

**FIȘA DE VERIFICARE A ÎNDEPLINIRII STANDARDELOR MINIMALE NECESARE
ȘI OBLIGATORII PENTRU OBTINEREA ATESTATULUI DE ABILITARE**

**COMISIA CNATDCU: 15. CALCULATOARE, TEHNOLOGIA INFORMAȚIEI ȘI
INGINERIA SISTEMELOR**

[conform OMENCs nr. 6129 / 20.12.2016]

Candidat: dr. ing. CORNEL BARNA

Condiții minimale			
Nr. crt.	Domeniul de activitate	Minim prevăzut	Realizat
A1	Activitatea didactică și profesională (A1)	100	140.00
A2	Activitatea de cercetare (A2)	600	662,85
A3	Recunoașterea și impactul activității (A3)	150	340,29
TOTAL (A)		850	1143.14

Condiții minimale obligatorii pe subcategorii			
Nr. crt.	Subcategorie	Minim prevăzut	Realizat
A1.1.1	Cărți de specialitate internaționale cu ISBN		-
A1.1.2	Cărți de specialitate naționale cu ISBN	1 carte	2 cărți
A.1.2.1	Manuale didactice		1 carte
A2.1	Articole în reviste cotate ISI și în volumele unor manifestări științifice indexate ISI proceedings	15 din care minim 3 în reviste cotate ISI Q1 sau Q2	22 din care 3 în reviste cotate ISI Q1 sau Q2
A2.4.1	Granturi / proiecte de cercetare câștigate prin competiție (Director / Responsabil partener)	2	5
A3.1.1	Număr de citări în cărți, reviste cotate ISI și volume ale unor manifestări științifice ISI (WOS)	25	42
	Factor de impact ISI cumulat pentru publicații	10	18,614

DETALIEREA MODULUI DE CALCUL AL PUNCTAJULUI

1. Activitatea didactică și profesională (A1)	140.00
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A1.1.1 Cărți de autor sau capitole de specialitate la edituri cu ISBN - internaționale			
Nr. crt.	Denumire	Nr. autori	Punctaj
1			
TOTAL			

A1.1.2 Cărți de autor sau capitole de specialitate la edituri cu ISBN - naționale			
Nr. crt.	Denumire	Nr. autori	Punctaj
1	Cornel Barna , <i>Proiectarea Sistemelor de alarmare Externe prin metode Soft Computing</i> , Editura Universitatii Aurel Vlaicu Arad, 2007, 141 pag., ISBN: 978-973-752-153-8.	1	50
2	Cornel Barna , <i>Introducere în granularitatea și fuziunea informației</i> , Editura Politehnica din Timișoara, 2007, 96 pag., ISBN: 978-973-625-470-3	1	50
TOTAL			100

A1.2.1 Materiale didactice / Lucrări didactice publicate în edituri cu ISBN			
Nr. crt.	Denumire	Nr. autori	Punctaj
1	Cornel Barna <i>Arhitectura calculatoarelor</i> , Îndrumător de laborator, Editura Universității "Aurel Vlaicu" Arad, 2016, 53 pag., ISBN: 978-973-752-735-6	1	40
TOTAL			40

A2.1 Articole în reviste cotate ISI și lucrări în volumele unor manifestări științifice indexate ISI				
Nr. crt.	Denumire	Nr. autori	Factor impact	Punctaj (25+30* IF)/nr. autori
1	Srikanth Bondalapati, Rajeeb Dey, Cornel Barna , Valentina E. Balas, <i>Hammer-Static Output Feedback based Load Frequency Control of an Interconnected Power System with Regional Pole Placement</i> , INTERNATIONAL JOURNAL OF COMPUTERS COMMUNICATIONS & CONTROL, Volume 19, Issue 6, 2024, DOI 10.15837/ijccc.2024.6.6857 WOS:001348582100009 , IF = 1,9 - Q3 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:001348582100009	4	1,9	20,5
2	Dana Rad, Nicolae Paraschiv, Csaba Kiss, Valentina Emilia Balas, Cornel Barna , <i>Physiological Reactions Profiling in Polygraph Testing: Insights from Fuzzy C-Means Clustering Analysis</i> , Acta Polytechnica Hungarica, Volume 21, Issue 10, Page 365-377, 2024 WOS:001236295800007 , IF = 1,8 - Q2 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:001236295800007	5	1,8	15,8
3	Dana Rad, Lavinia Denisia Cuc, Ramona Lile, Valentina E. Bălaș, Cornel Barna , Mioara Florina Pantea, Silviu Gabriel Szentesi, Corina Graziella Bătcă-Dumitru, Gavril Rad, <i>A cognitive systems engineering approach using unsupervised Fuzzy C-Means technique, exploratory factor analysis and network analysis- a preliminary statistical investigation of the Bean Counter Profiling Scale robustness</i> INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, October 2022, nr.19, https://doi.org/10.3390/ijerph191912821 WOS:000866955300001 ISI, IF=4,614 - Q1 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:000866955300001	9	4.614	18,16
4	Chandrakanta Mahanty, Raghvendra Kumar, Brojo Kishore Mishra, Cornel Barna (2022) <i>COVID-19 detection with x-ray images by using transfer learning</i> , Journal of Intelligent & Fuzzy Systems, vol. 43, no.2, pp. 1717-1726, 2022, DOI: 10.3233/JIFS-219273, ISSN: 10641246 WOS:000811435100005 , IF=1 - Q4 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:000811435100005	4	1	13,75
5	Malaya Kumar Nath, Samarendra Dandapat, Cornel Barna , <i>Automatic detection of blood vessels and evaluation of retinal disorder from color fundus images</i> , Journal of Intelligent & Fuzzy Systems, Volume 38, Issue 5, Page 6019-6030, 2020, DOI: 10.3233/JIFS-179687, ISSN: 10641246 WOS:000541708200064 , IF-1 - Q4 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:000541708200064	3	1	18,33
6	Chakraborty S, Dey N, Samanta S, Ashour A S, Barna Cornel , Balas M M, <i>Optimization of Non-rigid Demons Registration Using Cuckoo Search Algorithm</i> , Cognitive Computation, Volume 9, Issue 6, Pages: 817-826, December, 2017, WOS:000417682600007 ISI, IF=4,89- Q2 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:000417682600007	6	4.3	25,66
7	Roy Sanjiban Sekhar, Pratyush Chitransh, Barna Cornel , <i>Predicting Ozone Layer Concentration Using Multivariate Adaptive Regression Splines, Random Forest and Classification and Regression Tree</i> , Conference: 7th International Workshop on Soft Computing Applications (SOFA) Location: Arad, ROMANIA Date: AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL. 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Pages: 140-152 Published: 2018, WOS:000433139800011 https://0g10q8wau-y-https-www-webofscience-com.z-e-information.ro/wos/woscc/full-record/WOS:000433139800011	3	0.25	10,83

