal of Modern Manufacturing Technologies, ISSN 2067–3604, Vol. XII, No. 1/2020, pp 7-15, Scopus - Document details	SCOPUS	1

7	Bucur F., Rotariu A., Matache L., Baciuf F., Jiga G., Trană E. ^{a,c} , <i>Experimental and Numerical Study on the Behavior of HB26 Dyneema Composite in Compression</i> , Materiale Plastice, ISSN 0025-5289 (On-line ISSN 2668-8220), vol.57 (2, pp. 113-122), 2020, WOS:000579451200012	WOS	1
8	Rotariu A.N., Bucur F., Cirmaci-Matei M.V., Matache L.C. and Trana E. ^{a,c} , <i>Development of the analytic relations for the propellant grain geometrical characteristics required for a maximum pressure plateau feature</i> , IOP Conference Series Journal of Physics 1507:022025, 2020, doi:10.1088/1742-6596/1507/2/022025, Scopus - Document details	SCOPUS	1
TOTAL			8

Criteria N3.2

Nr. crt.	Autori, Denumire lucrare științifică, revista	Baza de date	Punctaj
1	Liviu-Cristian Matache, P. Lixandru, T. Cherecheș, A. Mazuru, D. Cherecheș, V. Geantă, I. Voiculescu, E. Trană , A.N. Rotariu, <i>Determination of material constants for high strain rate constitutive model of high entropy alloys</i> , IOP Conference Series Materials Science and Engineering 591:012057, 2019, WOS:000562929900057	WOS	1
2	Liviu-Cristian Matache, T. Cherecheș, P. Lixandru, A. Mazuru, D. Mitrică, P. Șomoiag, E. Trană , A.N. Rotariu, <i>Determination of a methodology for formulating constituent models of high entropy alloys</i> , IOP Conference Series Materials Science and Engineering 591:012058, 2019, WOS:000562929900058	WOS	1
3	Matache, L., Puică, C., Rotariu, A., Trană, E. , Bucur, F., <i>Numerical simulation of military ground vehicle's response to mine-blast load</i> , UPB Scientific Bulletin, Series D: Mechanical Engineering, Volume 80, Issue 4, 2018, pp 153-162, Scopus - Document details	SCOPUS	1
4	Florina Bucur, Eugen Trană , Adrian Rotariu, Adinel Gavruș, Cristian Barbu, Dominique Guines, <i>Experimental and numerical analysis concerning the behaviour of OL50 steel grade specimens coated with polyurea layer under dynamics loadings</i> , The European Physical Journal Conferences, ISSN 2100-014X, vol.94/2015, WOS:000372587700156	WOS	1
5	Țimplaru F., Rotariu A., Trană E., Matache L., <i>Experimental researches on attenuation properties of blast wave through perlite</i> , Book Series: Knowledge Based Organization International Conference, ISSN 1843-6722, pp 336-340, 2010, WOS 000297596200059	WOS	1
6	Rotariu A., Trană E. , Țimplaru F., Matache L., Badea S., Cherecheș T., <i>On attenuation properties of blast wave through perlite</i> , Book Series: Proceedings of the International Conference ModTech, ISSN 2066-3919, pp 499-502, 2010, WOS 000282604000122	WOS	1
7	Badoi I., Trana E. , Chereches, T., Bica M., <i>An example of applying the analytical methodology in case of asymmetric conflict</i> , Proceedings of the 9th WSEAS International Conference on Automation and Information, ISSN 1790-5117, pp.393-399, 2008, WOS:000258497000065	WOS	1
8	Enache C., Trană E., Cherecheș T., <i>Dynamics of fine mechanical embarked systems in channel of (RHSO) launcher</i> , Mathematics and Computers in Science and Engineering, ISSN 1792-4308, pp 43-49, 2008, WOS 000262950300004	WOS	1

