



AVIZAT.

Director SCOALA DOCTORALĂ  
219 | 27.08.2026

*[Signature]*

1. Îndeplinirea standardelor IOSUD superioare standardelor minimale naționale\* [ ] DA [ ] NU
2. Îndeplinirea standardelor IOSUD egale standardelor minimale naționale\* [X] DA [ ] NU

\*se va alege una dintre variante

## FIŞA DE ÎNDEPLINIRE A STANDARDELOR IOSUD

Condiții minime și obligatorii pentru Cercetător Științific Gradul 1			Punctaj Standard Minim Prevăzut	Punctaj Realizat	
A1		Nu se aplică	-	-	
A2	A2.1 + A2.3	P1+P2	Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS) + Brevete de invenții indexate	10	25,47
		P1	Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS)	6	22,84
A2.2		N3	Articole și publicații științifice BDI neincluse la A2.1	10	15
		N3.1	Articole și publicații științifice BDI neincluse la A2.1 - Autor corespondent/prim autor	5	5
A2.4 + A2.5		N4	Produse, tehnologii, platforme și servicii inovative (validate conform procedurilor specifice unităților de învățământ superior sau de cercetare) + Monografii/cărți de specialitate, format tipărit/electronic (min. 100 pag.)	2	2
		N4.3	Monografii/cărți de specialitate, format tipărit/electronic (min. 100 pag.) – Coordonator/prim autor	1	2
A3	A3.1	S1+S2	Atragere resurse financiare prin granturi/proiecte/contract terți	50	194,87
	A3.2	N5	Prezentarea/Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor/co-autor de lucrări, profesor invitat	10	26
	A3.3	C	Citări în publicații BDI (se exclud autocitările)	25	103,8
<b>PUNCTAJ TOTAL</b>				<b>396,98</b>	



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1. Îndeplinirea standardelor IOSUD superioare standardelor minimale naționale\* [ ] DA [ ] NU

2. Îndeplinirea standardelor IOSUD egale standardelor minimale naționale\* [X] DA [ ] NU

\*se va alege una dintre variante

**FIŞA DE ÎNDEPLINIRE A STANDARDELOR IOSUD**

Condiții minime și obligatorii pentru Cercetător Științific Gradul 1				Punctaj Standard Minim Prevăzut	Punctaj Realizat
A1 Nu se aplică				-	-
A2	A2.1 + A2.3	P1+P2	Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS)	10	25,47
			+ Brevete de invenții indexate		
A2.2	A2.2	P1	Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS)	6	22,84
		N3	Articole și publicații științifice BDI neincluse la A2.1	10	15
A2.4 + A2.5	A2.4 + A2.5	N4	Articole și publicații științifice BDI neincluse la A2.1 - Autor corespondent/prim autor	5	5
			Produse, tehnologii, platforme și servicii inovative (validate conform procedurilor specifice unităților de învățământ superior sau de cercetare)	2	2
		N4.3	+ Monografii/cărți de specialitate, format tipărit/electronic (min. 100 pag.)	1	2
A3	A3.1	S1+S2	Monografii/cărți de specialitate, format tipărit/electronic (min. 100 pag.) – Coordonator/prim autor	50	194,87
	A3.2	N5	Atragere resurse financiare prin granturi/proiecte/contract terți	10	26
	A3.3	C	Prezentarea/Diseminarea rezultatelor: prezență la manifestări științifice în calitate de autor/co-autor de lucrări, profesor invitat	25	103,8
<b>PUNCTAJ TOTAL</b>					<b>396,98</b>



ACADEMIA ROMÂNĂ  
SCOSAAR

**FIŞA DE VERIFICARE**  
a îndeplinirii standardelor IOSUD

**Activitatea de cercetare științifică, dezvoltare tehnologică și inovare – CID (A2)**

**Categorie A2.1.** Articole și publicații științifice indexate Web of Science Thomson Reuters (WOS), unde n este nr. de autori și FI este factorul de impact.

Subcategorie	Nr. Crt.	Articol	Punctaj Realizat
P1.1 = 2*(0.2+FI)	1.	<b>Ionel-Alexandru Gal</b> , Alexandra-Cătălina Ciocîrlan, Mihai Mărgăritescu, "State Machine-Based Hybrid Position/Force Control Architecture for a Waste Management Mobile Robot with 5DOF Manipulator" Appl. Sci. 11, no. 9: 4222. 2021. <a href="https://doi.org/10.3390/app11094222">https://doi.org/10.3390/app11094222</a> . eISSN2076-3417. WOS:000649905700001, IF:2.838/2021	6,076
	2.	<b>Ionel-Alexandru Gal</b> , Alexandra-Cătălina Ciocîrlan, Luige Vladareanu, "The Hybrid Position/Force Walking Robot Control Using Extenics Theory and Neutrosophic Logic Decision" Sensors, 22(10), p.3663. 2022. ISSN: 1424-8220, <a href="https://doi.org/10.3390/s22103663">https://doi.org/10.3390/s22103663</a> , <a href="https://www.mdpi.com/1424-8220/22/10/3663">https://www.mdpi.com/1424-8220/22/10/3663</a> , WOS:000803457000001. IF:3.9/2022	8,2
	3.	<b>Ionel-Alexandru Gal</b> , Danut Bucur, Luige Vladareanu. "DSmT Decision-Making Algorithms for Finding Grasping Configurations of Robot Dexterous Hands" Symmetry-Basel (20738994) 10.6 (2018). WOS:000436283000018. IF:2.2/2024	4,8
	4.	<b>Ionel-Alexandru Gal</b> , Luige Vladareanu, Radu I. Munteanu. "Sliding motion control with bond graph modeling applied on a robot leg." Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 60.2 (2015): 215-224. WOS:000355067400011. IF:1.1/2024	2,6
<b>Punctaj parțial – P1.1</b>			<b>21,676</b>
P1.2	1.		
<b>Punctaj parțial – P1.2</b>			<b>0</b>
P1.3	1.		
<b>Punctaj parțial – P1.3</b>			<b>0</b>
P1.4 = 3*(0.2+FI)/n	1.	Pop N., Vladareanu L., Popescu I. N., Ghiță C., <b>Gal Ionel-Alexandru</b> , Cang S., Yu H., Bratu V., Deng M. (2014). "A numerical dynamic behaviour model for 3D contact problems with friction". Computational Materials Science, 94, 285-291. WOS:000342360000034. (IF: 3.3/2024)	1,167
<b>Punctaj parțial – P1.4</b>			<b>1,167</b>
<b>TOTAL A2.1</b>			<b>22,843</b>