8	Roy Sanjiban Sekhar, Kaul Deeksha, Roy Reetika, Barna Cornel , Mehta S. Misra A., <i>Prediction of Customer Satisfaction Using Naive Bayes, MultiClass Classifier, K-Star and IBK</i> , Conference: 7th International Workshop on Soft Computing Applications (SOFA) Location: Arad, ROMANIA Date: AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Page: 153-161 Published: 2018, WOS:000433139800012 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000433139800012	6	0.25	5,42
9	Roy Sanjiban Sekhar, Sinha Abhishek, Roy Reetika, Barna C. , Samui P., <i>Spam Email Detection Using Deep Support Vector Machine, Support Vector Machine and Artificial Neural Network</i> , Conference: 7th International Workshop on Soft Computing Applications (SOFA) Location: Arad, ROMANIA Date: AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Pag: 162-174 Published: 2018, WOS:000433139800013 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000433139800013	5	0.25	6.5
10	Bidyut Biman Sarkar, Swagata Paul, Barna Cornel , Noemi Rohatinovici, Nabendu Chaki, <i>Personal Health Record Management System Using Hadoop Framework: An Application for Smarter Health Care</i> , International Workshop on Soft Computing Applications, SOFA 2016, 24-26 August 2016, Arad, Romania, pp. 385-393, Published: 2018 WOS:000433138300033 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000433138300033	5	0.25	6.5
11	Jagatheesan K, Anand B, Dey N, Ashour AS, Barna Cornel , Balas V E, <i>Automatic Generation Control of an Interconnected Multi-Area Reheat Thermal Power Systems with Conventional Proportional-Integral Controller Considering various Performance Indices</i> , 11th IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI) Location: Timisoara, ROMANIA Date: MAY 12-14, pages: 289-294, 2016 [WOS:000387119900052] https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000387119900052	6	0.25	5,42
12	Patrusel Traian, Roventa Eugene, Barna Cornel , <i>Some aspects about 3D objects recognition and distance approximation</i> , Conference: 3rd International Workshop on Soft Computing Applications Location: Szeged, HUNGARY Date: JUL 29-AUG 01, 2009, SOFA 2009: 3RD INTERNATIONAL WORKSHOP ON SOFT COMPUTING APPLICATIONS, PROCEEDINGS Pages: 53-58 Published: 2009, WOS:000275159600010 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000275159600010	3	0.25	10,83
13	Barna Cornel , <i>Object Labeling Method using Uncertainty measurement</i> , Book Group Author(s): IEEE Conference: 3rd International Workshop on Soft Computing Applications Location: Szeged, HUNGARY Date: JUL 29-AUG 01, 2009, SOFA 2009: 3RD INTERNATIONAL WORKSHOP ON SOFT COMPUTING APPLICATIONS, PROCEEDINGS Pag: 223-226, Published: 2009, WOS:000275159600041 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000275159600041	1	0.25	32,5
14	Cornel Barna , M Stratulat <i>Uncertainty Measurement in Video and Infrared Cameras System</i> , CIMS2008 IEEE International Conference on Computational Intelligence for Measurement System and Applications Proceedings, Istanbul Turkey, pag. 1-3, 2008 WOS:000259443400001 https://0g10q8wau-y-https-www-webofscience-com.z.e-information.ro/wos/woscc/full-record/WOS:000259443400001	2	0.25	16,25

