



Universitatea
Transilvania
din Braşov

Fişa de verificare a standardelor minime pentru acordarea atestatului de abilitare în domeniul de doctorat vizat - Inginerie Mecanică

Candidat: Conf. dr. ing. MOLDOVAN Macedon Dumitru

Universitatea Transilvania din Braşov
Facultatea de Design de Prods şi Mediu
Departamentul de Design de Prods, Mecatronică şi Mediu

Comisia Inginerie Mecanică, Mecatronică şi Robotică, conform Ordin MENCŞ 6129/20.12.2016

Domeniul de activitate		Indicatori	Condiţii minime profesor	Punctaj realizat
Activitatea didactică/ profesională (A1)	A1.1	N1	2	2
		N1.1	1	1
		N1.3	1	5
	A1.2	N2	4	24
		N2.1	2	23
Activitatea cercetare (A2)	A2.1 + A2.3	P1 + P2	10	91,820
		P1	6	89,807
	A2.2	N3	10	30
		N3.1	5	18
	A2.4 + A2.5	N4	2	5
		N4.3	1	1
Recunoaşterea impactului activităţii (A3)	A3.1	S1 + S2	50	131,560
	A3.2	N5	10	89
	A3.3	C	25	1666,669

unde:

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

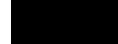
$N1=N1.1+N1.2$; $N2=N2.1+N2.2+N2.3$; $N3=N3.1+N3.2$

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

Data: 24.10.2024

Conf. dr. ing. MOLDOVAN Macedon Dumitru

Semnătura





Fișa de verificare a criteriului
DID - A1 Activitate didactică și profesională
Standarde minimale pentru domeniile științifice „Inginerie mecanică, mecatronică și robotică”

Domeniul activităților	Rezultatele activităților	Indicatori	Condiții minime profesor	Punctaj realiza
DID (A1) Activitatea didactică și profesională	A1.1 Manuale suport de curs (conform fișei disciplinei de concurs)	N1 = N1.1 + N1.2 Format tipărit/electronic (min.100 pag.) Coordonator/Prim autor sau Co-autor	2	2
		N1.1 Format tipărit/electronic (min.100 pag.) Coordonator/Prim autor	1	1
		N1.2 Format tipărit/electronic (min.100 pag.) Co-autor	1	1
		N1.3 Format electronic disponibil pe platforma universității / departamentului (autor)	1	4
	A1.2 Material didactic / Dezvoltare laboratoare, aplicații	N2 = N2.1 + N2.2 + N2.3	4	26
		N2.1 Standuri de laborator (construcție / modernizări) certificate de directorul de departament	2	25
		N2.2 Îndrumar de laborator / carte aplicații format tipărit sau electronic (autor, co-autor)		1
		N2.3 Aplicație informatică educațională		

DID-A1 Activitatea didactică și profesională

Nr.	DID-A1.1 Manuale suport de curs (conform fișei disciplinei de concurs)	Punctaj
	N1.1 Format tipărit/electronic (min.100 pag.) Coordonator/Prim autor	N1.1=1
1	Moldovan M.D., Conversia energiei geotermice, Suport de curs, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0902-5, 2017, 175 pagini https://tinyurl.com/29qvjdcm https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2017_CONVERSIA_ENERGIEI_GEOTERMICE_-_MOLDOVAN_MACEDON_Suport_de_curs.pdf	N1.1=1
	N1.2 Format tipărit/electronic (min.100 pag.) Co-autor	N1.2=1
1	Burduhos B. G., Moldovan M. D., Controlul sistemelor de energii regenerabile, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0731-1, 2016, 199 pagini https://tinyurl.com/25j8txy6 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2016_Controlul_sistemelor_de_energie_regenerabile.pdf	N1.2=1



Nr.	DID-A1.1 Manuale suport de curs (conform fișei disciplinei de concurs)	Punctaj
	N1.3 Format electronic disponibil pe platforma universității / departamentului (autor)	N1.3=4
1.	Moldovan M., Sisteme de energii regenerabile, 2024, Manual suport de curs în format electronic disponibil pe platforma e-Learning a Universității Transilvania din Brașov https://elearning.unitbv.ro/mod/resource/view.php?id=2607	N1.3=1
2.	Moldovan M., Implementarea, operarea și mentenanța sistemelor de energii regenerabile pentru producerea de energie termică, 2024, Manual suport de curs în format electronic disponibil pe platforma e-Learning a Universității Transilvania din Brașov https://elearning.unitbv.ro/mod/resource/view.php?id=2740	N1.3=1
3.	Moldovan M., Designul sistemelor de energii regenerabile, 2024, Manual suport de curs în format electronic disponibil pe platforma e-Learning a Universității Transilvania din Brașov https://elearning.unitbv.ro/mod/resource/view.php?id=2743	N1.3=1
4.	Moldovan M., Sisteme de energii regenerabile în mediul construit, 2024, Suport de curs în format electronic disponibil pe platforma e-Learning a Universității Transilvania din Brașov https://elearning.unitbv.ro/mod/resource/view.php?id=2754	N1.3=1

Nr. crt.	DID-A1.2 Material didactic / Dezvoltare laboratoare, aplicații	Punctaj
	N2.1 Standuri de laborator (construcție / modernizări) certificate de directorul de departament	N2.1=23
1.	Stand de laborator - Sistem fotovoltaic cu puterea de 15 kW în cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2022 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2022_Certificare_Standuri_Laboratare.pdf	N2.1=1
2.	Stand de laborator - Sistem fotovoltaic cu puterea de 18 kW în cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2022 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2022_Certificare_Standuri_Laboratare.pdf	N2.1=1
3.	Stand de laborator - Sistem de climatizare pentru Biobaza din cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2022 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2022_Certificare_Standuri_Laboratare.pdf	N2.1=1
4.	Stand de laborator - Sistem fotovoltaic off-grid de 6 kW în cadrul Bazei Didactice Multidisciplinare Gârcin a Universității Transilvania din Brașov, Anul realizării: 2021 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	N2.1=1
5.	Stand de laborator - Sistem de încălzire geotermic în cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2021 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	N2.1=1
6.	Stand de laborator - Sistem de încălzire aerotermic în cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2021 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	N2.1=1
7.	Stand de laborator - Sistem fotovoltaic de 10 kW în cadrul Bazei Didactice Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2020 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	N2.1=1
8.	Stand de laborator - Sistem fotovoltaic de 18 kW în cadrul Bazei Didactice	N2.1=1