Nr. crt.	Autori, Denumire lucrare științifică, revista	Baza de date	Punctaj
9	Mihai Bugaru, Tudor Chereches, Eugen Trana , Adrian Rotariu, <i>Non-linear dynamics of geared systems using the asymptotic method. Part 1: Computation of the amplitude</i> , WSEAS Transactions on Mathematics, vol.5, issue 7, pp 943-949, ISSN 1109-2769, 2006, Scopus - Document details	SCOPUS	1
10	Mihai Bugaru, Tudor Chereches, Eugen Trană , Sorin Gheorghian, <i>Noise radiated by vibrating rectangular plate</i> , WSEAS Transactions on Mathematics, vol.5, issue 4, pp 384-389, ISSN 1109-2769, 2006, Scopus - Document details	SCOPUS	1
11	Mihai Bugaru, Tudor Chereches, Eugen Trană , Sorin Gheorghian, Homutescu Tiberiu, <i>Theoretical model of the dynamic interaction between wagon train and continous rail</i> , WSEAS Transactions on Mathematics, vol.5, issue 4, pp 374-378, ISSN 1109-2769, 2006, Scopus - Document details	SCOPUS	1
12	Mihai Bugaru, Eugen Trană , Rotariu Adrian, Ichimoaie Gheorghe, Cărtuța Sorin, Bănică Marius, <i>The damping and the dynamic stability of thin plates parametrically excited</i> , WSEAS Transactions on Mathematics, vol.5, issue 4, pp 405-408, ISSN 1109-2769, 2006, Scopus - Document details	SCOPUS	1
TOTAL			12

Punctaj criteriu N3–20p

A2.4 Produse, tehnologii, platform și servicii inovative (validate conform procedurilor specific unităților de învățământ superior sau de cercetare)

Criteriul N4.1

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Criteriul N4.2

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A2.5 Monografi/cărți de specialitate, format tipărit/electronic (min.100 pag.)

Criteriul N4.3

1. **TRANĂ Eugen**, „Solicitarea materialelor metalice în regim dinamic. Legi constitutive”, Editura Univers Științific, 2007, ISBN 978-973-8936-60-7, 132 pag. – punctaj 1
2. **Eugen TRANĂ**, „Efectele și calculul efectelor munițiilor de artilerie cu destinație principală”, Editura Academiei Tehnice Militare, 2015, ISBN 978-973-640-240-1, 232 pag. – punctaj 1

Criteriul N4.4

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Punctaj criteriu N4.3–2p

Punctaj criteriu N4–2p

III. Recunoașterea și impactul activității RIA (A3)

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

Criteriul S1

Contract 15R/2005 – Program Securitate– Sistem de Monitorizare a Exploziilor în Marea Neagră – 75.000 Ron – 15.789 Euro

Contract 230/2008 – Program Inovare – Tehnologie Inovativă și Dispozitive de Prelucrare a Materialelor Metalice prin Deformare Plastica Rotativa – 480.000 Ron – 101.052 Euro

Contract 28PED/2017 – Program PED – Concept de componentă de luptă exploziv-fugasă cu efect crescut – 250.000 Ron – 52.631 Euro

Criteriul S2

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Punctaj criteriu S1+S2 – 169.472 Euro

A3.2 Prezentare/Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor/co-autor de lucrări, profesor invitat

Criteriul N5

Nr. crt.	Autori, Denumire comunicare științifică	Conferință, An	Punctaj
1	Rotariu Adrian-Nicolae, Matache Liviu-Cristian, Trana Eugen , Bucur Florina, Cirmaci-Matei Marius-Valeriu, Mitrică Dumitru, Geantă Victor, <i>Determination of the compersion strenght of HEA in high strain rates tests</i>	Defense Technology Forum 2020, Bulgaria, Shumen, 2020	1
2	A. Rotariu, E. Trana , L. Matache, F Bucur, <i>On determination of strain field in the necking section of a round specimen based on the measurement of the exterior necking profile</i>	4th International Conference on Structural Integrity and Durability, Croația, Dubrovnik, 2020	1
3	Florina Bucur, Adrian Rotariu, Gabriel Jiga, Florin Baci, Eugen Trană , <i>On the experimental testing procedures for ultra-high molecular weight polyethylene (UHMWPE) behaviour evaluation in static and dynamic regime</i>	The 6th International Scientific Conference SEA-CONF 2020, Constanța, România, 2020 (on-line)	1
4	Rotariu Adrian- Nicolae, Matache Liviu, Bucur Florina, Marius Cirmaci, Marmureanu Marius, Trana Eugen , <i>Implementation of a gumbel distribution function in interior ballistic calculations for deterred propellants</i>	31st International Symposium on Ballistics, India, Hyderabad, 2019	1