15	Cornel Barna, Video and infrared cameras localization method using information fusion, WSEAS Conference on Recent Advances in Systems, Communications and Computers, Location, Hangzhou, CHINA, APR 06-08, 2008 WOS:000257983900046 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000257983900046	1	0.25	32,5
16	Cornel Barna, A video surveillance method based on information granularity, 2nd IASME/WSEAS International Conference on Energy and Environment Location Portoroz, SLOVENIA, Date May 15-17, 2007 WOS:000250334200039 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000250334200039	1	0.25	32,5
17	Cornel Barna, Localization system using video and PIR information fusion, 2-nd IEEE International Workshop on Soft Computing Applications SOFA 2007 Gyula-Oradea Hungary-Romania pag.21-23, 2007 WOS:000249888900004 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000249888900004	1	0.25	32,5
18	Cornel Barna, A testing method for PIR detectors system, Conference on Intelligent Agents Web Technologies and International Commerce Location: Vienna, AUSTRIA Date: NOV 28-30, 2005, INTERNATIONAL CONFERENCE ON COMPUTATIONAL INTELLIGENCE FOR MODELLING, CONTROL & AUTOMATION JOINTLY WITH INTERNATIONAL CONFERENCE ON INTELLIGENT AGENTS, WEB TECHNOLOGIES & INTERNET COMMERCE, VOL 2, PROCEEDINGS Pag: 995-998 Publish: 2006, WOS:000239915100164 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000239915100164	1	0.25	32,5
19	Cornel Barna, M. Bălaș, V.Bălaș, The Constant Effort Imposed Distance Breaking for Urban Railway Vehicles, The International Conference of „Computer as a Tool” EUROCON 2005, pag. 365-368, Belgrad, Serbia, WOS:000237248900093 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000237248900093	3	0.25	10,83
20	Cornel Barna, M.Bălaș, Using CCD Cameras for Car Following Algorithms, IEEE International Symposium on Industrial Electronics ISIE, June 20-23, Duvrovnik Croatia 2005, pag.57-62, WOS:000235418900010 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000235418900010	2	0.25	16,25
21	Cornel Barna, Recognition system using video and infrared information fusion, IEEE 3rd International Symposium on Computational Intelligence and Intelligent Informatics, Agadir, Morocco 2007 pages: 281-283, ISBN:978-1-4244-1157-3 WOS:000247031600050 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000247031600050	1	0.25	32,5
22	Cornel Barna, Information Fusion for Uncertainty Determination in Video and Infrared Cameras System, in: Lovrek I., Howlett R.J., Jain L.C. (eds) Knowledge-Based Intelligent Information and Engineering Systems. KES 2008. Lecture Notes in Computer Science, vol 5179. Springer, Berlin, Heidelberg. DOI /10.1007/978-3-540-85567-5_76 WOS:000259398600076 https://0g10q8wau-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000259398600076	1	0.25	32,5
TOTAL				428,53

A2.2 Articole în reviste și în volumele unor manifestări științifice indexate în alte baze de date internaționale recunoscute (BDI)

Nr. crt.	Denumire	Nr. autori	Punctaj 20/nr. autori
1	Anca Adriana Petcut Lasc, Valentina Emilia Balas, Flavius-Maxim Petcut, Cornel Barna , (2025) <i>Modelling and Identification of Two Genetic Algorithms used for Solar Cell Parameter</i> , <u>INES 2025 - 29th IEEE International Conference on Intelligent Engineering Systems 2025, Proceedings</u> Conference Paper2025 DOI: 10.1109/INES67149.2025.11078181, IEEE, SCOPUS https://www.scopus.com/pages/publications/105012713403	4	5
2	Cornel Barna , Flavius-Maxim Petcut, Anca-Adriana Petcut-Lasc, (2025) <i>Similarity Measurement of Uncertainty in Artificial Neural Networks Classification</i> , <u>SACI, IEEE International Symposium on Applied Computational Intelligence and Informatics</u> Conference Paper 2025 DOI: 10.1109/SACI66288.2025.11030144, IEEE, SCOPUS https://www.scopus.com/pages/publications/105011525167	3	6,66
3	MM Balas, VE Balas, FM Petcut, C Barna , R Dey, (2025) <i>Automation of the Two-Second Rule via Constant Time-to-Collision Curves</i> , <u>INES 2025 - 29th IEEE International Conference on Intelligent Engineering Systems 2025, Proceedings</u> Conference Paper 2025 DOI: 10.1109/INES67149.2025.11078218, IEEE, SCOPUS https://www.scopus.com/pages/publications/105012713403	5	4
4	MI Yasin, MJ Afzal, S Tayyaba, MW Ashraf, Barna Cornel , Marius Balas (2022) <i>Fuzzy Parametric Estimation of Curvilinear Microchannel for Retinal Vein Occlusion (RVO) In Advances in Intelligent Data Analysis and Applications</i> , 355-362 Springer DOI: 10.1007/978-3-030-51992-6_18 ISBN: 978-9811650352, Springer, SCOPUS https://www.scopus.com/pages/publications/85121914335	6	3.33
5	Joon K., Agrawal N., Ahmad H., Yadav V., Sah D.K., Barna Cornel (2021) <i>DDoS Attack Prevention Protocol Through Support Vector Machine and Fuzzy Clustering Mechanism on Traffic Flow with Harmonic Homogeneity Validation Technique</i> . In: Balas V., Jain L., Balas M., Shahbazova S. (eds) <i>Soft Computing Applications</i> . SOFA 2018. <i>Advances in Intelligent Systems and Computing</i> , vol 1221. Springer, Cham.DOI:10.1007/978-3-030-51992-6_17, Springer, SCOPUS https://www.scopus.com/pages/publications/85090093240	6	3,33
6	Ninawe A., Mallick A.K., Yadav V., Ahmad H., Sah D.K., Barna Cornel (2021) <i>Cathedral and Indian Mughal Monument Recognition Using Tensorflow</i> . In: Balas V., Jain L., Balas M., Shahbazova S. (eds) <i>Soft Computing Applications</i> . SOFA 2018. <i>Advances in Intelligent Systems and Computing</i> , vol 1221. Springer, Cham. DOI: 10.1007/978-3-030-51992-6_16, Springer, SCOPUS https://www.scopus.com/pages/publications/85090099762	6	3,33
7	Cornel Barna , <i>Video Surveillance using a New Uncertainty Measurement</i> , <u>WSEAS Transactions on Computers</u> Vol.5 Issue8 2006, pag.1739-1744, ISSN 1109-2750, <i>Recent Advances in Systems, Communications and Computers</i> , Electrical and Computer engineering Series, WSEAS Press China 2008 pag.271-275, ISBN: 978-960-6766-61-9, SCOPUS https://www.scopus.com/pages/publications/33746415128	1	20.00
8	Cornel Barna , <i>A granular-based method for position and reliability estimation in alarm systems</i> , <u>IEEE 3-rd International Conference in Mecatronics ICM 2006</u> , Budapesta Ungaria, pag.410-413, ISBN: 1-4244-9713-4, IEEE, SCOPUS https://www.scopus.com/pages/publications/34250802221	1	20.00
9	Cornel Barna , M. Stratualat, <i>A localization method based on infrared detectors for surveillance areas</i> , <u>IEEE VECIMS 2006</u> , Coruna, Spania, pag.49-52, ISBN: 1-4244-0243-3, IEEE, SCOPUS, DBLP https://www.scopus.com/pages/publications/34250682686	2	10.00
10	Cornel Barna , <i>Information fusion method for outdoor alarm system</i> , <u>INES 2007 IEEE 11-th International Conf. on Intelligent Engineering System</u> , 29 June 2007 - 02 July 2007, Budapest, Hungary, DOI: 10.1109/INES.2007.4283682, pag.111-114, ISBN: 1-4244-1148-3, IEEE, SCOPUS https://www.scopus.com/pages/publications/47749095598	1	20