Nr. crt.	DID-A1.2 Material didactic / Dezvoltare laboratoare, aplicații	Punctaj
	Multidisciplinare Sânpetru a Universității Transilvania din Brașov, Anul realizării: 2020 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	
9.	Stand de laborator - Sistem fotovoltaic de 15 kW în cadrul Bazei Didactice Multidisciplinare Gârcin a Universității Transilvania din Brașov, Anul realizării: 2020 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2020_Certificare_Standuri_Laboratare.pdf	N2.1=1
10.	Laborator didactic Sisteme solar termice - Căsuța Solară Parter (proiectare, întocmire caiete de sarcini, instalare, punere în funcțiune, mentenanță) Anul realizării: 2019 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
11.	Stand de laborator pentru testarea indoor a colectoarelor solar termice integrate în fațadele clădirilor - L7, ICDT (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2018 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
12.	Stand de laborator pentru monitorizarea consumului de apă caldă menajeră - L7, ICDT (proiectare, instalare, punere în funcțiune, mentenanță) Anul realizării: 2018 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
13.	Stand de laborator pentru testarea indoor a colectoarelor solar termice - L7, ICDT (proiectare sistem reglare temperatură agent termic, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2017 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
14.	Stand de laborator pentru monitorizarea consumului de energie termică - L7, ICDT (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2017 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
15.	Stand de laborator sistem solar termic cu colectoare plan plate si cu tuburi vidate - Terasa corp E, Colina Universității, (modernizare sistem monitorizare energie termică produsă și livrată: proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării:2016 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
16.	Stand de laborator pentru monitorizarea consumului de energie termică și electrică - Căsuța Solară Etaj (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2016 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
17.	Stand de laborator sistem solar termic cu colectoare concentratoare de tip jgheab - terasa I7, ICDT (modernizare sistem stocare energie termică: proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării:2015 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
18.	Stand de laborator pentru monitorizarea parametrilor de confort termic interior - Căsuța Solară Etaj, (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2015 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
19.	Stand de laborator sistem solar termic cu colector plan plat fix și mobil - terasa corp D, Colina Universității, (modernizare sistem monitorizare energie termica produsă și	N2.1=1



Nr. crt.	DID-A1.2 Material didactic / Dezvoltare laboratoare, aplicații	Punctaj
	livrată: proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2014 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	
20.	Stand de laborator pentru monitorizarea consumului de energie termică - L9, ICDDT, (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării: 2014 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
21.	Stand de laborator sisteme solar termice cu colectoare plan plate și cu tuburi vidate - terase clădiri L1, L2, I3, I4, L5, L6, I8, L9 și L10, ICDDT (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării:2013 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_ST.pdf	N2.1=1
22.	Stand de laborator pentru monitorizarea consumului de energie termică - L1, ICDDT, (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării:2013 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
23.	Stand de laborator pentru monitorizarea parametrilor de confort termic interior - Open Office Etaj L7, ICDDT, (proiectare, întocmire caiete de sarcini pentru achiziții, instalare, punere în funcțiune, mentenanță) Anul realizării:2012 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Certificare_laboratoare_Moldovan_Macedon_MC.pdf	N2.1=1
	N2.2 Îndrumar de laborator / carte aplicații format tipărit sau electronic (autor, co-autor)	N2.2=1
1.	Moldovan M. D., Conversia energiei geotermice. Îndrumar de laborator, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0903-2, 2017 https://tinyurl.com/2cwoy5us https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/2017_CONVERSIA_ENERGIEI_GEOTERMICE_-_MOLDOVAN_MACEDON_Indrumar_de_laborator.pdf	N2.2=1



Fișa de verificare a criteriului
 CDI - A2 Activitatea de cercetare științifică
 Standarde minimale pentru domeniile științifice „Inginerie mecanică, mecatronică și robotică”

Domeniul activităților	Rezultatele activităților	Indicatori	Condiții minime profesor	Punctaj realiza
CDI (A2) Activitatea de cercetare științifică, dezvoltare tehnologică și inovare	A2.1+A2.3	P1+P2	10	91,820
	A2.1 Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS) [2], unde n = nr. de autori și FI este factorul de impact [3]	P1=P1.1+P1.2+P1.3+P1.4	6	89,807
		P1.1 Autor corespondent / prim autor, n ≤ 3		55,604
		P1.2 Autor corespondent / prim autor, n ≥ 4		10,200
		P1.3 Co-autor, n ≤ 3		9,200
		P1.4 Co-autor, n ≥ 4		14,803
	A2.2 Articole și publicații științifice BDI [4] neincluse la A2.1	N3 = N3.1 + N3.2	10	30
		N3.1 Autor corespondent / prim autor	5	18
		N3.2 Co-autor		12
	A2.3 Brevete de invenții indexate [5]	P2=P2.1+P2.2		2,013
		P2.1 Internaționale indexate în Web of Science - Derwent Innovation		0,000
		P2.2 naționale indexate OSIM		2,013
	A2.4 Produse, tehnologii, platforme și servicii inovative (validate conform procedurilor specifice)	N4=N4.1+N4.2+N4.3+N4.4	2	5
		N4.1 Coordonator / prim autor		
N4.2 Co-autor			1	
A2.5 Monografii/cărți de specialitate [2], format tipărit / electronic (min. 100 pag.)	N4.3 Coordonator / prim autor	1	1	
	N4.4 Co-autor		3	

[2] Se exclud publicațiile conferințelor DAAAM și WSEAS

[3] FI este factorul de impact al revistei la data înscrierii la concurs sau la data publicării articolului (cel mai avantajos pentru candidat). Se iau în considerare la această categorie numai revistele cu factor de impact la data publicării articolului. O revistă WOS este echivalentă cu o revistă cotate ISI cf. Ordinului de Ministru (MECTS) Nr. 4478 din 23 iunie 2011, publicat în Monitorul Oficial, Partea I, Nr. 448/27.VI.2011.

