

Lista lucrărilor științifice ale resursei umane de la TSTC - Abraham Izabella

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2023	Abraham, I.; Miculescu, R.	Generalized iterated function systems on b-metric spaces	Mathematics	2227-7390 (print, online)
2024	Abraham, I.; Miculescu, R.; Mihail, A.	Relational generalized iterated function systems	Chaos, Solitons & Fractals	0960-0779 (print) 1873-2887 (online)
2024	Abraham, I.	The invariant measure for a countable generalized iterated function system	Mediterranean Journal of Mathematics	1660-5446 (print) 1660-5454 (online)
2026	Abraham, I.	The invariant measure for an at most countable topological generalized iterated function system	Journal of Mathematical Analysis and Applications	0022-247X (print) 1096-0813 (online)
2026	Abraham, I.; Miculescu, R.; Mihail, A.	t-relational generalized iterated function systems	Chaos, Solitons & Fractals	0960-0779 (print) 1873-2887 (online)

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC Aciu Lia și Ursachi Corneliu

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2016	Aciu L.E., Cazan A.M., Ogrutan P.L	A comparison between two didactical approaches on shielding problems in an electromagnetic compatibility course – Analytical method versus simulation method,	International Journal of Electrical Engineering Education, , vol. 53(2), 2016, p.181-191.	0020-7209
2016	Ogrutan P., Aciu, L.E., Sandu F., Gerigan C	Student Active Participation in the Study of the Light Bulbs	TEM Journal Vol.5, No.4, 2016, p. 424-434.	2217-8309
2017	Ogrutan P., Aciu L.E	Laboratory Works Designed for Developing Student Motivation in Computer Architecture,	TEM Journal Vol.6, No.1, 2017, p. 3-10.	2217-8309
2017	Ogrutan P.L. Cazan A.M., Aciu L.E	Difficulties of Evolution from Imitation to Creativity in Engineering Education,	International Journal of Engineering Education Vol. 33, No. 6(A),2017, p. 1–9.	0020-7209
2018	Aciu, L. E., Ogrutan, P., Calin, M. D., Popanton, M	EMC Pre-Compliance Tests and Educational Aspects	TEM Journal, Vol.: 7 No: 2 ,2018, p 421-427	2217-8309
2018	Machidon O, Stanca C., Ogrutan P., Gerigan C., Aciu: L,E	Power-system protection device with IoT-based support for integration in smart environments	Plos One, Vol. 13 No.12, 2018.	1932-6203
2018	Stanca A. C., Ordace A., Ogrutan P., Aciu L. E	Test Bench for Functionality and Reliability of Power Protection Devices	TEM Journal, Vol.: 7 No: 3, 2018, p. 566-572	2217-8309
2020	Aciu, L.E., Ogrutan P	Aspects of Academic Performance and Ethics in the Transition to eLearning Caused by the Actual Pandemic,	TEM Journal Vol.9, No.2, 2020, p.656-661.	2217-8309
2020	Moraru A., Ursachi C., Helerea E.	A New Washable UHF RFID Tag: Design, Fabrication, and Assessment	Sensors, vol 22, issue 12	1424 - 8220
2021	Aciu, L.E., Ogrutan P	A Case Study of Thinking out of the Box in Electrical Engineering,	TEM Journal Vol.10, No.3, 2021, p.1257-1262.	2217-8309

2024	Aciu, L.E., Ghiță-Pîrnuță O-A., Ogruțan P.L	Methods Used to Increase and Promote the Academic Interest of the Electromagnetic Compatibility Course Content in the Engineers' Education	TEM Journal Vol.13, No.4, 2024, p.3250-3258.	2217-8309
2025	Aciu, L.E., Motoașca S.,D., Ghiță-Pîrnuță O-A., Ogruțan P.L	Comparative Analysis of the Balance of Hardware and Software Academic Subjects: Two Study Programs in the Field of Computer Engineering,	TEM Journal Vol.14, No.3, 2025, p. 2791-2798.	2217-8309

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2016	Ogrutan P L., Aciu L.E	Engineering Education and Creativity in a Multicultural Context. Case Study	3rd International Conference on Globalization and National identity. Studies on the strategies of Intercultural dialogue, 2016
2017	Moraru A., Helerea E., Ursachi C., Călin M.D.	RFID system with passive RFID tags for textiles	10th International Symposium on Advanced Topics in Electrical Engineering (ATEE)
2018	Moraru A., Helerea E., Ursachi	Passive RFID Tags for Textile Items – Requirements and Solutions	2019 11TH International Symposium on Fundamentals in electrical engineeringNEERING (ISFEE)
2019	Moraru A., Ursachi C., Helerea E.	Passive RFID Tags for Textile Items – Requirements and Solutions	11th International Symposium on Advanced Topics in Electrical Engineering (ATEE)
2021	Calin M.D., Helerea E., Aciu L.E.,	PV System Testing under Lightning Conditions	2021 OPTIM- ACEMP Conference
2022	Aciu L. E., Dănilă A., Leluțiu L, Constantin F	Electrical Engineering E-learning Education during COVID-19 Pandemic:: Pedagogical and Psychological Aspects	2022 International Conference and Exposition on Electrical And Power Engineering (EPE)
2023	Leluțiu L., Aciu L.E	Study and Design of a Teaching Electrical Engineering System Based on Motion Sensors Using Arduino	2023 International Conference on Electromechanical and Energy Systems (SIELMEN)
2023	Aciu L.E., Dănilă A	An Analysis of the Power Factor Compensation Within the Power Grid of an Industrial Plant by Means of Supervised Learning Methods	2023 International Conference on Electromechanical and Energy Systems (SIELMEN)

2023	Dănilă A., Aciu L. E	The Implementation of Artificial Intelligence for Real-Time Estimation of an Induction Machine's Flux Model Parameters from Acquired Data	17th International Conference on Engineering of Modern Electric Systems, (EMES), 2023
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CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Training the students for Promoting and Implementing Energy Efficiency in Industry	Leonardo		
2	Manifestari științifice International OPTIM Conference 2014	MEN		
3	COMPLETE-New Strategies of Competences Aquisition for Lifelong Learning in Energy-Transport-Environment Engineering	Tempus		
4	Ameliorarea proprietatilor materialelor si componentelor care intervin in compatibilitatea electromagnetic	CNCSIS		
5	Studiul proprietă ilor de ecranare a materialelor ob inute prin nanotehnologii și nanoprocese în vederea integrării lor în sistemele electrice și electronice pentru îmbunătă irea calită ii mediului	CNCSIS		
6	Materiale magnetice cu performante superioare utilizate în constructia masinilor electrice	CEEX		
7	Monitorizarea și îmbunătă irea unor indici de performanta ai re elelor de distribu ie de joasă tensiune	Contract cu terți		

Brevete de invenții :

Dispozitiv electronic și metodă pentru detectarea arcului electric și decuplarea sarcinii, cerere de brevet OSIM A/00378/29.05.2018

Radio Frequency Identification transponder for aggressive environments , WO 2018/124906 A1

RFID tag for harsh environment inductively coupled in double loop, PCT/RO2017/000023, recunoscut de OSIM și în perioada de evaluare la WIPO

Lista lucrărilor științifice ale resursei umane de la TSTc– ALEXANDRU Marian

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2023	F. Radu, P. Cotfas, M. Alexandru , V. Popescu, T. Balan, D. Cotfas	Signals Intelligence System with Software-Defined Radio	Applied Sciences, 13(8), 5199	2076-3417
2020	C. Gavrilă, V. Popescu, M. Alexandru , M. Murroni, C. Sacchi	An SDR-Based Satellite Gateway for Internet of Remote Things (IoRT) Applications	IEEE Access	2169-3536

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	N. Amarie, G. Fadda, M. Murroni, M. Alexandru , V. Popescu, D. Giusto, A. L. Dumbravă	Immersive Application for Real-Time Interactive Music Performances Using Spatial Audio	2025 IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)
2025	N. Amarie, G. Fadda, M. Murroni, M. Alexandru , V. Popescu	An Architecture for Rel-Time Interactive Music Performances	23rd Mediterranean Communication and Computer Networking Conference (MedComNet)
2025	F.Radu, P.A. Cotfas, E. Tuyishime, D.T. Cotfas, A. Constantin, M. Alexandru , V. Popescu	Secure Testing and Simulation System Based on Raspberry Pi	2025 IEEE 31st International Symposium for Design and Technology in Electronic Packaging (SIITME), Vol. 00, 98-102 - October 2025, https://doi.org/10.1109/siitme67657.2025.11293695
2024	B.Y.L. Avila, C.A.G. Vazquez, O.P. Baluja, M. Alexandru , D.T. Cotfas, P.A. Cotfas	Protothread and Cooperative Multitasking Scheduler on The Arduino Framework	International Conference on Applied and Theoretical Electricity
2024	R.S. Neculai, I.C. Bogdan, M. Alexandru , D.N. Robu	Access Management in IoT: Implementing a Secure Access Control System	15th International Conference on Communications (COMM)

2022	N.V.Rusu, S. Dumitrache, M. Alexandru	Software Defined Communications Platform	14th International Conference on Communications (COMM)
2021	A. Călin, M. Alexandru, D. Nicula	Experiment-supported mobile application for monitoring human activities using neural networks	International Conference on Interactive Mobile Communication, Technologies and Learning – IMCL
2019	C. Gavrilă, M. Alexandru , V. Popescu, C. Sacchi, D. Giusto	Satellite SDR Gateway for M2M and IoT Applications	2019 IEEE Aerospace Conference, Big Sky, Montana, USA
2019	V. Popescu, C. Gavrilă, M. Fadda and M. Alexandru	Unifying the Smart Home Experience Through HbbTV-enabled Devices	14th International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB 2019), Jeju, South Korea
2018	C. Gavrilă, C. Kertesz, M. Alexandru , V. Popescu	Reconfigurable IoT Gateway Based on a SDR Platform	2018 International Conference on Communications (COMM), Bucharest
2018	C. Gavrilă, C. Kertesz, M. Alexandru , V. Popescu	SDR-based Gateway for IoT and M2M Applications	2018 Baltic URSI Symposium, Poznan, Poland
2017	M. Fadda, M. Nitti, V. Pilloni, L. Atzori, D. Giusto, V. Popescu, M. Alexandru	Distributed Spectrum Sensing for Indoor Broadcasting Services Using an IoT Platform	IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB), Cagliari, Italy;

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Hybrid Extended reAliTy (HEAT)	2024-2027		3 lucrări la conferințe indexate ISI
2	Contract STAR ROSA 147/2017 "STARGATE – MIPS - Gateway terestru pentru aplicații M2M și IoT bazat pe o platformă SDR"	2017-2019		4 lucrări la conferințe indexate ISI, un articol în revistă ISI (IEEE Access)

3	Contract POSDRU 159/1.5/S/137070 „Creșterea atractivității și performanței programelor de formare doctorală și postdoctorală pentru cercetători în științe ingineresti – ATTRACTING”	2013-2016		Cursuri de specialitate în format electronic pentru doctoranzii din mai multe centre universitare (coautor)
4	Contract POSDRU /87/1.3/S/60891 DidaTec, „Școală universitară de formare inițială și continuă a personalului didactic și a trainerilor din domeniul specializărilor tehnice și ingineresti”	2010-2013		2 cărți și capitole de cărți privind pregătirea cadrelor didactice pentru utilizarea platformelor online (coautor)
5	Contract POSDRU /86/1.2/S/54956 eSTART „Program multi-regional de studii masterale în domeniul eActivității”	2010-2013		2 cărți în domeniul securității informatice și rețelelor de calculatoare (coautor)

Brevete de invenții :

1. „Detector de oxigen”, Hotărârea de acordare a OSIM nr. 6/133 din 30.10.2009, brevet nr. 122978, coautor;
2. „Metodă și aparat pentru măsurarea concentrației de radon în aer și transmiterea datelor la distanță – Detector de radon”, Hotărârea de acordare a OSIM nr. 6/80 din 30.07.2012, brevet nr. 125125, coautor;
3. „Detector electrometric de oxigen”, Hotărârea de acordare a OSIM nr. 6/146 din 29.11.2013, brevet nr. 123599, coautor.

Lista lucrărilor științifice ale resursei umane de la TSTc – Balan Titus

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	R Acheampong, TC Balan, DM Popovici, E Tuyishime, A Rekeraho, et al	Balancing usability, user experience, security and privacy in XR systems: A multidimensional approach	International Journal of Information Security	1930-1650
2025	R Acheampong, DM Popovici, TC Balan, A Rekeraho, IA Oprea	A Cybersecurity Risk Assessment for Enhanced Security in Virtual Reality	Information	2078-2489
2025	A Rekeraho, DT Cotfas, TC Balan, PA Cotfas, R Acheampong, et al	Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability	Sustainability	2071-1050
2025	R Acheampong, DM Popovici, T Balan, A Rekeraho, MS Ramos	Enhancing Security and Authenticity in Immersive Environments	Information	2078-2489
2024	A Rekeraho, DT Cotfas, PA Cotfas, E Tuyishime, TC Balan, et al.	Enhancing security for IoT-based smart renewable energy remote monitoring systems Electronics 13 (4), 756	Sensors	1424-8220
2024	A Rekeraho, DT Cotfas, PA Cotfas, TC Bălan, E Tuyishime, et al	Cybersecurity challenges in IoT-based smart renewable energy International Journal of Information Security 23 (1), 101-117	International Journal of Information Security	1930-1650
2023	E Tuyishime, TC Balan, PA Cotfas, DT Cotfas, A Rekeraho	Enhancing cloud security—proactive threat monitoring and detection using a siem-based approach	Applied Sciences	2076-3417
2023	LF Ilca, OP Lucian, TC Balan	Enhancing cyber-resilience for small and medium-sized organizations with prescriptive malware analysis, detection and response	Sensors	1424-8220
2023	F Radu, PA Cotfas, M Alexandru, TC Bălan, V Popescu, DT Cotfas	Signals Intelligence System with Software-Defined Radio	Applied Sciences	2076-3417
2023	D Ungureanu, SA Toma, ID Filip, BC Mocanu, I Aciobăniței, TC	ODIN112–AI-Assisted Emergency Services in Romania	Applied Sciences	2076-3417

	Bălan			
2022	BC Mocanu, ID Filip, RD Ungureanu, C Negru, M Dascalu, SA Toma, TC Bălan	Odin ivr-interactive solution for emergency calls handling	Applied Sciences	2076-3417
2022	V Machaka, T Balan	Investigating proactive digital forensics leveraging adversary emulation	Applied Sciences	2076-3417
2020	V Fernoaga, V Sandu, T Balan	Artificial intelligence for the prediction of exhaust back pressure effect on the performance of diesel engines	Applied Sciences	2076-3417
2020	T Balan, C Dumitru, G Dudnik, E Alessi, S Leseq, M Correvon, et al	Smart multi-sensor platform for analytics and social decision support in agriculture	Sensors	1424-8220
2019	T Balan, A Balan, F Sandu	SDR implementation of a D2D security cryptographic mechanism	IEEE Access	2169-3536
2019	A Sârbu, A Bechet, T Bălan, D Robu, P Bechet, S Miclăuș	Using CCDF statistics for characterizing the radiated power dynamics in the near field of a mobile phone operating in 3G+ and 4G+ communication standards	Measurement	0263-2241

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	C Peter, VI Dinu, T Balan, A Chis	AI-Based Behavior Analytics for Centralized SIEM with Edge Processing	2025 24th RoEduNet Conference: Networking in Education and Research
2025	IV Dinu, GM Danciu, RC Vintilă, TC Bălan	Disrupting Large Language Models with Hidden Prompt Injection Attacks Embedded in HTML Pages	2025 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2025 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)
2025	A Constantin, A Chis, F Radu, RN Solca, TC Balan	Assessment of Multi-Model Approach for Drone Security	202524th RoEduNet Conference: Networking in Education and Research (RoEduNet)

2024	A Chiș, TC Bălan, PA Cotfas, DT Cotfas	Deployment of a security solution for cloud	2024 15th International Conference on Communications (COMM), 1-6
2024	MS Leaua, A Chiș, TC Bălan, LF Ilca	Assesment of Cloud Security Posture Management Scenarios	2024 23rd RoEduNet Conference: Networking in Education and Research
2023	R Acheampong, TC Balan, DM Popovici, A Rekeraho	Embracing XR system without compromising on security and privacy	International Conference on Extended Reality, 104-120
2022	A Rekeraho, T Balan, DT Cotfas, PA Cotfas, R Acheampong, C Musuroi	Sandbox integrated gateway for the discovery of cybersecurity vulnerabilities	2022 International Symposium on Electronics and Telecommunications (ISETC), 1-4
2022	R Acheampong, TC Bălan, DM Popovici, A Rekeraho	Security scenarios automation and deployment in virtual environment using ansible	2022 14th International Conference on Communications (COMM), 1-7
2021	FL Ilca, T Balan	Phishing as a Service Campaign using IDN Homograph Attack	2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM)
2021	IC Parvan, G Danciu, T Balan	Noise pollution monitoring using mobile crowd sensing and SAP analytics	2021 16th International Conference on Engineering of Modern Electric Systems
2021	LF Ilca, T Balan	Windows Communication Foundation Penetration Testing Methodology	2021 16th International Conference on Engineering of Modern Electric Systems
2021	LF Ilca, T Balan	Purple team security assessment of firmware vulnerabilities	2021 International Conference on Remote Engineering and Virtual Instrumentation
2021	A Nica, A Balan, C Zaharia, T Balan	Automated Testing of GUI Based Communication Elements	2021 International Conference on Remote Engineering and Virtual Instrumentation
2021	D Anghel, TC Balan	Automation of IoT Based Services Using Digital Twin	2021 International Conference on Remote Engineering and Virtual Instrumentation
2020	IL Florin, T Bălan	Vulnerability remediation in ICS infrastructure based on source code analysis	2020 19th RoEduNet Conference: Networking in Education and Research

2020	S Lesecq, M Gougis, E Gouze, A Di Matteo, E Alessi, V Di Palma, T Balan	SARMENTI: in-situ real-time soil nutrients and gaseous emission measurement	2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE)
2020	AG Timofte, R Florin, A Balan, TC Balan	SDR-Based Platform for Processing the Images Transmitted Through the WLAN 802.11 a Protocol	2020 13th International Conference on Communications (COMM), 387-392
2019	T Bălan, D Robu, F Sandu, A Bălan		Interactive Mobile Communication, Technologies and Learning, 1024-1032
2019	D Robu, R Curpen, D Ilie, T Balan	Building a Virtualized Cybersecurity Lab: Using Industry Support, Academic Programs and Open Source Solution for Setting-Up a Virtualized Cybersecurity Lab Open Source Online Conference System for Industry Experts Participation in Education	Interactive Mobile Communication, Technologies and Learning, 36-44
2019	GA Stelea, M Murrioni, V Popescu, T Balan, V Fernoaga	Enhanced resource management for Web based thin clients using cross-platform progressive offline capabilities	International Conference on Cognitive Radio Oriented Wireless Networks, 361-372
2019	Suzanne Lesecq, A Molnos, M Gougis, E Gouze, M Correvon, G Dudnik, A Di Matteo, V Di Palma, E Alessi, Alan O'Riordan, Cian O'Murchu, Pierre Lovera, G Ponsardin, E Lapierre, K Daly, TC Balan, C Dimitru, G Mailat	SARMENTI: Smart multisensor embedded and secure system for soil nutrient and gaseous emission monitoring	Smart Systems Integration; 13th International Conference and Exhibition on Integration Issues of Miniaturized Systems
2018	R Curpen, T Bălan, IA Micloș, I Comănici	Assessment of signal jamming efficiency against LTE UAVs	2018 International Conference on Communications (COMM), 367-370
2018	A Stanciu, T Balan, F Sandu, C Gerigan	Reconfigurable platform for embedded systems teaching	2017 IEEE 23rd International Symposium for Design and Technology in Electronic Packaging (SIITME)
2017	D Robu, T Balan, A Stanciu, F Sandu	SDR-assisted device-to-device communication in radio-congested environments 2017 IEEE International Symposium on Broadband Multimedia Systems and	2017 IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)

2017	A Stanciu, TC Balan, C Gerigan, S Zamfir	Securing the IoT gateway based on the hardware implementation of a multi pattern search algorithm	2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP)
2017	T Balan, D Robu, F Sandu	Multihoming for mobile internet of multimedia things	Mobile Information Systems 2017 (1), 6965028
2016	S Zamfir, T Balan, I Iliescu, F Sandu	A security analysis on standard IoT protocols	2016 international conference on applied and theoretical electricity (ICATE)
2016	T Balan, S Zamfir, D Robu, F Sandu	Contributions to content-based software defined networks	2016 International Conference on Communications (COMM), 159-162
2016	S Zamfir, T Balan, F Sandu, C Costache	Solutions for deep packet inspection in industrial communications	2016 International Conference on Communications (COMM), 153-158
2015	TC Bălan, DN Robu, F Sandu	Ad-hoc lab computer network configuration using remote resources	2015 IEEE 21st International Symposium for Design and Technology in Electronic Packaging (SIITME)
2015	F Sandu, C Costache, T Balan	Semantic data aggregation in heterogeneous learning environments	2015 IEEE 21st International Symposium for Design and Technology in Electronic Packaging (SIITME)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**