11	Cornel Barna , <i>A Decision Method for Recognition in Video and Infrared Multicameras System</i> WSEAS Transactions on System and Control 2008 pag. 503-506 ISSN: 1991-8763, SCOPUS https://www.scopus.com/pages/publications/84890969815	1	20
12	Cornel Barna , <i>Measuring Feature uncertainty by using similarity</i> , 7-th WSEAS Conference on Fuzzy Systems 2006, Dubrovnik, Croatia, pag.39-42, ISBN: 960-8457-46-7, ACM https://dl.acm.org/doi/abs/10.5555/1365859.1365866	1	20
TOTAL			132,32

A2.3. Proprietate intelectuală, brevete de invenție, certificate ORDA			
		IF	Punctaj
A2.3.1	Internaționale		-
A2.3.2	Naționale (OSIM)		-
TOTAL			-

A2.4.1 Granturi / proiecte de cercetare internaționale câștigate prin competiție - Director			
		IF	Punctaj
A2.3.2	Naționale (OSIM)		-
TOTAL			-

A2.4.1.2 Granturi / proiecte de cercetare naționale câștigate prin competiție - Director de proiect			
Nr. crt.	Denumire	Ani desfășurare	Punctaj
1	Cercetări în vederea realizării unui convertor analog-numeric pentru testarea vagoanelor. Contract CCSITVA 1.8.1097, durata 2 ani, contract 19/C/1988 IVA, director de proiect , valoare: 591776 lei	4	40
2	Cercetare privind optimizarea sistemelor de semnalizare antiincendiu, Contract Contact Plus SRL nr.98/10.11.2011 beneficiar West Petrol Rafinare, director de proiect , valoare 10144 Euro	1	10
3	Cercetare în domeniul integrării sistemelor de avertizare, Contract Contact Plus SRL nr.36/17.15.2012 beneficiar Progeto Mogliar, director de proiect , valoare 10681 Euro	1	10
4	Cercetare în vederea implementării sistemelor complexe de alarmare Contract Contact Plus SRL nr.68/07.10.2013 beneficiar Soarest, director de proiect , valoare 10838 Euro	1	10
5	Susținerea progresului tehnologic în servicii: modele matematice și soluții concrete, Contract de cercetare științifică cu agenți economici, UNIVERSITATEA AUREL VLAICU din Arad, Nr. 26/25.10.2022, director de proiect , valoare 50.000 lei (peste 10.000\$/Euro)	1	10
TOTAL			80

A2.4.2.2 Granturi / proiecte de cercetare naționale câștigate prin competiție – Membru în echipă			
Nr. crt.	Denumire	Ani desfășurare	Punctaj
1	Cercetari in vederea realizarii unui dispozitiv electric de autoblocare la boghiurile de vagon. Coordonator: F. Visky, Contract CCSITVA număr: 1.7.1005 din 1987, membru in echipa , valoare 487105 lei	2	4
2	Contract de cercetare stiintifica obtinut prin competitie nr. 9542/22.12.2017, cu SC Contact Plus SRL Arad, „Modelarea, simularea, experimentarea si validarea unor noi metode avansate de soft computing in domeniul controlului cladirilor inteligente”, Coordonator – Valentina E. Balas, Valoare 40.000 lei (aprox.10.000 \$), membru in echipa	2	4
3	Contract de cercetare stiintifica cu agenti economici, Nr. 10/16.07.2019, <i>Promovarea agriculturii in mediul urban: modele matematice si solutii concrete</i> , membru in echipa , valoare 42.500 lei (aprox. 10.000 \$), Coordonator: M. Balas..	2	4
4	<i>Evaluarea, modelarea și simularea unor metode avansate de soft computing in domeniul producerii de curent electric cu ajutorul panourilor fotovoltaice.</i> S.C. ANTACO BILLING SYSTEMS S.R.L Nr. Ctr. 2172/03.06.2025, UNIVERSITATEA AUREL VLAICU Nr. Ctr. 5578/03/06/2025, membru in echipa valoare: 55000 lei (aproximativ 11.000 Euro). Coordonator: F. Petcut	5	10
TOTAL			22

