Domeniul Fundamental: STIINTE INGINERESTI
Domeniul de Studii Universitare: CALCULATOARE si TEHNOLOGIA INFORMATIEI
Comisia CNATDCU [nr/denumire]: 15. CALCULATOARE, TEHNOLOGIA INFORMATIEI SI INGINERIA SISTEMELOR

UNIVERSITATEA POLITEHNICA BUCURESTI

FISA DE EVALUARE A ACTIVITATII

Condiţii CNATDCU pentru gradul de Profesor Universitar

Andrei Paun
Institutul de Cercetări pentru Inteligență Artificială “Mihai Drăgănescu”, Academia Romana

Punctaje conditii minimale (A)				
Nr.	**Domeniul de activitate**	**Minim prevazut**	**Realizat**	
A1	Activitatea didactica / profesionala (A1)	100,00	122,71	
A2	Activitatea de cercetare (A2)	600,00	1.144,38	2013-prezent
A3	Recunoasterea impactului activitatii (A3)	150,00	397,33	au fost indicate citarile de Q1 sau Q2 de la 2 din lucrarile publicate dupa 2013
TOTAL (A)		**850,00**	**1.664,42**	

Punctaje conditii minimale obligatorii pe subcategorii				
Nr.	**Domeniul de activitate**	**Minim prevazut**	**Realizat**	
A1.1.1-A1.1.2	Carti de specialitate	1	2	nr 1, 10
A2.1	Articole in reviste cotate si in volumele unor manifestari stiintifice indexate ISI proceedings	15	38	lucrari 2013-prezent
	din care minimum în reviste cotate ISI Q1 sau Q2	3	20	nr 3, 5, 6, 11, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 25, 27, 28, 29, 31, 32
A2.4.1	Granturi / proiecte castigate prin competitie (Director / responsabil partener)	2	4	NSF si Louisiana BOR in SUA la Louisiana Tech university, TE si PCCA la INCDSB
A3.1.1	Numar de citari in carti, reviste si volume ale unor manifestari stiintifice ISI (WOS)	25	955	2013-prezent citari in ISI
	Factor de impact cumulat pentru publicatii	10	116,7	doar din lucrari 2013-prezent

STRUCTURA ACTIVITATII CANDIDATULUI

A1	Activitatea didactica si pedagogica (A1)	122,71

A1.1.1	Carti de autor sau capitole de specialitate la edituri cu ISBN (internaționale) [50/nr de autori sau 100/nr autori cu conditia [2] - daca cartea se regăseste in cel putin 50 de biblioteci din strainatate conform catalogului WorldCat] Punctajul pentru capitol de carte se puncteaza cu 1/4 din categoria respectiva		Link	
	<Citare format standard - APA, IEEE; numele este marcat cu bold sau underscore; pentru carti va fi mentionat obligatoriu ISBN-ul aferent>			
1	**Păun, A.** (2008). Computability of the DNA and Cells: Splicing and Membrane Computing. SBEB Publishing, 378 pages, ISBN: 978-0-9802368-4-2.	50,00	https://www.amazon.com/Computability-DNA-Cells-Andrei-Paun/dp/0980236843	
2	Ibarra, O. H., & **Paun, A.** (2007). Membrane Systems. A "Natural" Way of Computing with Cells, book chapter (chapter 3, 26 pages), in S. Rajasekaran, J.Reif, eds., Handbook of Parallel Computing: Models, Algorithms and Applications (Chapman & Hall/Crc Computer & Information Science Series), 2007,	12,50	https://www.amazon.com/Handbook-Parallel-Computing-Applications-Information/dp/1584886234	
3	Ibarra, O., Leporati A., **Paun, A.**, & Woodworth S. (2010). Spiking Neural P Systems: Characterizations and Complexity, In The Oxford Handbook of Membrane Computing. Oxford University Press.	6,25	https://global.oup.com/academic/product/the-oxford-handbook-of-membrane-computing-9780199556670?cc=ro&lang=en&#	
4	Freund, R., Ibarra, O., **Paun, A.**, Sosik P., & Yen H-C. (2010). Catalytic P systems. In The Oxford Handbook of Membrane Computing (pp. 83-118). Oxford University Press.	5,00	https://global.oup.com/academic/product/the-oxford-handbook-of-membrane-computing-9780199556670?cc=ro&lang=en&#	
	Jack, J., **Păun, A**., & Păun, M. (2013). Biochemical Networks Discrete Modeling Inspired by Membrane Systems. In Applications of Membrane Computing in Systems and Synthetic Biology (pp. 175-221). Cham: Springer International Publishing.	8,33	https://link.springer.com/book/10.1007/978-3-319-03191-0	
5	Gheorghe, M., **Păun, A.**, Verlan, S., & Zhang, G. (2017). Membrane computing, power and complexity. Encyclopedia of Complexity and Systems Science, 1-16. Springer, ISBN 978-3-642-27737-5. 2017	6,25	https://doi.org/10.1007/978-3-642-27737-5_697-1	
6	Gheorghe, M., **Păun, A.,** Verlan, S., & Zhang, G. (2017). Applications of P Systems. Encyclopedia of Complexity and Systems Science, 1-15. Springer, ISBN 978-3-642-27737-5. 2017	6,25	http://dx.doi.org/10.1007/978-1-4939-6883-1_698	
7				carte publicata in calitate de editor, eliminata cf evaluatorului 3
8				carte publicata in calitate de editor, eliminata cf evaluatorului 3
9	Csuhaj-Varjú, E., Gheorghe, M., Leporati, A., Martínez-del-Amor, M. Á., Pan, L., Paul, P.,**Paun A.**, ... & Zhang, G. (2022). Membrane computing concepts, theoretical developments and applications. In Handbook of Unconventional Computing: VOLUME 1: Theory (pp.	1,67	https://www.worldscientific.com/doi/abs/10.1142/9789811235726_0008	
	Total (A1.1.1)	**94,58**		