[4] Bazele de date BDI acceptate sunt: Web of Science Thomson Reuters (WOS) și SCOPUS

[5] Un brevet se poate încadra la o singură categorie

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



CDI-A2 Activitatea de cercetare

Nr. crt.	CDI-A2.1 Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS) [2], unde n = nr. de autori și FI este factorul de impact [3]	Punctaj
	P1.1 Autor corespondent / prim autor, $n \leq 3$, $P1.1 = 2 \cdot (0,2 + FI)$	55,604
1.	Moldovan M., Burduhos B., Visa I., Efficiency Assessment of Five Types of Photovoltaic Modules Installed on a Fixed and on a Dual-Axis Solar-Tracked Platform, <i>Energies</i> , 16, 1229, 2023 WOS:000932970000001 , FI=3,000 (2023/2024), Categoria Q3	P1.1= 6,400
2.	Moldovan M., Rusea I., Visa I., Optimising the thickness of the water layer in a triangle solar thermal collector, <i>Renewable Energy</i> , 173, 381-388, 2021 WOS:000648693000017 , FI=8,634 (2021), FI=9,000 (2023/2024), Categoria Q2	P1.1= 18,400
3.	Moldovan M., Burduhos B-G, Visa I. Yearly Electrical Energy Assessment of a Photovoltaic Platform/Geothermal Heat Pump Prosumer, <i>Energies</i> , 2021 WOS:000671119400001 , FI=3,252 (2021), FI=3,000 (2023/2024), Categoria Q3	P1.1= 6,904
4.	Visa I., Moldovan M., Duta A., Novel triangle flat plate solar thermal collector for facades integration, <i>Renewable Energy</i> , 143, 252-262, 2019 WOS:000475999200024 , FI=6,274 (2019), FI=9,000 (2023/2024), Categoria Q2	P1.1= 18,400
5.	Moldovan M., Visa I., Duta A., Enhanced sustainable cooling for low-energy office buildings in continental temperate climate, DOI: 10.1061/(ASCE)EY.1943-7897.0000485, <i>ASCE's Journal of Energy Engineering</i> , 143 (5), 1-12, 2017 WOS:000418398400045 , FI=1,346 (2017), Categoria Q4	P1.1= 3,092
6.	Moldovan M. D., Visa I., Burduhos B. G., Energetic autonomy for a solar house, <i>Environmental Engineering & Management Journal</i> , 10(9), 1283-1290, 2011 WOS:000296758400010 , FI=1,004 (2011), FI = 0,9 (2023/2024), Categoria Q4	P1.1= 2,408
	P1.2 Autor corespondent / prim autor, $n \geq 4$, $P1.2 = 2 \cdot 3 \cdot (0,2 + FI) / n$	10,200
1.	Visa I., Moldovan M., Comsit M., Duta A., Improving the Renewable Energy Mix in a Building Towards the Nearly Zero Energy Status, <i>Energy and Buildings</i> , 68, 72-78, 2014 WOS:000329885300009 , FI=2,884 (2014), FI=6,600 (2023/2024), Categoria Q1	P1.2= 10,200
	P1.3 Co-autor, $n \leq 3$, $P1.3 = 0,2 + FI$	9,200
1.	Visa I., Duta A., Moldovan M., Outdoor performance of a trapeze solar thermal collector for facades integration, <i>Renewable Energy</i> , 137,37-44, 2019 WOS:000462416000005 , FI=6,274 (2019), FI=9,000 (2023/2024), Categoria Q2	P1.3= 9,200
	P1.4 Co-autor, $n \geq 4$, $P1.4 = 3 \cdot (0,2 + FI) / n$	14,803
1.	Attia S., Kurnitski J., Kosiński P., Borodiņecs A., Deme Belafi Z., István K., Krstić H., Moldovan M., Visa I., Mihailov N., Evstatiev B., Banionis K., Čekon M., Vilčeková S., Struhala K., Brzoň R., Laurent O., Overview and future challenges of nearly zero-energy building (nZEB) design in Eastern Europe, <i>Energy & Buildings</i> , 267, 112165, 2022 WOS:000805219500004 , FI=6,700 (2022), FI= 6,600 (2023/2024), Categoria Q1	P1.4= 1,217
2.	Visa M., Cosnita M., Moldovan M., Marin C.A., Mihaly M., Fly Ash Waste Recycling by	P1.4=



	Pt/TiO ₂ Incorporation for Industrial Dye Removal. Int. J. Environ. Res. Public Health, 18, 3887, 2021 WOS:000644094200001 , FI=4,614 (2021), Categoria Q2	2,888
3.	Visa I, Burduhos B. G., Neagoe M., Moldovan M. D., Duta A.. Comparative analysis of the infield response of five types of photovoltaic module, Renewable Energy, 95, 178-90, 2016 WOS:000377311000016 , FI=4,357 (2019), FI=9,000 (2023/2024), Categoria Q2	P1.4=5,520
4.	Visa I., Duta A., Comsit M., Moldovan M. D., Ciobanu D., Saulescu R., Burduhos B. G., Design and experimental optimization of a novel flat plate solar thermal collector with trapezoidal shape for facades integration, Applied Thermal Engineering, 90, 432-443, 2015 WOS:000364246500047 , FI=3,043 (2015), FI = 6,100 (2023/2024), Categoria Q1	P1.4=2,700
5.	Visa I., Comsit M., Moldovan M. D., Duta A., Outdoor simultaneous testing of four types of photovoltaic tracked modules, Journal of Renewable and Sustainable Energy 6, 2014 WOS:000338072800044 , FI=0,904 (2014), FI = 1,900 (2023/2024), Categoria Q3	P1.4=1,575
6.	Burduhos B. G., Toma C., Neagoe M., Moldovan M. D., Pseudo-equatorial tracking optimization for small photovoltaic platforms from Toronto/Canada, Environmental Engineering and Management Journal, 10(8), 1059-1068, 2011 WOS:000296758300011 , FI=1,004 (2011), FI = 0,900 (2023/2024), Categoria Q4	P1.4=0,903