<i>Nr. crt.</i>	<i>Autori, Denumire comunicare științifică</i>	<i>Conferință, An</i>	<i>Punctaj</i>
5	Liviu-Cristian Matache, P. Lixandru, T. Cherecheș, A. Mazuru, D. Cherecheș, V. Geantă, I. Voiculescu, E. Trană , A.N. Rotariu, <i>Determination of material constants for high strain rate constitutive model of high entropy alloys</i>	ModTech 2019 International Conference, România, Iași, 2019	1
6	Ovidiu Iorga, Teodora Zecheru, Tanguy Lamache, Andreea Voicu, Liviu-Cristian Matache, Eugen Trana , Cristiana Epure, Laurentiu Anghel, Traian Rotariu, <i>Simulations of the parameters influencing the underwater cutting systems availability and performance</i>	New trends in research of energetic materials, Republica Cehă, Pardubice, 2018	1
7	Adrian Rotariu, Eugen Trană , <i>On the development of an interior ballistic model for small caliber armor piercing ammunition</i>	International Scientific Conference “Defense Technologies”, Faculty of Artillery, Air Defense and Communication and Information Systems, Bulgaria, Shumen, 2018	1
8	Tudor V. Țigănescu, Eugen Trană , Adrian Rotariu, Marin Lupoae, Ovidiu G. Iorga, Andreea E. Voicu, <i>Experimental testing setup for study of Ti/steel foam/Ti sandwich plate behavior</i>	New trends in research of energetic materials, Republica Cehă, Pardubice, 2017	1
9	Adrian Rotariu, Eugen TRANĂ , Traian ROTARIU, Florina BUCUR, <i>On the effect of reactive envelopes on blast parameters</i>	International Conference ‘Greener and Safer Energetic and Ballistic Systems’, România, București, 2016	1
10	Adrian Rotariu, Eugen Trană , Marius Cîrmaci-Matei, Simona Badea, <i>Static and dynamic measurements of polyurethane foam strength and energy absorption capacity</i>	International Conference on Nanoscience, Nanotechnology and Advanced Materials (IC2NAM), UAE, Abu Dhabi, 2016	1
11	A. Rotariu, F. Bucur, E. Trană , M. Cîrmaci-Matei, L. Matache, <i>FEM analysis of material strain rate sensitivity influence on usability of small-scale structures in blast loads analysis</i>	8th International Conference on Finite Differences, Finite Elements, Finite Volumes, Boundary Elements, Italia, Roma, 2015	1
12	Eugen TRANĂ , Adrian Rotariu, Florina BUCUR, <i>Numerical simulation study on the ring</i>	International Conference ‘Greener and Safer Energetic and Ballistic Systems’, Romania, București, 2015	1
13	Tiganescu Tudor Viorel, Costache Victor, Matache Liviu, Trană Eugen , Ciobanu Emanuela, Leatu Cristina, Florea Catalin, Vitalaru Alexandru, <i>Numerical simulation of fluid flow in CoCr multilayer modulators and the impact of flow lamination on the blood vessel wall affected by aneurism</i>	European Biotechnology Congress, România, București, 2015	1

Nr. crt.	Autori, Denumire comunicare științifică	Conferință, An	Punctaj
14	Matache L., Rotariu A., Trana E. , Paschia L., Timplaru F., Badea S., Safta I., <i>A dimensional analysis of transducer mounts used in measurements of impulsive loads of structures</i>	Proceedings of the 17 th International Scientific Conference Knowledge-Based Organization, România, Sibiu, 2011	1
15	Adrian Rotariu, Eugen TRANĂ , Florin Țimplaru, Liviu Matache, Simona Badea, Tudor Cherecheș, <i>On attenuation Properties of blast wave through perlite</i>	ModTech 2010 International Conference, România, Iași, 2010	1
16	Constantin Enache, Eugen Trană , Tudor Cherecheș, <i>Dynamics of Fine Mechanical Embarked Systems in Channel of (RHSO) Launcher</i>	8th WSEAS International Conference on SIMULATION, MODELLING and OPTIMIZATION, Spain,Santander, 2008	1
17	Tudor Cherecheș, Mihai Bugaru, Eugen Trană , Alin Sava, <i>Specific noise attenuation with acoustic barriers</i>	Proceedings of Excellence research – a way to innovation Conference, Romania,Brașov, 2008	1
18	Trană Eugen , <i>Plastic-kinematic vs Johnson-Cook model in FEM Taylor test simulation</i>	11th International Research/Expert Conference “Trends in the Development of Machinery and Associated Technology”, Tunisia, Hammamet, 2007	1
19	Trană Eugen ,Cherecheș Tudor, Bugaru Mihai, Zecheru Teodora, <i>Johnson-Cook Constitutive Model for OL 37 Steel</i>	6 th WSEAS Int.Conf. on System Science and Simulation in Engineering, Italia, Veneția, 2007	1
20	Trana E. , Cherecheș T., <i>Aspects regarding terminal ballistics in Taylor tests</i>	Annals of DAAAM for 2007 & Proceedings of the 18th International DAAM Symposium <i>Intelligent manufacturing & automation: focus on creativity, responsibility and ethics of engineers</i> , Croatia, Zadar, 2007	1
21	Mihai Bugaru, Tudor Chereches, Eugen Trana , Adrian Rotariu, <i>Non-linear dynamics of geared systems using the asymptotic method. Part 1: Computation of the amplitude</i>	9th WSEAS International Conference on Applied Mathematics, Turcia,Istanbul, 2006	1
22	Mihai Bugaru, Tudor Chereches, Eugen Trana , Sorin Gheorghian, Tiberiu Nicolae Homotescu, <i>Theoretical Model of the Dynamic Interaction between Wagon Train and Continuous Rail</i>	IASME/WSEAS International Conference on Continuum Mechanics, Grecia, Chalkida, 2006	1
23	Trană E. , Cherecheș T., Rotariu A., <i>Aspects regarding FEM in Taylor tests</i>	Conferința Tehnologiei moderne, calitate, restructurare, Universitatea Tehnică a Moldovei din Chișinău, Moldova, Chișinău, 2005	1