A1.1.2	Carti de autor sau capitole de specialitate la edituri cu ISBN (naționale) [50/nr de autori]		Link
	<Citare format standard - APA, IEEE; numele este marcat cu bold sau underscore; pentru carti va fi mentionat obligatoriu ISBN-ul aferent>		
10	**A. Paun**, M. Paun, Analiza Statistica Folosind Limbajul R, Editura Matrix, Bucuresti, 189 pp, 2009.	25,00	https://matrixrom.ro/produs/analiza-statistica-folosind-limbajul-
11	**A. Paun**, I. Stanciu, A. Bancila, B. Popa, Calculabilitatea pe baza de membrane si proteine, capitol de carte in Bioinformatica vol II, Tehnica, 131 pages, 2008, ISBN: 978-973-31-2342-2.	3,13	
	Total (A1.1.2)	**28,13**	

A1.2.1	Material didactic / Lucrari didactice publicate la edituri cu ISBN [40/nr autori]		Link
1			
2			
3			
	Total (A1.2.1)	**0,00**	

A2	Activitatea de cercetare (A2)	1144,38

A2.1	Articole in reviste cotate ISI, si lucrari in volumele unor manifestari stiintifice indexate ISI proceedings [(25+30*factor impact)/nr. de autori]	Numar autori	Factor Impact	Puntaj	Link Articol / Link Jurnal sau ISI Thomson	WOS
			116,70			
	Jurnale cu factor de impact ISI					
1	Sosík, P., **Păun, A**., & Rodríguez-Patón, A. (2013). P systems with proteins on membranes characterize PSPACE. Theoretical Computer Science, 488, 78-95.	3	0,90	17,33	http://dx.doi.org/10.1016/j.tcs.2013.03.009	WOS:000320220200006
2	**Păun, A**., & Sosik, P. (2014). Three universal homogeneous spiking neural P systems using max spike. Fundamenta Informaticae, 134(1-2), 167-182.	2	0,40	18,50	https://content.iospress.com/articles/fundamenta-informaticae/fi134-1-2-12	WOS:000345457100012
3	Zhang, X., Pan, L., & **Păun, A.** (2015). On the universality of axon P systems. IEEE Transactions on Neural Networks and Learning Systems, 26(11), 2816-2829. [Jurnal Q1]	3	10,20	110,33	http://dx.doi.org/10.1109/TNNLS.2015.2396940	WOS:000363242800016
4	Păun, M., Li, Y., Cheng, Y., Tusa, I., & **Păun, A.** (2015). Segmenting microarray images using a contour-based method. Theoretical Computer Science, 608, 108-118.	5	0,90	10,40	https://doi.org/10.1016/j.tcs.2015.07.036	WOS:000367276400011
5	Irvine, K., Weigelhofer, G., Popescu, I., Pfeiffer, E., **Păun, A.**, Drobot, R., ... & Habersack, H. (2016). Educating for action: Aligning skills with policies for sustainable development in the Danube river basin. Science of the Total Environment, 543, 765-777. [Jurnal Q1]	11	8,20	24,64	https://doi.org/10.1016/j.scitotenv.2015.09.072	WOS:000367635600077
6	**Păun, A.**, Chandler, C., Leangsuksun, C. B., & Păun, M. (2016). A failure index for HPC applications. Journal of Parallel and Distributed Computing, 93, 146-153. [Jurnal Q1]	4	3,40	31,75	https://doi.org/10.1016/j.jpdc.2016.04.009	WOS:000378759400011
7	Zhang, Z., Wu, T., **Păun, A.,** & Pan, L. (2016). Numerical P systems with migrating variables. Theoretical Computer Science, 641, 85-108.	4	0,90	13,00	https://doi.org/10.1016/j.tcs.2016.06.004	WOS:000380595300008
8	Su, Y., Wu, T., Xu, F., & **Păun, A.** (2017). Spiking neural p systems with rules on synapses working in sum spikes consumption strategy. Fundamenta Informaticae, 156(2), 187-208.	4	0,40	9,25	https://doi.org/10.3233/FI-2017-1604	WOS:000414038400005
9	**Păun, A.**, & Rodriguez-Paton, A. (2017). P systems simulating bacterial conjugation: universality and properties. Fundamenta Informaticae, 153(1-2), 87-103.	2	0,40	18,50	https://doi.org/10.3233/FI-2017-1532	WOS:000403455900005
10	Chen, H., Ionescu, M., **Păun, A.,** & Păun, G. (2017). On trace languages generated by (small) spiking neural P systems. Theoretical Computer Science, 682, 57-66.	4	0,90	13,00	https://doi.org/10.1016/j.tcs.2016.10.013	WOS:000405062100008
11	Wu, T., **Păun, A.**, Zhang, Z., & Pan, L. (2017). Spiking neural P systems with polarizations. IEEE transactions on neural networks and learning systems, 29(8), 3349-3360. [Jurnal Q1]	4	10,20	82,75	https://doi.org/10.1109/TNNLS.2017.2726119	WOS:000439627700004
12	Li, Y., **Păun, A.**, & Păun, M. (2017). Improvements on contours based segmentation for DNA microarray image processing. Theoretical Computer Science, 701, 174-189.	3	0,90	17,33	https://doi.org/10.1016/j.tcs.2017.04.013	WOS:000418969500017
13	Itcus, C., Amarioarei, A., Czeizler, E., Dobre, A. M., Mitrana, V., Negre, F., ... & Tusa, I. (2018). 3D DNA Origami Map Structure Simulation. SCIENCE AND TECHNOLOGY, 21(3), 249-255. [Jurnal Q1]	11	3,70	12,36	https://www.romjist.ro/full-texts/paper597.pdf	WOS:000455900300006