Nr. crt.	CDI-A2.2 Articole și publicații științifice BDI ^[4] neincluse la A2.1	Punctaj
	N3.1 Autor corespondent / prim autor	N3.1=18
1.	Moldovan M., Burduhos B., Visa I., Experimental energy gain assessment of a photovoltaic system equipped with a biaxial solar tracking mechanism, Mechanisms and Machine Science, 127, 3 - 10, 2023 https://www.scopus.com/record/display.uri?eid=2-s2.0-85161627302&origin=resultslist	N3.1=1
2.	Moldovan M., Visa I., Sustainable Product Development Through the Interdisciplinary Study Programme Engineering of Renewable Energy Systems, IFToMM World Congress on Mechanism and Machine Science, 149 721-731, Springer, Cham, 2023 https://www.scopus.com/record/display.uri?eid=2-s2.0-85176934984&origin=resultslist	N3.1=1
3.	Rusea D., Moldovan M., Visa I., Novel Pseudo 3D Design of Solar Thermal Facades, Mechanisms and Machine Science, 134, 27-36, Springer Nature Switzerland, 2023 https://www.scopus.com/record/display.uri?eid=2-s2.0-85161172948&origin=resultslist	N3.1=1
4.	Visa I., Moldovan M., Achieving the Sustainable Development Goals through Education on Renewable Energy, Proceedings of The 1st IFToMM for Sustainable Development Goals online Workshop, 87-96, Springer, 2022 WOS:000772657100010 https://www.scopus.com/record/display.uri?eid=2-s2.0-85118104132&origin=resultslist	N3.1=1
5.	Moldovan M., Visa I., One Year Experimental Evaluation of the Electrical Gain by Solar	N3.1=1



	Tracking a 12 KW Photovoltaic System Installed on a Building Rooftop, Mechanisms and Machine Science, 91, 551–559, Springer, Cham, 2021 https://www.scopus.com/record/display.uri?eid=2-s2.0-85090226974&origin=resultslist	
6.	Moldovan M., Visa I., Rusea I., The influence of the solar thermal collectors integrated in the building façade on the building thermal energy demand across Europe, Journal of Science and Arts, 1(50), 203-214, 2020 WOS:000522184600023	
7.	Visa I., Moldovan M., Duta A., Experimental Performance Assessment of Vertically Installed Solar Thermal Collectors, Journal of Sustainable Development of Energy, Water and Environment Systems, 8(4), 692-700, 2020 WOS:000546983700007 https://www.scopus.com/record/display.uri?eid=2-s2.0-85090675531&origin=resultslist	N3.1=1
8.	Visa I., Moldovan M., Energy Efficient Built Environment of the R&D Institute of the Transilvania University of Brasov Romania, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), Ruse, 1-4, 2020 WOS:000659299700068 https://www.scopus.com/record/display.uri?eid=2-s2.0-85099580414&origin=resultslist	N3.1=1
9.	Moldovan M., Visa I., Burduhos B., Experimental Comparison of Flat Plate and Evacuated Tube Solar Thermal Collectors for Domestic Hot Water Preparation in Education Facilities, Journal of Sustainable Development of Energy, Water and Environment Systems, 8(2), 293-303, 2020 WOS:000519565900005 https://www.scopus.com/record/display.uri?eid=2-s2.0-85078106369&origin=resultslist	N3.1=1
10.	Visa I., Moldovan M., Solar Tracking Linkage RSSR for all Latitudes, T. Uhl (ed.), Advances in Mechanism and Machine Science, Mechanisms and Machine Science 73, 3541-3550, Springer Nature Switzerland AG, 2019 https://www.scopus.com/record/display.uri?eid=2-s2.0-85067568545&origin=resultslist	N3.1=1
11.	Moldovan M., Visa I., Angular stroke requirements for solar tracking azimuthal mechanism at any latitude, T. Uhl (ed.), Advances in Mechanism and Machine Science, Mechanisms and Machine Science 73, 3573-3582, Springer Nature Switzerland AG, 2019 https://www.scopus.com/record/display.uri?eid=2-s2.0-85067579541&origin=resultslist	N3.1=1
12.	Moldovan M., Visa I., Development of an indoor testing rig for façade integrated solar thermal collectors, Book Series: E3S Web of Conferences, 85, 04005, Eenviro 2018 WOS:000468021200038 https://www.scopus.com/record/display.uri?eid=2-s2.0-85062415541&origin=resultslist	N3.1=1
13.	Visa I., Moldovan M., Comsit M., Duta A. Infield output of a new solar-thermal façade with increased architectural acceptance, Advanced Materials - TechConnect Briefs, 2, 62-65, 2017 https://www.scopus.com/record/display.uri?eid=2-s2.0-85029425878&origin=resultslist	N3.1=1
14.	Moldovan M., Visa I., Duta A., Future trends for solar energy use in nearly zero energy buildings, Advances in Solar Heating and Cooling, 547-569, ELSEVIER, 2016 WOS:000424512800020 https://www.scopus.com/record/display.uri?eid=2-s2.0-85008154341&origin=resultslist	N3.1=1
15.	Moldovan M., Visa I., Neagoe M., Optimising the Strokes and Loads of the Linear	N3.1=1



	Actuators in a Two Degrees of Freedom Linkage Used in Solar Tracking Systems, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 563-572, 2015 https://www.scopus.com/record/display.uri?eid=2-s2.0-85018949115&origin=resultslist	
16.	Visa I., Neagoe M., Moldovan M., Algorithm for Structural Synthesis of Planar Mechanisms as Multibody Systems, Proceedings of the 14th IFToMM World Congress, Taipei, Taiwan, 505-514, 2015 https://www.scopus.com/record/display.uri?eid=2-s2.0-85018957722&origin=resultslist	N3.1=1
17.	Moldovan M. D., Visa I., Neagoe M., Burduhos B. G., Solar heating & cooling energy mixes to transform low energy buildings in nearly zero energy buildings, Energy Procedia, 48, 924-937, 2014 WOS:000345410700105 https://www.scopus.com/record/display.uri?eid=2-s2.0-84899008097&origin=resultslist	N3.1=1
18.	Moldovan M., Visa I., Saulescu R., Comsit M., Four-Bar Linkages with Linear Actuators Used for Solar Trackers with Large Angular Diurnal Strokes, The 11th IFToMM International Symposium on Science of Mechanisms and Machines, Mechanisms and Machine Science, 17, 411-423, Springer, 2014 https://www.scopus.com/record/display.uri?eid=2-s2.0-84927708514&origin=resultslist	N3.1=1