Nr. crt.	Autori, Denumire comunicare științifică	Conferință, An	Punctaj
24	Cherecheș T., Trană E. , Rotariu A., Matache L., <i>Mathematic models and computing programs regarding internal ballistics</i>	The XII International Conference „Machine building and technosphere of the XXI century”, Ucraina, Donetsk, 2005	1
25	Cherecheș T., Lixandru P., Trană E. , Rotariu A., <i>Soil influence on stress and strain field of a mortar baseplate during the firing process</i>	The 30 th Internationally Scientific Conference of the Military Technical Academy, România, București, 2003	1
26	Trană E. , Balog P., Rotariu A., Cherecheș T., <i>Considerații privind particularitățile glonțului tunel</i>	Conferința Tehnologii moderne, calitate, restructurare, Universitatea Tehnică a Moldovei din Chișinău, Moldova, Chișinău, 2003	1
27	Trană E. , Barbu C., Rotariu A., <i>Subsonic experimental measurements for tunnel bullet</i>	6 TH Conference on weapon systems, Cehia, Brno, 2003	1
TOTAL			27

Punctaj criteriu N5 – 27p

A3.3 Citări în publicații BDI (se exclud autocitările)

Criteriul C

Nr.crt.	Titlul articol	Citari	IF citari (2019)	Nr. citari
1	G. B. Pulpea, I. Vedinaș, T. Zecheru, E. Trană , R. Ștefănoiu, R.M. Lungu, T. Rotariu, <i>Thermal systems capabilities using infrared obscuration</i> , Journal of optoelectronics and advanced materials, ISSN 1454-4164, vol.19, ISS 1-2/2017, pp16-26, WOS:000400880700004	Țurcanu, D., Pleșa, C., Todirică, C., Nicola, I., Predoi, C., <i>Practical approach of thermal lens focus shift with ambient temperature</i> , Journal of Optoelectronics and Advanced Materials, 21(11-12), pp. 673-678	0,588	1
		Todirică, C., Pleșa, C., Țurcanu, D., Nicola, I., <i>Optoelectronic system performance prediction using the modulation transfer function of the components</i> , Optoelectronics and advanced materials, Rapid Communication, vol.13, no.5-6, pp.295-300	0,452	1
2	Constantin Enache, Eugen Trană , Traian Rotariu, Adrian Rotariu, Viorel Tudor Țigănescu, Teodora Zecheru, <i>Numerical simulation and experimental tests on explosively-induced water jets phenomena</i> , Propellants, Explosives, Pyrotechnics, ISSN 0721-3115 (Online ISSN: 1521-4087), vol.41(6), pp 1020-1028, DOI 10.1002/prep.201500322, WOS:000390799100009	Malciu Adrian, Puică Constantin-Cristinel, Pupăză Cristina, Pintilie Daniela, Iancu Florinel, <i>Research on the mitigation of shaped charge effect</i> , Proceedings of the Romanian Academy, Series A, ISSN 1454-9069, Volume 21, Number 3/2020, pp. 281–290	1,294	1
		Mahto V., Pradhan D., Deodhar R.S., <i>Parametric profiling of water-jet projectiles for eod disruptor using high-speed imaging technique</i> , Proceedings - 31st International Symposium on Ballistics, BALLISTICS 2019 Volume 1, 2019, Pages 878-883, ISBN: 978-160595610-7	0	1