14	Zhang, Z., Wu, T., **Păun, A.,** & Pan, L. (2018). Universal enzymatic numerical P systems with small number of enzymatic variables. Science China Information Sciences, 61, 1-12. [Jurnal Q1]	4	7,30	61,00	https://link.springer.com/content/pdf/10.1007/s11432-017-9103-5.pdf	WOS:000429096900003
15	Wu, T., Bîlbîe, F. D., **Păun, A.,** Pan, L., & Neri, F. (2018). Simplified and yet Turing universal spiking neural P systems with communication on request. International journal of neural systems, 28(08), 1850013. [Jurnal Q1]	5	6,60	44,60	https://doi.org/10.1142/S0129065718500132	WOS:000442776900004
16	Bordihn, H., Mitrana, V., Negru, M. C., **Păun, A.**, & Păun, M. (2018). Small networks of polarized splicing processors are universal. Natural Computing, 17, 799-809. [Jurnal Q2]	5	1,70	15,20	https://link.springer.com/article/10.1007/s11047-018-9691-0	WOS:000450038300010
17	Barad, G., Czeizler, E., & **Paun, A.** (2019). Chemical Reaction Networks Associated with the Hilberts 16th Problem. Limit Cycles and Stability Analysis. MATCH Commun. Math. Comput. Chem, 81, 557-578. [Jurnal Q2]	3	2,90	37,33	https://match.pmf.kg.ac.rs/electronic_versions/Match81/n3/match81n3_557-578.pdf	WOS:000474683300002
18	**Păun, A.,** & Bîlbîe, F. D. (2020). Universality of SNQ P systems using one type of spikes and restrictive rule application. International Journal of Foundations of Computer Science, 31(01), 117-132.	2	0,60	21,50	https://doi.org/10.1142/S0129054120400080	WOS:000510411700009
19	Amarioarei, A., Barad, G., Czeizler, E., **Paun, A.**, & Trandafir, R. (2020). Probabilistic modeling of the self-assembly of the 1-dimensional DNA structures. SCIENCE AND TECHNOLOGY, 23(3), 311-329. [Jurnal Q1]	5	3,70	27,20	https://d1wqtxts1xzle7.cloudfront.net/80408859/paper665-libre.pdf?1644226918=&response-content-	WOS:000560566100007
20	Bordihn, H., Mitrana, V., **Păun, A.,** & Păun, M. (2021). Hairpin completions and reductions: semilinearity properties. Natural Computing, 20(2), 193-203. [Jurnal Q2]	4	1,70	19,00	https://link.springer.com/article/10.1007/s11047-020-09797-0	WOS:000544198300001
21	Arroyo, F., Mitrana, V., **Păun, A.**, Păun, M., & Couso, J. R. S. (2020). On the group memory complexity of extended finite automata over groups. Journal of Logical and Algebraic Methods in Programming, 117, 100605. [Jurnal Q1]	5	0,70	9,20	https://doi.org/10.1016/j.jlamp.2020.100605	WOS:000582349100004
22	Barad, G., Czeizler, E., & **Paun, A.** (2020). Inner symmetries of the spatially singular part of the solutions of the Burgers equation and their Lie representations. Results in Physics, 19, 103322. [Jurnal Q1]	3	4,40	52,33	https://doi.org/10.1016/j.rinp.2020.103322	WOS:000604211100002
23	Amărioarei, A., Spencer, F., Barad, G., Gheorghe, A. M., Iţcuş, C., Tuşa, I., ... & Czeizler, E. (2021). DNA-Guided Assembly for Fibril Proteins. Mathematics, 9(4), 404. [Jurnal Q1]	12	2,30	7,83	https://doi.org/10.3390/math9040404	WOS:000624148300001
24	Bîlbîe, F. D., & **Păun, A.** (2021). Small SNQ P systems with multiple types of spikes. Theoretical Computer Science, 862, 14-23.	2	0,90	26,00	https://doi.org/10.1016/j.tcs.2020.10.014	WOS:000625959400002
25	Strimbu, B. M., **Paun, A.**, Amarioarei, A., Paun, M., & Strimbu, V. F. (2021). Efficient synthetic generation of ecological data with preset spatial association of individuals. Canadian Journal of Forest Research, 51(8), 1148-1165. [Jurnal Q2]	5	1,70	15,20	https://utoronto.scholaris.ca/server/api/core/bitstreams/0737678d-2b57-4632-a0b7-76214f6491ba/content	WOS:000684268400007
26	Necula, M., Tuşa, I. M., Sidoroff, M. E., Iţcuş, C., Florea, D., Amărioarei, A., ... & Păun, M. M. (2022). How accurate is the remote sensing based estimate of water physico-chemical parameters in the Danube Delta (Romania)?. Annals of Forest Research, 65(2), 103-114.	9	1,70	8,44	https://doi.org/10.15287/afr.2022.2682	WOS:000910140400007
27	Siminea, N., Popescu, V., Sanchez Martin, J. A., Florea, D., Gavril, G., Gheorghe, A. M., ... **Paun A.,** & Petre, I. (2022). Network analytics for drug repurposing in COVID-19. Briefings in bioinformatics, 23(1), bbab490. [Jurnal Q1]	17	6,80	13,47	https://doi.org/10.1093/bib/bbab490	WOS:000763000800157
28	Hamshawi, Y., Bîlbîe, F. D., **Păun, A.**, Malka, A., & Piran, R. (2022). P systems with protein rules. Journal of the Franklin Institute, 359(8), 3779-3807. [Jurnal Q1]	5	3,70	27,20	https://doi.org/10.1016/j.jfranklin.2022.02.017	WOS:000815116800022
29	Couso, J. R. S., Arroyo, F., Mitrana, V., **Păun, A.,** & Păun, M. (2022). Accepting multiple splicing systems. Journal of King Saud University-Computer and Information Sciences, 34(6), 2910-2915. [Jurnal Q1]	5	5,20	36,20	https://doi.org/10.1016/j.jksuci.2022.03.009	WOS:000836431200012