1	Sistem de detectie și protecție tip IDS/IPS a infrastructurilor critice de comunicații cu capacități de alertă și blocare timpurie a atacurilor de tip DDoS	UEFISCDI PNIII Soluții 26Sol(T26)		
2	Google Cybersecurity Seminars	Contract 2024-348639		Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability
3	ODIN 112	UEFISCDI PNIII Soluții - Contract 375OL/2021		Odin ivr-interactive solution for emergency calls handling ODIN112–AI-Assisted Emergency Services in Romania
4	Smart multisensor embedded and secure system for soil nutrient and gaseous emission monitoring	Horizon 2020 SARMENTI		SARMENTI: Smart multisensor embedded and secure system for soil nutrient and gaseous emission monitoring
5	Implementation of a Voice Over IP Capability for NATO Wide Secure Voice Services: VOSIP	NATO Communication and Information Agency – NCIA, număr contract RFQ-C0-14137-VOSIP,		
6	EGSE for Small Sat - A Baseline Verification and Validation	ESA - Agenția Spațială Europeană, Apel: Romanian Incentive Scheme – Activity Type b		Activități de cercetare-dezvoltare
7	- Minigrant pentru dezvoltarea programelor orientate spre securitate cibernetică	Proiect Comisia Fulbright CS07		

Lista lucrărilor științifice ale resursei umane de la TSTc – Bogdan Corina Ioana

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2024	I.C. Bogdan, E. Simion	Cybersecurity, assessment and certification of critical infrastructures	Polytechnic University of Bucharest, Scientific Bulletin, Series C, Vol. 86, Iss. 4, WOS:001380943300011, Q4	2286-3546
2024	I.C. Bogdan, G. Abba	Friction modelling and parameter estimation for heavy-duty robots	Transactions of the Institute of Measurement and Control, DOI: 10.1177/01423312241286930, WOSUID: WOS:001368515700001, Q2	
2023	I.C. Bogdan, E. Simion	Improving Facial expressions using Games Theory: Application to Hanson Android	Polytechnic University of Bucharest, Scientific Bulletin, Series C, Vol. 85, Iss. 1, WOSUID: WOS:000983211300010, Q4	2286-3540
2023	I.C. Bogdan, T. Tarumi, D. Popa	A study of mathematical models used in the cerebral hemodynamics circulation	Polytechnic University of Bucharest, Scientific Bulletin, Series C, Vol. 85, Iss. 3, WOSUID: WOS:001052259100009, Q4	2286-3540
2022	J. He, Y. Xiao, I.C. Bogdan, S. Nazarian, P. Bogdan	Design Methodology for Energy Efficient Unmanned Aerial Vehicles	Transactions on Design Automation of Electronic Systems, Vol. 27, Issue 1, no. 4, pages 1-20, DOI: 10.1145/3470451, WOSUID: WOS:000931754800004, Q3	
2026	H.A. Modran, I.C. Bogdan, P.L.	Enhancing Higher Education with	The 22nd International Conference on	DOI: 978-3-032-

	Modran	Multimodal Intelligent Tutoring - A RAG-Based Approach to LLM Integration	Smart Technologies & Education (STE 2025), Vol. 2, Chile	07319-8
2026	Ursutiu, C., Samoila C., Gherman-Dolhăscu, C. Bogdan, H. Modran	Build and Test one IoT Monitoring System for Students Training	The 22nd International Conference on Smart Technologies & Education (STE 2025), Vol. 2, Chile	DOI: 978-3-032-07319-8
2026	A.S. Gârbacea, H.A. Modran, I.C. Bogdan	Machine learning and data mining techniques for detecting fraudulent job postings	The 22nd International Conference on Smart Technologies & Education (STE 2025), Vol. 2, Chile	DOI: 978-3-032-07319-8
2026	G.M. Gheorghiu, S.M. Bibic, I.C. Bogdan	Augmented Reality and AI Integration in Truth Detection Apps	The 22nd International Conference on Smart Technologies & Education (STE 2025), Vol. 2, Chile	DOI: 978-3-032-07319-8
2026	A.S. Negrea, A.N. Marin, H. Oprea, I.C. Bogdan, H.A. Modran	Emotion Recognition and Identity Protection System with AI-Driven Spoofing Prevention	The 22nd International Conference on Smart Technologies & Education (STE 2025), Vol. 2, Chile	DOI: 978-3-032-07319-8
2025	I.C. Bogdan, H. A. Modran, S.M. Bibic, E. Simion	The Future of Social Robots in Education, Healthcare and Engineering	2024 Int. Conf. on Interactive Computer Aided Learning, WOSUID: WOS:001485246400053, Estonia	DOI: 10.1007/978-3-031-83520-9_53
2025	H. Modran, I.C. Bogdan, D. Ursutiu, C. Samoila	LLM Intelligent Chatbot Tutoring using a RAG Approach for Higher Education Courses	2024 Int Conf on Interactive Computer Aided Learning, WOSUID: WOS:001485246400054, Estonia	DOI: 10.1007/978-3-031-83520-9_54
2025	D.T. Ionita, I.C. Bogdan, H. Modran, A. Dinu	Education and Mental Health through AI Virtual Assistants	2024 International Conference on Interactive Computer Aided Learning, WOSUID: WOS:001485246400055, Estonia	DOI: 10.1007/978-3-031-83520-9_55
2025	Badea, A. Costea, A. Halmaghi, A. Hancu, I. C. Bogdan, H. A Modran	Integrating AI and UAV/Drones Technologies for Enhanced and/or Workplace Safety	2024 International Conference on Interactive Computer Aided Learning, WOSUID: WOS:001485246400052, Estonia	DOI: 10.1007/978-3-031-83520-9_52
2025	Ursutiu, C. Samoila, H. A.	PAST and PRESENT - LabVIEW in	2024 International Conference on	DOI:

	Modran, I.C. Bogdan, I. Dumitru	Knowledge and Education	Interactive Computer Aided Learning, WOSUID: WOS:001485246400057, Estonia	10.1007/978-3-031-83520-9_57
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CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	Z. Wang, I. C. Bogdan, C. Liu, S. Nazarian and P. Bogdan	IoT-Enabled Smartwatches for Secure Examinations and Healthcare Assessments	2025 IEEE 21st International Conference on Automation Science and Engineering (CASE), Los Angeles, CA, USA, 2025, pp. 1056-1061, doi: 10.1109/CASE58245.2025.11164074
2025	R. Acheampong, V.B. Floricescu, I.A. Oprea, A. Rekeraho, V.G. Anghel, G. Danciu, I.C. Bogdan, G.S. Ionescu	Scalable Secure Platform for XR	IEEE The 6th Conf. in Electronic Engineering and Information Technology, 2025, https://doi.org/10.5281/zenodo.15753904
2024	R. -S. Neculai, I. -C. Bogdan, M. Alexandru and D. -N. Robu	Access Management in IoT: Implementing a Secure Access Control System	2024 15th Int. Conf. on Communications (COMM), Bucharest, Romania, 2024, pp. 1-6, doi: 10.1109/COMM62355.2024.10741422, WOSUID: INSPEC:25878082.
2023	A.S. Jecu, A.G. Demeter, I.C. Bogdan	Face-Tracking mount display for Medical and Engineering Applications	2023 The 17 International Conference on Modern Electric Systems (EMES), Oradea, Romania, DOI: 10.1109/EMES58375.2023.10171630, WOSUID: INSPEC:23422454, (INSPEC) 2023.

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării
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			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC- Cațaron Angel

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	A Băicoianu, IC Plajer, M Debu, M Ștefan, M Ivanovici, C Florea, A Cațaron, RM Coliban, Ș Popa, Ș Oprișescu, A Racovițeanu, Gh Olteanu, K Marandskiy, A Ghinea, A Kazak, L Majercsik, A Manea, L Dogar.	DACIA5: a Sentinel-1 and Sentinel-2 dataset for agricultural crop identification applications	Big Earth Data 9, no. 4, pp. 1226-1254	2096-4471
2025	Razvan Andonie, Angel Cataron, Adrian Moldovan	Transfer Entropy in Deep Neural Networks	International Journal of Computers Communications & Control, Vol. 20 No. 1	1841-9836
2021	Adrian Moldovan, Angel Cataron, Razvan Andonie	Learning in Convolutional Neural Networks Accelerated by Transfer Entropy	Entropy 23, no. 9	1099-4300
2020	Adrian Moldovan, Angel Cataron, Razvan Andonie	Learning in Feedforward Neural Networks Accelerated by Transfer Entropy	Entropy 22, no. 1	1099-4300
2018	Angel Cațaron, Razvan Andonie	Transfer Information Energy: A Quantitative Indicator of Information Transfer between Time Series	Entropy 20, no. 5: 323	1099-4300
2017	Angel Cațaron, Razvan Andonie, Yvonne Chueh	Asymptotically Unbiased Estimation of A Nonsymmetric Dependence Measure Applied to Sensor Data Analytics and Financial Time Series	International Journal of Computers, Communication & Control, vol. 12, no. 4, pp. 475-491	1841-9836

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2023	Adrian Moldovan, Angel Ca aron, Răzvan Andonie.	Information Plane Analysis Visualization in Deep Learning via Transfer Entropy	27th International Conference Information Visualisation (IV)
2022	Vlad Popescu, Cristinel Gavrilă, George Alex Stelea, Angel Cataron, Maurizio Murroni, Daniele Giusto	Blockchain-Based Recommendation and Advertisement System for the TV Ecosystem	IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)
2021	Cristian Moraru, Angel Cataron	Automated recognition of facial expressions and gender in humans implemented on mobile devices	2021 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2021 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM), September 2-3, 2021, Brasov, Romania
2017	Angel Cațaron, Razvan Andonie	Transfer Information Energy: A Quantitative Causality Indicator Between Time Series	ICANN 2017, Lecture Notes in Computer Science, vol. 10614. Springer, Cham, 2017, 512-519, ISBN 978-3-319-68611-0
2016	Yvonne Chueh, Angel Cațaron, Razvan Andonie	Mortality rate modeling of joint lives and survivor insurance contracts tested by a novel unilateral dependence measure	IEEE Symposium Series on Computational Intelligence (SSCI), December 6-9, 2016, Athens, Greece

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**

1				
2				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC – Chiș Alexandru

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlu	Conferință / Jurnal
2025	Chiș, A., Bălan, T.C., Dinu, V., Constantin, A.	Emerging Trends in Artificial Intelligence and Intelligent Systems: From Cybersecurity to Smart Societies	IEEE Access (JIF: 3.6)
2025	Ciurescu, I., Bogdan, I. C., Chis, A., Balan, T.C.	Implementation of a Smart Location System using Wi-Fi Triangulation and ESP 8266 Microcontroller	Springer Nature Conference Proceedings
2025	Peter, C., Dinu, V. I., Balan, T., Chis, A.	AI-Based Behavior Analytics for Centralized SIEM with Edge Processing	24th RoEduNet Conference
2025	Constantin, A., Chis, A., Radu, F., Solca, R. N., Balan, T. C.	Assessment of Multi-Model Approach for Drone Security	24th RoEduNet Conference
2025	Manea, R.-A., Bălan, T. C., Chiș, A., Dinu, I. V.	Secure IoT: Behavioral Analysis on a Smart Energy Meter System	31st ISDT in Electronic Packaging (SIITME)
2024	Chiș, A., Bălan, T. C., Cotfas, P. A., Cotfas, D. T.	Deployment of a security solution for cloud	15th Int. Conf. on Communications (COMM)
2024	Leaua, M. S., Chiș, A., Bălan, T.-C., Ilca, L. F.	Assessment of Cloud Security Posture Management Scenarios	23rd RoEduNet Conference

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				
2				
3				
4				

Brevete de invenții :

1. "Computer-implemented method and system for generating a command pipeline for controlling a technical device" (Aplicat în cadrul Siemens Romania, International Application Number: PCT/EP2023/064814)

Lista lucrărilor științifice ale resursei umane de la TSTc - Ciobanu Cătălin

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2018	C.B. Ciobanu , G. Gaydadjiev, C. Pilato and D. Sciuto	The Case for Polymorphic Registers in Dataflow Computing,	International Journal of Parallel Programming	08857458
2020	A. L. Machidon, O. M. Machidon, C. B. Ciobanu , and P. L. Ogrutan	Accelerating a Geometrical Approximated PCA Algorithm Using AVX2 and CUDA	Remote Sensing	20724292
2020	G. Stramondo, C.B. Ciobanu , C. de Laat, A.L. Varbanescu	Designing and Building Application-Centric Parallel Memories	Concurrency and Computation: Practice and Experience	15320626

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2019	A. Machidon, C.B. Ciobanu , O. Machidon, P. Ogrutan,	On Parallelizing Geometrical PCA Approximation	2019 18th RoEduNet Conference: Networking in Education and Research (RoEduNet)
2018	L. Stornaiuolo, M. Rabozzi, M. Santambrogio, D. Sciuto, G. Stramondo, C.B. Ciobanu and A.L. Varbanescu	HLS Support for Polymorphic Parallel Memories	26th IFIP/IEEE International Conference on Very Large Scale Integration (VLSI SoC)
2018	C. B. Ciobanu , G. Stramondo, A. L. Varbanescu, A. Brokalakis, A.	EXTRA: An Open Platform for Reconfigurable Architectures	2018 International Conference on Embedded Computer Systems: Architectures, Modeling,

	Nikitakis, L. Di Tucci, M. Rabozzi, L. Stornaiuolo, M. Santambrogio, G. Chrysos, C. Vatsolakis, C. Georgios, and D. Pnevmatikatos		and Simulation (SAMOS XVIII)
2018	C. B. Ciobanu , G. Stramondo, C. de Laat and A. L. Varbanescu	MAX-PolyMem: High-Bandwidth Polymorphic Parallel Memories for DFEs	2018 IEEE International Parallel and Distributed Processing Symposium Workshops (IPDPSW)
2017	Kulkarni, P. Bahrebar, D. Stroobandt, G. Stramondo, C. B. Ciobanu and A. L. Varbanescu	A NoC-based Custom FPGA Configuration Memory Architecture for Ultra-fast Micro-reconfiguration	2017 International Conference on Field Programmable Technology (ICFPT)
2017	D. Stroobandt, C.B. Ciobanu , M. Santambrogio, G. Figueiredo, A. Brokalakis, D. Pnevmatikatos, M. Huebner, T. Becker, A. Thom	An Open Reconfigurable Research Platform as Stepping Stone to Exascale High-performance Computing	Conference on Design, Automation & Test in Europe (DATE)
2016	D. Stroobandt, A.L. Varbanescu, C.B. Ciobanu , M. Al Kadi, A. Brokalakis, G. Charitopoulos, T. Todman, X. Niu, D. Pnevmatikatos, A. Kulkarni, E. Vansteenkiste, W. Luk, M. Santambrogio, D. Sciuto, M. Huebner, T. Becker, G. Gaydadjiev, A. Nikitakis, A. Thom	EXTRA: Towards the exploitation of eXascale technology for reconfigurable architectures	2016 11th International Symposium on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC)
2024	A. Pușcașu, C. B. Ciobanu and O. Buiu	Systolic Array Matrix Multiplication Accelerator	2024 International Semiconductor Conference (CAS),
2024	D. Vu ă-Popescu, I. C. Antofi, C. B. Ciobanu and C. Z. Kertész	SIMD Extensions - A Historical Perspective	2024 IEEE 30th International Symposium for Design and Technology in Electronic Packaging (SIITME)
2024	C.B. Ciobanu , D. Manolescu, R.	TIE Micro – Chiplets and Next-gen Packaging	2024 IEEE 30th International Symposium for

	Vladuta, L. Chitu, C. Moisa, M. Manofu, P. Svasta		Design and Technology in Electronic Packaging (SIITME)
2024	C.B. Ciobanu , H. Gâlmeanu, A. Pușcașu, M. Gologanu, O. Buiu, M. Antonescu, V.G. Serbu, V.M. Moise, C.T. Axinte, A.T. Popovici, G.I. Uleru, A. Stan, M. Munteanu, A. Drîmbărean, C. Nemeti, D. Rotar, C. Moisa, B. Ditu, P.C. Trusca, M. Antache, S. Costinescu, M.A. Sachian, G. Suciu, C. Gheorghe, C. Tudor, K. Koci,	RISC-V Accelerators, Enablement and Applications for Automotive and Smart Home in the ISOLDE Project	Int. Conf. on Embedded Computer Systems: Architectures, Modeling and Simulation (SAMOS) 2024
2023	A. Jâjâie, A. Pușcașu, I. Ailenei, C.B. Ciobanu and P. Svasta	Chiplets and Next-gen Packaging Technologies in University Education	<i>2023 IEEE 29th International Symposium for Design and Technology in Electronic Packaging (SIITME)</i>
2023	I. Ailenei, C.B. Ciobanu and D. Nicula	Innovative HDL Lessons Targeting the terasC DE10-Lite Intel FPGA Platform	<i>2023 IEEE 29th International Symposium for Design and Technology in Electronic Packaging (SIITME),</i>
2022	D. Crăciun, N. Bălăceanu, A. Chiriță, C.B. Ciobanu	Robotic Arm Control via Hand Movements	International Symposium on Electronics and Telecommunications 2022 (ISETC 2022)
2017	M. Rabozzi, R. Brondolin, G. Natale, E. Del Sozzo, M. Huebner, A. Brokalakis, C.B. Ciobanu , D. Stroobandt, M. Santambrogio	A CAD Open Platform for High Performance Reconfigurable Systems in the EXTRA Project	2017 IEEE Computer Society Annual Symposium on VLSI (ISVLSI)
2024	D. Datcu, F. Stoicescu, C.B. Ciobanu , D.M. Popovici	Snoring Analysis System for Automatic Diagnosis of Obstructive Sleep Apnea Syndrome during VR Sleep	International Conference on User-System Interaction (ICUSI 2024)
2016	G. Stramondo, A. Varbanescu,	The Case for Custom Parallel Memories: an Application-	Second International Workshop on

	C.B. Ciobanu	centric Analysis	Heterogeneous Reconfigurable Computing (H2RC)	High-performance
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CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Huygens Scholarship Programme (HSP	Grant	39158 Euro	„Customized Vector Instruction Set Architecture” (PRORISC 2007) și „Design Considerations for a Domain Specific Vector Microarchitecture (PRORISC 2007).
2	Exploiting eXascale Technology with Reconfigurable Architectures (EXTRA),	Horizon 2020	533836 Euro	Workpackage Leader la pachetul “Platforma pentru arhitecturi reconfigurabile”. Principalele publicații “The Case for Polymorphic Registers in Dataflow Computing”, International Journal of Parallel Programming 2018 și MAX-PolyMem: High-Bandwidth Polymorphic Parallel Memories for DFEs, Best paper award , IEEE International Parallel and Distributed Processing Symposium Workshops, 2018

3	High Performance, Safe, Secure, Open-Source Leveraged RISC-V Domain-Specific Ecosystems (ISOLDE).	Horizon Europe CHIPS-JU	206819 Euro	Workpackage Leader la pachetul "Acceleratoare și extensii". Principalele lucrări publicate - "Systolic Array Matrix Multiplication Accelerator," Best student paper award , International Semiconductor Conference, 2024 (CAS)"
4	Ecosisteme specializate bazate pe RISC-V, cu performanță ridicată, sigure, securizate și cu sursa deschisă (ISOLDE	Proiect național din PN-IV.	384094 Euro	"TIE Micro – Chiplets and Next-gen Packaging", Best paper award IEEE 30th International Symposium for Design and Technology in Electronic Packaging, 2024 (SIITME)

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC – Coliban Radu

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	R.M. Coliban, M. Ivanovici	NDVI time series reconstruction using morphological filtering	National Academy Science Letters	2250-1754
2025	A. Băicoianu, I.C. Plajer, M. Debu, M. Ștefan, M. Ivanovici, C. Florea, A. Cațaron, R.M. Coliban, Ș. Popa, Ș. Opreșescu, A. Racovițeanu, Gh. Olteanu, K. Marandskiy, A. Ghinea, A. Kazak, L. Majercsik, A. Manea, L. Dogar	DACIA5: a Sentinel-1 and Sentinel-2 dataset for agricultural crop identification applications	Big Earth Data	2574-5417
2024	Ș. Popa, M. Ivanovici, R.M. Coliban	Optimal implementations of 8b/10b encoders and decoders for AMD FPGAs	Electronics	2079-9292
2023	R.M. Coliban, M. Ivanovici	Quality-based band selection for hyperspectral image visualization	Remote Sensing Letters	2150-704X
2022	Ș. Opreșescu, R.M. Coliban, M. Ivanovici	Polarization-based optical characterization for color texture analysis and segmentation	Pattern Recognition Letters	0167-8655
2020	R.M. Coliban, M. Marincea, C. Hatfaludi, M. Ivanovici	Linear and non-linear models for remotely-sensed hyperspectral image visualization	Remote Sensing	2072-4292
2020	M. Ivanovici, R.M. Coliban, C. Hatfaludi, I.E. Nicolae	Color image complexity versus over-segmentation: a preliminary study on the correlation between complexity measures and number of segments	Journal of Imaging	2313-433X
2018	R.M. Coliban, M. Ivanovici	Reducing the oversegmentation induced by	Journal of Visual Communication and	1047-3203

		quasi-flat zones for multivariate images	Image Representation	
2016	R.-M. Coliban, S. Popa, T. Tulbure, D. Nicula, M. Ivanovici, S. Martoiu, L. Levinson, J. Vermeulen	The Read Out Controller for the ATLAS New Small Wheel	Journal of Instrumentation	1748-0221
2016	R.M. Coliban, M. Ivanovici, N. Richard	Improved probabilistic pseudo-morphology for noise reduction in colour images	IET Image Processing	1751-9667