Nr.crt.	Titlul articol	Citari	IF citari (2019)	Nr. citari
		Florea, A.-M., Iordache, T.-V., Branger, C., Brisset, H., Zaharia, A., Radu, A.-L., Hubca, G., Sârbu, A. , <i>One-step preparation of molecularly imprinted hollow beads for pseudohypericin separation from Hypericum perforatum L. extracts</i> , European Polymer Journal, 100, pp. 48-56	3,621	1
		Parate BA, Chandel S, Shekhar H, <i>An experimental and numerical approach - characterisation of power cartridge for water-jet application</i> , Defence Technology (2018), doi: 10.1016/j.dt.2018.04.003.	1,261	1
		Parate, B.A., Chandel, S., Shekhar, H., <i>Cartridge case design and its analysis by bilinear, kinematic hardening model</i> , Advances in Military Technology 14(2), pp. 231-243, 2019, ISSN 1802-2308	0	1
		Lupoae, M., Baciuc, C., Constantin, D. , <i>Metallic doors under explosive charges detonation</i> , ICMT 2017 - 6th International Conference on Military Technologies 7988769, pp. 273-277	0	1
3	Traian Rotariu, Constantin Enache, Doru-Adrian Goga, Gabriela Toader, Izabela-Cristina Stancu, Andrada Serafim, Sorin Eşanu, Eugen Trană , <i>Theoretical and experimental studies on new plastic pyrotechnic compositions</i> , Materiale plastice, ISSN 0025-5289, vol.53 (2), pp 240-246, WOS:000380629300013	Grigore L.S., Stefan A.-G., Orban O., <i>Using PET-G to design an underwater rover through 3d printing technology</i> , Materiale Plastice, Volume 57, Issue 3, 2020, Pages 189-201	1,393	1
		Gabriela Toader, Traian Rotariu, Edina Rusen, Jérémie Tartiere, Sorin Eşanu, Teodora Zecheru, Izabela-Cristina Stancu, Andrada Serafim, Bogdan Pulpea, <i>New Solvent-Free Polyurea Binder for Plastic Pyrotechnic Compositions</i> , Materiale Plastice, ISSN 0025-5289, vol.54, no.1, pp 22-28, 2017	1,393	1
		Andreea-Elena Voicu, Traian Rotariu, Mircea Teodorescu, Teodora Zecheru, Tudor-Viorel Țigănescu, Octavian Orban, <i>pH Sensitive Polymeric Binders for Energetic Materials</i> , Materiale Plastice, ISSN 0025-5289, vol.54, no.1, pp 103-110, 2017	1,393	1
4	Qi-Long Yan, Waldemar A. Trzcinski, Stanislaw Cudzilo, Józef Paszula, Trană Eugen , Mătache Liviu, Rotariu Traian, Michael Gozin, <i>Thermobaric effects formed by aluminium foils enveloping cylindrical charges</i> , Combustion and Flame, ISSN 0010-2180, vol.166, pp 148-157, DOI 10.1016/j.combustflame.2016.01.010.	Cudzilo, S., Trzciński, W.A., Paszula, J., Szala, M., Chyłek, Z. , <i>Effect of Titanium and Zirconium Hydrides on the Parameters of Confined Explosions of RDX-Based Explosives – A Comparison to Aluminium</i> , Propellants, Explosives, Pyrotechnics, ISSN 0721-3115, Vol.43(10), pp1048-1055, DOI: 10.1002/prep.201800054, 2018	1,634	1
		Angelika Zygmunt, Katarzyna Gańczyk, Anna Kasztankiewicz, Katarzyna Cieślak, Tomasz Gołofit, <i>Application and Properties of Aluminum in Primary and Secondary Explosives</i> , Journal of Elementology, ISSN 1644-2296, Vol.22(2), pp 747-756, DOI: 10.5601/jelem.2016.21.3.1073	0,733	1