30	Mitrana, V., **Păun, A.**, Păun, M., & Couso, J. R. S. (2024). Jump complexity of finite automata with translucent letters. Theoretical Computer Science, 992, 114450.	4	0,90	13,00	https://doi.org/10.1016/j.tcs.2024.114450	WOS:001184239400001
31	Siminea, N., Czeizler, E., Popescu, V. B., Petre, I., & **Păun, A.** (2024). Connecting the dots: Computational network analysis for disease insight and drug repurposing. Current Opinion in Structural Biology, 88, 102881. [Jurnal Q1]	5	6,10	41,60	https://doi.org/10.1016/j.sbi.2024.102881	WOS:001268582000001
32	Lita, A., Sjöberg, J., Păcioianu, D., Siminea, N., Celiku, O., Dowdy, T., **Paun A.**, ... & Larion, M. (2024). Raman-based machine learning platform reveals unique metabolic differences between IDHmut and IDHwt glioma. Neuro-oncology, noae101. [Jurnal Q1]	11	16,40	47,00	https://doi.org/10.1093/neuonc/noae101	WOS:001334084600001
Conferinte Indexate ISI						
						eliminat din lista cf evaluator 1
33	Bordihn, H., Mitrana, V., **Păun, A.**, & Păun, M. (2017, November). Networks of polarized splicing processors. In International Conference on Theory and Practice of Natural Computing (pp. 165-177). Cham: Springer International Publishing.	4	0,250	8,13	https://2610gxfhh-y-https-link-springer-com.z.e-nformation.ro/chapter/10.1007/978-3-319-71069-3_13	WOS:000450354700013
34	Mitrana, V., **Paun, A.,** & Paun, M. (2019). How Complex is to Solve a Hard Problem with Accepting Splicing Systems. In COMPLEXIS (pp. 27-35).	3	0,250	10,83	https://pdfs.semanticscholar.org/723d/9eb9166377f2bffd159fb18222ba063fdfab.pdf	WOS:000838646600002
35	Bordihn, H., Mitrana, V., **Păun, A.,** & Păun, M. (2019). Further properties of self-assembly by hairpin formation. In Unconventional Computation and Natural Computation: 18th International Conference, UCNC 2019, Tokyo, Japan, June 3–7, 2019, Proceedings 18 (pp.	4	0,250	8,13	https://2610gxfn0-y-https-link-springer-com.z.e-nformation.ro/chapter/10.1007/978-3-030-19311-9_5	WOS:000560963600005
36	Arroyo, F., Mitrana, V., **Păun, A.,** & Păun, M. (2020). A Multi-agent Model for Cell Population. In Agents and Multi-agent Systems: Technologies and Applications 2019: 13th KES International Conference, KES-AMSTA-2019 St. Julians, Malta, June 2019 Proceedings (pp. 95-104). Springer Singapore.	4	0,250	8,13	https://link.springer.com/chapter/10.1007/978-981-13-8679-4_8	WOS:000495356000008
37	Mitrana, V., **Păun, A.,** Păun, M., & Sánchez-Couso, J. R. (2023). Some Remarks on the Formal Operations Inspired by the Gene Assembly in Ciliates. In Central European Conference on Information and Intelligent Systems (pp. 287-293). Faculty of Organization and Informatics Varazdin.	4	0,250	8,13	https://archive.ceciis.foi.hr/public/conferences/2023/Proceedings/IS/IS2.pdf	WOS:001242791400030
38	Lita, A., Sjöberg, J., Păcioianu, D., Siminea, N., Celiku, O., **Păun, A.**, ... & Larion, M. (2023). PATH-62. RAMAN-BASED AI PLATFORM TO ACCELERATE THE DIAGNOSIS AND MANAGEMENT OF GLIOMAS VIA RAPID METHYLATION PROFILING. Neuro-Oncology, 25(Supplement_5), v182-v182.	10	0,25	3,25	https://doi.org/10.1093/neuonc/noad179.0691	WOS:001115245400692
39	**Total (A2.1)**		**118,20**	**949,05**		

	Articole in reviste si volumele unor manifestari stiintifice indexate in alte baze de date internationale [20/nr.autori]	**Numar autori**	**Punctaj**	**Link**	**Identificator**
A2.2	<Citare format standard pentru reviste - APA, IEEE; numele este marcat cu bold sau underscore> [DBLP/Springer/IEEE/ACM, <link>]	4			ISSN: …
1		4			ISSN: …
2					
Conferinte	<Citare format standard - APA, IEEE; numele este marcat cu bold sau underscore>	4			N/A
3		4			
4	**Total (A2.2)**		**0,00**		