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	O. Nobili, R.M. Coliban, M. Ivanovici	Hyperspectral Imaging for Reversal Film Digitization	International Symposium on Signals, Circuits and Systems (ISSCS)
2025	O. Nobili, R.M. Coliban, M. Ivanovici	Hyperspectral Imaging for Degraded Positive Film Digitization and Color Correction	International Conference on Engineering of Modern Electric Systems (EMES)
2023	M. Ivanovici, S. Opreșescu, R.M. Coliban, K. Marandskiy	Exponential features in the Fourier domain for Prisma Hyperspectral Image Segmentation	International Geoscience and Remote Sensing Symposium (IGARSS)
2023	Ș. Opreșescu, R.M. Coliban, M. Ivanovici	Hyperspectral Image Segmentation and Entropy Calculation for Qualitative Analysis of Grassland	International Symposium on Signals, Circuits and Systems (ISSCS)
2022	Ș. Opreșescu, R.M. Coliban, M. Ivanovici	Outdoor Image Segmentation based on Light Polarization Signatures	International Symposium on Electronics and Telecommunications (ISETC)
2022	Ș. Popa, R.M. Coliban, M. Ivanovici	An Optimal Implementation of an 8b/10b Encoder for Xilinx FPGAs	International Symposium on Electronics and Telecommunications (ISETC)
2022	R.M. Coliban	Fast Radix-2 Montgomery Modular Multiplication on FPGA Using Ternary Adder	International Conference on Computing, Electronics & Communications (iCCECE)
2021	R.M. Coliban	FPGA Implementation of Interleaved Modular Multiplier with Improved Area-time Efficiency	International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications

			(IDAACS)
2021	M. Ivanovici, I. Nicolae, R.M. Coliban	Umbra-based Improvement of the Probabilistic Box-Counting Fractal Dimension Estimation,	International Symposium on Signals, Circuits and Systems (ISSCS)
2021	R.M. Coliban	Extended Probabilistic Pseudo-Morphology for Real-World Image Denoising	International Symposium on Advanced Topics in Electrical Engineering
2021	M. Ivanovici, M. Marincaș, R.M. Coliban	A Vector Median Filter For Hyperspectral Images Based On Lexicographic Ordering of Estimated Auto-Correlation Functions	Workshop on Hyperspectral Imaging and Signal Processing: Evolution in Remote Sensing (WHISPERS)
2020	Ș. Popa, M. Ivanovici, R.M. Coliban	Time-multiplexed 10 Gbps Ethernet-based integrated logic analyzer for FPGAs	International Symposium on Electronics and Telecommunications (ISETC)
2020	M. Ivanovici, C. Hatfaludi, R.M. Coliban	Color fractal texture image complexity estimation using a convolutional neural network	International Symposium on Electronics and Telecommunications (ISETC)
2019	M. Ivanovici, R.M. Coliban	Spectral Signature Ranking based on Lexicographic Ordering of Autocorrelation Function Values	International Symposium on Signals, Circuits and Systems (ISSCS)
2018	S. Popa, S. Martoiu, M. Luchian, R.M. Coliban, M. Ivanovici	The Quality-Assurance Test of the ATLAS New Small Wheel Read-Out Controller ASIC	Topical Workshop on Electronics for Particle Physics (TWEPP)
2018	A. Machidon, R.M. Coliban, O. Machidon, M. Ivanovici	Maximum Distance-based PCA Approximation for Hyperspectral Image Analysis and Visualization	International Conference on Telecommunications and Signal Processing (TSP)
2016	R.M. Coliban, A. Radoi, M. Ivanovici	A color and multispectral fractal model for forest region identification in satellite images	International Conference on Communications (COMM)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**

1	<i>Experimentul ATLAS, colaborările DRD și FCC, 2024-2026</i>	PN IV/Subprogram 5.9.2/Modul CERN-RO, contract 2/2024	361.434 lei	A. Bertescu, S. Popa, R.M. Coliban, <i>Feasibility of nuclear radiation detection using the SRAMs in AMD Spartan UltraScale+ FPGAs</i> , trimis la International Conference of Microelectronics (ICM)
2	<i>Experimentul ATLAS de la LHC, 2022-2024</i>	PN III/Subprogram 5.2/Modul CERN-RO, contract 10/2022	567.641 lei	- Ș. Popa, M. Ivanovici, R.M. Coliban, <i>Optimal implementations of 8b/10b Encoders and Decoders for AMD FPGAs</i>, Electronics 13(6), 1062, 2024 - Ș. Popa, <i>The Read-Out Controller ASIC for the ATLAS Experiment at LHC</i>, Springer, 2023 - G. Feldioreanu, Ș. Popa, M. Ivanovici, <i>Convolutional Neural Network implemented on FPGA for trajectory classification</i>, ISSCS, 2023 - Ș. Popa, R.M. Coliban, M. Ivanovici, <i>An Optimal Implementation of an 8b/10b Encoder for Xilinx FPGAs</i>, International Symposium on Electronics and Telecommunications, ISETC, 2022

3	<i>Experimentul ATLAS de la LHC, 2020-2022</i>	PN III/Subprogram 5.2/Modul CERN-RO, contract 11/2020	333.184 lei	- Ș. Popa, S. Mărtoiu, M. Ivanovici, <i>The quality-control test of the digital logic for the ATLAS New Small Wheel Read-Out Controller ASIC</i>, Journal of Instrumentation, 15(04), P04023 - Ș. Popa, S. Mărtoiu, M. Ivanovici, <i>Study of the ATLAS New Small Wheel Read-Out Controller ASIC in a neutron irradiation environment</i>, Journal of Instrumentation, 15(10), P10023 - Ș. Popa, M. Ivanovici, R.M. Coliban, <i>Time-multiplexed 10Gbps Ethernet-based Integrated Logic Analyzer for FPGAs</i>, ISETC, 2020
4				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTc – Cotfas Daniel Tudor

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	BYL Ávila, CAG Vázquez, OP Baluja, DT Cotfas, PA Cotfas	Energy harvesting techniques for wireless sensor networks: A systematic literature review	Energy Strategy Reviews	2211-467X
2025	A Younis, M Louzazni, PA Cotfas, DT Cotfas	Effects of Dust Accumulation on the Performance of the Photovoltaic Panels on Buildings: A Case Study	International Journal of Energy Research	1099-114X
2025	A Younis, F Belabbes, PA Cotfas, DT Cotfas	Enhanced Electrical Characterization of Dusty Solar Modules: Integrating Outdoor Experiments With Single-and Double-Diode Models	International Journal of Energy Research	1099-114X
2025	A Rjafallah, DT Cotfas, PA Cotfas	Enhancing solar thermoelectric generator performance using metal oxide layer absorbers under concentrated solar radiation	Case Studies in Thermal Engineering	2214-157X
2025	A Rekeraho, DT Cotfas, TC Balan, PA Cotfas, R Acheampong	Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability	Sustainability	2071-1050
2025	A Younis, PA Cotfas, DT Cotfas	Incentivizing photovoltaic panel cleaning in green building standards: A policy framework	Energy for Sustainable Development	2352-4669
2025	CAG Vázquez, DT Cotfas, AIG Santos, PA Cotfas, L Ávila, VP	Optimal tuning of PID controllers focused on energy efficiency in a multivariable and	Applied Thermal Engineering	1359-4311

	Garrido	coupled system. Case study: An AHU in the biopharmaceutical industry		
2025	E Tuyishime, M Martalò, PA Cotfas, V Popescu, DT Cotfas, A Rekeraho	Resource-Efficient Traffic Classification Using Feature Selection for Message Queuing Telemetry Transport-Internet of Things Network-Based Security Attacks	Applied Sciences	2076-3417
2024	DT Cotfas, A Enesca, PA Cotfas	Enhancing the performance of the solar thermoelectric generator in unconcentrated and concentrated light	Renewable Energy	0960-1481
2024	DT Cotfas, M Madhiarasan, PA Cotfas	Extraction of the multijunction solar cell parameters using two metaheuristic algorithms	IEEE Access	2169-3536
2024	AM Deaconu, DT Cotfas, PA Cotfas	Extracting photovoltaic cells parameters for three diode model using HSDA algorithm	Energy Reports	2352-4847
2024	O AlHousrya, A Bennagi, PA Cotfas, DT Cotfas	A novel Hybrid ant colony algorithm for solving the shortest path problems with mixed fuzzy arc weights	Alexandria Engineering Journal	2090-2670
2024	CAG Vázquez, DT Cotfas, AIG Santos, PA Cotfas, L Ávila	Reduction of electricity consumption in an AHU using mathematical modelling for controller tuning	Energy	0360-5442
2024	BYL Ávila, CAG Vázquez, OP Baluja, DT Cotfas, PA Cotfas	Comprehensive electrical models for a wireless sensor network device	Heliyon	2405-8440
2024	AM Călin, DT Cotfas, PA Cotfas	A Review of Smart Photovoltaic Systems Which Are Using Remote-Control, AI, and Cybersecurity Approaches	Applied Sciences	2076-3417
2024	A Rjafallah, DT Cotfas, PA Cotfas	Investigation of temperature variations across the hot and cold sides of cascaded thermoelectric generator (CTEG) configurations in PV-CTEG hybrid systems	Case Studies in Thermal Engineering	2214-157X

2024	A Rjafallah, A Younis, DT Cotfas, PA Cotfas	Effects of temperature uniformity and nonuniformity on thermoelectric generator performance across hot and cold sides	Case Studies in Thermal Engineering	2214-157X
2024	A Younis, F Belabbes, PA Cotfas, DT Cotfas	Utilizing the Honeybees Mating-Inspired Firefly Algorithm to Extract Parameters of the Wind Speed Weibull Model	Forecasting	2571-9394
2024	A Younis, A Rjafallah, PA Cotfas, DT Cotfas	Dust impact on electrical and thermal photovoltaic performance: Insights from field and laboratory experiments	Energy Reports	2352-4847
2024	A Bennagi, O AlHousrya, DT Cotfas, PA Cotfas	Comprehensive study of the artificial intelligence applied in renewable energy	Energy Strategy Reviews	2211-467X
2024	A Younis, PA Cotfas, DT Cotfas,	Systematic indoor experimental practices for simulating and investigating dust deposition effects on photovoltaic surfaces: A review	Energy Strategy Reviews	2211-467X
2024	A Rekeraho, DT Cotfas, PA Cotfas, E Tuyishime, TC Balan, R Acheampong	Enhancing security for IoT-based smart renewable energy remote monitoring systems	Electronics	2079-9292
2024	MK Hassan, DT Cotfas, H Rezk, H Youssef, AS Shehata, AA El-Bary	Ideal Parameter Estimation of Photocatalysis Process to Boost Amoxicillin Degradation Efficiency Using Marine Predators Optimization Algorithm	International Journal of Photoenergy	1110-662X
2023	Tuyishime, E.; Balan, T.C.; Cotfas, P.A.; Cotfas, D.T.; Rekeraho, A.	Enhancing Cloud Security—Proactive Threat Monitoring and Detection Using a SIEM-Based Approach	Appl. Sci.	2076-3417
2023	Fatima Belabbes, Daniel T. Cotfas, Petru A. Cotfas, Mourad Medles	Using the snake optimization metaheuristic algorithms to extract the photovoltaic cells parameters	Energy Conversion and Management	0196-8904
2023	Alexandre Rekeraho, Daniel	Cybersecurity challenges in IoT-based	International Journal of Information	1615-5262

	Tudor Cotfas, Petru Adrian Cotfas et al.	smart renewable energy	Security	
2023	Radu, F.; Cotfas, P.A.; Alexandru, M.; Bălan, T.C.; Popescu, V.; Cotfas, D.T.	Signals Intelligence System with Software-Defined Radio	Appl. Science	2076-3417
2023	Madhiarasan, M.; Cotfas, D.T.; Cotfas, P.A. Black Widow .	Optimization Algorithm Used to Extract the Parameters of Photovoltaic Cells and Panels	Mathematics	2227-7390
2022	DT Cotfas, PA Cotfas, S Mahmoudinezhad, M Louzazni	Critical factors and parameters for hybrid photovoltaic-thermoelectric systems; review	Applied Thermal Engineering	1359-4311
2022	M Madhiarasan, DT Cotfas, PA Cotfas	Barnacles Mating Optimizer Algorithm to Extract the Parameters of the Photovoltaic Cells and Panels	Sensors	1424-8220
2022	S Mahmoudinezhad, PA Cotfas, DT Cotfas, EJH Skjølstrup, K Pedersen, et al.	An Experimental Study on Transient Response of a Hybrid Thermoelectric–Photovoltaic System with Beam Splitter	Energies	1996-1073
2022	S. Mahmoudinezhad, D.T. Cotfas, P.A. Cotfas, E.J.H. Skjølstrup, K. Pedersen, A. Rezaia, L.A. Rosendahl238	Experimental investigation on spectrum beam splitting photovoltaic–thermoelectric generator under moderate solar concentrations	Energy	0360-5442
2021	D.T. Cotfas, A.M. Deaconu, P.A. Cotfas	Hybrid successive discretisation algorithm used to calculate parameters of the photovoltaic cells and panels for existing datasets	IET Renewable Power Generation	1752-1416
2021	D.T. Cotfas, P.A. Cotfas, M.P. Oproiu, P.A. Ostafe	Analytical versus Metaheuristic Methods to Extract the Photovoltaic Cells and Panel Parameters	International Journal of Photoenergy	1110-662X
2021	B. Belmahdi, M. Louzazni, M.	Long-Term Global Solar Radiation	Frontiers in Energy Research	2296-598X

	Akour, D.T. Cotfas, P.A. Cotfas, A.E. Bouardi	Prediction in 25 Cities in Morocco Using the FFNN-BP Method		
2021	M. Louzazni, H. Mosalam, D.T. Cotfas	Forecasting of Photovoltaic Power by Means of Non-Linear Auto-Regressive Exogenous Artificial Neural Network and Time Series Analysis	Electronics	2079-9292
2021	P.A. Cotfas, D.T. Cotfas	Solar Hybrid System Component Study in Low Concentrated Sunlight	International Journal of Photoenergy	1110-662X
2020	A.M. Deaconu, D.T. Cotfas, P.A. Cotfas	Calculation of Seven Photovoltaic Cells Parameters Using Parallelized Successive Discretization Algorithm	International Journal of Photoenergy	1110-662X
2020	S. Mahmoudinezhad, P.A. Cotfas, D.T. Cotfas, LA Rosendahl, A. Rezanian	Response of thermoelectric generators to Bi ₂ Te ₃ and Zn ₄ Sb ₃ energy harvester materials under variant solar radiation	Renewable Energy	0960-1481
2020	P.A. Cotfas, D.T. Cotfas	Comprehensive Review of Methods and Instruments for Photovoltaic–Thermoelectric Generator Hybrid System Characterization	Energies	1996-1073
2020	M. Louzazni, D.T. Cotfas, P.A. Cotfas	Management and Performance Control Analysis of Hybrid Photovoltaic Energy Storage System under Variable Solar Irradiation	Energies	1996-1073
2019	D. T. Cotfas, A.M. Deaconu, P. A. Cotfas	Application of successive discretization algorithm for determining photovoltaic cells parameters	Energy Conversion and Management	0196-8904
2019	S. Mahmoudinezhad, S. Ahmadi Atouei, P.A. Cotfas, D.T. Cotfas, L.A. Rosendahl, A. Rezanian	Experimental and numerical study on the transient behavior of multijunction solar cell-thermoelectric generator hybrid	Energy Conversion and Management	0196-8904

		system		
2019	S. Mahmoudinezhad, A. Rezaia, P. A. Cotfas, D. T. Cotfas, L. A. Rosendahl	Transient Behavior of Concentrated Solar Oxide Thermoelectric Generator	Energy	0360-5442
2018	D. T. Cotfas, P. A. Cotfas, O. M. Machidon	Study of Temperature Coefficients for Parameters of Photovoltaic Cells	International Journal of Photoenergy	1110-662X
2018	P. A. Cotfas, D. T. Cotfas, P. N. Borza, D. Sera, R. Teodorescu	Solar Cell Capacitance Determination Based on an RLC Resonant Circuit	Energies	1996-1073
2018	S. Mahmoudinezhad, A. Rezaia, D. T. Cotfas, P. A. Cotfas, L. A. Rosendahl	Experimental and numerical investigation of hybrid concentrated photovoltaic–Thermoelectric module under low solar concentration	Energy	0360-5442
2018	S. Mahmoudinezhad, P. A. Cotfas, D. T. Cotfas, A. Rezaia, L. A. Rosendahl	Performance evaluation of a high-temperature thermoelectric generator under different solar concentrations	Energy Procedia	1876-6102
2017	D. T. Cotfas, P. A. Cotfas, D. Ciobanu, O. M. Machidon	Characterization of Photovoltaic–Thermoelectric–Solar Collector Hybrid Systems in Natural Sunlight Conditions	Journal of Energy Engineering	0733-9402
2017	O. M. Machidon, A. L. Machidon, P. A. Cotfas, D. T. Cotfas	Leveraging Web Services and FPGA Dynamic Partial Reconfiguration in a Virtual Hardware Design Lab	International Journal of Engineering Education	0949-149X
2016	D. T. Cotfas, P. A. Cotfas, S. Kaplanis	Methods and techniques to determine the dynamic parameters of solar cells	Renewable and Sustainable Energy Reviews	1364-0321
2016	P. A. Cotfas, D. T. Cotfas	Design and implementation of RELab system to study the solar and wind energy	Measurement	0263-2241
2016	D. T. Cotfas, P. A. Cotfas, D. I. Floroian, L. Floroian	Accelerated life test for photovoltaic cells using concentrated light	International Journal of Photoenergy	1110-662X

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2020	D.T. Cotfas, P.A. Cotfas	Enhancing energy efficiency for photovoltaic cells using thermoelectric hybridization	2020 5th International Conference on Smart and Sustainable Technologies (SpliTech)
2020	P.A. Cotfas, D.T. Cotfas, S. Spataru	Study of photovoltaic cell degradation under rapid light variation	2020 5th International Conference on Smart and Sustainable Technologies (SpliTech)
2018	D. T. Cotfas, P. A. Cotfas, A. Cataron	Using the genetic algorithm to determine the parameter of photovoltaic cells and panels	13th International Symposium on Electronics and Telecommunications, Timisoara, Romania, 2018
2018	P. A. Cotfas, D. T. Cotfas	Solar Thermoelectric Generator Characterization as a Co-generation Renewable Energy Source and Photovoltaic Cooling System Training	Annual Summit on Renewable and Sustainable Energy, Paris, France 2018
2018	S. Mahmoudinezhad ¹ , D. T. Cotfas, A. Rezaei, P. A. Cotfas, L.A. Rosendahl	Transient Response of Bi ₂ Te ₃ Based Thermoelectric Generator to Variant Solar radiation; An Experimental and Numerical study	Alternative Energy Sources, Materials & Technologies (AESMT'18), May, Plovdiv, Bulgaria
2018	D. T. Cotfas, P. A. Cotfas	Comparative study of two commercial photovoltaic panels in natural sunlight conditions	Alternative Energy Sources, Materials & Technologies (AESMT'18), May, Plovdiv, Bulgaria
2018	O. A. Rusanu, L. Cristea, M. C. Luculescu, P. A. Cotfas, D. T. Cotfas	Virtual keyboard based on a brain-computer interface	Advanced Mechanical & Mechatronic Systems and Innovation Conference · PRASIC'18. November 8 - 9, 2018, Braşov, Romania
2018	O. A. Rusanu, L. Cristea, M. C. Luculescu, P. A. Cotfas, D. T. Cotfas	Virtual robot arm controlled by hand gestures via Leap Motion Sensor	Advanced Mechanical & Mechatronic Systems and Innovation Conference · PRASIC'18. November 8 - 9, 2018, Braşov, Romania
2017	D. T. Cotfas, P. A. Cotfas	Improvement of energy efficiency for photovoltaic cells using hybridization	7th International Congress of Energy and Environment Engineering and Management (CIEM7), Las Palmas, Spain, 17th - 19th July 2017
2017	P. A. Cotfas, D. T. Cotfas	Hybrid system efficiency in concentrated sunlight	7th International Congress of Energy and Environment Engineering and Management

			(CIEM7), Las Palmas, Spain, 17th - 19th July 2017
2017	O.M. Machidon, A.L. Machidon, P. A. Cotfas, D. T. Cotfas	Implementing a Remote Laboratory on a Chip	2017 IEEE 23rd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 26–29, Constanta, Romania , 2017
2017	P. A. Cotfas, D. T. Cotfas, C. Gerigan, O.M. Machidon	System design to study hybrid systems in concentrated light using Fresnel lens	Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017 International Conference on, 25-27 May, Brasov, Romania, 2017
2017	P. A. Cotfas, D. T. Cotfas, O. A. Rusanu, M. C. Luculescu	Energy and mechatronics applications based on NI myRIO	International Conference on Energy and Mechanical Engineering, Chengdu, China, 17-19.11.2017
2016	D. T. Cotfas, P. A. Cotfas, O. M. Machidon, D. Ciobanu	Investigation of the photovoltaic cell/thermoelectric element hybrid system performance	International Conference on Innovative Research - ICIR Euroinvent 2016 19–20 May 2016, Iasi, Romania, IOP Conference Series: Materials Science and Engineering, vol.133,2016
2016	P. A. Cotfas, D. T. Cotfas, O.M. Machidon	Modelling and PSPICE simulation of a Photovoltaic/Thermoelectric system,	IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016
2016	O.M. Machidon, P. A. Cotfas, D. T. Cotfas	FPGA-enabled Hardware Multitasking Applications in Energy Harvesting Laboratories,	IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016
2016	D.T. Cotfas, P.A. Cotfas	The influence of the temperature on the photovoltaic cell parameters	IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul, TURKEY
2016	D.T. Cotfas, P.A. Cotfas, O.M. Machidon	Study of the photovoltaic/thermoelectric/solar collector - hybrid system	IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul, TURKEY
2016	P. A. Cotfas, D. T. Cotfas, O. M. Machidon, C. Ciulavu	Performance evaluation of the thermoelectric generator	International Conference AFASES, Brasov, May, 2016, vol. II, pp. 239-246, 2016