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

Subcategorie	Nr. Crt.	Articol	Punctaj Realizat
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N3.1 = nr.	1.	<p><b>Ionel-Alexandru Gal</b>, Vladareanu, L., Yu, H., Wang, H., &amp; Deng, M. (2015, August). "Advanced intelligent walking robot control through sliding motion control and bond graphs methods". In Advanced Mechatronic Systems (ICAMechS), 2015 International Conference on (pp. 36-41). IEEE. WOS:000380467100008, DOI: 10.1109/ICAMechS.2015.7287125</p> <p><b>Ionel-Alexandru Gal</b>, Munteanu, R. I., Melinte, O., &amp; Vladareanu, L. (2013, May). „A new approach of sliding motion robot control using bond graph”. In Advanced Topics in Electrical Engineering (ATEE), 2013 8th International Symposium on (pp. 1-6). IEEE. WOS:000332928500169, DOI: 10.1109/ATEE.2013.6563515</p> <p><b>Ionel-Alexandru Gal</b>, Luige Vladareanu, Victor Vladareanu, Daniel-Octavian Melinte, "Industry 4.0 Renewable Energy Power Plant Architecture using Next Generation Service Interface Linked Data Connectors", 2023 8th International Conference on Mathematics and Computers in Sciences and Industry (MCSI), Athens, Greece, 2023, pp. 155-160, doi: 10.1109/MCSI60294.2023.00033, Publisher: IEEE, ISBN 979-835034165-2, DOI: 10.1109/MCSI60294.2023.00033</p>	1
	2.		1
	3.		1
	4.	<p><b>Ionel-Alexandru Gal</b>, Vladareanu Luige, and Shuang Cang. "Virtual simulation of a mechanical structure with 5DOF for induction hardening using 3D", International Journal of Engineering and Technology (UAE) 7.2 (2018): 114-118. DOI: 10.14419/ijet.v7i2.28.12891.</p>	1
	5.	<p><b>Ionel-Alexandru Gal</b>, Vladareanu Luige, and Shuang Cang. (2018) "Advanced Intelligent Robot Control Interfaces for the Virtual Reality Simulation Applied to the Induction Hardening Process". Emerging Technologies for Health and Medicine: Virtual Reality, Augmented Reality, Artificial Intelligence, Internet of Things, Robotics, Industry 4.0, pp. 137-152, DOI: 10.1002/9781119509875.ch11, 978-111950987-5, 978-111950985-1.</p>	1
<b>Punctaj parțial – N3.1</b>			5
N3.2 = nr.	1.	<p>Vladareanu, Luige, Victor Vladareanu, <b>Ionel-Alexandru Gal</b>, Daniel-Octavian Melinte, Vlad Grosu, and Mihai Radulescu. "IoT Open Architecture Ground Control System by Adaptive Fusion Intelligent Interfaces for Robot Vectors Applied to 5G Network Densification Era." In Future Access Enablers for Ubiquitous and Intelligent Infrastructures: 4th EAI International Conference, FABULOUS 2019, Sofia, Bulgaria, March 28-29, 2019, Proceedings 283, pp. 118-123. Springer International Publishing, 2019, WOS:000552334400012.</p>	1
	2.	<p>Vladareanu, L., <b>Ionel-Alexandru Gal</b>, Yu, H., &amp; Deng, M. (2015). "Robot control intelligent interfaces using the DSMT and the neutrosophic logic". International Journal of Advanced Mechatronic Systems, 6(2-3), 128-135, ISSN: 17568412, DOI: 10.1504/IJAMECHS.2015.070710 (BDI SCOPUS).</p>	1



	3.	Vladareanu, L., Yu, H., <b>Ionel-Alexandru Gal</b> , & Deng, M. (2014, August). „Improvement of the walking robot dynamic stability using the DSmT and the neutrosophic logic”. In Advanced Mechatronic Systems (ICAMechS), 2014 International Conference on (pp. 43-48). IEEE. WOS:000361466100009.	1
	4.	Bruja A., Vladareanu L., <b>Ionel-Alexandru Gal</b> , Wang H., Yu H., Liu J. “The stability performances improvement through kinematic and dynamic modeling of the hopping robots”, In 2014 UKACC International Conference on Control (CONTROL) (pp. 492-497). (Iulie 2014). IEEE, DOI: 10.1109/CONTROL.2014.6915189. WOS:000352626000084	1
	5.	Liu, J., Wang, H., Yu, H., Zhang, L., Vladareanu, L., Bruja, A., & <b>Ionel-Alexandru Gal</b> , “Design of a new solution for the wheeled hopping robot”. In Control (CONTROL), 2014 UKACC International Conference on (pp. 720-724). (Iulie 2014). IEEE, WOS:000352626000123.	1
	6.	Melinte, O., Munteanu, R., <b>Gal Ionel-Alexandru</b> , & Vladareanu, L. (2013, May). „Compensating dynamics of impedance haptic devices using Neural Networks”. In Advanced Topics in Electrical Engineering (ATEE), 2013 8th International Symposium on (pp. 1-6). IEEE. WOS:000332928500193.	1
	7.	Vladareanu, L., Pop, N., <b>Gal Ionel-Alexandru</b> , & Deng, M. (2013, September). „The 3D elastic quasi-static contact applied to robots control”. In Advanced Mechatronic Systems (ICAMechS), 2013 International Conference on (pp. 517-523). IEEE. WOS:000330345600100.	1
	8.	Vladareanu, Luige, Victor Vladareanu, <b>Alexandru I. Gal</b> , Octavian D. Melinte, Marius Pandelea, Mihai Radulescu, and Alexandra-Catalina Ciocirlan. "Digital Twin in 5G Digital era developed through cyber physical systems." IFAC-PapersOnLine 53, no. 2 (2020): 10885-10890, WOS:000652593100335	1
	9.	Vlădăreanu, Luige, <b>Alexandru I. Gal</b> , Octavian D. Melinte, Victor Vlădăreanu, Mihaela Iliescu, Adrian Bruja, Yongfei Feng, and Alexandra Ciocirlan. "Robot Digital Twin towards Industry 4.0." IFAC-PapersOnLine 53, no. 2 (2020): 10867-10872, WOS:000652593100332.	1
	10.	Alexandra Ciocirlan, Victor Vladareanu, Ana Maria Travediu, <b>Ionel-Alexandru Gal</b> , Octavian Melinte, Mihai Radulescu and Luige Vladareanu, „Improved Performance of the Autonomous Mobile Robot Vectors by New Intelligent Control Interfaces”, International Conference on Control Systems and Computer Science - CSCS23 May 26-28, 2021, pp. 302-307. IEEE, SCOPUS, 2021, DOI: <a href="https://doi.org/10.1109/CSCS52396.2021.00056">https://doi.org/10.1109/CSCS52396.2021.00056</a>	1
<b>Punctaj parțial – N3.2</b>			10
<b>TOTAL A2.2</b>			15