	Proprietate intelectuala, brevete de inventie, certificate ORDA, internationale [35/nr.autori; se dubleaza punctajul daca rezultatul este inregistrat la WIP, EPO, USPTO, JPO]	**Numar autori**	**Punctaj**	**Link**
A2.3.1	**Paun, P. A.**, Muntean, R. A., & Czeizler, E. (2021). U.S. Patent No. 11,064,149. Washington, DC: U.S. Patent and Trademark Office.	3	23,33	https://patentimages.storage.googleapis.com/87/31/5d/bfb8ca94de32e2/US11064149.pdf
1	**Total (A2.3.1)**		**23,33**	

	Proprietate intelectuala, brevete de inventie, certificate ORDA, Nationale [20/nr.autori]	**Numar autori**	**Punctaj**	**Link**	
A2.3.2					cf reviewer 3 a fost eliminat brevetul chiar daca a aparut in BOPI
	Total (A2.3.2)		**0,00**		

	Granturi / proiecte internationale castigate prin competitie - Director de proiect [20 * ani in desfasurare]	**Numar ani**	**Punctaj**	**Link**	
A2.4.1.1	**LEQSF (2004-2007)-RD-A-23 Global** — A New Method for Simulating Cells Globally Director de proiect din partea Louisiana Tech University: **Andrei Paun** Parteneri în cadru proiectului: NA Buget: $120,800 Perioada de desfasurare: 2004-2007	3	60	https://www.latech.edu/documents/2018/05/july_2005_breeze.pdf/	justificare: proiectul a fost acordat in 2003 si nu s-au gasit "urme" oficiale pe internet decat link-ul unde se anunta deschiderea anului 2 al proiectului, de acolo discordanta de suma
1	**Collaborative research grant from National Science Foundation (SUA) CCF-0523572** — Bio Computing: Collaborative Research: P Systems Theory and Applications to Modeling and Simulation of Cells Director de proiect din partea Louisiana Tech University: **Andrei Paun** Parteneri în cadru proiectului: NA Buget: $150,000 Perioada de desfasurare: 2005-2007	2	40	https://www.nsf.gov/awardsearch/showAward?AWD_ID=0523572	
3	**Total (A2.4.1.1)**		**100,00**		

	Granturi / proiecte nationale castigate prin competitie - Director de proiect [10 * ani in desfasurare]	Numar ani	Punctaj	Link	
A2.4.1.2	**<PNII-TE 92/2010> <DCELLSIM> — : Simulare de celule cu tehnici stocastice discrete** Director de proiect din partea Institutul National de CD pentru Stiinte Biologice **Andrei Paun** Parteneri în cadru proiectului: NA Buget: 750.000 Perioada de desfasurare: 2010-2013	3	30	http://old.uefiscdi.ro/userfiles/file/competitie%202009%20TE/proiecte%20finantate/REZULTATE%20TE_DOMENIU%201_5.pdf	
1	**<PN-II-PTPCCA-2011-3.2-1710> <RemoteForest>** — Strategic forest planning at tree level using remote sensing techniques Director de proiect din partea ICAS: Bogdan Strimbu Parteneri în cadru proiectului: ICAS, INCDSB (responsabil partener **Andrei Paun**), Univ Stefan cel Mare, Ocolul Silvic Codrii Beiusului Buget: 750.000 Perioada de desfasurare: 2011-2014	3	30	https://roifn.ro/site/projects/remoteforest-en/, http://old.uefiscdi.ro/userfiles/file/PARTENERIATE/Competite_2011/REZULTATE%20FINALE/TIP%202/T2%20-%20D5.pdf	
2	**Total (A2.4.1.2)**		**60,00**		
	Granturi / proiecte internationale castigate prin competitie - Membru in echipa [4 * ani in desfasurare]	**Numar ani**	**Punctaj**	**Link**	
A2.4.2.1					proiect cu unele componente si de cercetare, a fost eliminat din lista pentru usurinta evaluarii
1					proiect cu unele componente si de cercetare, a fost eliminat din lista pentru usurinta evaluarii
2					proiect cu unele componente si de cercetare, a fost eliminat din lista pentru usurinta evaluarii
3					proiect cu unele componente si de cercetare, a fost eliminat din lista pentru usurinta evaluarii
4	LC-SPACE-24-EO-2020, title:Water scenarios For Copernicus Exploitation Director de proiect: TARTU ULIKOOL Parteneri în cadru proiectului: 20 parteneri Pozitie in cadrul proiectului: persoana cheie (INCDSB) Perioada de desfasurare: 2021-2023	3	12	https://cordis.europa.eu/project/id/101004186	Acesta este proiect de cercetare in proportie covarsitoare, a fost mentinut
5	**Total (A2.4.2.1)**		**12,00**		
	Granturi / proiecte nationale castigate prin competitie - Membru in echipa [2 * ani in desfasurare]	**Numar ani**	**Punctaj**	**Link**	
A2.4.2.2					
1	**Total (A2.4.2.2)**		**0,00**		