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**

1	Cercetări asupra sistemelor solare hibride fotovoltaice/termoelectrice/termice PV/TEG/STC 2015-2017	UEFISCDI (CNMP)	545600 Ron	P. A. Cotfas, D. T. Cotfas. Graphical System Design Approach in Photovoltaic Energy Laboratories 2015 IEEE 21th International Symposium for Design and Technology in Electronic Packaging (SIITME). 22-25 Oct 2015 D. T. Cotfas, P. A. Cotfas, S. Kaplanis. Methods and techniques to determine the dynamic parameters of solar cells: Review, Renewable and Sustainable Energy Reviews, vol. 61, 2016, pp. 213–221, (FI-6.798). P. A. Cotfas, D. T. Cotfas, O. M. Machidon, C. Ciulavu. Performance evaluation of the thermoelectric generator, International Conference AFASES, Brasov, May, 2016, vol. II, pp. 239-246, 2016, EBSCO. D. T. Cotfas, P. A. Cotfas, O. M. Machidon, D. Ciobanu. Investigation of the photovoltaic cell/ thermoelectric element hybrid system performance, International Conference on Innovative Research - ICIR Euroinvent 2016 19–20 May 2016, Iasi, Romania, IOP Conference Series: Materials Science and Engineering, vol.133,2016. D.T. Cotfas, P.A. Cotfas, The influence of the temperature on the photovoltaic cell parameters, IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul / TURKEY, ISBN: 978-605-86911-4-8, pp. 519-524. D.T. Cotfas, P.A. Cotfas, O.M. Machidon, Study of the photovoltaic/thermoelectric/solar collector - hybrid system, IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul / TURKEY, ISBN: 978-605-86911-4-8, pp. 571-576. P.A. Cotfas, D.T. Cotfas, Design and implementation of RELab system to study the solar and wind energy, Measurement, vol. 93, pp. 94-101, 2016 (FI-1.742). P. A. Cotfas, D. T. Cotfas, O.M. Machidon, Modelling and PSPICE simulation of a Photovoltaic/Thermoelectric system, 2016 IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016 O.M. Machidon, P. A. Cotfas, D. T. Cotfas, FPGA-enabled Hardware Multitasking Applications in Energy Harvesting Laboratories, 2016 IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016 O.M. Machidon, A.L. Machidon, P. A. Cotfas, D. T. Cotfas. Leveraging Web services and FPGA dynamic partial reconfiguration in a virtual hardware design lab, International Journal of Engineering Education, (FI-0.58), 2017.
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3	The ageing time evolution of the solar cells in function of the concentrated light levels, (2015) Sfera II	CORDIS FP7- INFRASTRUC- TURES	18630 Euro	D. T. Cotfas, P. A. Cotfas, D. Floroian, L. Floroian, M. Cernat, Ageing of photovoltaic cells under concentrated light, Electrical Machines & Power Electronics (ACEMP), 2015 Intl Conference on Optimization of Electrical & Electronic Equipment (OPTIM) & 2015 Intl Symposium on Advanced Electromechanical Motion Systems (ELECTROMOTION), 2015 Intl Aegean Conference on
4	The behaviour of the solar hybrid structures in medium and high concentrated light, (2016) Sfera II	CORDIS FP7- INFRASTRUC- TURES	18030 Euro	D. T. Cotfas, P. A. Cotfas, D. I. Floroian, L. Floroian, Accelerated life test for photovoltaic cells using concentrated light, International Journal of Photoenergy, 2016
5	Study of new thermoelectric generator's important parameters in concentrated light, (2017) Sfera II	CORDIS FP7- INFRASTRUC- TURES	18030 Euro	S. Mahmoudinezhad, A. Rezaia, P. A. Cotfas, D. T. Cotfas, L. A. Rosendahl, Transient Behavior of Concentrated Solar Oxide Thermoelectric Generator, Energy, 2019. S. Mahmoudinezhad, A. Rezaia, D. T. Cotfas, P. A. Cotfas, L. A. Rosendahl, Experimental and numerical investigation of hybrid concentrated photovoltaic–Thermoelectric module under low solar concentration, Energy, 2018

Brevete de invenții :

1. Metodă și dispozitiv de testare accelerată a timpului de îmbătrânire a celulelor fotovoltaice – ARCL

Lista lucrărilor științifice ale resursei umane de la TSTc – Cotfas Petru

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	BYL Ávila, CAG Vázquez, OP Baluja, DT Cotfas, PA Cotfas	Energy harvesting techniques for wireless sensor networks: A systematic literature review	Energy Strategy Reviews	2211-467X
2025	A Younis, M Louzazni, PA Cotfas, DT Cotfas	Effects of Dust Accumulation on the Performance of the Photovoltaic Panels on Buildings: A Case Study	International Journal of Energy Research	1099-114X
2025	A Younis, F Belabbes, PA Cotfas, DT Cotfas	Enhanced Electrical Characterization of Dusty Solar Modules: Integrating Outdoor Experiments With Single-and Double-Diode Models	International Journal of Energy Research	1099-114X
2025	A Rjafallah, DT Cotfas, PA Cotfas	Enhancing solar thermoelectric generator performance using metal oxide layer absorbers under concentrated solar radiation	Case Studies in Thermal Engineering	2214-157X
2025	A Rekeraho, DT Cotfas, TC Balan, PA Cotfas, R Acheampong	Cybersecurity Threat Modeling for IoT-Integrated Smart Solar Energy Systems: Strengthening Resilience for Global Energy Sustainability	Sustainability	2071-1050
2025	A Younis, PA Cotfas, DT Cotfas	Incentivizing photovoltaic panel cleaning in green building standards: A policy framework	Energy for Sustainable Development	2352-4669
2025	CAG Vázquez, DT Cotfas, AIG	Optimal tuning of PID controllers focused	Applied Thermal Engineering	1359-4311

	Santos, PA Cotfas, L Ávila, VP Garrido	on energy efficiency in a multivariable and coupled system. Case study: An AHU in the biopharmaceutical industry		
2025	E Tuyishime, M Martalò, PA Cotfas, V Popescu, DT Cotfas, A Rekeraho	Resource-Efficient Traffic Classification Using Feature Selection for Message Queuing Telemetry Transport-Internet of Things Network-Based Security Attacks	Applied Sciences	2076-3417
2024	DT Cotfas, A Enesca, PA Cotfas	Enhancing the performance of the solar thermoelectric generator in unconcentrated and concentrated light	Renewable Energy	0960-1481
2024	DT Cotfas, M Madhiarasan, PA Cotfas	Extraction of the multijunction solar cell parameters using two metaheuristic algorithms	IEEE Access	2169-3536
2024	AM Deaconu, DT Cotfas, PA Cotfas	Extracting photovoltaic cells parameters for three diode model using HSDA algorithm	Energy Reports	2352-4847
2024	O AlHousrya, A Bennagi, PA Cotfas, DT Cotfas	A novel Hybrid ant colony algorithm for solving the shortest path problems with mixed fuzzy arc weights	Alexandria Engineering Journal	2090-2670
2024	CAG Vázquez, DT Cotfas, AIG Santos, PA Cotfas, L Ávila	Reduction of electricity consumption in an AHU using mathematical modelling for controller tuning	Energy	0360-5442
2024	BYL Ávila, CAG Vázquez, OP Baluja, DT Cotfas, PA Cotfas	Comprehensive electrical models for a wireless sensor network device	Heliyon	2405-8440
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		configurations in PV-CTEG hybrid systems		
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2024	A Younis, F Belabbes, PA Cotfas, DT Cotfas	Utilizing the Honeybees Mating-Inspired Firefly Algorithm to Extract Parameters of the Wind Speed Weibull Model	Forecasting	2571-9394
2024	A Younis, A Rjafallah, PA Cotfas, DT Cotfas	Dust impact on electrical and thermal photovoltaic performance: Insights from field and laboratory experiments	Energy Reports	2352-4847
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2023	Fatima Belabbes, Daniel T. Cotfas, Petru A. Cotfas, Mourad Medles	Using the snake optimization metaheuristic algorithms to extract the photovoltaic cells parameters	Energy Conversion and Management	0196-8904

2023	Alexandre Rekeraho, Daniel Tudor Cotfas, Petru Adrian Cotfas et al.	Cybersecurity challenges in IoT-based smart renewable energy	International Journal of Information Security	1615-5262
2023	Radu, F.; Cotfas, P.A.; Alexandru, M.; Bălan, T.C.; Popescu, V.; Cotfas, D.T.	Signals Intelligence System with Software-Defined Radio	Appl. Science	2076-3417
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2020	M. Louzazni, D.T. Cotfas, P.A. Cotfas	Management and Performance Control Analysis of Hybrid Photovoltaic Energy Storage System under Variable Solar Irradiation	Energies	1996-1073
2019	D. T. Cotfas, A.M. Deaconu, P. A. Cotfas	Application of successive discretization algorithm for determining photovoltaic cells parameters	Energy Conversion and Management	0196-8904
2019	S. Mahmoudinezhad, S. Ahmadi Atouei, P.A. Cotfas, D.T. Cotfas,	Experimental and numerical study on the transient behavior of multijunction solar	Energy Conversion and Management	0196-8904

	L.A. Rosendahl, A. Rezanian	cell-thermoelectric generator hybrid system		
2019	S. Mahmoudinezhad, A. Rezanian, P. A. Cotfas, D. T. Cotfas, L. A. Rosendahl	Transient Behavior of Concentrated Solar Oxide Thermoelectric Generator	Energy	0360-5442
2018	D. T. Cotfas, P. A. Cotfas, O. M. Machidon	Study of Temperature Coefficients for Parameters of Photovoltaic Cells	International Journal of Photoenergy	1110-662X
2018	P. A. Cotfas, D. T. Cotfas, P. N. Borza, D. Sera, R. Teodorescu	Solar Cell Capacitance Determination Based on an RLC Resonant Circuit	Energies	1996-1073
2018	S. Mahmoudinezhad, A. Rezanian, D. T. Cotfas, P. A. Cotfas, L. A. Rosendahl	Experimental and numerical investigation of hybrid concentrated photovoltaic–Thermoelectric module under low solar concentration	Energy	0360-5442
2018	S. Mahmoudinezhad, P. A. Cotfas, D. T. Cotfas, A. Rezanian, L. A. Rosendahl	Performance evaluation of a high-temperature thermoelectric generator under different solar concentrations	Energy Procedia	1876-6102
2017	D. T. Cotfas, P. A. Cotfas, D. Ciobanu, O. M. Machidon	Characterization of Photovoltaic–Thermoelectric–Solar Collector Hybrid Systems in Natural Sunlight Conditions	Journal of Energy Engineering	0733-9402
2017	O. M. Machidon, A. L. Machidon, P. A. Cotfas, D. T. Cotfas	Leveraging Web Services and FPGA Dynamic Partial Reconfiguration in a Virtual Hardware Design Lab	International Journal of Engineering Education	0949-149X
2016	D. T. Cotfas, P. A. Cotfas, S. Kaplanis	Methods and techniques to determine the dynamic parameters of solar cells	Renewable and Sustainable Energy Reviews	1364-0321
2016	P. A. Cotfas, D. T. Cotfas	Design and implementation of RELab system to study the solar and wind energy	Measurement	0263-2241
2016	D. T. Cotfas, P. A. Cotfas, D. I. Floroian, L. Floroian	Accelerated life test for photovoltaic cells using concentrated light	International Journal of Photoenergy	1110-662X

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2020	D.T. Cotfas, P.A. Cotfas	Enhancing energy efficiency for photovoltaic cells using thermoelectric hybridization	2020 5th International Conference on Smart and Sustainable Technologies (SpliTech)
2020	P.A. Cotfas, D.T. Cotfas, S. Spataru	Study of photovoltaic cell degradation under rapid light variation	2020 5th International Conference on Smart and Sustainable Technologies (SpliTech)
2018	D. T. Cotfas, P. A. Cotfas, A. Cataron	Using the genetic algorithm to determine the parameter of photovoltaic cells and panels	13th International Symposium on Electronics and Telecommunications, Timisoara, Romania, 2018
2018	P. A. Cotfas, D. T. Cotfas	Solar Thermoelectric Generator Characterization as a Co-generation Renewable Energy Source and Photovoltaic Cooling System Training	Annual Summit on Renewable and Sustainable Energy, Paris, France 2018
2018	S. Mahmoudinezhad ¹ , D. T. Cotfas, A. Rezania, P. A. Cotfas, L.A. Rosendahl	Transient Response of Bi ₂ Te ₃ Based Thermoelectric Generator to Variant Solar radiation; An Experimental and Numerical study	Alternative Energy Sources, Materials & Technologies (AESMT'18), May, Plovdiv, Bulgaria
2018	D. T. Cotfas, P. A. Cotfas	Comparative study of two commercial photovoltaic panels in natural sunlight conditions	Alternative Energy Sources, Materials & Technologies (AESMT'18), May, Plovdiv, Bulgaria
2018	O. A. Rusanu, L. Cristea, M. C. Luculescu, P. A. Cotfas, D. T. Cotfas	Virtual keyboard based on a brain-computer interface	Advanced Mechanical & Mechatronic Systems and Innovation Conference · PRASIC'18. November 8 - 9, 2018, Braşov, Romania
2018	O. A. Rusanu, L. Cristea, M. C. Luculescu, P. A. Cotfas, D. T. Cotfas	Virtual robot arm controlled by hand gestures via Leap Motion Sensor	Advanced Mechanical & Mechatronic Systems and Innovation Conference · PRASIC'18. November 8 - 9, 2018, Braşov, Romania
2017	D. T. Cotfas, P. A. Cotfas	Improvement of energy efficiency for photovoltaic cells using hybridization	7th International Congress of Energy and Environment Engineering and Management (CIIEM7), Las Palmas, Spain, 17th - 19th July 2017
2017	P. A. Cotfas, D. T. Cotfas	Hybrid system efficiency in concentrated sunlight	7th International Congress of Energy and

			Environment Engineering and Management (CIEM7), Las Palmas, Spain, 17th - 19th July 2017
2017	O.M. Machidon, A.L. Machidon, P. A. Cotfas, D. T. Cotfas	Implementing a Remote Laboratory on a Chip	2017 IEEE 23rd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 26–29, Constanta, Romania , 2017
2017	P. A. Cotfas, D. T. Cotfas, C. Gerigan, O.M. Machidon	System design to study hybrid systems in concentrated light using Fresnel lens	Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017 International Conference on, 25-27 May, Brasov, Romania, 2017
2017	P. A. Cotfas, D. T. Cotfas, O. A. Rusanu, M. C. Luculescu	Energy and mechatronics applications based on NI myRIO	International Conference on Energy and Mechanical Engineering, Chengdu, China, 17-19.11.2017
2016	D. T. Cotfas, P. A. Cotfas, O. M. Machidon, D. Ciobanu	Investigation of the photovoltaic cell/thermoelectric element hybrid system performance	International Conference on Innovative Research - ICIR Euroinvent 2016 19–20 May 2016, Iasi, Romania, IOP Conference Series: Materials Science and Engineering, vol.133,2016
2016	P. A. Cotfas, D. T. Cotfas, O.M. Machidon	Modelling and PSpice simulation of a Photovoltaic/Thermoelectric system,	IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016
2016	O.M. Machidon, P. A. Cotfas, D. T. Cotfas	FPGA-enabled Hardware Multitasking Applications in Energy Harvesting Laboratories,	IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME), October 20–23, 2016
2016	D.T. Cotfas, P.A. Cotfas	The influence of the temperature on the photovoltaic cell parameters	IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul, TURKEY
2016	D.T. Cotfas, P.A. Cotfas, O.M. Machidon	Study of the photovoltaic/thermoelectric/solar collector - hybrid system	IV. European Conference on Renewable Energy Systems, ECRES 2016, 28-31 August 2016, Istanbul, TURKEY
2016	P. A. Cotfas, D. T. Cotfas, O. M.	Performance evaluation of the thermoelectric	International Conference AFASES, Brasov, May,

	Machidon, C. Ciulavu	generator	2016, vol. II, pp. 239-246, 2016
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CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
3	The study of the rapid variation effect of concentrated light over the photovoltaic cells, (2019) Sfera III	CORDIS FP7-INFRASTRUCTURES	15110 Euro	P.A. Cotfas, D.T. Cotfas, S. Spataru, Study of photovoltaic cell degradation under rapid light variation, 5th International Conference on Smart and Sustainable Technologies (SpliTech), 23-26 Sept. 2020;
4	The photovoltaic cells under concentrated light transient conditions study, (2020) Sfera III	CORDIS FP7-INFRASTRUCTURES	17200 Euro	P. A. Cotfas, D. T. Cotfas, A. Enesca, B. Y. León Ávila. Studying the PV-TEG Multi-Layer Hybrid Systems in Concentrated Light., International Conference on Alternative Energy Sources, Materials and Technologies (AESMT'23), 16 - 17 May, 2023, Sofia, Bulgaria
5	Analysis of PV-TEG Multi-Layer Hybrid Systems in Concentrated Light, (2022) Sfera III	CORDIS FP7-INFRASTRUCTURES	20400 Euro	Abdelkader Rjafallah, Daniel Tudor Cotfas, Petru Adrian Cotfas, Investigation of temperature variations across the hot and cold sides of cascaded thermoelectric generator (CTEG) configurations in PV-CTEG hybrid systems, Case Studies in Thermal Engineering, Vol. 61, 2024, https://doi.org/10.1016/j.csite.2024.105070 .