**Categorie A2.3. Brevete de invenții indexate**

Subcategorie	Nr. Crt.	Brevet	Punctaj Realizat
P2.1 = punctaj calculat ca pentru A2.1 și FI=2  Co-autor; Nr autori >=4	1.	Vladareanu L, Munteanu R I, Sireteanu T, Dumitrache I, Iliescu M, Cononovici B S, Vladareanu V, Munteanu R A, Melinte O, <b>Gal Ionel-Alexandru</b> , Barbu V, Munteanu M S, Mitroi D, Moisescu M, Chenaru O, Ionel M, Sacala I S, Florea G. „Method and device for hybrid speed-position control with applications in intelligent control platforms”. Patent Number: RO131780-A0. Derwent Primary Accession Number: 2017-272243.	0,367
	2.	Vladareanu L, Munteanu R I, Sireteanu T, Albu E, Vladareanu V, Munteanu R A, Cononovici B S, Iliescu M, Melinte O, <b>Gal Ionel-Alexandru</b> , Mitroi D, Chenaru O. „Method and device for developing control interfaces for mechatronic systems in virtual reality environment”. Patent Number: RO131524-A0. Derwent Primary Accession Number: 2016-73518X.	0,55
	3.	Vladareanu L, Cai W, Munteanu R I, Yan C, Vladareanu V, Munteanu R A, Li W, Smarandache F, <b>Gal Ionel-Alexandru</b> . „Method and device for the extended hybrid force-position control of robotic and mechatronic systems” Patent Number: RO128910-A0. Derwent Primary Accession Number: 2013-U41455.	0,733
	4.	Vladareanu L, Velea L M, Munteanu R A, Siriteanu T, Munteanu M S, Tont G, Vladareanu V, Balas C, Tont D G, Melinte D O, <b>Gal Ionel-Alexandru</b> , Sireteanu T. „Method for the dynamic control of a walking robot, involves computing of errors generated by position and force components on the freedom axes of a walking robot” Patent Number: RO125970-A0; EP2384863-A2; EP2384863-A3. Derwent Primary Accession Number: 2011-B55907.	0,55
<b>Punctaj parțial – P2.1</b>			<b>2,2</b>
P2.2 = punctaj calculat ca pentru A2.1 și FI=0,5  Co-autor; Nr autori >=4	1.	Vlădăreanu Luige, Velea Lucian Marius, Vlădăreanu Victor, Munteanu Mihai Stelian, Tont Gabriela, Munteanu Radu Adrian, Siriteanu Tudor, Balaș Cornel, Tont Dan George, Melinte Daniel Octavian, <b>Gal Ionel Alexandru</b> . "Metodă și dispozitiv pentru controlul dinamic al unui robot pășitor" ("Method and device for the dynamic control of a walking robot") Titular: Institutul De Mecanica Solidelor Al Academiei Române Numar brevet OSIM: 00125970; BOPI 1/2011	0,191
	2.	Munteanu Radu Ioan, Vladareanu Luige, Cai Wen, Yan Chunyan, Vlădăreanu Victor, <b>Gal Ionel Alexandru</b> , Munteanu Radu Adrian, Li Weihua, Smarandache Florentin "Metodă și dispozitiv pentru control extins hibrid forță-pozitie al sistemelor robotice și mecatronice" ("Method and device for the extended hybrid force-position control of robotic and mechatronic systems")	0,233



ACADEMIA ROMÂNĂ  
SCOSAAR

	Titular: Institutul de Mecanica Solidelor al Academiei Române Numar brevet OSIM: 00128910; BOPI 9/2020	
	<b>Punctaj parțial - P2.2</b>	<b>0,424</b>
	<b>TOTAL A2.3</b>	<b>2,624</b>

**Categorie A2.4.** Produse, tehnologii, platforme și servicii inovative (validate conform procedurilor specifice unităților de învățământ superior sau de cercetare)

Subcategorie	Nr. Crt.	Produse, tehnologii, platforme și servicii inovative	Punctaj Realizat
N4.1	1.		
		<b>Punctaj parțial – N4.1</b>	<b>0</b>
N4.2	1.		
		<b>Punctaj parțial – N4.2</b>	<b>0</b>
		<b>TOTAL A2.4</b>	<b>0</b>

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

Subcategorie	Nr. Crt.	Monografie/Carte	Punctaj Realizat
N4.3 = nr.	1.	„Strategii de control hibrid forță-poziție în robotică”, autor <b>Gal Ionel-Alexandru</b> , Editura Editgraph, ISBN: 978-606-663-732-9, 200 pagini, anul apariției 2019.	1
	2.	“Platformă Versatilă, Intelligentă, Portabilă cu Sisteme de Control în Timp Real al Robotilor (Vol. 1)”, autori <b>Ionel-Alexandru Gal</b> , Daniel-Octavian Melinte, Alexandra Cătălina Ciocirlan, Editura Pim (Iași), ISBN: 978-606-13-8386-3, 164 pagini, anul apariției 2024.	1
		<b>Punctaj parțial – N4.3</b>	<b>2</b>
N4.4	1.		
		<b>Punctaj parțial – N4.4</b>	<b>0</b>
		<b>TOTAL A2.5</b>	<b>2</b>

#### Recunoașterea și impactul activității – RIA (A3)

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

Subcategorie	Nr. Crt.	Grant/Proiect/Contract	Resurse Atrase	Punctaj Realizat
S1	1.			
		<b>Punctaj parțial – S1</b>	<b>0</b>	
S2 = sumă echivalentă în mii Euro	1.	Proiect SMOOTH - Smart Robots for FireFighting, the European Union's Horizon 2020, Marie Skłodowska-Curie Research and Innovation Staff Exchange. Project No. 734575, Program: EU H2020-MSCA-RISE 2017-2020, Perioada: 2017 – 2020. Director proiect IMSAR: Cercetător științific gr. 1, Prof. dr. ing. Luige VLĂDĂREANU, Buget IMSAR: 189.000 euro. <b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant:	4.000 Euro	4