Nr. crt.	CDI-A2.2 Articole și publicații științifice BDI ^[4] neincluse la A2.1	Punctaj
	N3.2 Co-autor	N3.2=12
1.	Visa I., Duta A., Moldovan M., Neagoe M., Burduhos B., Solar Energy Conversion Systems in the Built Environment, Green Energy and Technology, Springer Nature Switzerland AG, 2020 WOS:000669848100007 https://www.scopus.com/record/display.uri?eid=2-s2.0-85078182124&origin=resultslist	N3.2=1
2.	Cotorcea A., Pocora A., Nicolae F., Visa I., Moldovan M., Experimental Assessment of the Tilt Angle Influence on the Solar Thermal Collectors Performance, 7th International Conference on Energy Efficiency and Agricultural Engineering, Ruse, 1-6, 2020 WOS:000659299700012 https://www.scopus.com/record/display.uri?eid=2-s2.0-85099587157&origin=resultslist	N3.2=1
3.	Visa I., Neagoe M., Moldovan M., Comsit M., Solar tracking parallel linkage applicable for all latitudes, Mechanisms and Machine Science, 57, 3-11, 2018 https://www.scopus.com/record/display.uri?eid=2-s2.0-85047621522&origin=resultslist	N3.2=1
4.	Visa I., Moldovan M., Comsit M., Neagoe M., Duta A. Facades integrated solar-thermal collectors – challenges and solutions, Energy Procedia, 112, 176-185, 2017 WOS:000404848300022 https://www.scopus.com/record/display.uri?eid=2-s2.0-85018314583&origin=resultslist	N3.2=1
5.	Visa I., Neagoe M., Moldovan M., Structural synthesis of planar geared linkage mechanisms as multibody systems, New Advances in Mechanisms, Mechanical Transmissions and Robotics, Mechanisms and Machine Science, 46, 99-106, Springer, 2017 WOS:000404231000010 https://www.scopus.com/record/display.uri?eid=2-s2.0-84992669716&origin=resultslist	N3.2=1
6.	Visa I., Cotorcea A., Moldovan M., Neagoe M., Two degrees of freedom parallel linkage	N3.2=1



	to track solar thermal platforms installed on ships, IOP Conf. Series: Materials Science and Engineering, 147 (1), 012071, 1-10, 2016 WOS:000390720200071 https://www.scopus.com/record/display.uri?eid=2-s2.0-84989897738&origin=resultslist	
7.	Visa I., Cotorcea A., Neagoe M., Moldovan M., Adaptability of solar energy conversion systems on ships, IOP Conference Series: Materials Science and Engineering, 147 (1), 012070, 1-12, 2016 WOS:000390720200070 https://www.scopus.com/record/display.uri?eid=2-s2.0-84989956794&origin=resultslist	N3.2=1
8.	Neagoe M., Visa I., Burduhos B. G., Moldovan M. D., Thermal load based adaptive tracking for flat plate solar collectors, Energy Procedia, 48, 1401-1411, 2014 WOS:000512544400028 https://www.scopus.com/record/display.uri?eid=2-s2.0-84898995752&origin=resultslist	N3.2=1
9.	Neagoe M., Visa I., Cretescu N., Moldovan M. D., On a New Parallel Tracking System for Accurate Orientation of Concentrated Solar Convertors, Applied Mechanics and Materials 658, 105-110, 2014 https://www.scopus.com/record/display.uri?eid=2-s2.0-84920661806&origin=resultslist	N3.2=1
10.	Visa I., Neagoe M., Moldovan M. D., Comsit M., Structural Synthesis of Parallel Linkages by Multibody Systems Method, Applied Mechanics and Materials, 658, 153-158, 2014 https://www.scopus.com/record/display.uri?eid=2-s2.0-84920696133&origin=resultslist	N3.2=1
11.	Dombi V. E., Visa I., Moldovan M. D., Burduhos B. G., Step orientation system for a solar thermal platform, International Symposium KOD 2010 Proceedings, Palić, Serbia, 265-268, 2010 WOS:000397473500047 https://www.webofscience.com/wos/woscc/full-record/WOS:000397473500047	
12.	Boian I., Serban A., Moldovan M., Chiriac F., Heat Pump Laboratory, Proceedings of 1st International Conference on Manufacturing Engineering, Quality And Production Systems (MEQAPS'09), 136-141, 2009 WOS:000272960100020 https://www.scopus.com/record/display.uri?eid=2-s2.0-74949116790&origin=resultslist#metrics	N3.2=1

Nr. crt.	CDI-A2.3 Brevete de invenții indexate ^[5] , unde n = nr. de autori	Punctaj
	P2.2 Co-autor, $n \geq 4$, $P2.2 = 3 \cdot (0,2 + 0,5) / n$	2,013
1.	Burduhos B.G., Visa I., Neagoe M., Duta-Capra A., Comsit M., Moldovan M.D., Stand cu parametri climatici controlați pentru testarea convertoarelor solare, Brevet de invenție RO132448B1 , 29.11.2023, BOPI 11/2023	P2.2=0,350
2.	Visa I., Neagoe M., Moldovan M., Duta A., Comsit M., Burduhos B., Mecanism articulată bimobil de tip paralel pentru orientarea convertoarelor solare la orice latitudine, brevet de invenție RO133554B1 , 2023-10-30, BOPI 10/2023	P2.2=0,350
3.	Visa I., Diaconescu D., Neagoe M., Jaliu C., Alexandru C., Dobre B., Boțoman M., Saulescu R., Moldovan M., Porca Vatasescu M., Actuator de viteză mică cu reductor articulată intermitent, Brevet de invenție nr. RO128120B1 , 29.07.2022, BOPI 7/2022	P2.2=0,210
4.	Visa M., Visa I., Moldovan M. D., Neagoe M., Tilimpea I.B., Olaru A.G., Cosașu D., Reactor paralelipipedic modular în flux continuu pentru procese simultane de fotocataliză și	P2.2=0,300