Brevete de invenții :

1. D.T. Cotfas, P.A. Cotfas, D.I. Floroian, L. Floroian, Metodă și dispozitiv de testare accelerată a timpului de îmbătrânire a celulelor fotovoltaice – ARCL, 2016;

Lista lucrărilor științifice ale resursei umane de la TSTc – Danciu Gabriel

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
	Gyrard, A., Gribbon, P., Hussein, R., Abedian, S., Bonmati, L.M., Cabornero, G.L., Manias, G., Danciu, G. M., Dalmiani, S., Autexier, S., Nuland, R., Jendrosseck, M., Avramidis, I., and Alvarez, E.G.	Synergies Among Health Data Projects with Cancer Use Cases Based on Health Standards.		ISBN: 978-1-64368-533-5
	Lampropoulos K., Zarras A., Lakka E., Barmdaki P., Drakonakis K., Athanatos M., Herve D., Alexopoulos A., Sotiropoulos A., Tsakirakis G., Dimakopoulos N., Tsovolos D., Pocs M., Smyrlis M., Basdekis I., Spanoudakis G., Mihaila O., Prelipcean B., Salant E., Athanassopoulos S., Papachristou P., Ladakis I., Chang J., Floros E., Smyrlis K., Besters R., Årsand E., Randine P., Løvaas K.F., Cooper J., Ilie I. Danciu G. M., Khabbaz M.	White paper on cybersecurity in the healthcare sector. The HEIR solution.		ISBN: 2310.10139

	(2023).			
	Danciu G. M., Dinu A. (2022). 3417/12/3/1559	Coverage Fulfillment Automation in Hardware Functional Verification Using Genetic Algorithms.		ISSN: 20763417
	Bundea M., Danciu G. M. (2024).	Pneumonia Image Classification Using DenseNet		ISSN: 078-2489.
	Gabriel Mihail Danciu, Csaba Zoltán KertészID	Programming Examination Platform: Generative AI-Driven Evaluation Tool for Computer Programming Classes	Futureproofing Engineering Education for Global Responsibility: Proceedings of the 27th International Conference on Interactive Collaborative Learning (ICL2024), Volume 4	2367-3389

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
	Dinu A., Danciu G. M., Ogruțan P.L. (2022).	Efficient analysis of digital systems supplied data.	International Symposium on Electronics and Telecommunications (ISETC). ISBN:20326886. https://ieeexplore.ieee.org/abstract/document/9301139
	Dinu A., Danciu G. M., Ogruțan P.L. (2020)	Debug FPGA projects using machine learning.	International Semiconductor Conference (CAS). ISBN:20237531.
	Dinu A., Danciu G. M., Gheorghe Ș. (2021)	Level up in verification: learning from functional snapshots.	16th International Conference on Engineering of Modern Electric Systems
	Danciu G. M. (2017).	Method proposal for blob separation in segmented images	International Conference on Optimization of Electrical and Electronic Equipment, OPTIM. ISBN:978-1-5090- 4489-4.
	G. -M. Danciu,	A method proposal of scene recognition for RGB-D cameras	IEEE 11th International Symposium on Applied Computational Intelligence and Informatics (SACI),

			Timisoara, Romania, 2016
	Rebecca Acheampong, Bogdan Valentin Floricescu, Ionut Alexandru Oprea, Alexandre Rekeraho, Vladut Gabriel Anghel, Gabriel Danciu, Ioana Corina Bogdan, George Stefan Ionescu	Scalable Secure Platform for XR	2025 6th International Conference in Electronic Engineering & Information Technology (EEITE)
	Cătălina Bandas, Gabriel Danciu, Bogdan-Valentin Floricescu	Vessel Segmentation Method in Coronagraphy Images	Global Healthcare Transformation in the Era of Artificial Intelligence and Informatics - IOS Press 2025
	Horia Alexandru Modran, Gabriel Danciu	Quantifying Energy-Accuracy-Latency Trade-offs in Cloud-Offloaded and On-Device TinyML Inference on IoT Devices	IEEE Conference on Standards for Communications and Networking – Bologna 2025

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	GENSAVR - Virtual Reality training platform	EU proiect	100000 euro	"Quantifying Energy-Accuracy-Latency Trade-offs in Cloud-Offloaded and On-Device TinyML Inference on IoT Devices", „Scalable Secure Platform for XR”

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTc – Dimitriu Maria

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2017	R. Păltănea, M. T. Dimitriu	Estimates for weighted K-functionals using the least concave majorant of weighted moduli of continuity	Numerical Functional Analysis and Optimization	0163-0563 1532-2467
2019	N. Ti a, M. T. Dimitriu	<i>On some inequalities for the approximation numbers în Banach algebras</i>	Adv. Oper. Theory	2538-225X
2022	M. T. Dimitriu	<i>On a new family of generalized Bernstein operators</i>	Stud. Univ. Babeş - Bolyai Math.	2065-961X
2024	A. D. Meleşteu, M. T. Dimitriu	<i>A Stancu type generalization of the Balázs operator</i>	Dolomites Research Notes on Approximation	2035-6803

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTC - Fulga Andreea

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN	eISSN
2024	Petrusel, Adrian; Fulga, Andreea; Karapinar, Erdal	EDITORIAL LETTER FOR THE SPECIAL ISSUE OF THE JOURNAL OF NONLINEAR AND CONVEX ANALYSIS RELATED THE 14TH INTERNATIONAL CONFERENCE ON FIXED POINT THEORY AND ITS APPLICATIONS	JOURNAL OF NONLINEAR AND CONVEX ANALYSIS	1345-4773	1880-5221
2023	Anjum, Rizwan; Fulga, Andreea; Akram, Muhammad Waqar	Applications to Solving Variational Inequality Problems via MR-Kannan Type Interpolative Contractions	MATHEMATICS		2227-7390
2023	Karapinar, Erdal; Fulga, Andreea	A fixed point theorem for Proinov mappings with a contractive iterate	APPLIED MATHEMATICS-A JOURNAL OF CHINESE UNIVERSITIES SERIES B	1005-1031	1993-0445
2023	Karapinar, Erdal; Fulga, Andreea	Discussions on Proinov-Cb-Contraction Mapping on b-Metric Space	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2023	Suantai, Suthep; Peeyada, Pronpat; Fulga, Andreea; Cholanjiak, Watcharaporn	Heart disease detection using inertial Mann relaxed CQ algorithms for split feasibility problems	AIMS MATHEMATICS		2473-6988
2023	Fallahi, Kamal; Rad, Ghasem Soleimani; Fulga, Andreea	Best proximity points for $(\phi-\phi)$ -weak contractions and some applications	FILOMAT	0354-5180	
2023	Buyukkaya, Abdurrahman; Fulga, Andreea; Ozturk, Mahpeyker	(ϕ) On generalized Suzuki-Proinov type ϕ , $Z\phi$ - contractions in modular E b-metric spaces	FILOMAT	0354-5180	
2022	Karapinar, Erdal; Fulga, Andreea	Contraction in Rational Forms in the Framework of Super Metric Spaces	MATHEMATICS		2227-7390
2022	Karapinar, Erdal; Fulga, Andreea; Yesilkaya, Seher Sultan	Interpolative Meir-Keeler Mappings in Modular Metric Spaces	MATHEMATICS		2227-7390
2022	Karapinar, Erdal; Fulga, Andreea; Yesilkaya, Seher Sultan	Fixed Points of Proinov Type Multivalued Mappings on Quasimetric Spaces	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2022	Tiwari, Rakesh; Thakur, Shashi; Fulga, Andreea	Common Fixed Point Theorem for C-Class Functions in Complete Metric Spaces with	FILOMAT	0354-5180	

		Application			
2022	Karapinar, Erdal; Aksoy, Umit; Fulga, Andreea; Erhan, Inci M.	FIXED POINT THEOREMS FOR MAPPINGS WITH A CONTRACTIVE ITERATE AT A POINT IN MODULAR METRIC SPACES	FIXED POINT THEORY	1583-5022	2066-9208
2022	Chen, Chi-Ming; Fulga, Andreea	ON INTERPOLATIVE Q-MEIR-KEELER TYPE CONTRACTION	JOURNAL OF NONLINEAR AND CONVEX ANALYSIS	1345-4773	1880-5221
2022	Karapinar, Erdal; Fulga, Andreea	Discussion on the hybrid Jaggi-Meir-Keeler type contractions	AIMS MATHEMATICS		2473-6988
2022	Afshari, Hojjat; Shojaat, Hadi; Fulga, Andreea	Common new fixed point results on b-cone Banach spaces over Banach algebras	APPLIED GENERAL TOPOLOGY	1989-4147	
2022	Zhou, Mi; Liu, Xiaolan; Saleem, Naeem; Fulga, Andreea; Ozgur, Nihal	A New Study on the Fixed Point Sets of Proinov-Type Contractions via Rational Forms	SYMMETRY-BASEL		2073-8994
2021	Zhou, Mi; Saleem, Naeem; Liu, Xiaolan; Fulga, Andreea; de Hierro, Antonio Francisco Roldan Lopez	A New Approach to Proinov-Type Fixed-Point Results in Non-Archimedean Fuzzy Metric Spaces	MATHEMATICS		2227-7390
2021	Edwan, Reem; Al-Omari, Shrideh; Al-Smadi, Mohammed; Momani, Shaher; Fulga, Andreea	A new formulation of finite difference and finite volume methods for solving a space fractional convection-diffusion model with fewer error estimates	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Hasan, Shatha; Djeddi, Nadir; Al-Smadi, Mohammed; Al-Omari, Shrideh; Momani, Shaher; Fulga, Andreea	Numerical solvability of generalized Bagley-Torvik fractional models under Caputo-Fabrizio derivative	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Karapinar, Erdal; Fulga, Andreea; Yesilkaya, Seher Sultan	New Results on Perov-Interpolative Contractions of Suzuki Type Mappings	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2021	Fulga, Andreea	On interpolative contractions that involve rational forms	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Karapinar, Erdal; Atangana, Abdon; Fulga, Andreea	PATA TYPE CONTRACTIONS INVOLVING RATIONAL EXPRESSIONS WITH AN APPLICATION TO INTEGRAL EQUATIONS	DISCRETE AND CONTINUOUS DYNAMICAL SYSTEMS-SERIES S	1937-1632	1937-1179
2021	Karapinar, Erdal; Chen, Chi-Ming; Alghamdi, Maryam A.; Fulga, Andreea	Advances on the fixed point results via simulation function involving rational terms	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Dhivya, P.; Marudai, M.; Rakocevic, Vladimir; Fulga, Andreea	A solution to nonlinear Fredholm integral equations in the context of w-distances	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	

2021	Fulga, Andreea; Yesilkaya, Seher Sultan	On Some Interpolative Contractions of Suzuki Type Mappings	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2021	Erdal Karapinar; Fulga, Andreea; Lopez de Hierro, Antonio Francisco Roldan	Fixed point theory in the setting of $(\alpha, \beta, \psi, \varphi)$ -interpolative contractions	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Alqahtani, Badr; Alzaid, Sara Salem; Fulga, Andreea; Yesilkaya, Seher Sultan	Common fixed point theorem on Proinov type mappings via simulation function	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Roldan Lopez de Hierro, Antonio Francisco; Fulga, Andreea; Karapinar, Erdal; Shahzad, Naseer	Proinov-Type Fixed-Point Results in Non-Archimedean Fuzzy Metric Spaces	MATHEMATICS		2227-7390
2021	Fulga, Andreea; Afshari, Hojjat; Shojat, Hadi	Common fixed point theorems on quasi-cone metric space over a divisible Banach algebra	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Alghamdi, Maryam A.; Gulyaz-Ozyurt, Selma; Fulga, Andreea	Fixed Points of Proinov E-Contractions	SYMMETRY-BASEL		2073-8994
2021	Karapinar, Erdal; Chen, Chi-Ming; Fulga, Andreea	Nonunique Coincidence Point Results via Admissible Mappings	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2021	Alqahtani, Badr; Alzaid, Sara S.; Fulga, Andreea; Roldan Lopez de Hierro, Antonio Francisco	Proinov type contractions on dislocated b-metric spaces	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	
2021	Karapinar, Erdal; De La Sen, Manuel; Fulga, Andreea	A Note on the Gornicki-Proinov Type Contraction	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2021	Karapinar, Erdal; Fulga, Andreea	FIXED POINT ON CONVEX b-METRIC SPACE VIA ADMISSIBLE MAPPINGS	TWMS JOURNAL OF PURE AND APPLIED MATHEMATICS	2076-2585	2219-1259
2021	Ahmed, A. El-Sayed; Fulga, Andreea	The Gornicki -Proinov type contraction on quasi-metric spaces	AIMS MATHEMATICS		2473-6988
2020	Alzaid, Sara Salem; Fulga, Andreea; Alqahtani, Badr	Fixed Point Results via G-Function over the Complete Partial b-Metric Space	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2020	Alzaid, Sara Salem; Fulga, Andreea; Alshammari, Fehaid Salem	Discussion on Geraghty Type Hybrid Contractions	JOURNAL OF FUNCTION SPACES	2314-8896	2314-8888
2020	Karapinar, Erdal; Fulga, Andreea; Aydi, Hassen	Study on Pata E-contractions	ADVANCES IN DIFFERENCE EQUATIONS	1687-1847	

2020	Alegre, Carmen; Fulga, Andreea; Karapinar, Erdal; Tirado, Pedro	A Discussion on p-Geraghty Contraction on mw-Quasi-Metric Spaces	MATHEMATICS		2227-7390
2020	Karapinar, Erdal; Aydi, Hassen; Fulga, Andreea	On p-Hybrid Wardowski Contractions	JOURNAL OF MATHEMATICS	2314-4629	2314-4785
2020	Karapinar, Erdal; Fulga, Andreea; Agarwal, Ravi P.	A survey:F-contractions with related fixed point results	JOURNAL OF FIXED POINT THEORY AND APPLICATIONS	1661-7738	1661-7746
2020	Lopez de Hierro, Antonio Francisco Roldan; Karapinar, Erdal; Fulga, Andreea	Multiparametric Contractions and Related Hardy-Roger Type Fixed Point Theorems	MATHEMATICS		2227-7390
2020	Fulga, Andreea	On (ψ, ϕ) -Rational Contractions	SYMMETRY-BASEL		2073-8994
2020	Fulga, Andreea; Karapinar, Erdal; Petrusel, Gabriela	On Hybrid Contractions in the Context of Quasi-Metric Spaces	MATHEMATICS		2227-7390
2020	Karapinar, Erdal; Fulga, Andreea	On Wong Type Contractions	MATHEMATICS		2227-7390
2021	Aksoy, Umit; Erhan, Inci M.; Fulga, Andreea; Karapinar, Erdal	On the fixed points of iterative contractive mappings defined via implicit relation	OPTIMIZATION	0233-1934	1029-4945
2020	Karapinar, Erdal; Fulga, Andreea; Petrusel, Adrian	On Istrescu Type Contractions in b-Metric Spaces	MATHEMATICS		2227-7390
2020	Karapinar, Erdal; Fulga, Andreea; Rakocevic, Vladimir	A Result on a Pata-Ciri Type Contraction at a Point	MATHEMATICS		2227-7390
2020	Fulga, Andreea; Gulyaz-Ozyurt, Selma; Ozturk, Ali	Iterative Contraction at a Point via Wardowski Function	FILOMAT	0354-5180	
2020	Karapinar, Erdal; Fulga, Andreea; Rakocevic, Vladimir	A Discussion on a Pata Type Contraction via Iterate at a Point	FILOMAT	0354-5180	
2020	Karapinar, Erdal; Fulga, Andreea; Kumam, Poom	Revisiting the Meir-Keeler Contraction via Simulation Function	FILOMAT	0354-5180	
2020	Karapinar, Erdal; Fulga, Andreea	ON HYBRID CONTRACTIONS VIA SIMULATION FUNCTION IN THE CONTEXT OF QUASI-METRIC SPACES	JOURNAL OF NONLINEAR AND CONVEX ANALYSIS	1345-4773	1880-5221
2020	Shatanawi, Wasfi; Karapinar, Erdal; Aydi, Hassen; Fulga, Andreea	WARDOWSKI TYPE CONTRACTIONS WITH APPLICATIONS ON CAPUTO TYPE NONLINEAR FRACTIONAL DIFFERENTIAL EQUATIONS	UNIVERSITY POLITEHNICA OF BUCHAREST SCIENTIFIC BULLETIN-SERIES A-APPLIED MATHEMATICS AND PHYSICS	1223-7027	

2019	Alqahtani, Badr; Fulga, Andreea; Jarad, Fahd; Karapinar, Erdal	Nonlinear F-contractions on b-metric spaces and differential equations in the frame of fractional derivatives with Mittag-Leffler kernel	CHAOS SOLITONS & FRACTALS	0960-0779	1873-2887
2019	Fulga, Andreea; Karapinar, Erdal	Revisiting Meir-Keeler type fixed operators on Branciari distance space	TBILISI MATHEMATICAL JOURNAL	1875-158X	1512-0139
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal; Rakocevic, Vladimir	Contractions with rational inequalities in the extended b-metric space (vol 2019, 220, 2019)	JOURNAL OF INEQUALITIES AND APPLICATIONS	1029-242X	
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal; Rakocevic, Vladimir	Contractions with rational inequalities in the extended b-metric space	JOURNAL OF INEQUALITIES AND APPLICATIONS	1029-242X	
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	A Fixed Point Result with a Contractive Iterate at a Point	MATHEMATICS		2227-7390
2019	Karapinar, Erdal; Fulga, Andreea	New Hybrid Contractions on b-Metric Spaces	MATHEMATICS		2227-7390
2019	Karapinar, Erdal; Fulga, Andreea; Rashid, Maliha; Shahid, Lariab; Aydi, Hassen	Large Contractions on Quasi-Metric Spaces with an Application to Nonlinear Fractional Differential Equations	MATHEMATICS		2227-7390
2019	Karapinar, Erdal; Fulga, Andreea	A Hybrid Contraction that Involves Jaggi Type	SYMMETRY-BASEL		2073-8994
2019	Karapinar, Erdal; Fulga, Andreea; Alghamdi, Maryam	A Common Fixed-Point Theorem for Iterative Contraction of Sehgal Type	SYMMETRY-BASEL		2073-8994
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	On Ciric Type ϕ -Geraghty Contractions	THAI JOURNAL OF MATHEMATICS	1686-0209	
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal; Kumari, Panda Sumati	Sehgal Type Contractions on Dislocated Spaces	MATHEMATICS		2227-7390
2019	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal; Ozturk, Ali	Fisher-Type Fixed Point Results in b-Metric Spaces	MATHEMATICS		2227-7390
2019	Karapinar, Erdal; Fulga, Andreea	An admissible Hybrid contraction with an Ulam type stability	DEMONSTRATIO MATHEMATICA	0420-1213	2391-4661
2018	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	Sehgal Type Contractions on b-Metric Space	SYMMETRY-BASEL		2073-8994
2018	Fulga, Andreea; Karapinar, Erdal	Some Results on S-Contractions of Type E	MATHEMATICS		2227-7390

2018	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	Fixed Point Results on -Symmetric Quasi-Metric Space via Simulation Function with an Application to Ulam Stability	MATHEMATICS		2227-7390
2018	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	Common fixed point results on an extended b-metric space	JOURNAL OF INEQUALITIES AND APPLICATIONS	1029-242X	
2018	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	Non-Unique Fixed Point Results in Extended B-Metric Space	MATHEMATICS		2227-7390
2018	Fulga, Andreea; Tas, Aysegul	Fixed Point Results Via Simulation Functions in the Context of Quasi-metric Space	FILOMAT	0354-5180	
2018	Fulga, Andreea; Karapinar, Erdal	Revisiting of some outstanding metric fixed point theorems via E-contraction	ANALELE STIINTIFICE ALE UNIVERSITATII OVIDIUS CONSTANTA-SERIA MATEMATICA	1224-1784	1844-0835
2018	Alqahtani, Badr; Fulga, Andreea; Karapinar, Erdal	A short note on the common fixed points of the Geraghty contraction of type ES,T	DEMONSTRATIO MATHEMATICA	0420-1213	2391-4661

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTc – Ivanovici Mihai

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	R. Coliban, M. Ivanovici	NDVI Time Series Reconstruction using Morphological Filtering	NATIONAL ACADEMY SCIENCE LETTERS	0250-541X
2025	A. Racoviteanu, A. Nitu, C. Florea, M. Ivanovici	Crop Identification with Monte Carlo Simulations and Rotation Models from Sentinel-2 Data	AGRIENGINEERING	2624-7402
2025	C. Florea, L. Florea, M. Ivanovici	Adaptive Select Loss Strategy for Semantic Segmentation of Agricultural Crop Images	IEEE JOURNAL OF SELECTED TOPICS IN APPLIED EARTH OBSERVATIONS AND REMOTE SENSING	1939-1404
2025	S. Popa, V. Petric, M. Ivanovici	A Highly-Parallel and Scalable Hardware Accelerator for the NTest Othello Game Engine	IEEE TRANSACTIONS ON PARALLEL AND DISTRIBUTED SYSTEMS	1045-9219
2025	C. George Fieraru, M. Biserică, I. Cristina Plajer, M. Ivanovici	Comparing Blind Image Quality Metrics for Reliable Image Assessment	IEEE ACCESS	2169-3536
2025	C. Andronache, D. Curăvane, I.E. Nicolae, A. Neacșu, G. Nicolae, M. Ivanovici	Tackling the possibility of extracting a brain digital fingerprint based on personal hobbies predilection	FRONTIERS IN NEUROSCIENCE	1662-453X
2025	A. Nițu, C. Florea, M. Ivanovici, A. Racoviteanu	NDVI and Beyond: Vegetation Indices as Features for Crop Recognition and Segmentation in Hyperspectral Data	SENSORS	1424-8220
2025	M. El Sakka, M. Ivanovici, L. Chaari, J. Mothe	A Review of CNN Applications in Smart Agriculture Using Multimodal Data	SENSORS	1424-8220
2024	M. El Sakka, J. Mothe, M. Ivanovici	Images and CNN Applications in Smart Agriculture	EUROPEAN JOURNAL OF REMOTE SENSING	2279-7254

2024	M. Ivanovici, S. Popa, K. Marandskiy, C. Florea	Deep Automatic Soil Roughness Estimation from Digital Images	EUROPEAN JOURNAL OF REMOTE SENSING	2279-7254
2024	S. Popa, M. Ivanovici, RM. Coliban	Optimal Implementations of 8b/10b Encoders and Decoders for AMD FPGAs	ELECTRONICS	2079-9292
2024	I. Plajer, A. Baicoianu, L. Majercsik, M. Ivanovici	Multisource Remote Sensing Data Visualization using Machine Learning	IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING	0196-2892
2024	C. Florea, A. Burghiu, M. Ivanovici	Logit-based Superpixel Semantic Segmentation of Images for Precision Agriculture	SCIENTIFIC BULLETIN OF POLITEHNICA UNIVERSITY	2286-3540
2023	R. Coliban, M. Ivanovici	Quality-based band selection for hyperspectral image visualization	REMOTE SENSING LETTERS	2150-704X
2023	M. Ivanovici	A Multi-Spectral Fractal Image Model and Its Associated Fractal Dimension Estimator	FRACTAL AND FRACTIONAL	2504-3110
2023	G. Iakovidis, L. Levinson..., R. Coliban, ... M. Ivanovici, ... S. Popa, ...	The New Small Wheel electronics	JOURNAL OF INSTRUMENTATION	1748-0221
2022	S. Opreşescu, R. Coliban, M. Ivanovici	Polarization-based optical characterization for color texture analysis and segmentation	PATTERN RECOGNITION LETTERS	0167-8655
2021	I. E. Nicolae, M. Ivanovici	Color Texture Image Complexity-EEG-Sensed Human Brain Perception vs. Computed Measures	APPLIED SCIENCES	2076-3417
2021	I. E. Nicolae, M. Ivanovici	Preparatory Experiments Regarding Human Brain Perception and Reasoning of Image Complexity for Synthetic Color Fractal and Natural Texture Images via EEG	APPLIED SCIENCES	2076-3417
2020	R. M. Coliban, M. Marincas, C. Hatfaludi, M. Ivanovici	Linear and Non-Linear Models for Remotely-Sensed Hyperspectral Image Visualization	REMOTE SENSING	2072-4292
2020	M. Ivanovici, R.M. Coliban, C.	Color Image Complexity versus Over-	JOURNAL OF IMAGING	2313-433X