ACADEMIA ROMÂNĂ  
SCOSAAR

	Logistică - Mobilitati: 4.000 Euro.		
2.	<p>Proiect RABOT - Real-time adaptive networked control of rescue robots, 7th Framework Program for Research, Project Marie Curie, International Research Staff Exchange Scheme (IRSES)</p> <p>Project No. 318902, Program: FP7-PEOPLE-2012-IRSES; MARIE CURIE ACTIONS, Perioada: 2012 – 2016.</p> <p>Director proiect IMSAR: Cercetător științific gr. 1, Prof. dr. ing. Luige VLĂDĂREANU, Buget IMSAR: 109.200 euro.</p> <p><b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant: Logistică - Mobilitati: 2.100 Euro.</p>	2.100 Euro	2,1
3.	<p>Proiect: MultiMonD - Platformă de sisteme inteligente multiagent pentru monitorizarea calității apei pe sectorul românesc al Dunării și Deltei Dunării.</p> <p>Cod proiect: PNIII-P1-1.2-PCCDI-2017-0637/2018; CCCDI-UEFISCDI - nr. 033/2018.</p> <p>Perioada: 2018 – 2020.</p> <p>Director proiect: Cercetător științific gr. 1, Prof. dr. ing. Luige VLĂDĂREANU, Buget IMSAR: 798.024 RON.</p> <p><b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant: Salarii: 15.750 lei / 3.384 Euro (calculat la valoarea medie anuala pe 2018)</p>	3.384 Euro	3,384
4.	<p>Proiect: Rehabilitation Robot - Joint Laboratory of Intelligent Rehabilitation Robot. Cod proiect: Collaborative research agreement between Yanshan University, China and Romanian Academy by IMSAR, RO, no. KY201501009, Perioada: 2016 – 2018.</p> <p>Director proiect: Cercetător științific gr. 1, Prof. dr. ing. Luige VLĂDĂREANU. Buget IMSAR: 34.804 EURO.</p> <p><b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant: Logistică – deplasări, participari conferințe, diseminare: 2.000 Euro.</p>	2.000 Euro	2
5.	<p>Proiect: VIPRO - Platforma robot versatilă, inteligentă, portabilă cu sisteme de control în rețele adaptive pentru roboți de salvare.</p> <p>Cod proiect: PN-II-PT-PCCA-2013-4-2009;</p> <p>Contract UEFISCDI nr. 009/2014, Perioada: 2014 – 2017.</p> <p>Director proiect: Cercetător științific gr. 1, Prof. dr. ing. Luige VLĂDĂREANU, Buget IMSAR:</p>	38.281 Euro	38,281



ACADEMIA ROMÂNĂ  
SCOSAAR

	1.235.000 lei / 275.000 Euro. <b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant: 170.163 lei / 38.281 Euro (calculat la valoarea medie anuala pe 2015)		
6.	Proiect TOP MetEco AMBIENT: Environmentally friendly and durable metal constructions through efficient manufacturing technologies TOP MetEco AMBIENT, 2016-2018. SMIS 105188-975, contract nr. 107/09-09-2016, Programul Operațional Competitivitate (POC), Domeniul proiectului: Eco-Nano-Tehnologii si Materiale, finantat de UEFISCDI Romania. Director proiect: Cercetător științific gr. 1, Prof. Luige Vladareanu. Buget proiect 6.369.545 Lei. <b>Ionel-Alexandru Gal</b> membru în echipa de cercetare. Resurse financiare atrase prin grant: 156.258 lei / 33.484 Euro (calculat utilizand grila BNR de medii lunare).	33.848 Euro	33,848
7.	Proiect SIRAMAND: Sisteme robotice autonome pentru managementul deșeurilor în contextul orașului intelligent, Proiecte Complexe realizate în consorții CDI, PN-III-P1-1.2-PCCDI-2017, SIRAMAND PN-III-P1-1.2-PCCDI-2017-0086, Director Partener IMSAR: Dr. ing. CS3 Dan Dumitriu, Buget IMSAR: 682.100 lei / 143.724 Euro (Calculat la valoarea medie anuala pe 2019). Ionel-Alexandru Gal membru în echipa de cercetare. Resurse financiare atrase prin grant: 49069 lei / 10130 Euro (calculat la valoarea medie anuala pe 2020)	10.130 Euro	10,13
8.	Proiect CONSOLE: "Cybersecurity for Resilient Software Development", CONSOLE, Project No. 101128070, DIGITAL-ECCC-2022-CYBER-03-UPTAKE-CYBERSOLUTIONS, European Commission-EU eGrants, 2023-2026. Coordonator proiect: BitDefender SRL. Patneri: AEGIS IT Research GMBH (DE), Cyberalytics Limited (CY), Idryma Technologias Kai Erevnas (GR), Security Labs Consulting Limited (IR), Eit Digital (BG), Aprioplus Solutions LTD (CY), Panepistimio Patron (GR), Charge Point SRL (RO), Ringhel Team SRL (RO). <b>Ionel-Alexandru Gal</b> este membru in proiect la partenerul Ringhel Team SRL. Resurse financiare atrase prin grant: 101130 euro	101.130 Euro	101,13
<b>Punctaj parțial – S2</b>		<b>194,873</b>	
<b>TOTAL A3.1</b>			<b>194,873</b>



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

Subcategorie	Nr. Crt.	Congres/Conferință/Workshop internațional	Punctaj Realizat
N5 = nr.	1.	<b>Ionel-Alexandru Gal</b> , Nicolae Pop, Victor Vladareanu, Mihaela Iliescu, Daniel Mitroi and Luige Vladareanu, "Applications of the Virtual Intelligent Portable VIPRO Platform for 3D Contact Problems with Friction in the Humanoid Robots Control", The 6th International Conference Computational Mechatronics and Virtual Engineering, ( <b>COMECA 2015</b> ), 15-16 October 2015, Brașov, Romania, pg. 191-196, ISSN: 2457-8541.	1
	2.	<b>Ionel-Alexandru Gal</b> , Vladareanu L, Hongnian Yu, Hongbo Wang, Mingcong Deng, „Advanced intelligent walking robot control through sliding motion control and bond graphs methods”, Advanced Mechatronic Systems ( <b>ICAMechS 2015</b> ), 2015 International Conference on, 22-24 Aug. 2015, Beijing, China, pg. 36 – 41, DOI: 10.1109/ICAMechS.2015.7287125, INSPEC Accession Number: 15489961, Publisher: IEEE, ISSN 2325-0682	1
	3.	Vladareanu, L, <b>Ionel-Alexandru Gal</b> , Hongnian Yu, Mincong Deng, "Improvement of the walking robot dynamic stability using the DSMT and the neutrosophic logic" in Advanced Mechatronic Systems ( <b>ICAMechS 2014</b> ), 2014 International Conference, pp.43-48, 10-12 Aug. 2014, doi: 10.1109/ICAMechS.2014.6911621, ISSN: 2325-0682.	1
	4.	<b>Ionel-Alexandru Gal</b> , Luige Vladareanu, „Sliding Mode Control with Bond Graph Modeling Applied on a Robot Leg”, Proceedings of the 2014 International Conference on Circuits, Systems and Control ( <b>CSC 2014</b> ), Interlaken, Switzerland February 22-24, 2014, pg. 40-45, ISBN: 978-1-61804-216-3.	1
	5.	Bruja A., Vladareanu L., <b>Ionel-Alexandru Gal</b> , Wang H., Yu H., Liu J. "The stability performances improvement through kinematic and dynamic modeling of the hopping robots", In 2014 UKACC International Conference on Control ( <b>CONTROL 2014</b> ) pp. 492-497, Iulie 2014. IEEE, DOI: 10.1109/CONTROL.2014.6915189, Electronic ISBN: 978-1-4799-5011-9.	1
	6.	Nicolae Pop, Luige Vladareanu, <b>Ionel-Alexandru Gal</b> , "The extension real time control method for restoring the robot equilibrium position", Proceedings of the 1st International Conference on Mechanical and Robotics Engineering ( <b>MREN 2013</b> ), pp. 137-142, ISBN: 978-1-61804-185-2, Atena, Grecia 2013.	1
	7.	<b>Ionel-Alexandru Gal</b> , Radu Ioan Munteanu, Octavian Melinte, Luige Vladareanu, „A New Approach of Sliding Motion Robot Control using Bond Graph”, The 8th International Symposium On Advanced Topics In Electrical Engineering ( <b>ATEE 2013</b> ), Editura Printech, ISSN: 2068-7966, București, România, doi: 10.1109/ATEE.2013.6563515.	1
	8.	Luige Vladăreanu, Nicolae Pop, <b>Ionel-Alexandru Gal</b> , Mingcong Deng , „The 3D elastic quasi-static contact applied to robots	1