	adsorbție Brevet de Invenție RO132340B1 , 30.06.2022, BOPI 6/2022	
5.	Visa I., Comsit M., Duta A., Neagoe M., Saulescu R., Ciobanu D., Moldovan M., Burduhos B., Perniu D., Eneșca A., Isac L., Ienei E., Mihoreanu C., Totu I., Colector solar termic modular pentru optimizarea prin testare a eficienței conversiei și creșterea acceptanței arhitecturale, Brevet de invenție RO130275B1 , 30.06.2020, BOPI 6/2020	P2.2=0,150
6.	Visa I., Diaconescu D., Neagoe M., Moldovan M., Saulescu R., Vatasescu Porca M. M., Burduhos B., Totu I., Serban C., Grigorescu C. M., Mecanism de orientare cu două actuatore liniare în paralel pentru șiruri fotovoltaice, Brevet de invenție RO128315B1 , 30.12.2020, BOPI 12/2020	P2.2=0,210
7.	Visa I., Dombi V., Neagoe M., Moldovan M., Saulescu R., Totu I., Badea M., Vatasescu Porca M., Serban C., Metodă de reglare a orientării unui colector solar termic plan, Brevet de invenție RO127678B1 , 30.10.2018, BOPI 10/2018	P2.2=0,233
8.	Visa I., Diaconescu D., Neagoe M., Eftimie E., Serban C., Moldovan M., Saulescu R., Vatasescu Porca M., Burduhos B., Totu I., Mecanism de orientare monoaxială cu două actuatore liniare, Brevet de invenție RO127979B1 , 30.05.2016, BOPI 5/2016	P2.2=0,210

Nr. crt.	CDI-A2.4 Produse, tehnologii, platforme și servicii inovative (validate conform procedurilor specifice)	Punctaj
	N4.2 Co-autor	N4.2=1
1.	Burduhos B., Visa I., Neagoe M., Comsit M., Moldovan M., Cameră climatică de ceață pentru simularea condițiilor meteorologice care influențează funcționarea modulelor fotovoltaice, 2019 https://intranet.unitbv.ro/Portals/0/UserFiles/User14571/Produs_cameraClimatica.pdf	N4.2=1

Nr. crt.	CDI-A2.5 Monografii/cărți de specialitate ^[2] , format tipărit / electronic (min. 100 pag.)	Punctaj
	N4.3 Coordonator / prim autor	N4.3=1
1.	Moldovan M., Sisteme Solar Termice, Editura AGIR, 2023, 200 pagini https://www.agir.ro/carte/sisteme-solar-termice-124323.html	N4.3=1
	N4.4 Co-autor	N4.4=3
1.	Visa I., Duta A., Moldovan M., Neagoe M., Burduhos B., Solar Energy Conversion Systems in the Built Environment, Green Energy and Technology, Springer Nature Switzerland AG, 2020, 384 pagini https://link.springer.com/book/10.1007/978-3-030-34829-8	N4.4=1
2.	Visa I., Jaliu C., Duta A., Neagoe M., Comsit M., Moldovan M., Ciobanu D., Burduhos B., Saulescu R., The Role of Mechanisms in Sustainable Energy Systems, Editura Universității Transilvania din Brașov, 2015, 346 pagini https://tinyurl.com/26cyp6f3	N4.4=1
3.	Vatasescu M. M., Moldovan M. D., Burduhos B. G., Sisteme articulate pentru orientare solară, Editura Universității Transilvania din Brasov, 2011, 132 pagini https://tinyurl.com/26bmwp4x	N4.4=1



Fișa de verificare a criteriului
RIA - A3 Recunoașterea impactului activității
Standarde minimale pentru domeniile științifice „Inginerie mecanică, mecatronică și robotică”

Domeniul activităților	Rezultatele activităților	Indicatori	Condiții minime profesor	Punctaj realizat
RIA (A3) Recunoașterea și impactul activității	A3.1 Atragerea de resurse financiare prin granturi/proiecte/contracte terți	S1 + S2	50 mii Euro	131,56 mii Euro
		S1 Director sau responsabil partener la grant/proiect câștigat prin competiție națională sau internațională [6], [8]		12,14 mii Euro
		S2 Membru în echipă la grant/proiect câștigat prin competiție națională sau internațională [7], [8]		119,42 mii Euro
	A3.2 Prezentarea / Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor / co-autor de lucrări, profesor invitat	N5 Congrese / conferințe / workshopuri internaționale, profesor invitat la universități / institute din străinătate	10	89
	A3.3 Citări în publicații BDI [5] (se exclud autocitările)	$C = C1 + S_{FI}$	25	1666,669
		C1 numărul de citări		333
S_{FI} suma factorilor de impact al publicațiilor WOS în care apar citările			1333,669	

[4] Bazele de date BDI acceptate sunt: Web of Science Thomson Reuters (WOS) și SCOPUS

[5] Un brevet se poate încadra la o singură categorie

[6] Suma din grant/proiect încasată de instituție repartizată echipei din care directorul de grant/responsabil partener face parte (S1 include cheltuieli de: personal, logistică, deplasări, indirecte)

[7] Suma din grant/proiecte câștigate prin concurs național/internațional și proiecte/contracte terți încasată de instituție și repartizată de director/responsabil persoanei respective (S2 include cheltuieli de: personal, logistică, deplasări, indirecte)

[8] Pentru contractele derulate înainte de 01.01.1999 se va considera echivalarea: 1 EURO = 1 \$ USA