	Hatfaludi, I. Nicolae	Segmentation: A Preliminary Study on the Correlation between Complexity Measures and Number of Segments		
2020	S. Popa, S. Martoiu, M. Ivanovici	The Quality Control Test of the Digital Logic for the ATLAS New Small Wheel Read-Out Controller ASIC	JOURNAL OF INSTRUMENTATION	1748-0221
2020	S. Popa, S. Martoiu, M. Ivanovici	Study of the ATLAS New Small Wheel Read-Out Controller ASIC in a Neutron Irradiation Environment	JOURNAL OF INSTRUMENTATION	1748-0221
2020	M. Ivanovici	Fractal Dimension of Color Fractal Images with Correlated Color Components	IEEE TRANSACTIONS ON IMAGE PROCESSING	1057-7149
2018	R.M. Coliban, M. Ivanovici	Reducing the oversegmentation induced by quasi-flat zone for color images	JOURNAL OF VISUAL COMMUNICATION AND IMAGE REPRESENTATION	1047-3203
2018	O.M. Machidon, M. Ivanovici	Digital color restoration for the preservation of reversal film heritage	JOURNAL OF CULTURAL HERITAGE	1296-2074
2016	R. Coliban, M. Ivanovici, N. Richard	Improved probabilistic pseudo-morphology for noise reduction in colour images	IET IMAGE PROCESSING	1751-9659
2016	R. Coliban, S. Popa, T. Tulbure, D. Nicula, M. Ivanovici, S. Martoiu, L. Levinson, J. Vermeulen	The Read Out Controller for the ATLAS New Small Wheel	JOURNAL OF INSTRUMENTATION	1748-0221

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	M. Debu, K. Marandskiy, S. Oprișescu, M. Ivanovici	A PRISMA-based Hyperspectral Dataset for Agriculture	15 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2025
2025	A. M. Racoviteanu, C. Florea,	PRISMA Hyperspectral Data Aggregation Techniques	IEEE International Geoscience and Remote

	A. Nitu, M. Ivanovici	for Retrieval of Sentinel-2 Vegetation Indices	Sensing Symposium, IGARSS 2025
2025	A. Nitu, C. Florea, A. M. Racoviteanu, M. Ivanovici	Multispectral versus Hyperspectral Imaging for Crop Separability	IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2025
2025	K. Marandskiy, L.G. Papale, M. Ivanovici, F. Del Frate	A CNN-Based Approach for Understanding SAR Backscattering of Bare Soil	IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2025
2025	M. Ivanovici, M. Ștefan, A. Cațaron, A. Ghinea, G. Olteanu	Analyzing the Influence of Temperature on NDVI for a Potato Crop in Brașov Area	Agriculture for Life – Life for Agriculture, Agri4Life 2025
2025	S. Opreșescu, A. Racovițeanu, M. Ivanovici	Overcoming Segmentation Confusions in PRISMA Hyperspectral Images	17th International Symposium on Signals, Circuits and Systems, ISSCS 2025
2025	I.C. Plajer, A. Băicoianu, M. Debu, M. Ștefan, M. Ivanovici, C. Florea, A. Ghinea, L. Majercsik	Multi-year multi-crop correlation analysis in Brasov area	Symposium of the European Association of Remote Sensing Laboratories, EARSeL 2025
2024	A. Racoviteanu, A. Kazak, N. Secrieru, M. Ivanovici	Fuzzy Logic-Based Visualization and Interpretation of NDVI Maps	14 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2024
2024	C. Florea, A. Racoviteanu, M. Ivanovici	Quantification of Hyperspectral Planes Effectiveness-A Semantic Segmentation Perspective	14 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2024
2024	A. Nitu, C. Florea, M. Ivanovici	Quantitative Analysis of Vegetation Indices as Discriminators Between Different Crop Categories	International Symposium on Electronics and Telecommunications, ISETC 2024
2024	A. Nitu, C. Florea, M. Ivanovici	Are Vegetation Indices Really so Different: An Unsupervised Perspective	International Symposium on Electronics and Telecommunications, ISETC 2024
2024	M. Ivanovici, C. Florea, A. Kazak	Statistical Inference based on Sentinel-2 and In Situ NDVI Measurements using Monte Carlo Sampling	IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024
2024	K. Marandskiy, M. Ivanovici, S. Popa	Machine Learning-based Classification of Sentinel-1 Backscattering Coefficients using Generated Plant Schematics	IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024
2024	J. Mothe, V. Ciaccio, F. Del Frate, D. De Santis, M. Ivanovici, J.	Education and Research Projects for Preparing Young Researchers for Future Career in Earth Observation	IEEE International Geoscience and Remote Sensing Symposium, IGARSS 2024

	Leduc, D. Necsoi, A. Nzeh Ndong..		
2022	M. Ivanovici	A Fractal Dimension Estimator for Multispectral Images	12 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2022
2021	M. Ivanovici, M. Marincaș, RM. Coliban	A Vector Median Filter for Hyperspectral Images Based on Lexicographic Ordering of Estimated Auto-Correlation Functions	11 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2021
2021	S. Gheorghe, M. Ivanovici	Model-based Weight Quantization for Convolutional Neural Network Compression	16 th International Conference on Engineering of Modern Electric Systems, EMES 2021
2020	M. Ivanovici, C. Hatfaludi, R. M. Coliban	Color fractal texture image complexity estimation using a convolutional neural network	International Symposium on Electronics and Telecommunications, ISETC 2020
2020	S. Popa, M. Ivanovici, R. M. Coliban	Time-multiplexed 10Gbps Ethernet-based Integrated Logic Analyzer for FPGAs	International Symposium on Electronics and Telecommunications, ISETC 2020
2019	M. Ivanovici	A Theory of Information Perspective on Hyperspectral Images	10 th Workshop on Hyperspectral Image and Signal Processing: Evolution in Remote Sensing, IEEE WHISPERS 2019
2019	M. Ivanovici, R. Coliban	Spectral Signature Ranking based on Lexicographic Ordering of Autocorrelation Function Values	14th International Symposium on Signals, Circuits and Systems, ISSCS 2019
2019	Ș. Popa, M. Luchian, M. Ivanovici	Clock and data signals synchronization for an FPGA-based ASIC testing setup	14th International Symposium on Signals, Circuits and Systems, ISSCS 2019
2018	Ș. Popa, S. Mărtoiu, M. Luchian, R. Coliban, M. Ivanovici	The Quality-Assurance Test of the ATLAS New Small Wheel Read-Out Controller ASIC	Topical Workshop on Electronics for Particle Physics, TWEPP2018
2018	C. Man, O. Machidon, M. Ivanovici	VIPERA 1.0 – A Versatile Imaging Platform for Education, Research and Applications	13th International Symposium on Electronics and Telecommunications, ISETC 2018
2018	A. Machidon, R. Coliban, O. Machidon, M. Ivanovici	Maximum Distance-based PCA Approximation for Hyperspectral Image Analysis and Visualization	41st International Conference on Telecommunications and Signal Processing, TSP 2018
2017	M. Ivanovici, V. Popescu, I. Duruian, M. Murrioni, M. Fadda	Reference-based Color Texture Digitization and Analysis of Wooden Surface	International Conference on Optimization Of Electrical and Electronic Equipment, OPTIM

			2014
2017	M. Ivanovici, N. Richard	A Naive Complexity Measure for color texture images	13th International Symposium on Signals, Circuits and Systems, ISSCS 2017
2016	R. Coliban, A. Rădoi, M. Ivanovici	A color and multispectral fractal model for forest region identification in satellite images	11th International Conference on Communications, COMM 2016
2016	M. Ivanovici, N. Richard	Entropy versus fractal complexity for computer-generated colour fractal images	4th CIE Expert Symposium on Colour and Visual Appearance
2016	N. Richard, M. Ivanovici, A. Bony	Toward a metrology for non-uniform surface using the complexity notion	4th CIE Expert Symposium on Colour and Visual Appearance

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	ELIAC – Identificarea timpurie a culturilor agricole utilizând inteligența artificială și date Sentinel-2 (2025 – 2026)	contract. nr. 6PED / 08.01.2025, Bugetul de stat – UEFISCDI (coordonator)	835.000 lei buget total proiect, 750.000 lei finanțare atrasă, 410.000 lei buget UNITBV	Publicații, model experimental pentru metodă de identificare culturi agricole validată în laborator (TRL 4) – în dezvoltare
2	SEEN – Social Entrepreneurship Ecosystems Network (2024 – 2026)	Erasmus+ KA220-HED, contract nr. 2024-1-BG01-KA220-HED-000255491 / 01.09.2024 (partener)	52.850 € buget UNITBV	Curs pilot de antreprenariat, carte (în lucru)
3	AI4AGRI - Romanian Excellence Center in Artificial Intelligence on Earth Observation Data for Agriculture (2022-2025)	GA 101079136 de tip Horizon Europe HORIZON-WIDERA-2021-ACCESS-03-01 (coordonator)	1.412.360 € buget total proiect, 833.400 € buget UNITBV	Publicații, resurse deschise, seturi de date deschise – DACIA5, HyDACI6, metode și algoritmi

4	AI4RISK - Platformă de fuziune și management a colecțiilor de date multi-sursă exploatabile de către modele cu inteligență artificială pentru estimarea și analiza predictivă a situațiilor de risc (2024 – 2026)	contract. nr. 3Sol(T3) / 02.09.2024, Bugetul de stat – UEFISCDI (partener)	520.000 lei buget UNITBV	Publicații, set de date violență, metode și algoritmi
5	IMINT – Image Intelligence pentru Marea Neagră, frontiere, mine (2024 – 2026)	contract nr. 21Sol(T21) / 18.07.2024, Bugetul de stat – UEFISCDI (partener)	500.000 lei buget UNITBV	Publicații, metode și algoritmi
6	AICoRS - Senzor Hardware pentru Radiație Cosmică utilizând Inteligența Artificială pentru Aplicații Spațiale (2024 – 2026)	contract de finanțare nr. 2ROMD / 01.06.2024, Bugetul de stat – UEFISCDI (coordonator)	467.568 lei buget total proiect, 227.568 lei buget UNITBV	Model experimental validat în laborator (TRL 4) senzor radiație cosmică, publicații, algoritmi
7	InnEO Space_PhD - Open Science Innovation in PhD programme through Earth Observation: towards new career skills development (2020-2023)	GA 101006275 de tip H2020 SwafS (Science with and for Society) CSA (partener)	74.125 € buget UNITBV	Webinarii / cursuri online de ti SPOOC, publicații
8	Experimentul ATLAS de la LHC (2016-2019), ctr. 8/2016	PNIII, P5, Subprogramul 5.2, Modulul CERN-RO, Bugetul de stat (partener)	1.070.714,60 lei buget UNITBV	Publicații, prototip și serie (6.000 buc.) ROC ASIC în tehnologie IBM CMOS 130nm, capsulă BGA
9	Experimentul ATLAS de la LHC (2014-2015), ctr. 7/2012	CAPACITĂȚI, Modulul III, RO-CERN, Bugetul de stat (partener)	203.852,06 lei buget UNITBV	Model experimental ROC (Read Out Controller) pentru ATLAS New Small Wheel

Lista lucrărilor științifice ale resursei umane de la TSTc – Kertesz Csaba

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	Kertész Csaba Zoltán	Incorporating Arts into Electronics Engineering: A STEAM Approach to an Embedded Systems Programming Course	Education Sciences	2227-7102

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2016	Gavrilă Cristinel, Kertész Csaba Zoltán	Automated Performance Testing of End-to-End Streaming Solutions over HbbTV Architecture	13th International Conference on Development and Application Systems DAS2016
2017	Gavrilă Cristinel, Kertész Csaba Zoltán, Popescu Vlad, Sandu Florin	Bandwidth Usage Management for HbbTV Streaming Services Based on User Behavior	IEEE International Symposium on Broadband Multimedia Systems and Broadcasting BMSB2017
2018	Gavrilă Cristinel, Kertész Csaba Zoltán, Alexandru Marian, Popescu Vlad	Reconfigurable IoT Gateway Based on a SDR Platform	12th International Conference on Communications (COMM2018)
2018	Gavrilă Cristinel, Kertész Csaba Zoltán, Alexandru Marian, Popescu Vlad	SDR-based gateway for IoT and M2M applications	2018 Baltic URSI Symposium (URSI)
2021	Kertész Csaba Zoltán	Creating a Wiring Framework for Embedded GUI	International Conference on Optimization of

		Programming Course	Electrical and Electronic Engineering & International Aegean Conference on Electrical Machines and Power Electronics (OPTIM-ACEMP2021)
2021	Rujoi Adrian Mihai, Nan Adriana Georgiana, Kertész Csaba Zoltán	Remote Monitoring System for a Three-phase Electric Power Grid	International Conference on Optimization of Electrical and Electronic Engineering & International Aegean Conference on Electrical Machines and Power Electronics (OPTIM-ACEMP2021)
2023	Ndagi Abubakar, Kertész Csaba Zoltán	Automatic Water Distribution System Using Wireless Sensor Network	27 th International Conference on Information Technology (IT2023)
2024	Velicea Fabian Pavel, Ghimbășan Alexandra Elena, Filip Răzvan Costin, Danciu Gabriel Mihail, Kertész Csaba Zoltán	Programming Examination Platform: Generative AI-Driven Evaluation Platform for Computer Programming Classes	27 th International Conference on Interactive Collaborative Learning (ICL2024)
2024	Vuță-Popescu Diana, Antofi Ionuț Cătălin, Ciobanu Cătălin Bogdan, Kertész Csaba Zoltán	SIMD Extensions – A Historical Perspective	IEEE International Symposium for Design and Technology of Electric Packages (SIITME)
2025	Malinka Ivanova, Galina Bogdanova, Kertész Csaba Zoltán	Large and Small Language Models in Manufacturing and Electronics	10 th International Conference on Smart and Sustainable Technologies (SpliTech)
2025	Kertész Csaba Zoltán, Ciobanu Cătălin Bogdan	Remote Laboratory Setup Using Raspberry Pi for a Digital Signal Processors Course	31 st International Symposium for Design and Technology in Electronic Packaging (SIITME)
2025	Păscociu Andreea Violeta, Solomon Andrei Eduard, Kertész Csaba Zoltán, Ciobanu Cătălin Bogdan	Minutiae Extraction Optimization for ARM and RISC-V	31 st International Symposium for Design and Technology in Electronic Packaging (SIITME)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Challenges Solving în Cybersecurity Study Program	ERASMUS+ KA220-HED		

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTc – Miron Mihai

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
			.	

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2023	MIRON, E.L.; GAINA, L.; MECLEA, M.A.; MIRON, M	<i>Implementation of Augmented Reality in Military Higher Education; Exemplified by the Study of the Yagi-Uda Antenna</i>	IMCL 2023. Lecture Notes in Networks and Systems, vol 936. Springer, Cham
2023	MIRON, E.L.; CRACIUN, A.; MIRON, M	<i>Study of electromagnetic field effects on plants evolution using MATLAB analysis</i>	8th International Conference on Mathematics and Computers in Sciences and Industry (MCSI)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Stand pentru testarea și măsurarea parametrilor liniilor de transmisie și ai antenelor de microunde	Planul sectorial de cercetare-dezvoltare a MAPN, 2023-2025	496000lei	

Lista lucrărilor științifice ale resursei umane de la TSTc – Modran Horia

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	H. A. Modran	Leveraging RAG with ACP & MCP for Adaptive Intelligent Tutoring	Applied Sciences	2076-3417
2024	A. Dinu, S. C. Ghiocanu, H. A. Modran	Relaunching Laboratories for Engineering Disciplines Using an Industry-Oriented Approach	Revista Românească pentru Educație Multidimensională	2066-7329
2024	H. A. Modran , D. Ursuțiu, C. Samoilă	Using the Theoretical-Experiential Binomial for Educating AI-Literate Students	Sustainability	2071-1050
2023	H. A. Modran , T. Chamunorwa, D. Ursuțiu, C. Samoilă, H. Hedeșiu	Using Deep Learning to Recognize Therapeutic Effects of Music Based on Emotions	Sensors	1424-8220
2021	T. Chamunorwa, H. A. Modran , D. Ursuțiu, C. Samoilă, H. Hedeșiu	Cloud-Based, Expandable Reconfigurable Remote Laboratory for Electronic Engineering Experiments	Electronics	2079-9292
2021	T. Chamunorwa, H. A. Modran , D. Ursuțiu, C. Samoilă, H. Hedeșiu	Reconfigurable Wireless Sensor Node Remote Laboratory Platform with Cloud Connectivity	Sensors	1424-8220

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	A. Dineti, A. Balea, I.C. Bogdan, H.A. Modran	Benchmark Study of Machine Learning Models for Predicting Cardiovascular Risks	International Conference on Intelligent Multimodal Communication and Learning

			Technologies (IMCL) 2025
2025	H. A. Modran , G. M. Danciu	Quantifying Energy–Accuracy–Latency Trade-offs in Cloud-Offloaded and On-Device TinyML Inference on IoT Devices	2025 IEEE Conference on Standards for Communications and Networking (CSCN)
2025	H. A. Modran , I. C. Bogdan, P. L. Modran	Enhancing Higher Education with Multimodal Intelligent Agent using a RAG-Based Approach	International Conference on Smart Technologies & Education (STE) 2025
2025	Alexandru Stefan Negrea, A. N. Marin, H. Oprea, I.C. Bogdan, H. A. Modran	Emotion Recognition and Identity Protection System with AI-Driven Spoofing Prevention	International Conference on Smart Technologies & Education (STE) 2025
2024	H. A. Modran , I. C. Bogdan, D. Ursuțiu, C. Samoilă, P. L. Modran	LLM Intelligent Agent Tutoring in Higher Education Courses Using a RAG Approach	International Conference on Interactive Collaborative Learning (ICL) 2024
2024	C. Badea, A. Costea, A. Halmaghi, A. Hancu, I. C. Bogdan, H. A. Modran	Integrating AI and UAV Technologies for Enhanced and Workplace Safety	International Conference on Interactive Collaborative Learning (ICL) 2024
2024	I. C. Bogdan, H. A. Modran , S. M. Bibic, E. Simion	The Future of Social Robots in Education, Healthcare and Engineering	International Conference on Interactive Collaborative Learning (ICL) 2024
2024	D. T. Ioniță, I. C. Bogdan, H. A. Modran , A. Dinu	Education and Mental Health Through Artificial Intelligence Virtual Assistant	International Conference on Interactive Collaborative Learning (ICL) 2024
2024	D. Ursuțiu, C. Samoilă, H. A. Modran , I. C. Bogdan, I. Dumitru	PAST and PRESENT of LabVIEW in Knowledge and Education	International Conference on Interactive Collaborative Learning (ICL) 2024
2024	H. A. Modran , D. Ursuțiu, C. Samoilă, E. C. Gherman-Dolhăscu	Developing a GPT Chatbot Model for Students Programming Education	Smart Technologies for a Sustainable Future – STE 2024
2024	E. C. Gherman-Dolhăscu, H. A. Modran , C. Samoilă, D. Ursuțiu	IoT Laboratories Based on Reconfigurable Platform with Analog Coprocessor	Smart Technologies for a Sustainable Future – STE 2024
2023	D. Ursuțiu, C. Samoilă,	Student Solutions – Soft and Hard in Magnetic Sensing	12th International Conference on Software

	H. A. Modran , I. Nistor, P. Epure	Applications	and Information Engineering 2023
2023	H. A. Modran , T. Chamunorwa, D. Ursuțiu, C. Samoilă	Integrating Artificial Intelligence and ChatGPT into Higher Engineering Education	International Conference on Interactive Collaborative Learning (ICL) 2023
2023	T. Chamunorwa, H. A. Modran , D. Ursuțiu, C. Samoilă	Interactive Remote Laboratory Platform for Practical Experimentation	6th Experiment@ International Conference (exp.at'23)
2023	H. A. Modran , T. Chamunorwa, D. Ursuțiu, C. Samoilă, L. Aljihmani, K. Qaraqe	Fatigue Estimation using Wearable Devices and Virtual Instrumentation	20th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2023
2023	D. Ursuțiu, C. Samoilă, P. Epure, T. Chamunorwa, H. A. Modran , H. Hedeșiu	Sunshade System with Three Solar Panels (Home 1 kW-Grid-Tied Solar System)	20th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2023
2022	C. Samoilă, D. Ursuțiu, H. A. Modran , T. Chamunorwa	New Challenges for Remote Experiment Design in the Digitalization Era (Industry 4.0)	International Conference on Interactive Collaborative Learning (ICL) 2022
2022	T. Chamunorwa, H. A. Modran , D. Ursuțiu, C. Samoilă	Embedded Student Board for Digitalization of Engineering Education	International Conference on Interactive Collaborative Learning (ICL) 2022
2022	D. Ursuțiu, H. A. Modran , T. Chamunorwa, C. Samoilă, P. Kane	Digital Tools and Energy Harvesting in IoT Education	International Conference on Interactive Collaborative Learning (ICL) 2022
2022	H. A. Modran , D. Ursuțiu, C. Samoilă, T. Chamunorwa	Noise Reduction Through Artificial Intelligence Techniques: An Introductory Study	19th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2022
2022	T. Chamunorwa, D. Ursuțiu, C. Samoilă, H. A. Modran	Software Configurable Hardware-Based Remote Laboratory System	19th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2022
2021	H. A. Modran , D. Ursuțiu, C. Samoilă, T. Chamunorwa	Intelligent IoT Biomedical Bluetooth Data Acquisition System	International Conference on Interactive Mobile Communication, Technologies, and Learning (IMCL) 2021
2021	T. Chamunorwa, D. Ursuțiu, C. Samoilă, H. A. Modran	Electronic Laboratory Educational Board	International Conference on Interactive Mobile Communication, Technologies, and Learning