	Recunoasterea si impactul activitatii (A3)		397,33	
A3				
	Citari in carti, reviste si volume ale unor manifestari stiintifice - carti, ISI [8/nr.autori citati]	**Nr. aut. art. citat**	**Citari ISI**	**Punctaj**
A3.1.1	Zhang, X., Pan, L., & Păun, A. (2015). On the universality of axon P systems. IEEE Transactions on Neural Networks and Learning Systems, 26(11), 2816-2829.			
	Zhao, Y., & Liu, X. (2024). Spiking Neural P Systems With Microglia. IEEE Transactions on Parallel and Distributed Systems. 35 (7) , pp.1239-1250, WOS:001230769800004, [Jurnal Q1/Q2]	3	1	5,33
1	Shen, Y., Liu, X., Yang, Z., Zang, W., & Zhao, Y. (2024). Spiking Neural Membrane Systems with Adaptive Synaptic Time Delay. International Journal of Neural Systems, 34(6), 2450028-2450028. WOS:001214203900007 [Jurnal Q1/Q2]	3	1	5,33
2	Liu, Y., & Zhao, Y. (2023). Spiking neural P systems with lateral inhibition. Neural Networks, 167, 36-49. WOS:001067365000001 [Jurnal Q1/Q2]	3	1	5,33
3	Shen, Y., & Zhao, Y. (2023). Spiking Neural P Systems with Rules Dynamic Generation and Removal. Applied Sciences, 13(14), 8058. WOS:001034908100001 [Jurnal Q1/Q2]	3	1	5,33
4	Zhao, Y., Shen, Y., Liu, X., Luo, Y., Zang, W., & Liu, X. (2023). Spiking neural P systems with long-term potentiation and depression. Information Sciences, 640, 119082. WOS:001004888400001 [Jurnal Q1/Q2]	3	1	5,33
5	Yasmin, R., & Deaton, R. (2022). Logical computation with self-assembling electric circuits. Plos one, 17(12), e0278033. WOS:000925063300032 [Jurnal Q1/Q2]	3	1	5,33
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7	Deaton, R., Garzon, M., & Yasmin, R. (2022). Systems of axon-like circuits for self-assembled and self-controlled growth of bioelectric networks. Scientific Reports, 12(1), 13371. WOS:000836406600024 [Jurnal Q1/Q2]	3	1	5,33
8	Wu, T., Zhang, L., Lyu, Q., & Jin, Y. (2022). Asynchronous spiking neural P systems with local synchronization of rules. Information Sciences, 588, 1-12. WOS:000768300300001 [Jurnal Q1/Q2]	3	1	5,33
9	Song, B., Li, K., & Zeng, X. (2021). Monodirectional evolutional symport tissue P systems with promoters and cell division. IEEE Transactions on Parallel and Distributed Systems, 33(2), 332-342. WOS:000690438400009 [Jurnal Q1/Q2]	3	1	5,33
10	Zhao, Y., Liu, Y., Liu, X., Sun, M., Qi, F., & Zheng, Y. (2022). Self-adapting spiking neural P systems with refractory period and propagation delay. Information Sciences, 589, 80-93. WOS:000807272800005 [Jurnal Q1/Q2]	3	1	5,33
11	Cabarle, F. G. C., Zeng, X., Murphy, N., Song, T., Rodríguez-Patón, A., & Liu, X. (2021). Neural-like P systems with plasmids. Information and Computation, 281, 104766. WOS:000721215200030 [Jurnal Q1/Q2]	3	1	5,33
12	Song, X., Valencia-Cabrera, L., Peng, H., & Wang, J. (2021). Spiking neural P systems with autapses. Information Sciences, 570, 383-402. WOS:000659992900022 [Jurnal Q1/Q2]	3	1	5,33
13	Song, B., Li, K., Orellana-Martín, D., Pérez-Jiménez, M. J., & Pérez-Hurtado, I. (2021). A survey of nature-inspired computing: Membrane computing. ACM Computing Surveys (CSUR), 54(1), 1-31. WOS:000644443200022 [Jurnal Q1/Q2]	3	1	5,33
14	Liu, C., Shen, W., Zhang, L., Du, Y., & Yuan, Z. (2021). Spike neural network learning algorithm based on an evolutionary membrane algorithm. IEEE Access, 9, 17071-17082. WOS:000613541800001 [Jurnal Q1/Q2]	3	1	5,33
15	Luo, Y., Zhao, Y., & Chen, C. (2020). Homeostasis tissue-like P systems. IEEE Transactions on NanoBioscience, 20(1), 126-136. WOS:000604857600014 [Jurnal Q1/Q2]	3	1	5,33
16	Song, B., Zeng, X., Jiang, M., & Pérez-Jiménez, M. J. (2020). Monodirectional tissue P systems with promoters. IEEE Transactions on Cybernetics, 51(1), 438-450. WOS:000602709000037 [Jurnal Q1/Q2]	3	1	5,33
17	Wu, T., Zhang, T., & Xu, F. (2020). Simplified and yet Turing universal spiking neural P systems with polarizations optimized by anti-spikes. Neurocomputing, 414, 255-266. WOS:000579806000023 [Jurnal Q1/Q2]	3	1	5,33
18	Song, T., Zheng, P., Wong, M. D., Jiang, M., & Zeng, X. (2019). On the computational power of asynchronous axon membrane systems. IEEE Transactions on Emerging Topics in Computational Intelligence, 4(5), 696-704. WOS:000682802600011 [Jurnal Q1/Q2]	3	1	5,33
19	Jiang, S., Fan, J., Liu, Y., Wang, Y., & Xu, F. (2020). Spiking neural P systems with polarizations and rules on synapses. Complexity, 2020(1), 8742308. WOS:000553510900008 [Jurnal Q1/Q2]	3	1	5,33
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21	Wang, T., Wei, X., Wang, J., Huang, T., Peng, H., Song, X., ... & Pérez-Jiménez, M. J. (2020). A weighted corrective fuzzy reasoning spiking neural P system for fault diagnosis in power systems with variable topologies. Engineering Applications of Artificial Intelligence, 92, 103680. WOS:000536934900012 [Jurnal Q1/Q2]	3	1	5,33
22	Song, X., Peng, H., Wang, J., Ning, G., & Sun, Z. (2020). Small universal asynchronous spiking neural P systems with multiple channels. Neurocomputing, 378, 1-8. WOS:000506202200001 [Jurnal Q1/Q2]	3	1	5,33
23	Dalvand, M., Fathi, A., & Kamran, A. (2021). Flooding region growing: a new parallel image segmentation model based on membrane computing. Journal of Real-Time Image Processing, 18(1), 37-55. WOS:000515937600001 [Jurnal Q1/Q2]	3	1	5,33
24	Zhao, Y., Zhang, W., Sun, M., & Liu, X. (2020). An improved consensus clustering algorithm based on cell-like P systems with multi-catalysts. IEEE Access, 8, 154502-154517. WOS:000566119800001 [Jurnal Q1/Q2]	3	1	5,33
25	Zhang, T., Xu, F., & Wu, T. (2020). A software tool for spiking neural P systems. Romanian Journal of Information Science and Technology, 23(1), 84-92. WOS:000508927500005 [Jurnal Q1/Q2]	3	1	5,33
26	Luo, Y., Guo, P., Jiang, Y., & Zhang, Y. (2020). Timed homeostasis tissue-like P systems with evolutional symport/antiport rules. IEEE Access, 8, 131414-131424. WOS:000553003900001 [Jurnal Q1/Q2]	3	1	5,33
27	Qu, K., Gao, F., Guo, F., & Zou, Q. (2019). Taxonomy dimension reduction for colorectal cancer prediction. Computational biology and chemistry, 83, 107160. WOS:000501651500067 [Jurnal Q1/Q2]	3	1	5,33