Nr.crt.	Titlul articol	Citari	IF citari (2019)	Nr. citari
		Wang, H., Shen, F., Li, B.-B., Wang, S.-Q., <i>Experimental Study on Internal Explosion Performance of Charge with Metal-fluoropolymer Coating</i> , Chinese Journal of Explosives and Propellants, ISSN 1007-7812, vol. 42(6), pp. 626-630, 2019	0	1
		Xu, Q.-P., Zhang, Y.-L., Li, Z.-R., Su, J.-J., Liu, Y., Huang, F.-L., <i>Explosion Test and Power Evaluation on Non-ideal Explosives</i> , Chinese Journal of Explosives and Propellants, Volume 43, Issue 3, 2020, pp 287-292	0	1
		Qi Peng Xu, Yu Lei Zhang, Xin Jie Wang, Jian Jun Su, Yan Liu, Feng Lei Huang, <i>Experimental Performance Assessment of Layered Thermobaric Explosive in an Explosion Chamber</i> , Propellants, Explosives, Pyrotechnics, ISSN 0721-3115 (Online ISSN: 1521-4087), doi.org/10.1002/prop.202000084, 2020	1,908	1
		Cudziło S., Trzeciński W.A., Paszula J., Szala M., Chyłek Z., <i>Performance of Magnesium, Mg-Al Alloy and Silicon in Thermobaric Explosives – A Comparison to Aluminium</i> , Propellants, Explosives, Pyrotechnics, ISSN 0721-3115 (Online ISSN: 1521-4087), vol., pp , doi.org/10.1002/prop.202000103, 2020	1,628	1
		Fei Chen, Jinfeng Mao, Jin Zhou, Pumin Hou, Liyao Liu, and Shangyuan Chen, <i>Thermal Environment inside a Tunnel after Thermobaric Explosion</i> , Shock and Vibration, ISSN 1070-9622, DOI: 10.1155/3148, on line	1,628	1
5	Florina Bucur, Eugen Trană , Adrian Rotariu, Adinel Gavruș, Cristian Barbu, Dominique Guines, <i>Experimental and numerical analysis concerning the behaviour of OL50 steel grade specimens coated with polyurea layer under dynamics loadings</i> , The European Physical Journal Conferences, ISSN 2100-014X, vol.94/2015, DOI: 10.1051/epjconf/20159404044, WOS:000372587700156	Adrian Rotariu, Florina Bucur, Gabriela Toader, Marin Lupoae, Alin Constantin Sava, Pamfil Somoiaș, Marius Cirmaci Matei, <i>Experimental Study on Polyurea Coating Effects on Deformation of Metallic Plates Subjected to Air Blast Loads</i> , MATERIALE PLASTICE, ISSN 0025-5289, vol.53, no.4, pp 670-674, 2016	1,393	1
		Gabriela Toader, Edina Rusen, Mircea Teodorescu, Aurel Diacon, Paul O. Stanescu, Celina Damian, Traian Rotariu, Adrian Rotariu, <i>New polyurea MWCNTs nanocomposite films with enhanced mechanical Properties</i> , Journal of Applied Polymer Science, ISSN 0021-8995, vol.134, issue 28, 2017, DOI: 10.1002/APP.45061	2,188	1
		Liviu-Cristian MATAȘE, Luminita-Cristina ALIL, Traian ROTARIU, Simona-Maria SANDU, Constantin PUICA, Cristian BARBU, Teodora ZECHEU, <i>Numerical validation of a constitutive model for UHMWPE-based composites at high strain rates</i> , U.P.B. Sci. Bull., Series B, Vol. 80, Iss. 3, pp.229-246, 2018, ISSN 1454-2331	0	1