CDI-A3 Recunoașterea impactului activității

Nr. crt.	RIA-A3.1 Atragerea de resurse financiare prin granturi/proiecte/contracte terți	Punctaj
	S1 Director sau responsabil partener la grant/proiect câștigat prin competiție națională sau internațională, S1 ^[7] sumă echivalentă în mii Euro ^[8]	S1=12,14 mii Euro
1.	Director contract, Optimizarea funcțională a 4 Sisteme solar termice integrate în rețeaua publică de termoficare Brașov (PT1 Astra, PT2 Hărman Zizin, PT6 Tractorului, CT Pasaj Bartolomeu), Nr. contract: 19971/23.12.2022 valoare contract 12000 lei echivalent 2,45 mii Euro (curs BNR la 23.12.2022 = 4,902 lei/Euro)	S1=2,45 mii Euro
2.	Director contract, Factorii de mediu și influența lor asupra performanțelor colectoarelor solar termice, Nr. contract:15098/14.11.2017 valoare contract 11900 lei echivalent 2,56 mii Euro (curs BNR la 14.11.2017 = 4,6482 lei/Euro)	S1=2,56 mii Euro
3.	Director contract, Concepția și proiectarea optimală a unui mix energetic bazat pe surse de energie regenerabile pentru un ansamblu de locuințe multifamiliale din Brașov, Nr. contract:1099/31.01.2017 valoare contract 32130 lei echivalent 7,13 mii Euro (curs BNR la 31.01.2017 = 4,5038 lei/Euro)	S1=7,13 mii Euro
	S2 Membru în echipă la grant/proiect câștigat prin competiție națională sau internațională, proiecte/contracte terți, S2 ^[7] sumă echivalentă în mii Euro ^[8]	S2=119,42 mii Euro
1.	Demonstrator și tehnologie în flux continuu cu fotocatalizator, ctr. 598PED/2022 sumă repartizată 8000 lei în 2022 și 26519 lei în 2023 echivalent 6,95 mii Euro (curs BNR = 4,9474 lei/Euro în 2022 și 4,9746 lei/Euro în 2023)	S2=6,95 mii Euro
2.	Materiale carbonice nanostructurate pentru aplicații industriale avansate (Nanocarbon+), PN-III-P1-1.2-PCCDI-2017-0619, ctr. 42 PCCDI / 2018 sumă repartizată 20253 lei în 2018 + 15000 lei în 2019 + 10000 lei în 2020 echivalent 9,53 mii Euro (curs BNR = 4,6639 lei/Euro în 2018, 4,7793 lei/Euro în 2019 și 4,8694 lei/Euro în 2020)	S2=9,53 mii Euro
3.	BioEnergyTrain (BET) Program H2020, apel H2020-LCE-2014-2, DG Research GA Nr. 656760 sumă repartizată 3000 Euro în 2016 + 4795 Euro în 2017 + 5000 Euro în 2018 + 5000 Euro în 2019 echivalent 17,80 mii Euro	S2=17,80 mii Euro
4.	Sistem autonom durabil de monitorizare a surselor de apă naturale pentru nitriți / nitrați și metale grele, (WaterSafe), M-ERA.NET, PNIII, ctr. 39/2016 sumă repartizată 755,56 Euro în 2016 + 1200 Euro în 2017 + 4000 Euro în 2018 echivalent 5,96 mii Euro	S2=5,96 mii Euro
5.	Demonstrator și tehnologie de laborator pentru suprafețe bazate pe colectoare solar-termice plan-plate de tip triunghi (Sol_Tri_Col), PN-III-P2-2.1-PED-2016-0338 sumă repartizată 45237,5 lei în 2017 + 35750 în 2018 echivalent 17,57 mii Euro (curs BNR = 4,5681 lei/Euro în 2017, 4,6639 în 2018)	S2=17,57 mii Euro



6.	Demonstrator și tehnologie în flux continuu bazată pe reactor de fotocataliză și adsorbție în film subțire pentru epurarea avansată a apelor (Photo_Cat_Flow), PN-III-P2-2.1-PED-2016-0514 ctr. 124/2017 sumă repartizată 54600 lei în 2017 + 25000 lei în 2018 echivalent 17,31 mii Euro (curs BNR 4,5681 lei/Euro în 2017 și 4,6639 lei/Euro în 2018)	S2=17,31 mii Euro
7.	Creșterea competitivității SC ELDON SRL prin optimizarea tehnologiei de fabricație a dulapurilor industriale de podea, PN-III-P2-2.1-BG-2016-0349, ctr. 102BG/2016 sumă repartizată 2250 lei în 2016 + 7600 lei în 2017 + 4500 lei în 2018 echivalent 3,13 mii Euro (curs BNR = 4,4908 lei/Euro în 2016, 4,5681 lei/Euro în 2017, 4,6536 lei/Euro în 2018)	S2=3,13 mii Euro
8.	Îmbunătățirea performanțelor funcționale ale dulapurilor Multiflex, ELDON SRL, contract: 162/2016 sumă repartizată 4500 lei echivalent 1,01 mii Euro (curs BNR 4,4908 lei/Euro)	S2=1,00 mii Euro
9.	Sistem inovativ integrat Materiale-Tehnologie -Echipament pentru procese simultane de fotocataliza si adsorbție aplicate in epurarea sustenabila a apelor uzate (SimFotoAd) PN II PCCA ctr. 217/2014 sumă repartizată 1500 lei în 2014 + 4500 lei în 2015 + 18000 lei în 2016 + 6000 lei în 2017 echivalent 6,67 mii Euro (curs BNR = 4,4446 lei/Euro în 2014, 4,4450 lei/Euro în 2015, 4,4908 lei/Euro în 2016 și 4,5681 lei/Euro în 2017)	S2=6,67 mii Euro
10.	Sistem inovativ sustenabil pentru auto-decontaminarea fotocatalitică a echipamentelor de protecție CBRN – CB-PhotoDea PN II PCCA ctr. 282/2014 sumă repartizată 500 lei în 2014 + 11250 lei în 2015 + 1000 lei în 2016 + 1237,5 lei în 2017 echivalent 3,14 mii Euro (curs BNR = 4,4446 lei/Euro în 2014, 4,4450 lei/Euro în 2015, 4,4908 lei/Euro în 2016 și 4,5681 lei/Euro în 2017)	S2=3,14 mii Euro
11.	Efectul norilor asupra radiației solare (ECSOL-PROGNOSIS), Capacity, RO-CY, 765 / 30.04.2014, program de cooperare bilaterală România – Cipru sumă repartizată 8467.31 lei în 2014 + 6750 lei în 2015 echivalent 3,42 mii Euro (curs BNR 4.4446 lei/Euro pentru 2014 și 4.4450 lei/Euro pentru 2015)	S2=3,42 mii Euro
12.	Sisteme solar termice eficiente cu acceptanță ridicată pentru implementare în mediul urban (EST IN URBA), Proiect Parteneriate PNII 28/2012 sumă repartizată 1100 lei în 2012 + 27000 în 2013 + 25000 în 2014 + 16000 în 2015 + 43000 în 2016 echivalent 25,16 mii Euro (curs BNR = 4,456 lei/Euro în 2012, 4,4190 lei/Euro în 2013, 4,4446 lei/Euro în 2014, 4,4450 lei/Euro în 2015 și 4,4908 lei/Euro în 2016)	S2=25,16 mii Euro
13.	Institut de Cercetare Dezvoltare Inovare Produse HighTech pentru Dezvoltare Durabilă (PRODD, ICDT) Contract 11/2009 sumă repartizată 2050 lei în 2012 + 5850 lei în 2013 echivalent 1,78 mii Euro (curs BNR = 4,4560 lei/Euro pentru 2012 și 4.4190 pentru 2013)	S2=1,78 mii Euro