28	Yang, Q., Lv, Z., Liu, L., Peng, H., Song, X., & Wang, J. (2019). Spiking neural P systems with multiple channels and polarizations. Biosystems, 185, 104020. WOS:000493212900002 [Jurnal Q1/Q2]	3	1	5,33
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30	Ru, X., Li, L., & Zou, Q. (2019). Incorporating distance-based top-n-gram and random forest to identify electron transport proteins. Journal of Proteome Research, 18(7), 2931-2939. WOS:000474795500023 [Jurnal Q1/Q2]	3	1	5,33
31	Liang, X., Zhu, W., Lv, Z., & Zou, Q. (2019). Molecular computing and bioinformatics. Molecules, 24(13), 2358. WOS:000476700300012 [Jurnal Q1/Q2]	3	1	5,33
32	Peng, H., & Wang, J. (2018). Coupled neural P systems. IEEE Transactions on Neural Networks and Learning Systems, 30(6), 1672-1682. WOS:000469335200006 [Jurnal Q1/Q2]	3	1	5,33
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34	Luo, H., Wang, D., Liu, J., Ju, Y., & Jin, Z. (2019). A framework integrating heterogeneous databases for the completion of gene networks. IEEE Access, 7, 168859-168869. WOS:000509588200069 [Jurnal Q1/Q2]	3	1	5,33
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37	Song, T., Rodríguez-Patón, A., Zheng, P., & Zeng, X. (2017). Spiking neural P systems with colored spikes. IEEE Transactions on Cognitive and Developmental Systems, 10(4), 1106-1115. WOS:000452636400024 [Jurnal Q1/Q2]	3	1	5,33
38	Li, Z., Zhang, L., Su, Y., Li, J., & Wang, X. (2018). A skin membrane-driven membrane algorithm for many-objective optimization. Neural Computing and Applications, 30, 141-152. WOS:000434834400011 [Jurnal Q1/Q2]	3	1	5,33
39	Song, X., Wang, J., Peng, H., Ning, G., Sun, Z., Wang, T., & Yang, F. (2018). Spiking neural P systems with multiple channels and anti-spikes. Biosystems, 169, 13-19. WOS:000438325000003 [Jurnal Q1/Q2]	3	1	5,33
40	Chen, Z., Zhang, P., Wang, X., Shi, X., Wu, T., & Zheng, P. (2018). A computational approach for nuclear export signals identification using spiking neural P systems. Neural Computing and Applications, 29, 695-705. WOS:000424058500006 [Jurnal Q1/Q2]	3	1	5,33
41	Pan, T., Shi, X., Zhang, Z., & Xu, F. (2018). A small universal spiking neural P system with communication on request. Neurocomputing, 275, 1622-1628. WOS:000418370200152 [Jurnal Q1/Q2]	3	1	5,33
42	Wei, L., Tang, J., & Zou, Q. (2017). SkipCPP-Pred: an improved and promising sequence-based predictor for predicting cell-penetrating peptides. BMC genomics, 18, 1-11. WOS:000413785600001 [Jurnal Q1/Q2]	3	1	5,33
43	Liu, X., Zhao, Y., & Sun, M. (2017). An Improved Apriori Algorithm Based on an Evolution Communication Tissue Like P System with Promoters and Inhibitors. Discrete Dynamics in Nature and Society, 2017(1), 6978146. WOS:000396248400001 [Jurnal Q1/Q2]	3	1	5,33
44	Zeng, X., Li, Y., Leung, S. C., Lin, Z., & Liu, X. (2016). Investment behavior prediction in heterogeneous information network. Neurocomputing, 217, 125-132. WOS:000388058800016 [Jurnal Q1/Q2]	3	1	5,33
45	Xiao, J., Niu, Y., Chen, P., Leung, S. C., & Xing, F. (2016). An improved gravitational search algorithm for green partner selection in virtual enterprises. Neurocomputing, 217, 103-109. WOS:000388058800013 [Jurnal Q1/Q2]	3	1	5,33
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48	Cabarle, F. G. C., Adorna, H. N., & Pérez-Jiménez, M. J. (2016). Sequential spiking neural P systems with structural plasticity based on max/min spike number. Neural computing and applications, 27, 1337-1347. WOS:000378152800019 [Jurnal Q1/Q2]	3	1	5,33
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50	Che, Y., Ju, Y., Xuan, P., Long, R., & Xing, F. (2016). Identification of multi-functional enzyme with multi-label classifier. PloS one, 11(4), e0153503. WOS:000374131700068 [Jurnal Q1/Q2]	3	1	5,33
51	Ding, Z., Zhang, X., Sun, D., & Luo, B. (2016). Overlapping community detection based on network decomposition. Scientific reports, 6(1), 24115. WOS:000373767300002 [Jurnal Q1/Q2]	3	1	5,33
52	Bîlbîe, F. D., & Păun, A. (2021). Small SNQ P systems with multiple types of spikes. Theoretical Computer Science, 862, 14-23. WOS:000625959400002 Citat de:			
	Zhao, Y., & Liu, X. (2024). Spiking Neural P Systems With Microglia. IEEE Transactions on Parallel and Distributed Systems. 35 (7) ,	2	1	8,00
1	Zhang, X., Liu, X., Ren, Q., Sun, M., & Zhao, Y. (2024). A general neural membrane computing model. Information Sciences, 672, 120686. WOS:001240244700001 [Jurnal Q1/Q2]	2	1	8,00
2	Liu, Y., & Zhao, Y. (2023). Spiking neural P systems with lateral inhibition. Neural Networks, 167, 36-49. WOS:001067365000001 [Jurnal Q1/Q2]	2	1	8,00
3	Garcia, L., Sanchez, G., Avalos, J. G., & Vazquez, E. (2023). Spiking neural P systems with myelin and dendritic spines. Neurocomputing, 552, 126522. WOS:001042897500001 [Jurnal Q1/Q2]	2	1	8,00
4	Zhao, Y., Shen, Y., Liu, X., Luo, Y., Zang, W., & Liu, X. (2023). Spiking neural P systems with long-term potentiation and depression. Information Sciences, 640, 119082. WOS:001004888400001 [Jurnal Q1/Q2]	2	1	8,00
5	Wu, T., & Pan, L. (2022). Spiking neural P systems with communication on request and mute rules. IEEE Transactions on Parallel and Distributed Systems, 34(2), 734-745. WOS:000910522100001 [Jurnal Q1/Q2]	2	1	8,00
6	Liu, Y., & Zhao, Y. (2022). Weighted spiking neural P systems with polarizations and anti-spikes. Journal of Membrane Computing, 4(4), 269-283. WOS:000883297200001 [Jurnal Q1/Q2]	2	1	8,00