Nr. crt.	Titlul articol	Citari	IF citari (2019)	Nr. citari
6	<p>Eugen TRANĂ, Adrian-Nicolae Rotariu, Paul Lixandru, Liviu-Cristian Matache, Constantin Enache, Teodora Zecheru, <i>Experimental and numerical investigation on 6082 0 temper aluminium alloy cartridge tubes drawing</i>, Journal of Materials Processing Technology, ISSN 0924-0136, vol.216, pp 59-70, 2015, DOI 10.1016/j.jmatprotec.2014.08.32, WOS:000347020800007</p>	Emre Doruk and Murat Pakdil, <i>Effect of tempering conditions on the fatigue behavior of an AA 6082 aluminum alloy</i> , Materials Testing, ISSN 0025-5300, vol. 58, no. 6, pp. 542-546, doi 10.3139/120.110888, 2016.	0,573	1
		Mohd Nor, M.K., Ma'at, N., Ho, C.S., Samad, M.S.A., <i>An anisotropic deformation analysis of orthotropic materials subjected to high velocity impacts</i> , International Journal of Mechanical and Mechatronics Engineering 17(5), pp. 156-172	0	1
		Chen, X., Peng, Y., Peng, S., Yao, S., Chen, C., Xu, P., <i>Flow and fracture behavior of aluminum alloy 6082-T6 at different tensile strain rates and triaxialities</i> , PlosOne, Volume 12, Issue 7, July 2017, Article number e0181983	2,776	1
		Mohd Nor, M.K., Ma'at, N., Ho, C.S., <i>Modeling Dynamic Anisotropic Behaviour and Spall Failure in Commercial Aluminium Alloys AA7010</i> , Journal of Dynamic Behavior of Materials, ISSN 2199-7446, 4(2), pp. 201-209, 2018	0	1
		Liviu-Cristian MATACHE, Luminita-Cristina ALIL, Traian ROTARIU, Simona-Maria SANDU, Constantin PUICA, Cristian BARBU, Teodora ZECHEU, <i>Numerical validation of a constitutive model for uhmwpe-based composites at high strain rates</i> , U.P.B. Sci. Bull., Series B, Vol. 80, Iss. 3, pp.229-246, 2018, ISSN 1454-2331	0	1
		Dong J., Wang S., Zhou J., Ma C., Wang S., Yang B., <i>An improved model for predicting the shearing process of stainless steel thin-walled tubes in the closed fuel cycle</i> , Thin-Walled Structures, Volume 157, December 2020, Article number 107101	4,033	1
7	<p>Lavinu Haller, Boumedienne Nedjar, Ziad Moumni, Ioan Vedinaş, Eugen Trană, <i>A thermomechanical model accounting for the behavior of shape memory alloys in finite deformations</i>, Continuum Mechanics and Thermodynamics, ISSN 0935-1175 (Online ISSN: 1432-0959), vol. 28(4), pp 957-975, DOI 10.1007/s00161-015-0431-8, WOS:000378783100003</p>	Pejman Honarmandi, Alexandros Solomou, Raymundo Arroyave, Dimitris C Lagoudas, <i>Uncertainty quantification of the parameters and predictions of a phenomenological constitutive model for thermally induced phase transformation in Ni-Ti shape memory alloys</i> , Modelling and Simulation in Materials Science and Engineering, vol. 27 (3), pp. 034001, 2019, ISSN 0965-0393, DOI: 10.1088/1361-651X/ab0040	1,826	1
		Yahui Zhang, Ziad Moumni, Yajun You, Jihong Zhu and Weihong Zhang, <i>Energy-based analysis of temperature oscillation at the shakedown state in shape memory alloys</i> , Continuum Mechanics and Thermodynamics, ISSN 0935-1175 (Online ISSN: 1432-0959), vol.31(5), pp1387-1399, DOI 10.1007/s00161-019-00751-9	1,849	1
		Jie Xu, Xuegang Yuan, Hongwu Zhang, Fei Zheng and Liqun Chen, <i>Nonlinear Vibrations of Thermo-Hyperelastic Moderately Thick Cylindrical Shells with 2:1 Internal Resonance</i> , International Journal of Structural Stability and Dynamics, https://doi.org/10.1142/S0219455420500674 , 2020	0	1