3. Recunoașterea și impactul activității (A3) **340,29**

A3.1.1 Citări în cărți, reviste și volume ale unor manifestări științifice indexate ISI			
Nr. crt.	Lucrarea în care apare citarea	Nr. autori lucrare citată	Punctaj
1.	Malaya Kumar Nath, Samarendra Dandapat, Cornel Barna, <i>Automatic detection of blood vessels and evaluation of retinal disorder from color fundus images</i> , Journal of Intelligent & Fuzzy Systems, Volume 38, Issue 5, Page 6019-6030, 2020, DOI:10.3233/JIFS-179687, ISSN: 10641246 WOS:000541708200064, https://ojs10q8wan-y-https-www-webofscience-com.z.e-nformation.ro/wos/woscc/full-record/WOS:000541708200064		
1	<u>Benefit from public unlabeled data: A Frangi filter-based pretraining network for 3D cerebrovascular segmentation</u> Shi, G; Lu, H; (...); Tian, J Apr 2025 MEDICAL IMAGE ANALYSIS WOS:001405325300001 Q1	4	4
2	<u>A Novel Single-Sample Retinal Vessel Segmentation Method Based on Grey Relational Analysis</u> Wang, YT and Li, HJ Jul 2024 SENSORS WOS:001269897300001 Q2	2	8
3	<u>Global relationship memory network for retinal capillary segmentation on optical coherence tomography angiography images</u> Jiang, WL; Jiang, WJ; (...); Ou, CB Dec 2023 APPLIED INTELLIGENCE 53 (24) , pp.30027-30040 WOS:001097775800001 Q2	6	2,66

4	<u>Robust retinal blood vessel segmentation using a patch-based statistical adaptive multi-scale line detector</u> Iqbal, S; Naveed, K; (...); Khan, TM Jul 2023 DIGITAL SIGNAL PROCESSING WOS:000999146400001 Q2	5	3,2
5	<u>Automated diagnosis of Retinopathy of prematurity from retinal images of preterm infants using hybrid deep learning techniques</u> Sankari, VM; Snekhalatha, U; (...); Baskaran, P Aug 2023 BIOMEDICAL SIGNAL PROCESSING AND CONTROL WOS:001053455500001 Q2	3	5,33
6	<u>A novel framework for retinal vessel segmentation using optimal improved frangi filter and adaptive weighted spatial FCM</u> Mahapatra, S; Agrawal, S; (...); Pachori, RB Aug 2022 COMPUTERS IN BIOLOGY AND MEDICINE WOS:000820930700004 Q1	4	4
7	<u>Analysis of retinal blood vessel segmentation techniques: a systematic survey</u> Kumar, KS and Singh, NP Feb 2023, MULTIMEDIA TOOLS AND APPLICATIONS 82 (5) , pp.7679-7733 WOS:000824937500001 Q2	2	8
8	<u>An effective deep learning model for grading abnormalities in retinal fundus images using variational auto-encoders</u> Sundar, S and Sumathy, S Jan 2023, INTERNATIONAL JOURNAL OF IMAGING SYSTEMS AND TECHNOLOGY Q2	2	8
9	<u>Guidance Image-Based Enhanced Matched Filter with Modified Thresholding for Blood Vessel Extraction</u> Dash, S; Verma, S; (...); Ijaz, MF Feb 2022 SYMMETRY-BASEL WOS:000775529300001 Q2	7	2,28
10	<u>Intelligent landscape design and land planning based on neural network and wireless sensor network</u> Peng, L 2021 JOURNAL OF INTELLIGENT & FUZZY SYSTEMS Q4	1	8
2. Roy, Sanjiban Sekhar; Pratyush, Chitransh; Barna, Cornel, <i>Predicting Ozone Layer Concentration Using Multivariate Adaptive Regression Splines, Random Forest and Classification and Regression Tree</i> , Conference: 7th International Workshop on Soft Computing Applications (SOFA) Location: Arad, ROMANIA Date: AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Pages: 140-152 Published: 2018			
11	<u>Predicting peak daily maximum 8 h ozone and linkages to emissions and meteorology in Southern California using machine learning methods (SoCAB-8HR V1.0)</u> Gao, ZQ; Wang, YF; (...); Russell, AG Dec 16 2022 GEOSCIENTIFIC MODEL DEVELOPMENT WOS:000899768500001 Q1	6	2,66
12	<u>Improvement of downscaled ozone concentrations from the transnational scale to the kilometric scale: Need, interest and new insights</u> Gauthier-Manuel, H; Maury, F; (...); Bernard, N Jul 2022 ENVIRONMENTAL RESEARCH WOS:000772146500003 Q1	3	5,32