7	Ning, G., Valencia-Cabrera, L., & Song, X. (2022). Small universal improved spiking neural P systems with multiple channels and autapses. Journal of Membrane Computing, 4(2), 153-165. WOS:000837536800001 [Jurnal Q1/Q2]	2	1	8,00	
8	Liu, Y., & Zhao, Y. (2022). Spiking neural P systems with membrane potentials, inhibitory rules, and anti-spikes. Entropy, 24(6), 834. WOS:000818392300001 [Jurnal Q1/Q2]	2	1	8,00	
9	Zhao, Y., Liu, Y., Liu, X., Sun, M., Qi, F., & Zheng, Y. (2022). Self-adapting spiking neural P systems with refractory period and propagation delay. Information Sciences, 589, 80-93. WOS:000807272800005 [Jurnal Q1/Q2]	2	1	8,00	
10					conform observatiilor evaluatorilor pot mentiona faptul ca numarul de citari este semnificativ mai mare decat cel dat, totusi criteriile minimale cred ca se satisfac pe o submultime a citarilor. S-au ales 2 lucrari relativ recente care au fost citate, ambele au componente importante legate de Inteligenta Artificiala/modele abstracte de modelare a retelelor de neuroni pentru a avea "Biocomputing". jurnalul IEEE TNNS cat si jurnalul TCS sunt jurnale in care publica in mod uzual cercetatorii din Inginerie/Computer Science
	Total (A3.1.1)		**62**	**357**	sper ca am raspuns observatiilor tuturor evaluatorilor

	Citari in carti, reviste si volume ale unor manifestari stiintifice - BDI [4/nr.autori citati]	**Nr. aut. art. citat**	**Citari**	**Punctaj**
A3.1.2				
	Total (A3.1.2)		**0**	**0,00**

	Membru in colectivele de redactie sau comitete stiintifice al revistelor indexate ISI, chair, co-chair sau membru in comitetele de organizare ale	**Punctaj**	**Link**
A3.2	co-chair 20th International Conference on Computational Methods in Systems Biology (CMSB 2022)	10	https://fmi.unibuc.ro/en/cmsb-2022/cmsb-2022-organisation/
1			
2			
3			
4			
5	**Total (A3.2)**	**10,00**	

	Membru in colectivele de redactie sau comitete stiintifice al revistelor indexate BDI chair, co-chair sau membru in comitetele de organizare ale	**Punctaj**	**Link**
A3.3			
1			
2			
3	**Total (A3.3)**	**0,00**	

	Premii in domeniu conferite de Academia Romana, ASTR, AOSR, sau premii internationale de prestigiu [15p]	**Punctaj**	**Link**
A3.4	Premiul Grigore Moisil al Academiei Romane pentru anul 2013	15	https://acad.ro/institutia/acte/premii/2013.pdf
1	Premiul Profesor BOLOGNA din partea ANOSR in 2011	15	https://profi-tari.ro/profesori-bologna/
2			
3	**Total (A3.4)**	**30,00**	