	control”, International Conference on Advanced Mechatronic Systems ( <b>ICAMechS 2013</b> ), Henan University of Science and Technology, Luoyang, China-Japonia, 2013, ISSN: 2325-0682, doi: 10.1109/ICAMechS.2013.6681699.	
9.	<b>Ionel-Alexandru Gal</b> , „Hybrid force-position control for manipulators with 4 degrees of freedom”, Proceedings of the 15th International Conference on Systems (part of the 15th <b>CSCC 2011</b> multiconference), Recent Researches in System Science, Corfu Island, Grecia, Iulie 14-16, 2011, pag: 358-363, ISBN: 978-1-61804-023-7, ISSN: 1792-4235.	1
10.	Octavian Melinte, <b>Ionel-Alexandru Gal</b> , „Bond graph modelling for haptic interface robot control”, Proceedings of the European Computing Conference ( <b>ECC 2011</b> ), Paris, France, April 28-30, 2011, pag: 364-369, ISBN: 978-960-474-297-4.	1
11.	Luige Vladareanu, Ion Ion, <b>Ionel-Alexandru Gal</b> , et al. „The Real Time Control of Modular Walking Robot Stability”, ISI Proceedings of the 8th International Conference on Applications of Electrical Engineering ( <b>AEE 2009</b> ), Houston, USA, pag. 179-186, ISSN: 1790-5117, ISBN: 978-960-474-072-7.	1
12.	Luige Vladareanu, Ion Ion, <b>Ionel-Alexandru Gal</b> , et al. „A New Method for Real Time Control of Actuators in Continuous Flux”, ISI Proceedings of the 9th International Conference on Automation & Information: Theory and Advanced Technology ( <b>ICAI 2008</b> ), Editor: Luigi Vladareanu, pag. 303-308, ISBN: 978-960-6766-77-0, ISSN 1790-5117.	1
13.	SMOOTH INTERNATIONAL WORKSHOP – Organizat de: Yanshan University, Qinhuangdao, Hebei, China la data de 08.03.2018. <b>Ionel-Alexandru Gal</b> a participat cu următoarele prezentări: 1. 3D models of mobile robots in virtual reality environment using Blender and Unity applications. 2. Virtual simulation of a robot with 5DOF for induction hardening using Unity3D.	1
14.	SMOOTH INTERNATIONAL WORKSHOP – Organizat de: State Key Laboratory of Management and Control for Complex Systems. Institute of Automation, Chinese Academy of Sciences, Beijing, Hebei, China la data de 22.03.2018. <b>Ionel-Alexandru Gal</b> a participat cu următoarele prezentări: 1. 3D models of mobile robots in virtual reality environment using Blender and Unity applications. 2. Virtual simulation of a robot with 5DOF for induction hardening using Unity3D.	1
15.	Luige Vladreanu, Victor Vladareanu, <b>Ionel-Alexandru Gal</b> , Daniel-Octavian Melinte, Vlad Grosu, Mihai Radulescu, “IoT Open Architecture Ground Control System by adaptive fusion intelligent interfaces for robot vectors applied to 5G network Densification Era”, Presented at <b>FABULOS</b> Conference, 28-29 March <b>2019</b> , Sofia, Bulgaria, and published in International Conference on Future Access Enablers of Ubiquitous and	1



	Intelligent Infrastructures (pp. 118-123). Springer, Cham, 2019. ISI Indexed Proceedings.	
16.	Vlădăreanu, Luige, <b>Ionel Alexandru Gal</b> , Octavian D. Melinte, Victor Vlădăreanu, Mihaela Iliescu, Adrian Bruja, Yongfei Feng, and Alexandra Ciocîrlan. "Robot Digital Twin towards Industry 4.0." IFAC-PapersOnLine 53, no. 2 (2020): 10867-10872., Prezentata la IFAC 2020 World Congress, Berlin Germany, 12-17 Iulie, 2020.	1
17.	Vladareanu, Luige, Victor Vladareanu, <b>Ionel-Alexandru Gal</b> , Octavian D. Melinte, Marius Pandelea, Mihai Radulescu, and Alexandra-Catalina Ciocîrlan. "Digital Twin in 5G Digital era developed through Cyber Physical Systems." IFAC-PapersOnLine 53, no. 2 (2020): 10885-10890.	1
18.	Alexandra Ciocîrlan, Victor Vladareanu, Ana Maria Travediu, <b>Ionel-Alexandru Gal</b> , Octavian Melinte, Mihai Radulescu and Luige Vladareanu, „Improved Performance of the Autonomous Mobile Robot Vectors by New Intelligent Control Interfaces”, In 2021 23rd International Conference on Control Systems and Computer Science (CSCS), pp. 302-307. IEEE, 2021, DOI: <a href="https://doi.org/10.1109/CSCS52396.2021.00056">https://doi.org/10.1109/CSCS52396.2021.00056</a>	1
19.	Vladareanu, Luige, Mihai Rădulescu, Marius Pandelea, Hongbo Wang, Florentin Smarandache, Yongfei Feng, <b>Ionel-Alexandru Gal</b> , and Alexandra C. Ciocîrlan. "Perceptual Anthropomorphic Walking Robot Platform for Navigation in Unstructured and Undifferentiated Environments." (2023), CANWest, ICIEICT 2023, September 11-13, Madrid Spain.	1
20.	<b>Ionel-Alexandru Gal</b> , Luige Vladareanu, Victor Vladareanu, Daniel-Octavian Melinte, "Industry 4.0 Renewable Energy Power Plant Architecture using Next Generation Service Interface Linked Data Connectors", 2023 8th International Conference on Mathematics and Computers in Sciences and Industry (MCSI).	1
21.	<b>Ionel-Alexandru Gal</b> , Luige Vladareanu, Cang Shuang "Virtual simulation of a mechanical structure with 5dof for induction hardening using unity3d", Presentation at International Conference on Communication, Management and Information Technology (ICCMIT 2018), 2-4 April 2018, Madrid, Spain.	1
22.	Alexandra-Cătălina Ciocîrlan, Luige Vladareanu, <b>Ionel-Alexandru Gal</b> , Bianca Ghinoiu, L. Sang, and Y. Ning, Intelligent Control Systems for Motion Vectors of Autonomous Mobile Robots, 25th International Conference on Control Systems and Computer Science, CSCS25 - Control Systems	1
23.	Ning, Yuansheng, Luige Vlădăreanu, Lingfeng Sang, Peng Chen, <b>Ionel-Alexandru Gal</b> , Hongbo Wang, Ştefan Ghibanu, and Qi Wang. "Research on Trajectory Planning and Adaptive Flexibility Control Strategy for Upper Limb Exoskeleton Rehabilitation Robot." In International Conference on Innovation of Emerging Information and Communication Technology, pp. 41-53. Springer, Cham, ICIEICT 2025	1
24.	Alexandra-Cătălina Ciocîrlan, Luige Vlădăreanu, <b>Ionel-</b>	1