13	<u>Regional Forest Volume Estimation by Expanding LiDAR Samples Using Multi-Sensor Satellite Data</u> Xie, B; Cao, CX; (...); Lin, XJ Feb 2020 REMOTE SENSING, 12 (3) WOS:000515393800019 Q1	3	5,32
14	<u>High Performance Machine Learning Models of Large Scale Air Pollution Data in Urban Area</u> Gocheva-Ilieva, SG; Ivanov, AV and Livieris, IE 2020 CYBERNETICS AND INFORMATION TECHNOLOGIES, 20 (6), pp.49-60 WOS:000603117500006 Q4	3	2,66
15	<u>Regression trees modeling of time series for air pollution analysis and forecasting</u> Gocheva-Ilieva, SG; Voynikova, DS; (...); Iliev, IP Dec 2019 NEURAL COMPUTING & APPLICATIONS, 31 (12), pp.9023-9039 WOS:000494051000066 Q1	3	5,32
3. Chakraborty Sayan, Dey Nilanjan, Samanta Sourav, Barna Cornel, Balas Marius, <i>Optimization of Non-rigid Demons Registration Using Cuckoo Search Algorithm</i> , COGNITIVE COMPUTATION Volume: 9 Issue: 6 Pages: 817-826 Published: DEC 2017			
16	<u>Contour Propagation for Radiotherapy Treatment Planning Using Nonrigid Registration and Parameter Optimization: Case Studies in Liver and Breast Cancer</u> Vargas-Bedoya, E; Rivera, JC; (...); Cabal, G Sep 2022 APPLIED SCIENCES-BASEL, 12 (17) WOS:000850943000001 Q2	5	3,2
17	<u>Grey-Wolf-Based Wang's Demons for Retinal Image Registration</u> Chakraborty, S; Pradhan, R; (...); Dey, N Jun 2020 ENTROPY, 22 (6) WOS:000551065600001 Q2	5	3,2
18	<u>Extracting New Dispatching Rules for Multi-objective Dynamic Flexible Job Shop Scheduling with Limited Buffer Spaces</u> Teymourifar, A; Ozturk, G; (...); Bahadir, O Jan 2020 COGNITIVE COMPUTATION, 12 (1), pp.195-205 WOS:000511593900012 Q2	5	3,2
19	<u>Clustering of Remote Sensing Imagery Using a Social Recognition-Based Multi-objective Gravitational Search Algorithm</u> Zhang, AZ; Liu, SH; (...); Wang, ZJ Dec 2019 COGNITIVE COMPUTATION, 11 (6), pp.789-798 WOS:000511370800004 Q2	5	3,2
20	<u>Cross-cumulative residual entropy-based medical image registration via hybrid differential search algorithm</u> Gui, P; Ling, WK; (...); Ma, L Dec 2019 INTERNATIONAL JOURNAL OF IMAGING SYSTEMS AND TECHNOLOGY, 29 (4), pp.701-710 WOS:000495457300026 Q3	5	1,6
21	<u>Rank-Based Gravitational Search Algorithm: a Novel Nature-Inspired Optimization Algorithm for Wireless Sensor Networks Clustering</u> Mood, SE and Javidi, MM Oct 2019 COGNITIVE COMPUTATION, 11 (5), pp.719-734 WOS:000495244800010 Q2	5	3,2
22	<u>A Big Data Approach for the Extraction of Fuzzy Emerging Patterns</u> Garcia-Vico, AM; Gonzalez, P; (...); del Jesus, MJ Jun 2019 COGNITIVE COMPUTATION, 11 (3), pp.400-417 WOS:000474210100006 Q2	5	3,2
23	<u>A BP Neural Network Prediction Model Based on Dynamic Cuckoo Search Optimization Algorithm for Industrial Equipment Fault Prediction</u> Zhang, WB; Han, GJ; (...); Liu, Y	5	3,2

	2019 IEEE ACCESS, 7, pp.11736-11746 WOS:000457751800001 Q2		
24	<u>An Insight into Bio-inspired and Evolutionary Algorithms for Global Optimization: Review, Analysis, and Lessons Learnt over a Decade of Competitions</u> Molina, D; LaTorre, A and Herrera, F Aug 2018 COGNITIVE COMPUTATION, 10 (4), pp.517-544 WOS:000441015100001 Q2	5	3,2
4. Roy, Sanjiban Sekhar; Kaul, Deeksha; Roy, Reetika; Barna Cornelet al., <i>Prediction of Customer Satisfaction Using Naive Bayes, MultiClass Classifier, K-Star and IBK</i> , 7th International Workshop on Soft Computing Applications (SOFA) Arad, ROMANIA, AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL. 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Pages: 153-161, 2018 WOS:000433139800012			
25	<u>Predicting Airline Additional Services Consumption Willingness Based on High-Dimensional Incomplete Data</u> Chen, JN; Diao, MG and Zhang, CY 2022 IEEE ACCESS, 10, pp.39596-39603 WOS:000838413100001 Q2	3	5,33
26	<u>Machine learning-based statistical analysis for early stage detection of cervical cancer</u> Ali, MM; Ahmed, K; (...); Moni, MA Dec 2021 Nov 2021 (Early Access) COMPUTERS IN BIOLOGY AND MEDICINE, 139 WOS:000734607700003 Q1	3	5,33
27	<u>Adapting Naive Bayes Model for Text Classification with One-of and Imbalanced Multi-Class Problems</u> Almaleh, A; Aslam, MA and Saeedi, K Sep 30 2020 INTERNATIONAL JOURNAL OF COMPUTER SCIENCE AND NETWORK SECURITY, 20 (9), pp.84-90 WOS:000582243200011 Q4	3	2,66
28	<u>Align My Curriculum: A Framework to Bridge the Gap between Acquired University Curriculum and Required Market Skills</u> Almaleh, A; Aslam, MA; (...); Aljohani, NR May 1 2019 SUSTAINABILITY, 11 (9) WOS:000469518700155 Q2	3	5,33
5. Chandrakanta Mahanty, Raghvendra Kumar, Brojo Kishore Mishra, Corneli Barna (2022) <i>COVID-19 detection with x-ray images by using transfer learning</i> , Journal of Intelligent & Fuzzy Systems, vol. 43, no.2, pp. 1717-1726, 2022. DOI: 10.3233/JIFS-219273, ISSN: 10641246 WOS:000811435100005			
29	<u>Improving CNN predictive accuracy in COVID-19 health analytics</u> Kim, TH; Srinivasulu, A; (...); Tera, SP Aug 14 2025, SCIENTIFIC REPORTS WOS:001552523200015 Q1	7	2,28
30	<u>Dynamics of COVID-19 in India using WANFIS (Wavelet Adaptive Neuro-Fuzzy Inference System) model</u> Singh, S; Parmar, KS and Kumar, J May 17 2025 DISCOVER PUBLIC HEALTH WOS:001489593300001 Q4	3	2,66
31	<u>Improved COVID-19 Diagnosis Using a Hybrid Transfer Learning Model with Fuzzy Edge Detection on CT Scan Images</u> Salarabadi, H; Iraj, MS; (...); Zoberi, M Aug 29 2024 ADVANCES IN FUZZY SYSTEMS WOS:001307233600001 Q2	4	4

32	<u>Explainable artificial intelligence approaches for COVID-19 prognosis prediction using clinical markers</u> Chadaga, K; Prabhu, S; (...); Kumar, GSS Jan 20 2024 SCIENTIFIC REPORTS WOS:001146299100052 Q1	7	2,28
33	<u>Transfer-recursive-ensemble learning for multi-day COVID-19 prediction in India using recurrent neural networks</u> Chakraborty, D; Goswami, D; (...); Wang, LP Apr 26 2023 SCIENTIFIC REPORTS, 13 (1) WOS:000984431900035 Q1	3	5,33
34	<u>A Systematic Literature Review on Fake News in the COVID-19 Pandemic: Can AI Propose a Solution?</u> Ahmad, T; Lazarte, EAA and Mirjalili, S Dec 2022 APPLIED SCIENCES-BASEL WOS:000900459000001 Q2	3	5,33
6. Roy Sanjiban Sekhar, Sinha Abhishek, Roy Reetika, Barna C., Samui P., <i>Spam Email Detection Using Deep Support Vector Machine, Support Vector Machine and Artificial Neural Network</i> , Conference: 7th International Workshop on Soft Computing Applications (SOFA) Location: Arad, ROMANIA Date: AUG 24-26, 2016, SOFT COMPUTING APPLICATIONS, SOFA 2016, VOL 2 Book Series: Advances in Intelligent Systems and Computing Volume: 634 Pag: 162-174 Published: 2018. WOS:000433139800013			
35	<u>A method for optimizing text preprocessing and text classification using multiple cycles of learning with an application on shipbrokers emails</u> Papageorgiou, G; Economou, P and Bersimis, S Oct 2 2024 JOURNAL OF APPLIED STATISTICS WOS:001153230300001 Q3	3	2,66
36	<u>Enhancing Adversarial Robustness for SVM Based on Lagrange Duality</u> Liu, YT; Gu, H and Qin, P 14th Asian Control Conference (ASCC) 2024 2024 14TH ASIAN CONTROL CONFERENCE, ASCC 2024 , pp.65-68 WOS:001327633500012 Proceedings	3	2,66
37	<u>An Innovative Approach Using TKN-Cryptography for Identifying the Replay Assault</u> Zahra, SW; Nadeem, M; (...); Almotairi, S 2024 CMC-COMPUTERS MATERIALS & CONTINUA WOS:001186528100019 Proceedings	8	1
38	<u>Credibility aspects' perceptions of social networks, a survey</u> Idrees, AM; Helmy, Y and Khedr, AE Dec 2022 SOCIAL NETWORK ANALYSIS AND MINING WOS:000834815000001 Q2	3	5,33
39	<u>Neural Network Spam Filtering Technology</u> Katasev, AS; Emaletdinova, LY and Kataseva, DV International Conference on Industrial Engineering, Applications and Manufacturing (ICIEAM) WOS:000478963800200 Proceedings	3	2,66
7. Dana Rad, Lavinia Denisia Cuc, Ramona Lile, Valentina E. Bălaș, Cornel Barna, Mioara Florina Pantea, Silviu Gabriel Szentesi, Corina Graziella Bătcă-Dumitru, Gavril Rad, <i>A cognitive systems engineering approach using unsupervised Fuzzy C-Means technique, exploratory factor analysis and network analysis- a</i>			

40	<u>A Novel Neutrosophic Likert Scale Analysis of Perceptions of Organizational Distributive Justice via a Score Function: A Complete Statistical Study and Symmetry Evidence Using Real-Life Survey Data</u> Bodur, S; Topal, S; (...); Edalatpanah, SA May 2024 SYMMETRY-BASEL WOS:001231293800001 Q2	4	4
41	<u>A Network Analysis Approach toward Adaptive Overt Narcissism Network</u> Runcan, R; Rad, D; (...); Maduta, C Jun 2023 BEHAVIORAL SCIENCES WOS:001014035300001 Q2	4	4
42	<u>Blockchain Technology and Smart Contracts - Public Policy Needed in the Technology Race</u> Stoian, CD; Bucerzan, D and Bejan, CA 3rd International Conference on FinTech, Cyberspace and Artificial Intelligence Law 2023 RECENT DEBATES IN CYBERSPACE AND ARTIFICIAL INTELLIGENCE LAW , pp.166-183 WOS:001327197500014 Proceedings	5	1,6
TOTAL		166,49	

A3.1.2 Citări în reviste și volume ale unor manifestări științifice indexate BDI (selecție)

Nr. crt	Lucrarea în care apare citarea	Nr. autori lucrare citată	Punctaj 4/nr.aut.
1. Localization system using video and PIR information fusion B Cornel 2007 2nd International Workshop on Soft Computing Applications, 21-23			
1	Veronese, F., Comai, S., Mangano, S., Matteucci, M., Salice, F. (2017). <i>PIR Probability Model for a Cost/Reliability Tradeoff Unobtrusive Indoor Monitoring System</i> . In: Gaggi, O., Manzoni, P., Palazzi, C., Bujari, A., Marquez-Barja, J. (eds) Smart Objects and Technologies for Social Good. GOODTECHS 2016. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 195. Springer, Cham. https://doi.org/10.1007/978-3-319-61949-1_7 .	5	0,8
2	Fabio Veronese, <i>Doctoral disertation: Collection, Processing and Analysis of Environmental Domotic Sensors Data for Behavior Drift Detection</i> , Politecnico di Milano, 2015.	1	4
3	Zappi Piero, Tesi di dottorato: <i>Sensori Wireless e tecniche di Fusione Sensoriale</i> , Università di Bologna, DOI 10.6092/unibo/amsdottorato/1494, 2009.	1	4
2. Ninawe A., Mallick A.K., Yadav V., Ahmad H., Sah D.K., Barna Cornel (2021) <i>Cathedral and Indian Mughal Monument Recognition Using Tensorflow</i> . In: Balas V., Jain L., Balas M., Shahbazova S. (eds) Soft Computing Applications. SOFA 2018. Advances in Intelligent Systems and Computing, vol 1221. Springer, Cham. DOI: 10.1007/978-3-030-51992-6_16 , Springer, SCOPUS https://www.scopus.com/pages/publications/85090099762			
1	Indian Visual Arts Classification Using Neural Network Algorithms, Sharma A, Jadon RS <i>Lecture Notes in Networks and Systems</i> Conference Paper 2024 DOI: 10.1007/978-981-99-4071-4_38	2	2

2	Characterization of Indian Visual Arts Architecture Ages and sub-ages using ML and Fuzzy-ML algorithms <u>Multimedia Tools and Applications</u> Article2023 DOI: 10.1007/s11042-022-13926-5 Sharma A, Jadon RS	2	2
3	<u>Study and Analysis of Different Convolution Neural Network Techniques to Classify Indian Visual Arts</u> , Sharma A, Jadon RS, <u>Lecture Notes in Networks and Systems</u> Conference Paper2023 DOI: 10.1007/978-981-99-3963-3_8		
TOTAL			8,8
TOTAL			175,39

A3.2 Membru în colectivele de redacție sau comitetele științifice ale revistelor indexate ISI, chair, co-chair sau membru în comitetele de organizare ale manifestărilor științifice internaționale indexate ISI		
Nr. crt.	Denumire	Punctaj
1	AVES 2021 Invited Speakers https://conferencealerts.com/show-event?id=239187 2nd International Conference on Advances in VLSI and Embedded Systems (AVES 2021)	10
2	SOFA 2022 Invited Speaker, https://2022.sofa-org.eu/invited-speakers/	10
3	Membru în Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2005, http://www.trivent.hu/IEEE/SOFA2005/05_commities.html	10
4	Membru în Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2012	10
5	Membru în Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2014	10
6	Membru în Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2016	10
TOTAL		60

A3.3 Membru în colectivele de redacție sau comitetele științifice ale revistelor indexate BDI, chair, co-chair sau membru în comitetele de organizare ale manifestărilor științifice internaționale indexate BDI		
Nr. crt.	Denumire	Punctaj
1	Membru in Bordul Editorial al <u>Journal of Human-Centered Design for Manufacturing</u>	6
2	Membru in International Committee la 8th WSEAS International Conference on NEURAL NETWORKS (NN'07), http://www.wseas.us/elibrary/conferences/2007vancouver/nn/committee.htm	6
3	Membru in Colectivul de Organizare ECIT 2008, Iasi, http://iit.academiaromanais.ro/ecit2008/documents/Program_ECIT2008_Final.pdf	6
4	Membru in Colectivul de Organizare SICSS Arad https://sicssarad2019.webnode.ro/comitet/	6
5	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2007,	6
6	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2009, http://www.trivent.hu/2009/sofa2009/comm.html	6
7	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2010, http://www.trivent.hu/2010/sofa/comm.html	6
8	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2018, http://trivent.hu/sofa_2018/committees.html	6
9	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2020, https://www.sofa-org.eu/2020/committees/	6
10	Membru in Comitetul de Organizare a Workshopului International Soft Computina Applications, Arad 2022, https://2022.sofa-org.eu/committees/	6
11	Membru in Technical Program Committee la 6th Conference on Cloud and Internet of Things March 20-22, 2023, Lusófona University (Lisbon, Portugal) <u>Technical Program Committee - CIoT 2023 (dnac.org)</u>	6
12	Member in technical Program Committee la 2026 3 rd International Conference on Autonomous Driving and Intelligent Sensing Technology (ADIST 2026), https://www.ic-adist.org/committee	6
13	Program Committee Member, la 4 th International Conference on Computing and Information Technology Trends (CCITT 2025), January 23 ~ 24, 2025, Virtual Conference, https://ccitt2025.org/committee	6
14	Membru in Technical Program Committee la 6th Conference on Cloud and Internet of Things March 20-22, 2023, Lusófona University (Lisbon, Portugal), https://ciot.dnac.org/2023/technical-program-committee/	6
15	Membru in International Program Committee la DSIE, 13-14 Decembrie, 2025, Hangzhou, China	6
TOTAL		90

A3.4. Premii în domeniu conferite de Academia Română, ASTR, AOSR, sau premii internaționale de prestigiu		
Nr. crt.	Denumire	Punctaj
1	Senior Member IEEE 2007.	15
TOTAL		15

12.09.2025

Conf.dr. ing. Barna Cornel