8	Rotariu Adrian, Trană Eugen , Dima Cornel, Enache Constantin, Timplaru Florin, Matache Liviu, <i>Uninstrumented measurement method for granular porous media blast mitigation assessment</i> , Experimental Techniques, ISSN 0732-8818 (Online ISSN: 1747-1567), vol.40, issue 3, pp. 993-1003, 2016, DOI 10.1007/s40799-016-0099-4, WOS:000384753400009, 2016	Adrian Malciu, Constantin-Cristinel Puică, Cristina Pupaza, Daniela Pintilie, Florinel Iancu, <i>Research on the mitigation of shaped charge effect</i> , Proceedings of the Romanian Academy - Series A: Mathematics, Physics, Technical Sciences, Information Science 21(3):281-290, 2020	1,294	1
		Rotariu, A., Bucur, F., Toader, G., Lupoae, M., Sava, A.C., Somoiaș, P., Matei, M.C., <i>Experimental study on polyurea coating effects on deformation of metallic plates subjected to air blast loads</i> , Materiale Plastice, ISSN 2668-8220, Volume 53, Issue 4, pp 670-674, 2016	1,393	1
9	Florina BUCUR, Eugen TRANĂ , Adrian ROTARIU, <i>Numerical and Experimental Study on the Locally Blast Loaded Polyurea Coated Steel Plates</i> , Materiale Plastice, ISSN 2668-8220, vol.56 (3), 2019, pp 492-499	Catalin Adetu, Vasile Nastasescu, Alina Elena Adetu, Florian Vladulescu, <i>Upon Using of Plastics Layer in Light Multilayered Armor</i> , Materiale Plastice, ISSN 2668-8220, vol.57 (2), 2020, pp 265-275	1,517	1
10	E. Trana, <i>Plastic-Kinematic vs Johnson-Cook model in FEM Taylor test simulation</i> , en: 11th International Research/Expert Conference Trends in the Development of Machinery and Associated Technology, Hammamet, Tunisia, 05-09 September, 2007	J.I. Yenesa,*, R. Castedob, A.P. Santosby J.R. Simónca, <i>Ingeniería Experimentación, simulación y análisis de artefactos improvisados-proyectiles formados por explosión</i> , Revista Internacional de Métodos Numéricos para Cálculo y Diseño en Ingeniería, ISSN: 0213-1315, 32(1):48-57, 2016	0	1
11	TRANĂ, E. and ROTARIU, A., <i>Aspects Regarding Mechanical Properties of a Triple Base Propellant and their Influence on Interior Ballistic Cycle</i> , MTA Review, 2014, vol. XXIV, no.2, p. 83-89	D.A. Goga, T.V. Țigănescu, B. Pulpea, C. Moldoveanu and C. Rotaru, <i>A Quantitative Method of Comparative Assessment of Primers Ignition Performances</i> , Advances in Military Technology, Vol. 12, No. 2 (2017), pp. 217-228, ISSN 1802-2308, eISSN 2533-4123, DOI 10.3849/aimt.01185	0	1
12	C Enache, E Trană, T Cherecheș, <i>Control of mechanical system displacement</i> , International Journal of Modern Manufacturing Technologies, pp.39-42, 2009	M Placzek and M Brzezny, <i>Estimation of the power of a MFC type piezoelectric used for electric energy recovery from vibrations</i> , IOP Conference Series: Materials Science and Engineering, 2018	0	1
13	E. Trană, A. Rotariu, F. Bucur, <i>Numerical simulation study on the ring</i> , MTA Rev., 2 (2015), pp. 179-188	Luciana A.da Silva, Steve Johnson, Richard Critchley, Jim Clements, Karl Norris, Chris Stennett, <i>Experimental fragmentation of pipe bombs with varying case thickness</i> , Forensic Science International, Vol.306, ISSN 0379-0738	1,99	1
		Adrian MALCIU, Constantin-Cristinel PUICĂ, Cristina PUPĂZĂ, Daniela PINTILIE, Florinel IANCU, <i>Research on the mitigation of shaped charge effect</i> , PROCEEDINGS OF THE ROMANIAN ACADEMY, Series A, ISSN 1454-9069, Volume 21, Number 3/2020, pp. 281-290	1,294	1

<i>Nr. crt.</i>	<i>Titlul articol</i>	<i>Citari</i>	<i>IF citari (2019)</i>	<i>Nr. citari</i>
14	Matache, L., Puică, C., Rotariu, A., Trană, E., Bucur, F., <i>Numerical simulation of military ground vehicle's response to mine-blast load</i> , UPB Scientific Bulletin, Series D: Mechanical Engineering 80(4), pp. 153-162	Schutte, Z., Pandelani, T., Langdon, G.S., (...), Mahlase, C., Reinecke, D., <i>Simulation of atd pelvic response of an under body blast</i> , Advances in Engineering Materials, Structures and Systems: Innovations, Mechanics and Applications - Proceedings of the 7th International Conference on Structural Engineering, Mechanics and Computation, 2019, pp. 788-793	0	1
15	Rotariu A.-N., Matache L., Bucur F., Cirmaci-Matei M.V., Mărmureanu M., Trană E., <i>Implementation of a gumbel distribution function in interior ballistic calculations for deterred propellants</i> , UPB Scientific Bulletin, Series B: Chemistry and Materials Science, 82 (1), pp. 167-178	Mircioaga R.M., Matache L.C., Rotariu A., Cirmaci M., Somoiaș P., Haller L., Rancea A., <i>Burning law determination using numerical simulation of propellants burning in the closed vessel</i> , IOP Conference Series: Materials Science and Engineering Volume 916, Issue 1, 10 September 2020, Article number 012067	0	1
TOTAL			41,05	40

Punctaj criteriu C – 81,05p