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	<b>Alexandru Gal</b> , Bianca Rodica Ghinoiu, Cristina Marilena Nițu, Marius Pandelea, Mihaela Iliescu, „Robot vector operating system for localization and mapping”. The Joint International Conference of the 3rd International Conference on Advanced Research in Engineering, CARE 2024, and the 7th International Conference on Mechanical Engineering, ICOME 2024, Craiova, Romania	
25.	IMARS INTERNATIONAL WORKSHOP - Organizat de Professor Hongnian Yu, in data de 09-Mai-2025, la Merchiston Campus, Edinburgh Napier University, camera MER-09. <b>Ionel-Alexandru Gal</b> a participat cu următoarele prezentări: 1. IMSAR presentation for future joint research capabilities by Alexandru Gal 2. Smart wireless sensors routing protocol development aimed for smart wireless robot networks by Alexandru Gal 3. Humanoid robots developed in PABLO project - The urban delivery autonomous robots by Alexandru Gal	1
26.	IMARS INTERNATIONAL WORKSHOP - Organizat de Profesor Vladareanu Luige, in data de 06-Iunie-2025, la PUI, Limoges, Franta, sala de conferinte. <b>Ionel-Alexandru Gal</b> a participat cu următoarele prezentări: 1. Humanoid robots developed in PABLO project - The urban delivery autonomous robots by Alexandru Gal	1
<b>TOTAL A3.2</b>		<b>26</b>

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

Subcategorie	Nr. Crt.	Citări Articole	Punctaj Realizat
C = nr. citări + suma factorilor de impact al publicațiilor WOS în care apar citările.	1.	<p><i>Articolul citat:</i></p> <p><b>Gal Ionel-Alexandru</b>, Danut Bucur, Luige Vladareanu. "DSmT Decision-Making Algorithms for Finding Grasping Configurations of Robot Dexterous Hands." Symmetry-Basel (20738994) 10.6 (2018). WOS:000436283000018. (IF/2017: 1.256).</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"> <li>1. Ye, J., &amp; Cui, W. (2019). Neutrosophic Compound Orthogonal Neural Network and Its Applications in Neutrosophic Function Approximation. Symmetry, 11(2), 147; DOI:10.3390/sym11020147 (IF/2017: 1.256). IF:2.2/2024, punctaj: 3.2.</li> <li>2. Smarandache, F., Zhang, X., &amp; Ali, M. (2019). Algebraic Structures of Neutrosophic Triplets, Neutrosophic Duplets, or Neutrosophic Multisets, Symmetry 2019, 11(2), 171; DOI:10.3390/sym11020171, (IF/2017: 1.256). IF:2.2/2.24, punctaj: 3.2.</li> <li>3. Carbone, G., Ceccarelli, M., Fabrizi, C., Varilone, P., &amp; Verde, P. (2019). Effects of Voltage Dips on Robotic Grasping. Robotics, 8(2), 28, WOS:000475325600005, ISSN: 2218-6581. IF:3.3/2.24, punctaj: 4.3.</li> <li>4. "Melinte, Daniel Octavian, Ana-Maria Travediu, and Dan N. Dumitriu. ""Deep convolutional neural networks object</li> </ol>	16,9



	<p>detector for real-time waste identification." " Applied Sciences 10, no. 20 (2020): 7301. WOS:000586214800001 IF:2.5/2024, punctaj: 3.5."</p> <p>5. Ramasamy, Priyanka, Enrique Calderon-Sastre, Gunarajulu Renganathan, Swagata Das, and Yuichi Kurita. "Soft actuators-based skill training wearables: a review on the interaction modes, feedback types, VR scenarios, sensors utilization and applications." ROBOMECH Journal 10, no. 1 (2023): 1. IF:1.7/2024, punctaj: 2.7.</p>	
2.	<p><i>Articolul citat:</i></p> <p><b>Ionel-Alexandru Gal</b>, Luige Vladareanu, Radu I. Munteanu. "Sliding motion control with bond graph modeling applied on a robot leg." Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 60.2 (2015): 215-224. WOS:000355067400011. (IF/2017: 1,114)</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Zohaib, Muhammad, Jamshed Iqbal, And Syed Mustafa Pasha. "A novel goal-oriented strategy for mobile robot navigation without sub-goals constraint.", Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 63.1, WOS:000430897800018. (IF/2017: 1,114). IF:1.1/2024, punctaj: 2.1.</li><li>2. Khan, Owais, et al. "On the derivation of novel model and sophisticated control of flexible joint manipulator." Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 62.1 (2017): 103-108. WOS:000399629400019. (IF/2017: 1,114). IF:1.1/2024, punctaj: 2.1.</li><li>3. El Mesbahi, M. Tgarguifa, and H. Hachimi. "Robots Morphologies and Communication Strategies Trade-Off In A Dynamic Multi-Robot Collaborative Environment." Revue Roumaine Des Sciences Techniques—Série Électrotechnique Et Énergétique 67, No. 2 (2022): 193-198. IF:1.1/2024, punctaj: 2.1.</li><li>4. Chiriță, Doinița, et al. "Liquid level control for industrial three tanks system based on sliding mode control.", Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 60.4 WOS:000365935800010. (IF/2017: 1,114). IF:1.1/2024, punctaj: 2.1.</li></ol>	8,4
3.	<p><i>Articolul citat:</i></p> <p><b>Ionel-Alexandru Gal</b>, Alexandra-Cătălina Ciocîrlan, and Mihai Mărgăritescu. "State Machine-Based Hybrid Position/Force Control Architecture for a Waste Management Mobile Robot with 5DOF Manipulator." Applied Sciences 11, no. 9 (2021): 4222.</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Mercorelli, Paolo. "A Theoretical Dynamical Noninteracting Model for General Manipulation Systems Using Axiomatic Geometric Structures." Axioms 11, no. 7 (2022): 309, WOS:000832069000001 IF:1.6/2024, punctaj: 2.6.</li><li>2. Gasparetto, Alessandro, Stefano Seriani, and Lorenzo</li></ol>	13,5