			(IMCL) 2021
2021	C. Samoilă, D. Ursuțiu, H. A. Modran	The Potential for Transformation into the Virtual Organization of Remote Experiment Networks	International Conference on Interactive Collaborative Learning (ICL) 2021
2021	H. A. Modran , D. Ursuțiu, C. Samoilă, T. Chamunorwa	Artificial Intelligence System for Predicting Cardiovascular Diseases Using IoT Devices and Virtual Instrumentation	18th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2021
2021	T. Chamunorwa, D. Ursuțiu, C. Samoilă, H. Hedeșiu, H. A. Modran	Electronic Educational Laboratory Platform for Students	18th International Conference on Remote Engineering and Virtual Instrumentation (REV) 2021
2020	H. A. Modran , D. Ursuțiu, C. Samoilă, T. Chamunorwa	Learning Methods Based on Artificial Intelligence in Educating Engineers for the New Jobs of the 5th Industrial Revolution	International Conference on Interactive Collaborative Learning (ICL) 2020
2020	T. Chamunorwa, D. Ursuțiu, C. Samoilă, H. A. Modran	Embedded System Learning Platform for Developing Economies	International Conference on Interactive Collaborative Learning (ICL) 2020

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	-			

Brevete de invenții :

Nu este cazul

Lista lucrărilor științifice ale resursei umane de la TSTc – Nicula Dan

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2016	R.-M. Coliban and S. Popa and T. Tulbure and D. Nicula and M. Ivanovici and S. Martoiu and L. Levinson and J. Vermeulen	The Read Out Controller for the ATLAS New Small Wheel	Journal of Instrumentation, vol. 11, nr. 2, 2016	The Read Out Controller for the ATLAS New Small Wheel - IOPscience

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1. Image Processing Apparatus, US 10853909 B2, 2020-12-01, [US10853909B2 - Image processing apparatus - Google Patents](#), [U.S. Patent for Image processing apparatus Patent \(Patent # 10,853,909 issued December 1, 2020\) - Justia Patents Search](#)

Lista lucrărilor științifice ale resursei umane de la Tehnologii și Sisteme de Telecomunicații – Ogruțan Petre

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2016	P.Ogrutan, F. Sandu, C. Gerigan	Using Students Own Mobile Phones in Teaching Wireless Programming Techniques Laboratory	International Journal of Engineering Education, Volume: 32, Issue: 2, Pages: 841-848, Part: A, 2016, WOS:000374235000022	0949-149X
2016	P. Ogrutan, L. E. Aciu, F. Sandu, C. Gerigan	Student Active Participation in the Study of the Light Bulbs	TEM JOURNAL Vol.5, No.4, November 2016, 424-434	ISSN: 2217-8309
2017	P. Ogrutan, L. E. Aciu	Laboratory Works Designed for Developing Student Motivation in Computer Architecture	TEM JOURNAL Vol.6, No.1, February 2017, p. 3-10, DOI: 10.18421/TEM61-01	ISSN: 2217-8309
2017	P. Ogrutan	Increasing Students' Interest by Encouraging them to Create Original Lab Projects	TEM Journal, 6(4), 653-659	ISSN: 2217-8309
2017	P. Ogrutan, A. M. Cazan, L. E. Aciu	Difficulties of Evolution from Imitation to Creativity in Engineering Education	International Journal of Engineering Education Vol. 33, No. 6(A), pp. 1-9	0949-149X
2018	Aciu, L. E., Ogrutan, P., Calin, M. D., & Popanton, M.	EMC Pre-Compliance Tests and Educational Aspects	TEM Journal, Volume: 7 Issue: 2 Pages: 421-427	ISSN: 2217-8309
2018	Stanca A. C., Ordace A., Ogrutan P., Aciu L. E	Test Bench for Functionality and Reliability of Power Protection Devices	TEM Journal, Volume: 7 Issue: 3, pages: 566-572	ISSN: 2217-8309
2018	Machidon OM, Stanca C, Ogrutan P, Gerigan C, Aciu L	Power-system protection device with IoT-based support for integration in smart environments	PLoS ONE 13(12)	eISSN: 1932-6203
2019	P. Ogrutan, A. Machidon, A. Dinu	Is There a Link Between Creativity and Multiculturalism in Education?	TEM Journal, 8(2), 577-583	ISSN: 2217-8309
2020	P. L. Ogrutan, L. E. Aciu.	Aspects of Academic Performance and Ethics in the Transition to eLearning Caused by the Actual Pandemic - A case study.	TEM Journal, 9(2), 656-661.	ISSN: 2217-8309
2020	Machidon, A.L.; Machidon, O.M.; Ciobanu, C.B.; Ogrutan, P.L.	Accelerating a Geometrical Approximated PCA Algorithm Using AVX2 and CUDA	<i>Remote Sens.</i> 2020 , <i>12</i> , 1918	ISSN 2072-4292

2020	Machidon, A.L.; Del Frate, F.; Picchiani, M.; Machidon, O.M.; Ogrutan, P.L.	. Geometrical Approximated Principal Component Analysis for Hyperspectral Image Analysis	<i>Remote Sens.</i> 2020 , <i>12</i> , 1698	ISSN 2072-4292
2020	P. .L. Ogrutan	An Analysis on the Opportunity of Introducing Blockchain Technology in Education - A Case Study	TEM Journal, 9(3), 971-976	ISSN: 2217-8309
2021	Aciu, L. E., & Ogrutan, P. L.	A Case Study of Thinking out of the Box in Electrical Engineering	TEM Journal. Volume 10, Issue 3, Pages 1257-1262	ISSN: 2217-8309
2021	Dinu, A., Gheorghe, S., Danciu, G. M., & Ogrutan, P. L	Debugging FPGA projects using artificial intelligence	Romanian Journal of Information Science and Technology ROMJIST, 24(3), 299-320	ISSN 1453-8245
2022	Dinu, A., & Ogrutan, P. L.	Reinforcement learning made affordable for hardware verification engineers	<i>Micromachines</i> , <i>13</i> (11), 1887	ISSN 2072-666X
2022	Dinu, A., Danciu, G. M., & Ogrutan, P. L.	Cost-efficient approaches for fulfillment of functional coverage during verification of digital designs	<i>Micromachines</i> , <i>13</i> (5), 691	ISSN 2072-666X
2023	Ilca, L. F., Ogrutan P. & Balan, T. C	Enhancing cyber-resilience for small and medium-sized organizations with prescriptive malware analysis, detection and response	<i>Sensors</i> , <i>23</i> (15), 6757	ISSN 1424-8220
2024	Aciu, L. E., Ghiță-Pîrnuță, O. A., & Ogrutan, P. L	Methods Used to Increase and Promote the Academic Interest of the Electromagnetic Compatibility Course Content in the Engineers' Education	<i>TEM Journal</i> , <i>13</i> (4).	ISSN: 2217-8309
2025	Aciu, L. E., Motoaşcă, S. D., Ghiță-Pîrnuță, O. A., & Ogrutan, P. L.	Comparative Analysis of the Balance of Hardware and Software Academic Subjects: Two Study Programs in the Field of Computer Engineering	<i>TEM Journal</i> , <i>14</i> (3), 2791	ISSN: 2217-8309

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferinta
2017	P. Ogrutan; C. Gerigan; I. Nicoara	Studies on the implementation of algorithms for electric arc detection	Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), 2017 International Conference on
2019	Machidon, A. L., Machidon, O. M., & Ogrutan, P. L	Face Recognition Using Eigenfaces, Geometrical PCA Approximation and Neural Networks	2019 42nd International Conference on Telecommunications and Signal Processing (TSP) (pp. 80-83). IEEE
2019	Machidon, A. L., Ciobanu, C. B., Machidon, O. M., & Ogrutan, P. L.	On Parallelizing Geometrical PCA Approximation	2019 18th RoEduNet Conference: Networking in Education and Research (RoEduNet) (pp. 1-6). IEEE.
2020	A. Dinu, G. M. Danciu and P. L. Ogrutan	Efficient analysis of digital systems' supplied data	International Symposium on Electronics and Telecommunications (ISETC), Timisoara, 2020, pp. 1-4, doi: 10.1109/ISETC50328.2020.9301139
2020	A. Dinu, G. M. Danciu and P. Ogrutan	Debug FPGA projects using machine learning	2020 International Semiconductor Conference (CAS), Sinaia, Romania, 2020, pp. 173-176, doi: 10.1109/CAS50358.2020.9268007.

Observație: unele articole la conferințe sunt indexate ISI

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	Sistem de protecție pentru securitatea utilizării energiei electrice în orașele inteligente "ELSA", 62PED/2017	UEFISCDI, PN-III-CERC-CO-PED-2016	666268,14 lei	2 lucrări în reviste ISI, cerere de brevet de invenție, un produs în stadiul TRL5

Brevete de invenții :

1. L.Suciu, **P.Ogrutan**, *Metoda si aparat pentru masurarea mediei temperaturii*, Brevet de inventie nr. 92451/ 1987
2. Munteanu R., **P.Ogrutan**, M.Pop, D.Dimofte, A.Iliescu, *Dispozitiv de protectie pentru receptori de energie electrica*, Brevet de inventie, 98224/1989
3. M. Pop, **P. Ogrutan**, *Ciocan de lipit termostatat*, brevet nr.96546/1988, Derwent Code(s): M23-A03
4. **P.Ogrutan**, R. Munteanu, L.Suciu, *Dispozitiv de protecție la scurtcircuit și supratensiune pentru receptori de energie electrică*, Brevet de inventie nr. 122067/2008, Derwent Code(s): T01-J08A; U24-F02; X13-C
5. L. Purghel, Gh. Morariu, **P. Ogrutan**, M. Alexandru, Cs. Kertesz, L. Suciu, *Metoda si aparat pentru masurarea concentratiei de Radon in aer si transmiterea datelor la distanta*, brevet de inventie nr. 125125/2012, Derwent Code(s): S03-F06A; W01-C05B3F
6. **P.Ogrutan**, R. Munteanu, L.Suciu, *Metoda de protecție la scurtcircuit și supratensiune pentru receptori de energie electrică*, Brevet de inventie nr. 122945/2010, Derwent Code(s): X13-C
7. C. Stanca, **P. Ogrutan**, C. Gerigan, L. E. Aciu, O. Machidon, *Dispozitiv electronic și metodă pentru detectarea arcului electric și decuplarea sarcinii*, cerere de brevet OSIM A/00378/29.05.2018

Lista lucrărilor științifice ale resursei umane de la TSTc – Opreșescu Șerban

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2022	S. Opreșescu, R.-M. Coliban, M. Ivanovici	Polarization-based optical characterization for color texture analysis and segmentation	Pattern Recognition Letters, vol 163, 2022, pp 74-81	0167-8655
2021	S. Opreșescu, M. Ciuc, A. Sultana	Automatic Segmentation and Measurement of Infantile Hemangioma	Symmetry 2021, 13, 138	2073-8994

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	S. Opreșescu, A. Racoviteanu and M. Ivanovici	Overcoming Segmentation Confusions in Prisma Hyperspectral Images	2025 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania
2025	A. Racoviteanu, M. Debu, K. Marandskiy, S. Opreșescu, C. Florea and M. Ivanovici	Anomaly Detection on Water Bodies in SAR Data using Multi-Scale Features and Clustering	2025 International Conference on Machine Intelligence for GeoAnalytics and Remote Sensing (MIGARS), Bucharest, Romania
2023	M. Ivanovici, S. Opreșescu, R. M. Coliban and K. Marandskiy	Exponential Features in the Fourier Domain for Prisma Hyperspectral Image Segmentation	IGARSS 2023 - 2023 IEEE Int. Geos. and Remote Sens. Symp., Pasadena, CA, USA
2023	S. Opreșescu, R. -M. Coliban and M. Ivanovici	Hyperspectral Image Segmentation and Entropy Calculation for Qualitative Analysis of Grassland	2023 International Symp. on Signals, Circuits and Systems (ISSCS), Iasi, Romania
2022	S. Opreșescu, R. -M. Coliban and M. Ivanovici	Outdoor Image Segmentation based on Light Polarization Signatures	2022 International Symp. on Electronics and Telecom. (ISETC), Timisoara, Romania
2020	A. Sultana, H. Balazs, S. Ovreiu, Ș. Opreșescu and C. Neghină	Infantile Hemangioma Detection using Deep Learning	2020 13th International Conference on Communications (COMM), Bucharest, Romania

2017	S. Oprisescu, M. Ciuc, A. Sultana	Automatic measurement of infantile hemangiomas	2017 E-Health and Bioengineering Conference (EHB), Sinaia, Romania
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CONTRACTE (membru în echipa următoarelor proiecte)

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	AI4AGRI – Romanian Excellence Center on Artificial Intelligence on earth observation data for AGRiculture, Project ID: 101079136, 2022-2025	European Union's Horizon Europe		
2	"Methods of Prediction of Infantile Hemangioma Evolution Aimed at Preventing Desfigurating Complications by Multiple Intervention Procedures", 2014 – 2017	PN-II-PT-PCCA-2013-4-0201		
3	"Intelligent System for Automatic Assistance of Cervical Cancer Diagnosis", 2014 – 2017	PN-II-PT-PCCA-2013-4-0202		
4	"Gaze-based Communication", nr. IST-C-033816, 2007 - 2010	FP6		
5	"Action Recognition and Tracking based on Time-of-Flight Sensors", nr. IST-34107, 2007 - 2009	FP6		
6	"Contribuții la Construcția, Testarea și Evaluarea Potențialului de Descoperire al Detectorului ATLAS", acronim ATLAS, 2007 - 2009	CORINT		

Brevete de invenții :

Lista lucrărilor științifice ale resursei umane de la TSTc – Pană Gheorghe

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2016	Dumitrache, F., Carp, M., Pana, Gh.	E-bike electronic control unit	IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME)
2017	Dumitrache, F., Romanca, M., Pana, Gh.	Methods for Optimizing BLDC Motors Performance by Using Different Control Schemes	International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & International Aegean Conference on Electrical Machines and Power Electronics (ACEMP)
2021	Burtea, M., Pana, Gh.	Control and Monitoring of a Socket System	Bulletin of the Transilvania University of Brasov, Vol. 14(63) No.1 – 2021, SERIES I - ENGINEERING SCIENCES

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Popa Ștefan

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2016	R.-M. Coliban, S. Popa , T. Tulbure, D. Nicula, M. Ivanovici, S. Martoiu, L. Levinson and J. Vermeulen	The Read Out Controller for the ATLAS New Small Wheel	Journal of Instrumentation	17480221
2020	S. Popa , S. Mărtoiu and M. Ivanovici	The quality-control test of the digital logic for the ATLAS new small wheel read-out controller ASIC	Journal of Instrumentation	17480221
2020	S. Popa , S. Mărtoiu and M. Ivanovici	Study of the ATLAS new small wheel read-out controller ASIC in a neutron irradiation environment	Journal of Instrumentation	17480221
2024	Popa, S. ; Ivanovici, M.; Coliban, R.-M.	Optimal Implementations of 8b/10b Encoders and Decoders for AMD FPGAs	MDPI Electronics	20799292
2024	Ivanovici, M., Popa, S. , Marandskiy, K., & Florea, C.	Deep automatic soil roughness estimation from digital images	European Journal of Remote Sensing	22797254
2025	S. Popa , V. Petric, M. Ivanovici	A Highly-Parallel and Scalable Hardware Accelerator for the NTest Othello Game Engine	IEEE Transactions on Parallel and Distributed Systems	10459219
2025	A. Băicoianu, I. C. Plajer, M. Debu, M. Ștefan, M. Ivanovici, C. Florea, A. Cațaron, R. M. Coliban, Ș. Popa , Ș. Opreșescu, A. Racovițeanu, Gh. Olteanu, K.	DACIA5: a Sentinel-1 and Sentinel-2 dataset for agricultural crop identification applications	Big Earth Data	2096-4471

	Marandskiy, A. Ghinea, A. Kazak, L. Majercsik, A. Manea, L. Dogar			
2023	G. Iakovidis, L. Levinson, Y. Afik, C. Alexa, T. Alexopoulos, J. Ameer, D. Amidei, D. Antrim, A. Badea, C. Bakalis, H. Boterenbrood, R.S. Brenner, S. Chan, J. Chapman, G. Chatzianastasiou, H. Chen, M.C. Chu, R.M. Coliban, T. Costa de Paiva, G. de Geronimo, R. Edgar, N. Felt, S. Francescato, M. Franklin, T. Geralis, K. Gigliotti, P. Giromini, P. Gkoutoumis, I. Grayzman, L. Guan, J. Guimaraes da Costa, L. Han, S. Hou, X. Hu, K. Hu, J. Huth, M. Ivanovici, G. Jin, K. Johns, E. Kajomovitz, G. Kehris, I. Kiskiras, A. Koulouris, E. Kyriakis, A. Lankford, L. Lee, H. Leung, F. Li, Y. Liang, H. Lu, N. Lupu, V. Martinez, S. Martoiu, D. Matakias, I. Mehalev, I. Mesolongitis, P. Miao, G. Mikenberg, L. Moleri, P. Moschovakos, J. Narevicius, J. Oliver, D. Pietreanu, R. Pinkham, E. Politis, V. Polychronakos, S. Popa , M.M.	The New Small Wheel electronics	Journal of Instrumentation	17480221

	Prapa, I. Ravinovich, A. Roich, R.A. Rojas Caballero, Y. Rozen, M. Schernau, T. Schwartz, G. Scott, O. Shaked, M. Solis, S. Sun, A. Taffard, S. Tang, Z. Tarem, W. Tse, Y. Tu, A. Tuna, P. Tzanis, S. Tzanos, R. Vari, M. Vasile, A. Vdovin, J. Vermeulen, J. Wang, X. Wang, A. Wang, R. Wang, X. Xiao, L. Yao, C. Yildiz, K. Zachariadou, B. Zhou, J. Zhu, S.U. Zimmermann and O. Zormpa			
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CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2019	Stefan Popa , Mihai Luchian, Mihai Ivanovici	Clock and data signals synchronization for an FPGA-based ASIC testing setup	International Symposium on Signals, Circuits and Systems (ISSCS)
2020	Stefan Popa , Mihai Ivanovici, Radu-Mihai Coliban	Time-multiplexed 10Gbps Ethernet-based Integrated Logic Analyzer for FPGAs	International Symposium on Electronics and Telecommunications (ISETC)
2022	Ștefan Popa , Radu-Mihai Coliban, Mihai Ivanovici	An Optimal Implementation of an 8b/10b Encoder for Xilinx FPGAs	International Symposium on Electronics and Telecommunications (ISETC)
2023	George Feldioreanu, Stefan Popa , Mihai Ivanovici	Convolutional Neural Network implemented on FPGA for trajectory classification	International Symposium on Signals, Circuits and Systems (ISSCS)
2024	Kamal Marandskiy, Mihai Ivanovici, Stefan Popa	Machine Learning-Based Classification of Sentinel-1 Backscattering Coefficients Using Generated Plant Schematics	IEEE International Geoscience and Remote Sensing Symposium
2024	Stefan Popa , Artur Kazak,	Architecture and Design Choices for an AI-enabled	International Symposium on Electronics and

	Alexandru Dinu, Mihai Ivanovici, Nicolae Secrieru, Viorel Carbune, Vladimir Melnic	FPGA-based Cosmic Radiation Sensor	Telecommunications (ISETC)
2025	Mihai Ivanovici, Ioana Plajer, Ștefan Popa , Corneliu Florea, Andrei Racoviteanu	Path Reconstruction from Video Sequences Using Nadir View and Optical Flow	International Conference on Engineering of Modern Electric Systems (EMES)
2025	Andrei Bertescu, Ștefan Popa	The Design and Implementation of an FPGA-Based Cosmic Radiation Sensor PCB	International Conference on Engineering of Modern Electric Systems (EMES)
2025	Viorel Bostan, Nicolae Secrieru, Mihai Ivanovici, Irina Cojuhari, Alexandru Pandele, Ștefan Popa , Vladimir Melnic, Nicolae Magariu, Alexei Martîniuc	Research space missions developed at the TUM Space Centre	IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)
2025	Ștefan Popa , Andrei Bertescu, Cristian Furtună, Artur Kazak, Mihai Ivanovici, Alexei Martiniuc, Viorel Carbune, Vladimir Melnic, Nicolae Secrieru	Power and Cross-Section Optimization for an FPGA-Based Cosmic Radiation Sensor	IEEE International Conference on Electronics, Circuits and Systems (ICECS)
2019	S. Popa , S. Martoiu, M. Luchian, R. Coliban, M. Ivanovici	The Quality-Assurance Test of the ATLAS New Small Wheel Read-Out Controller ASIC	Topical Workshop on Electronics for Particle Physics

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Pușcașu Alexandru

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2023	Jâjâie, A., Pușcașu, A., Ailenei, I., Ciobanu, C. B., & Svasta, P.	Chipselets and next-gen packaging technologies in university education	<i>2023 IEEE 29th International Symposium for Design and Technology in Electronic Packaging (SIITME)</i>
2024	Ciobanu, C. B., Gâlmeanu, H., Pușcașu, A., Gologanu, M., Buiu, O., Antonescu, M., ... & Koci, K.	RISC-V Accelerators, Enablement and Applications for Automotive and Smart Home in the ISOLDE Project	<i>International Conference on Embedded Computer Systems: Architectures, Modeling, and Simulation</i>
2024	Pușcașu, A., Ciobanu, C. B., & Buiu, O.	Systolic Array Matrix Multiplication Accelerator	<i>2024 International Semiconductor Conference</i>
2025	R. Stancu, M. Gologanu, A. Pușcașu, C. B. Ciobanu and O. Buiu	Scalable 16-N Point FFT Accelerator	<i>2025 IEEE 31st International Symposium for Design and Technology in Electronic Packaging (SIITME)</i>

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Radu Florin

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2023	Radu Florin, Cotfas Petru Adrian, Alexandru Marian, Bălan Titus Constantin, Popescu Vlad, Cotfas Daniel Tudor	Signals Intelligence System with Software-Defined Radio	Applied Sciences	2076-3417

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2025	Radu Florin, Cotfas Petru, Tuyishime Emmanuel, Cotfas Daniel, Constantin Andrei, Alexandru Marian, Popescu Vlad.	Secure Testing and Simulation System Based on Raspberry Pi	2025 IEEE 31st International Symposium for Design and Technology in Electronic Packaging (SIITME)
2025	Constantin Andrei, Chis Alexandru, Radu Florin, Solca Robert, Balan Titus.	Assessment of Multi-Model Approach for Drone Security	2025 24th RoEduNet Conference: Networking in Education and Research (RoEduNet)
2024	Tuyishime Emmanuel, Radu Florin, Cotfas Petru, Cotfas Daniel, Balan Titus, E. Tuyishime, F. Radu, P. Cotfas, D. Cotfas, T. Balan and A.	Online Laboratory Access Control With Zero Trust Approach: Twingate Use Case	2024 16th International Conference on Electronics, Computers and Artificial Intelligence

	Rekeraho Alexandre.		
2020	Radu Florin, Timofte Andra, Balan Alexandra, Sandu Florin.	LTE Communications Using an SDR Platform	2020 13th International Conference on Communications (COMM)
2020	Timofte Andra, Radu Florin, Balan Alexandra, Balan Titus.	SDR-Based Platform for Processing the Images Transmitted Through the WLAN [2020] 802.11a Protocol	2020 13th International Conference on Communications (COMM)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Sasu Laura

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2024	Sasu Laura	"Comparative-Contrastive Approach to Romanian-English Technical Translations: Numerals"	Annals of the Constantin Brâncuși University of Târgu Jiu, Târgu Jiu, nr.2/2024, pp. 205-213 (BDI)	ISSN-P: 1844-6051 ~ ISSN-E: 2344-3677
2023	Sasu Laura	"Comparative-Contrastive Analysis of Expressing Factuality and Non-Factuality in Romanian and English"	Research and Science Today, Academica Brâncuși Publishing, Târgu Jiu, nr.2(26)/2023, pp. 129-141(BDI)	ISSN-P: 2247-4455 ~ ISSN-E: 2285-9632
2018	Sasu Laura	"Challenges in Romanian/English Translation of Technical Terminology"	Research and Science Today, Academica Brâncuși Publishing, Târgu Jiu, nr.2(16) – 2018, pp. 166-174 (BDI)	ISSN-P: 2247-4455 ~ ISSN-E: 2285-9632
2017	Sasu Laura	"Comparative-Contrastive Analysis of Romanian to English Translation. Language Structures"	Research and Science Today, Academica Brâncuși Publishing, Târgu Jiu, nr.2(14)/2017, pp. 112-119 (BDI)	ISSN-P: 2247-4455 ~ ISSN-E: 2285-9632

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2020	Lindeman S.I, Mada S, Sasu L, Matei M.,	"Thematic Role and Grammatical Function Affect Pronoun Production"	International Conference of Experimental Linguistics, ExLing, 2020

			(Contribuție publicată în ExLing 2020 Proceedings of 11th International Conference of Experimental Linguistics 12-14 October 2020 Athens, Greece)
2017	Sasu Laura	"Comparative-Contrastive Analysis of Romanian-English Translation of Verb Phrase Structures"	4 th Conference on Theoretical and Applied Linguistics Structure, Use and Meaning: DeRecontextualisation (Contribuție publicată în volum: "Comparative-Contrastive Analysis of Romanian-English Translation of Verb Phrase Structures" - De/Recontextualisation, Structure, Use and Meaning (ed) E. Buja, S. Măda, M. Arhire, Editura Universității Transilvania din Brașov, 2017, pp. 289 – 300)

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Shields Roxana

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	Roxana Shields – co-autor	The impact of the covid-19 pandemic on university education in the field of construction: adaptations and challenges in the entrepreneurial training of students (DOI: 10.3389/feduc.2025.1623392)	<i>Frontiers in Education</i>	2504-284X
	Roxana Shields – co-author	Perception of risks associated with the use of conventional and electronic cigarettes among students	<i>În curs de publicare - PLOS ONE (Web of Science)</i>	
2023	Roxana Shields - author	The Sick Offspring of Science: Bad Science and Pseudoscience (https://doi.org/10.31926/but.ssl.2022.15.64.2.13)	<i>Buletin of The Transilvania University of Brasov</i>	2971-9410
2024	Roxana Shields - author	De la Teluric la Transcendent - Ion Dumitriu „Lucrul Diafan” (https://www.revista-astra.ro/literatura/arhiva-supliment-astra/astra-literatura-arte-si-idei-nr-1-22024)	Revista <i>Astra</i>	

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CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2024	Roxana Shields	„A Sense of Place and a Sense of Self – Conceptual Clarifications in a Pervasive Digital Age”	Colocviul Internațional de Științe Sociale și Comunicare ACUM 2024, Universitatea Transilvania Brașov

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Lista lucrărilor științifice ale resursei umane de la TSTc – Tulbure Traian

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2016	R.M. Coliban, S. Popa, T. Tulbure, D. Nicula, M. Ivanovici, S.Martoiu,L. Levinson, J. Vermeulen	The Read Out Controller for the ATLAS New Small Wheel	Journal of Instrumentation	11(02):C02069

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC - Vasian Bianca

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2023	Vasian Bianca Ioana	On approximation properties of some non-positive Bernstein-Durrmeyer	An. Șt. Univ. Ovidius Constanța	1224 - 1784
2023	Vasian Bianca Ioana	On approximation properties of some non-positive Bernstein-Durrmeyer type operators modified in the Bezier-King sense	Dolomites Research Notes on Approximation	2035 - 6803
2021	Vasian B. I., Garoiu Ș. L., Păcurar C. M.	On new classes of Stancu-Kantorovich-type operators	Mathematics	2227 - 7390
2024	Vasian B. I.	Voronovskaja type theorem for some nonpositive Kantorovich type operators	Carpathian Journal of Mathematics	1843 - 4401
2025	Vasian B. I., Păltănea R.	Double weighted second order modulus	Results in Mathematics	1420 - 9012

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2022	Vasian B. I.	On approximation properties of some non-positive Bernstein-Durrmeyer	44 th summer symposium in real analysis, Paris – Orsay, France.
2022	Vasian B. I.	On approximation properties of some non-positive Bernstein-Durrmeyer	Functional Analysis, Approximation Theory and Numerical Analysis, Matera, Italy.
2022	Vasian B. I.	Approximation properties of some non positive Kantorovich operators	International conference on approximation theory and its application, Sibiu, Romania.

2022	Vasian B. I.	Approximation properties of some non positive Kantorovich operators	International E-Conference on Mathematical and Statistical Sciences: A Selcuk Meeting
2022	Vasian B. I.	On approximation properties of some non-positive linear operators	MACOS 2022, Braşov, Romania
2024	Vasian B. I.	Generalized Kantorovich operators	MACOS 2024, Braşov, Romania

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

1.

Lista lucrărilor științifice ale resursei umane de la TSTC - Voicu Nicoleta

C. ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2025	C. Pfeifer, N. Voicu, A. Friedl-Szász, E. Popovici-Popescu	From kinetic gases to an exponentially expanding universe—the Finsler-Friedmann equation	Journal of Cosmology and Astroparticle Physics 10, 050	1475-7516
2025	E. di Valentino et al.	The CosmoVerse White Paper: Addressing observational tensions in cosmology with systematics and fundamental physics	Physics of the Dark Universe 49, 101965	2212-6864
2025	A. Friedl-Szasz, E. Popovici-Popescu, N. Voicu, C. Pfeifer, S. Heefer	Cosmological Landsberg-Finsler spacetimes	Physical Review D 111, 044058	2470-0010
2025	L. Ducobu, N. Voicu	Metric-affine cosmological models and the inverse problem of the calculus of variations. Part II: variational bootstrapping of the Λ CDM model	European Physical Journal C 85:85	1434-6044
2024	N. Voicu, S. Elgendi	Metrizability of SO (3)-invariant connections: Riemann versus Finsler	Classical and Quantum Gravity 41(15), 155012	1361-6382
2024	L. Ducobu, N. Voicu	Metric-affine cosmological models and the inverse problem of the calculus of variations. Part I: variational bootstrapping – the method	European Physical Journal C 84, 585	1434-6044
2023	N. Voicu, C. Pfeifer, S. Cheraghchi	Birkhoff Theorem for Berwald Finsler spacetimes	Physical Review D 108, 104060	2470-0010
2023	S. Cheraghchi, C. Pfeifer, N. Voicu	Four-dimensional SO(3)-spherically symmetric Berwald-Finsler spaces	International Journal of Geometric Methods in Modern Physics 20(11), 2350190	0219-8878

2023	N. Voicu, A. Friedl-Szasz, E. Popovici-Popescu, C. Pfeifer	The Finsler Spacetime Condition for (α, β) -Metrics and Their Isometries	Universe 9, 198	2218-1997
2022	M. Hohmann, C. Pfeifer, N. Voicu	Mathematical foundations for field theories on Finsler spacetimes	Journal of Mathematical Physics 63, 032503	0022-2488
2022	N. Voicu, S. Garoiu, B. Vasian	On the closure property of Lepage equivalents of Lagrangians	Differential Geometry and its Applications 81, 101852	0926-2245
2021	M. Hohmann, C. Pfeifer, N. Voicu	Canonical variational completion and 4D Gauss–Bonnet gravity	European Physical Journal Plus 136, 180	2190-5444
2021	N. Minculete, C. Pfeifer, N. Voicu	Inequalities from Lorentz-Finsler norms	Mathematical Inequalities and Applications 24(2), 373–398	1331-4343
2020	M. Hohmann, C. Pfeifer, N. Voicu	The kinetic gas universe	European Physical Journal C 80, 809	1434-6044
2020	M. Hohmann, C. Pfeifer, N. Voicu	Cosmological Finsler spacetimes	Universe 6(5), 65	2218-1997
2020	A. Fuster, S. Heefer, C. Pfeifer, N. Voicu	On the non-metrizability of Berwald Finsler spacetimes	Universe 6(5), 64	2218-1997
2020	M. Hohmann, C. Pfeifer, N. Voicu	Kinetic gases as direct gravity sources	Physical Review D 101, 024062	2470-0010
2019	M. Hohmann, C. Pfeifer, N. Voicu	Finsler gravity action from variational completion	Physical Review D 100, 064035	2470-0010
2018	N. Voicu	Conformal maps between pseudo-Finsler spaces	International Journal of Geometric Methods in Modern Physics 15(01), 1850003	0219-8878
2017	N. Voicu	Volume forms for time orientable spacetimes	Journal of Geometry and Physics 112, 85–94	0393-0440
2016	N. Voicu	Energy-momentum tensors in classical field theories – a modern perspective	International Journal of Geometric Methods in Modern Physics 13, 1640001	0219-8878
2016	V. Balan, M. Rahula, N. Voicu	Iterative calculus on tangent floors	Analele Șt. Univ. Ovidius Constanța – Seria Matematică 24(1), 121–152	1224-1784

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1	German Academic Exchange Service (DAAD) grant no. 91808984, (program: Research Stays for University Academics and Scientists, 2021)		2000 Euro	
2				

Brevete de invenții :

Lista lucrărilor științifice ale resursei umane de la TSTc – Zaharia Corneliu

ARTICOLE ISI (ULTIMII ZECE ANI)

An	Autori	Titlul	Revista	ISSN
2023	Murroni, M., Anedda, M., Fadda M., Ruiu P., Popescu V., Zaharia, C. , Giusto, D.	6G—Enabling the New Smart City: A Survey	<i>Sensors 2023</i>	1424-8220
2023	Zaharia, C. , Popescu V., Sandu, F	Hardware–Software Partitioning for Real-Time Object Detection Using Dynamic Parameter Optimization	<i>Sensors 2023</i>	1424-8220

CONFERINTE NATIONALE SI INTERNATIONALE (ULTIMII ZECE ANI)

An	Autori	Titlul	Conferința
2021	Zaharia, C. , Sandu, F., & Danciu, G.	Adaptive Scaling for Image Sensors in Embedded Security Applications	<i>2021 20th RoEduNet Conference: Networking in Education and Research (RoEduNet)</i>
2020	Zaharia, C. , Sandu, F., & Balan, A.	Usage of Asymetric Small Binning to Compute Histogram of Oriented Gradients for Edge Computing Image Sensors	<i>2020 19th RoEduNet Conference: Networking in Education and Research (RoEduNet)</i>
2017	Zaharia, C. , Dinu, D., & Caliman, A.	PVANet optimization for person detection	<i>2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP)</i>
2021	Nica, A., Balan, A., Zaharia, C. , & Balan, T.	Automated Testing of GUI Based Communication Elements	<i>International Conference on Remote Engineering and Virtual Instrumentation</i>

CONTRACTE

Nr.crt.	Teme de cercetare științifică	Modul de finanțare *	Rezultate și modalități de valorificare a cercetării	
			Valoare realizată	Lucrări, publicații, granturi, alte produse ale cercetării**
1				

Brevete de invenții :

- Sultana, B., Petrescu, S., Nicolau, R., Ursachi, V. I., Bigioi, P., **Zaharia, C.**, Corcoran P., Fulop, S. & Gangea, M. – „*Face Or Other Object Detection Including Template Matching*” [Hardware] – 2012 - DIIDW:2012F08407 [52 citări]
Brevete: US2012106790-A1; US8995715-B2
- Sultana, B., Petrescu, S., Nicolau, R., Ursachi, V. I., Bigioi, P., **Zaharia, C.**, Corcoran P., Fulop, S. & Gangea, M. – „*Face Or Other Object Detection Including Template Matching*” [Multiple data processing] – 2015 - DIIDW:201541872D [7 citări]
Brevete: US2015206030-A1; US9639775-B2
- Nicoara, N., Raceala, C., **Zaharia, C.**, Fulop, S., & Iovita, O. - “*Image processing system*” [Prefiltering] - 2017 - DIIDW:2017433617 [4 citări]
Brevete: US2017185864-A1; WO2017108222-A1; EP3213257-A1; EP3213257-B1; CN108431824-A; US10460198-B2
- Nicoara, N., Raceala, C., **Zaharia, C.**, Fulop, S., & Iovita, O. - “*Image processing system*” [Specific - Windowing] - 2020 - DIIDW: 202012929
Brevet: US2020050885-A1
- Nicoara, N., Raceala, C., **Zaharia, C.**, Fulop, S., & Iovita, O. - “*Image processing system*” [Generic] - 2020 - DIIDW: 2020C0641
Brevet: US2020380291-A1
- Munteanu, M. C., Georgescu, V., **Zaharia, C.**, & Suci, I. - “*Method for producing a histogram of oriented gradients*” - 2018 - DIIDW:201722756Q [4 citări]
Brevete: US2017098135-A1; WO2017198861-A1; US9977985-B2; CN109478242-A; EP3459010-A1; US2019205691-A1; US10839247-B2
- Zaharia, C.**, Bigioi, P., & Corcoran, P. - “*Real-time video frame pre-processing hardware*” - 2019 - DIIDW:2012A62692 [26 citări]
Brevete: WO2012004672-A2; US2012008002-A1; WO2012004672-A3; WO2012004672-A9; JP2013531853-W; KR2013098298-A; CN103098077-A; US2015042670-A1; US9053681-B2; JP5819956-B2; KR1646608-B1; CN103098077-B; CN106408502-A; US9607585-B2; US2017256239-A1; US10418001-B2; US2020005739-A1; CN106408502-B; US10930253-B2
- Fulop S., **Zaharia, C.**, & Bigioi, P. - “*Multi-processor neural network processing apparatus*” - 2020 - DIIDW: 202050355Q
Brevete: US2020184321-A1; EP3668015-A2; CN111311476-A; EP3668015-A3; EP3668015-B1
- Munteanu, M., Pososin, A., Stec, P., & **Zaharia, C.** - “*Method and system for correcting a distorted input image*” [Image Stabilization] - 2014 - DIIDW:2014A78350 [20 citări]
Brevete: US2014009568-A1; WO2014005783-A1; US8928730-B2; EP2870585-A1; EP2870585-B1
- Stec, P., Pososin, A., Munteanu, M., & **Zaharia, C.** - “*Method and system for correcting a distorted input image*” [Hardware Implementation] - 2015 - DIIDW: 2015364145 [12 citări]

Brevete: US2015178897-A1; US9262807-B2

11. Stec, P., Pososin, A., Munteanu, M. C., **Zaharia, C.**, & Georgescu, V. - *"Method And System For Correcting A Distorted Input Image" [Perspective Correction]*- 2016 - DIIDW:2015551294 [25 citări]

Brevete: US2015262344-A1, US9280810-B2, EP3101622-A2, EP3101622-A3, EP3101622-B1

12. Georgescu, V., Munteanu, M. C., Bigioi, P., **Zaharia, C.**, Fulop, S., & Simon, G. - *"Image processing apparatus" [Normalization]*- 2018 - DIIDW:201714663M [5 citări]

Brevete: US2017061639-A1; WO2017032468-A1; EP3341912-A1; CN108352054-A; US10115003-B2; EP3341912-B1

13. Georgescu, V., Munteanu, M. C., Bigioi, P., **Zaharia, C.**, Fulop, S., & Simon, G. - *"Image processing apparatus" [One step rotation and scaling]* – 2019 - DIIDW: 201937402C

Brevete: US2019130164-A1; US11106894-B2

14. Munteanu, M. C., Caliman, A., & **Zaharia, C.** - *"Convolutional neural network (CNN)" [HW Acceleration - PCNN]*- U.S. Patent No. 9,665,799. Washington, DC: U.S. Patent and Trademark Office - 30 May 2017 - DIIDW:2017344715 [31 de citări]

Brevet: US9665799-B1

15. Munteanu, M. C., Caliman, A., **Zaharia, C.**, & Dinu, D. - *"Convolutional neural network (CNN)" [Floating point 8 optimizations]*- 2017 - DIIDW: 201752317 [37 de citări]

Brevete: US2017221176-A1; US10497089-B2

16. Bigioi, P., Munteanu, M. C., Caliman, A., **Zaharia, C.**, & Dinu, D., & Kahrman, A. - *"Convolutional neural network (CNN)" [Advanced Memory Management]*- 2019 - DIIDW: 201752615T

Brevete: WO2017129325-A1; CN108701236-A; EP3408798-A1; US2020126178-A1; EP3408798-B1; US11087433-B2

17. **Zaharia, C.**, Bigioi, P., (WO, EP, CN) / Bigioi, P., & **Zaharia, C.** (US) - *"Peripheral processing device"* – 2019 - DIIDW:201919589P [4 citări]

Brevete: US2019065410-A1; WO2019042703-A1; EP3580691-A1; CN111052134-A; EP3580691-B1; US10713186-B2; EP3699816-A1

18. **Zaharia, C.** - *"Vehicle side view camera system with adjustable field of view"* - 2020 - DIIDW: 2020439412 [2 citări]

Brevete: US2020156592-A1; US10836353-B2

19. **Zaharia, C.** - *"Vehicle side view camera system with adjustable field of view" [un-authorized access]* - U.S. Patent No. 10,836,353. Washington, DC: U.S. Patent and Trademark Office - 17 Nov. 2020 - DIIDW:2021451205

Brevet: US2021129797-A1

20. Liu, X., Gutierrez, R. C., Leang, P. K., Mendez, J. A., **Zaharia, C.**, Drimborean, A. F., & Bigioi, P. G. - *"MEMS-based optical image stabilization"* - U.S. Patent No. 8,855,476. Washington, DC: U.S. Patent and Trademark Office - 7 Oct. 2014 - DIIDW:2013E28560 [55 de citări]

Brevete: US2013077945-A1; US8855476-B2

21. Gutierrez, R. C., Calvet, R. J., Liu, X., Leang, P. K., Mendez, J. A., **Zaharia, C.**, Drimborean, A. F., & Bigioi, P. G. - *"MEMS-based optical image stabilization"* – 2013 - DIIDW: 2013E30185 [12 citări]

Brevete: US2013076919-A1; WO2013049688-A2; WO2013049688-A3; TW201319628-A; CN103842875-A; US9019390-B2; CN103842875-B; CN106569310-A; TW584001-B1; CN106569310-B

22. Liu, X., Gutierrez, R. C., Leang, P. K., Mendez, J. A., **Zaharia, C.**, Drimborean, A. F., & Bigioi, P. G. - *"MEMS-based optical image stabilization"* - 2015 - DIIDW: 2015209813

Brevete: US2015085363-A1; US9664922-B2

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