Nr. crt.	RIA-A3.2 Prezentarea / Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor / co-autor de lucrări, profesor invitat	Punctaj
	N5 Congrese / conferințe / workshopuri internaționale, profesor invitat la universități / institute din străinătate	N5=89
1.	Moldovan M., Visa I., Product Development Through the Interdisciplinary Study Programme Engineering of Renewable Energy Systems, The 16th IFToMM World Congress, Tokyo, Japan, 2023	N5=1
2.	Moldovan M., Rusea D., Visa I., Increasing the efficiency of triangle solar thermal collectors with internal cavity by using turbulators with different shapes, Conference for Sustainable Energy, CSE 2023 Renewable Energy Mixes for Carbon Neutrality in Communities, Universitatea Transilvania din Brașov, 2023	N5=1
3.	Moldovan M., Patrolea A., Visa I., Energy performance of a ground – water heat pump installed in a Low Energy Building, Conference for Sustainable Energy, CSE 2023 Renewable Energy Mixes for Carbon Neutrality in Communities, Universitatea Transilvania din Brașov, 2023	N5=1
4.	Rusea D., Moldovan M., Visa I., Numerical Simulations and Experimental Testing of Triangle Solar Thermal Collectors Efficiency, Conference for Sustainable Energy, CSE 2023 Renewable Energy Mixes for Carbon Neutrality in Communities, Universitatea Transilvania din Brașov, 2023	N5=1
5.	Visa I., Moldovan M., Energia Durabilă în Mediul Construit, Provocări, Oportunități și Soluții, Zilele Academiei de Științe Tehnice din România, Brașov, România, 2023	N5=1
6.	Rusea D, Moldovan M., Visa I, Novel Pseudo 3D Design of Solar Thermal Facades with Triangle and Trapeze Solar Thermal Collectors for Increased Architectural Acceptance. IFTToMM for Sustainable Development Goals Workshop I4SDG 2023. Bilbao, Spain, 2023	N5=1
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	C1 numărul de citări	C1=333
	SFI suma factorilor de impact al publicațiilor WOS în care apar citările	SFI= 1333,669
1	<p>Articol citat: Attia S., Kurnitski J., Kosiński P., Borodiņecs A., Deme Belafi Z., István K., Krstić H., Moldovan M., Visa I., Mihailov N., Evstatiev B., Banionis K., Čekon M., Vilčeková S., Struhala K., Brzoň R., Laurent O., Overview and future challenges of nearly zero-energy building (nZEB) design in Eastern Europe, Energy & Buildings, 267, 112165, 2022</p> <p>Citări</p> <ol style="list-style-type: none">1. Acar U., & Kaska O., Performance assessments of ground source heat pump assisted by various solar panels to achieve zero energy buildings in cold climate conditions. Journal of Building Engineering, 110611, 2024, Link Scopus, Factor de impact 2023/2024 = 6,7002. Agbodjan Y.S., Jiaqiang Wang, Yanping Cui, Zhiqiang Liu, Zhengyi Luo, Bibliometric analysis of zero energy building research, challenges and solutions, Solar Energy, 244, 414-433, 2022, Link WOS, Factor de impact in 2022 = 6,7003. Andresen I., Tonje Healey Trulsrud, Luca Finocchiaro, Alessandro Nocente, Meril Tamm, Joana Ortiz, Jaume Salom, Abel Magyari, Linda Hoes-van Oeffelen, Wouter Borsboom, Wim Kornaat, Niki Gaitani, Design and performance predictions of plus energy neighbourhoods – Case studies of demonstration projects in four different European climates, Energy and Buildings, 274, 112447, 2022, Link WOS, Factor de impact in 2022 = 6,7004. Calise, F., Cappiello, F. L., Cimmino, L., & Vicidomini, M., Semi-stationary and dynamic simulation models: A critical comparison of the energy and economic savings for the energy refurbishment of buildings. Energy, 300, 131618, 2024, Link Scopus, Factor de impact in 2023/2024 = 9,0005. Carpino, C., Chen Austin, M., Mora, D., & Arcuri, N., Retrofit Measures for Achieving NZE Single-Family Houses in a Tropical Climate via Multi-Objective Optimization. Buildings, 14(3), 566, 2024, Link WOS, Factor de impact in 2023/2024 = 3,1006. Čekon, M., Cottone, R., Cabanová, T., Čurpek, J., Dubnička, R., Slávik, R., & Bevilacqua, P., Spectral Optical Performance of Phase-Change-Material-Filled Glass-Block System: Experimental Evaluation and Comparative Exploration. Journal of Building Engineering, 109795, 2024, Link WOS, Factor de impact in 2023/2024 = 6,7007. De Masi, R. F., Festa, V., Gigante, A., Ruggiero, S., & Vanoli, G. P., Comprehensive analysis of the incidence of glazed components and PV system	C1=33 SFI= 123,724



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[6] Suma din grant/proiect încasată de instituție repartizată echipei din care directorul de grant/responsabil partener face parte (S1 include cheltuieli de: personal, logistică, deplasări, indirecte)

[7] Suma din grant/proiecte câștigate prin concurs național/internațional și proiecte/contracte terți încasată de instituție și repartizată de director/responsabil persoanei respective (S2 include cheltuieli de: personal, logistică, deplasări, indirecte)

[8] Pentru contractele derulate înainte de 01.01.1999 se va considera echivalarea: 1 EURO = 1 \$ USA

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