	<p>Scalera. "Modelling and Control of Mechatronic and Robotic Systems, Volume II." <i>Applied Sciences</i> 12, no. 12 (2022): 5922, WOS:000818353200001. IF:2.5/2024, punctaj: 3.5.</p> <p>3. Tofangchi, Alireza, Cassidy Caid, Danming Wei, Keng Hsu, and Dan O. Popa. "Robot-Mounted Ultrasonic Micro-Wire Bonding Tool for Structural Electronics And Sensors." In <i>International Manufacturing Science and Engineering Conference</i>, vol. 88117, p. V002T05A013. American Society of Mechanical Engineers, 2024. WOS:001303775100013 IF:0/2024, punctaj: 1.</p> <p>4. Li, Qinsheng, and Xiaozhen Lian. "Vision-Guided Fuzzy Adaptive Impedance-Based Control for Polishing Robots Under Time-Varying Stiffness." <i>Machines</i> 13, no. 6 (2025): 493. WOS:001516036600001 IF:2.5/2024, punctaj: 3.5.</p> <p>Gao, B., Wang, Y., Han, W., &amp; Xue, S. (2024). Research on force/position switching control of servo actuator for hydraulically driven joint robot. <i>Transactions of the Institute of Measurement and Control</i>, 01423312241227096. IF:1.9/2024, punctaj: 2.9.</p>	
4.	<p><i>Articolul citat:</i></p> <p>Vladareanu, L., <b>Ionel-Alexandru Gal</b>, Yu, H., &amp; Deng, M. (2015). Robot control intelligent interfaces using the DSMT and the neutrosophic logic. <i>International Journal of Advanced Mechatronic Systems</i>, 6(2-3), 128-135, ISSN: 17568412, DOI: 10.1504/IJAMECHS.2015.070710 (BDI SCOPUS).</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Can, M. S., &amp; Ozguven, O. F. (2018). Fuzzy PID Control by Grouping of Membership Functions of Fuzzy Antecedent Variables with Neutrosophic Set Approach and 3-D Position Tracking Control of a Robot Manipulator. <i>Journal of Electrical Engineering &amp; Technology</i>, 13(2), 969-980, WOS:000428478300049 , (IF1.6/2024) IF:1.6/2024, punctaj: 2.6.</li></ol>	2,6
5.	<p><i>Articolul citat:</i></p> <p>Pop, N., Vladareanu, L., Popescu, I. N., Ghiță, C., <b>Gal Ionel-Alexandru</b>, Cang, S., ... &amp; Deng, M. (2014). „A numerical dynamic behaviour model for 3D contact problems with friction”. <i>Computational Materials Science</i>, 94, 285-291. WOS:000342360000034. (IF/2016: 2,292)</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Papacharalampopoulos, A., P. Aivaliotis, and S. Makris. "Simulating robotic manipulation of cabling and interaction with surroundings." <i>The International Journal of Advanced Manufacturing Technology</i> (2018): 1-11. WOS:000430539100057. (IF/2017: 2,601) IF:3.1/2024, punctaj: 4.1.</li><li>2. Cao, Junying, et al. "A mixed Legendre-Galerkin spectral method for the buckling problem of simply supported</li></ol>	26,5



	<p>Kirchhoff plates." <i>Boundary Value Problems</i> 2017.1 (2017): 34. WOS:000397146100004 (IF/2017: 1,156) IF:1.7/2024, punctaj: 2.7.</p> <p>3. Du, Guanglong, Yongda Deng, Wing WY Ng, and Di Li. "An Intelligent Interaction Framework for Teleoperation Based on Human-Machine Cooperation." <i>IEEE Transactions on Human-Machine Systems</i> (2022), WOS:000826392700001. IF:4.4/2024, punctaj: 5.4.</p> <p>4. Iliescu, Mihaiela. "Multi-axes mechatronic system for printing ultrathin layers of perovskite solar cells." <i>Software, Knowledge, Information Management &amp; Applications (SKIMA)</i>, 2016 10th International Conference on. IEEE, 2016. WOS:000403599100052. IF:0/2024, punctaj: 1.</p> <p>5. Ji, Jing, Lingjie He, Liangqin Jiang, Yunfeng Zhang, Yingchun Liu, Yunhao Li, and Zhanbin Zhang. "Numerical study on the axial compression behavior of composite columns with steel tube SHCC flanges and honeycombed steel web." <i>Engineering Structures</i> 283 (2023): 115883. IF:6.4/2024, punctaj: 7.4.</p> <p>6. Sahai, Rajan, Ravindra Singh Bisht, Siddharth Singh, and Soraj Kumar Panigrahi. "Design analysis and development of a gantry robot for multi-layer 3-D concrete printing with simulation and experimental validation." <i>Mechanics Based Design of Structures and Machines</i> 53, no. 2 (2025): 1001-1030. WOS:001270355300001 IF:2.9/2024, punctaj: 3.9.</p> <p>7. Li, Ximei, Guang Jin, and Mingcong Deng. "SMA Actuator-Based Nonlinear Fault Tolerant Control for A Flexible Arm with Active Compensating Unit." In 2023 62nd Annual Conference of the Society of Instrument and Control Engineers (SICE), pp. 1313-1318. IEEE, 2023. WOS:001138250800111 IF:0/2024, punctaj: 1.</p> <p>8. Boscoianu, M., Cioaca, C., Vladareanu, V., &amp; Boscoianu, C. E. (2015). „An Active Support Instrument for Innovation in Deep Uncertainty” the Strategic Management Ingredients in Robotics and Mechatronics. <i>Procedia Computer Science</i>, 65, 210-217. WOS:000373831000024. IF:0/2024, punctaj: 1.</p>	
6.	<p><i>Articolul citat:</i> Liu, J., Wang, H., Yu, H., Zhang, L., Vladareanu, L., Bruja, A., &amp; <b>Ionel-Alexandru Gal</b>, "Design of a new solution for the wheeled hopping robot". In <i>Control (CONTROL)</i>, 2014 UKACC International Conference on (pp. 720-724). (Iulie 2014). IEEE, WOS:000352626000123. <i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Giardina, F., &amp; Iida, F. (2016, June). Simulation of forward hopping dynamics in robots and animals using a template with a circular foot and impulsive actuation. In <i>Biomedical Robotics and Biomechatronics (BioRob)</i>, 2016</li></ol>	1



		6th IEEE International Conference on (pp. 7-12). IEEE, WOS:000392266900002. IF:0/2024, punctaj: 1.	
7.	<i>Articolul citat:</i> <b>Ionel-Alexandru Gal</b> , Luige Vladareanu, „Sliding Mode Control with Bond Graph Modeling Applied on a Robot Leg”, Proceedings of the 2014 International Conference on Circuits, Systems and Control (CSC 2014), Interlaken, Switzerland February 22-24, 2014, pg. 40-45, ISBN: 978-1-61804-216-3. <i>Citări:</i> 1. Gola, B., Kopec, J., Rysiński, J., & Zawislak, S. (2017). Bond Graph Model of a Robot Leg. In Graph-Based Modelling in Engineering (pp. 69-80). Springer, Cham. DOI: 10.1007/978-3-319-39020-8, ISBN:978-3-319-39020-8; 978-3-319-39018-5, ISSN: 2211-0984, WOS:000411238300006. IF:0/, punctaj: 1.	1	
8.	<i>Articolul citat:</i> Melinte, O., Vladareanu, L., & <b>Ionel-Alexandru Gal</b> (2019). NAO robot fuzzy obstacle avoidance in virtual environment. Periodicals of Engineering and Natural Sciences, 7(1), 318-323. <i>Citări:</i> 1. Suquilanda-Cuesta, Paola, et al. "Motor Rehabilitation of Children with Multiple Disabilities: a Methodological Proposal Based on Robotic Assistants, Simulation and Uncertain Reasoning." 2021 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (ElConRus). IEEE, 2021 IF:0/2024, punctaj:1.	1	
9.	<i>Articolul citat:</i> <b>Ionel-Alexandru Gal</b> , Vladareanu Luige, Munteanu, R. I., Ciocirlan, A., & Travediu, A. M. "Smart wireless sensors routing protocol development aimed for smart wireless robot networks". Acta Electroteh, 61, 1-7 (2020). <i>Citări:</i> 1. Singh, Kiran Jot, Anand Nayyar, Divneet Singh Kapoor, Nitin Mittal, Shubham Mahajan, Amit Kant Pandit, and Mehedi Masud. "Adaptive Flower Pollination Algorithm-based Energy Efficient Routing Protocol for Multi-robot Systems." IEEE Access (2021) IF:3.6/2024. IF:3.6/2024, punctaj: 4.6.	4,6	
10.	<i>Articolul citat:</i> <b>Ionel-Alexandru Gal</b> , Luige Vladareanu, Radu I. Munteanu. "Sliding motion control with bond graph modeling applied on a robot leg." Rev. Roum. Sci. Techn.-Électrotechn. et Énerg 60.2 (2015): 215-224. WOS:000355067400011. <i>Citări:</i> 1. El Mesbahi, Myriam, Ahmed Tgarguifa, And Hanaa Hachimi. "Robots Morphologies And Communication Strategies Trade-Off In A Dynamic Multi-Robot	2,1	



	<p>Collaborative Environment." Revue Roumaine Des Sciences Techniques—Série Électrotechnique Et Énergétique 67, No. 2 (2022): 193-198, WOS:000850185600018. IF:1.1/2024 IF:1.1/2024, punctaj: 2.1.</p>	
11.	<p><i>Articolul citat:</i> Vlădăreanu, Luige, <b>Ionel-Alexandru Gal</b>, Octavian D. Melinte, Victor Vlădăreanu, Mihaela Iliescu, Adrian Bruja, Yongfei Feng, and Alexandra Ciocirlan. "Robot Digital Twin towards Industry 4.0." IFAC-PapersOnLine 53, no. 2 (2020): 10867-10872.</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Nasirahmadi, Abozar, and Oliver Hensel. "Toward the Next Generation of Digitalization in Agriculture Based on Digital Twin Paradigm." Sensors 22, no. 2 (2022): 498, WOS:000747362800001. IF:3.5/2024, punctaj: 4.5.</li><li>2. Atalay, Manolya. "An Overview of Digital Twin Applications on Smart Agriculture." In 2023 International Balkan Conference on Communications and Networking (BalkanCom), pp. 1-5. IEEE, 2023. IF:0/2024, punctaj: 1.</li><li>3. Nikolakis, Nikolaos, George Siaterlis, Xanthi Bampoula, Ilias Papadopoulos, Thodoris Tsoukaladelis, and Kosmas Alexopoulos. "A digital twin-enabled cyber-physical system approach for mixed packaging." In SPS2022, pp. 485-496. IOS Press, 2022. WOS:001191233200041 IF:0/2024, punctaj: 1.</li><li>4. Restrepo-Carmona, Jaime Alonso, Elkin A. Taborda, Esteban Paniagua-García, Carlos A. Escobar, Julián Sierra-Pérez, and Rafael E. Vásquez. "On the Integration of Complex Systems Engineering and Industry 4.0 Technologies for the Conceptual Design of Robotic Systems." Machines 12, no. 9 (2024): 625. WOS:001322876400001 IF:2.5/2024, punctaj: 3.5.</li></ol>	10
12.	<p><i>Articolul citat:</i> Vladareanu, Luige, Victor Vladareanu, <b>Ionel-Alexandru Gal</b>, Octavian D. Melinte, Marius Pandelea, Mihai Radulescu, and Alexandra-Catalina Ciocirlan. "Digital Twin in 5G Digital era developed through cyber physical systems." IFAC-PapersOnLine 53, no. 2 (2020): 10885-10890.</p> <p><i>Citări:</i></p> <ol style="list-style-type: none"><li>1. Cheng, Jiangfeng, Yi Yang, Xiaofu Zou, and Ying Zuo. "5G in manufacturing: a literature review and future research." The International Journal of Advanced Manufacturing Technology (2022): 1-23, WOS:000767011600003. IF:3.1/2024, punctaj: 4.1.</li><li>2. Venancio Teixeira, Jônatas, Marcelo da Silva Hounsell, and Douglas Wildgrube Bertol. "How CPS and Autonomous Robots are Integrated to other I4. 0</li></ol>	12,7



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<b>TOTAL A3.3</b>		<b>103,8</b>	

Candidat: GAL Ionel-Alexandru

Data: 25. 07. 2025

Semnătura: