Universitatea Tehnică din Cluj-Napoca
Facultatea de Electronică, Telecomunicaţii şi Tehnologia Informaţiei
Departamentul Comunicații
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LISTA
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

„New methods in microarray statistical processing for genomic research from Independent Component Analysis and Higher Order Statistics*"* - teza de doctorat în cotutela
Conducător ştiinţific : Prof.dr.ing. Monica Borda, Prof.dr. Pedro Gomez Vilda
Domeniul: Inginerie electronică și telecomunicații / Informatică
Universitatea: Universitatea Tehnica din Cluj Napoca, Universitatea Politehnica din Madrid, Spania
Susţinere publică: *22.01.2010.*

B – Cărţi şi capitole în cărţi publicate

CĂRŢI

1. Monica Borda , Romulus Terebes , **Raul Malutan** , Ioana Ilea , Mihaela Cislariu , Andreia Miclea , Stefania Barburiceanu, Randomness and Elements of Decision Theory Applied to Signals, ISBN 978-3-030-90313-8, Ed. Springer Cham, 2021
2. M. Borda, M. Cislariu, I. Ilea, **R. Malutan**, R. Terebes., Decizie si estimare in prelucrarea informatiei. Aplicatii. ISBN:978-606-737-252-6, U.T.Press, Cluj-Napoca, 2017
3. Bogdan Belean, Monica Borda, **Raul Măluţan**, Architectures reconfigurables pour le traitement du signal: applications pratiques dans le codage d'information et le traitement des images (limba franceză), ISBN 978-973-662-870-2, 117p, U.T.Press, Cluj-Napoca, 2013
4. **Raul Malutan**, Monica Borda, Bogdan Belean, Traitement du signal génomique - Travaux pratiques (limba franceză), UT Press, ISBN 978-973-662-608-1, 57p, U.T.Press, Cluj-Napoca, 2011.

CAPITOLE DE CARTE

1. **Raul Măluţan** and Pedro Gómez Vilda, Thermodynamics of Microarray Hybridization (limba engleză), Book Chapter in Thermodynamics - Fundamentals and Its Application in Science edited by Ricardo Morales-Rodriguez, ISBN 978-953-51-0779-8, InTech, 2012 DOI: 10.5772/51624

C – Lucrări indexate ISI/BDI publicate în ultimii 10 ani

c1) Articole / studii publicate în reviste de specialitate de circulaţie internaţională recunoscute (cotate ISI)

1. S Barburiceanu, S Meza, B Orza, **R Malutan**, R Terebes, Convolutional neural networks for texture feature extraction. Applications to leaf disease classification in

precision agriculture, IEEE Access, Page(s): 160085 – 160103, 2021, WOS:000728916800001

2. Terebes, R ; **Malutan, R** ; Borda, M ; Germain, C ; Bombrun, L ; Ileai, I., Polarimetric Radar Image Classification Using Directional Diffusion And Descriptive Statistics, Revue Roumaine Des Sciences Techniques-Serie Electrotechnique Et Energetique, Volume: 63, Issue: 1, Pages: 83-88, Published: JAN-MAR 2018, WOS:000430897800014

c2) Studii publicate la conferinţe indexate în baze de date internaţionale de referinţă în domeniul ..... (DBLP, ACM, IEEE, SCOPUS)[1]

1. **R Malutan**, AV Miclea, S Barburiceanu, DT Oltean, Data Analytics of Gait Monitoring from Parkinson's Disease Patients, *Proceedings of 2022 E-Health and Bioengineering Conference (EHB),* 17-18 November 2022, DOI: 10.1109/EHB55594.2022.9991434 **[IEEE]**
2. C Bic, R Terebes, **R Malutan**; Shape and Contrast Adaptive Non-local Means Filter, *Proceeding of 2020 IEEE 16th International Conference on Intelligent Computer Communication and Processing (ICCP),* 3-5 September 2020, Cluj-Napoca, Romania, **WOS:000646618600050**
3. **Malutan Raul**; Emerich Simina; Local Line Binary Pattern Vein Extraction from Dorsal Hand Images for Intruder Detection, *Proceeding of 7th E-Health and Bioengineering Conference (EHB)*, NOV 21-23, 2019, Iasi, ROMANIA, **WOS:000558648300156**
4. Ahgue, A.O., Nkapkop, J.D.D., Effa, J.Y., Franz, S., **Malutan, R.,** Borda, M, A new DNA-combining chaos scheme for fast and secure image encryption, *Proceedings of 11th International Conference on Security for Information Technology and Communications, SecITC 2018*; Bucharest; Romania; 8-9 November 2018, Pages 443-457, **[DBLP], [SCOPUS]**
5. **Malutan, R.,** Emerich, S., Crisan, S., Pop, O. & Lefkovits, L, Dorsal Hand Vein Recognition Based on Riesz Wavelet Transform and Local Line Binary Pattern, *Proc. Of 3rd International Conference on Frontiers of Signal Processing (ICFSP)*, SEP 06-08, 2017, pp. 146-150, **WOS:000425242400030**
6. Emerich, S., **Malutan, R.,** Crisan, S., & Lefkovits, L, Iris indexing based on local intensity order pattern. *Proceedings of SPIE 2016 Ninth International Conference on Machine Vision*, Volume: 10341, pp. 1034121-1034121, WOS:000410664800072, March 2017, **[SPIE] WOS:000410664800072**
7. Lefkovits, L, Lefkovits, S, Vaida, M.F., **Malutan, R.,** Emerich, S., Comparison of Classifiers for Brain Tumor Segmentation, Proc. Of 5th International Conference on Advancements of Medicine and Health Care through Technology (MEDITECH), Cluj Napoca, OCT 12-15, 2016, Volume: 59 Pages: 195-200, **WOS:000426009100043**

[1] indexate în:
[IEEE] - IEEE Xplore (http://ieeexplore.ieee.org/Xplore/guesthome.jsp)
[ACM] - ACM portal (http://portal.acm.org)
[DBLP] - (http://www.informatik.uni-trier.de)
[SCOPUS] - (http://www.scopus.com)

8. **Măluţan, R.**, Terebeş, R., Cîşlariu, M., Germain, C., Ilea, I, ICA based PolSAR image denoising. *Proceedings of 12th IEEE International Symposium on Electronics and Telecommunications (ISETC)*, 2016, pp. 349-352, **[IEEE] WOS:000390717800077**
9. Romulus Terebes, Monica Borda, **Raul Malutan**, Christian Germain, Lionel Bombrun, Ioana Ilea, PolSAR Image Denoising using Directional Diffusion, *Proceedings of 12th IEEE International Symposium on Electronics and Telecommunications (ISETC)*, 2016, pp. 339-342, **[IEEE] WOS:000390717800075**
10. Emerich, S., **Măluţan, R.**, Lupu, E., Lefkovits, L., Patch based descriptors for iris recognition. *Proceedings of 12th International Conference on Intelligent Computer Communication and Processing (ICCP)*, 2016 (pp. 187-191). **[IEEE] WOS:000391857000025**
11. **R Malutan**, S Emerich, O Pop, L Lefkovits, Half iris biometric system based on HOG and LIOP, *Proceedings of IEEE Frontiers of Signal Processing (ICFSP), International Conference on*, 15-17 Oct. 2016, Warsaw, Poland, 2016 **[IEEE] WOS:000392406000019**

D – Lucrări publicate în ultimii 10 ani în reviste şi volume de conferinţe cu referenţi (neindexate)

- Reviste

1. Buhaiu OS, **Malutan R**., Design and implementation of a ro e-invoice platform integrated with SPV ANAF. Acta Technica Napocensis. 2025 Apr 1;65(2):17-24
2. Ilea I, Miclea-Cecalaca AV, Cislariu M, **Malutan R**, Grosu G. Texture based polarimetric synthetic aperture radar image classification using covariance matrices. Acta Technica Napocensis. 2025;65(1):1-4.
3. **Măluțan R**, Brisc B. Mobile application for ble indoor positioning. Acta Technica Napocensis. Electronica-Telecomunicatii. 2023 Jul 1;63(2):19.
4. **Raul Malutan**, Mircea Pop, Mihaela Cislariu, Monica Borda, Secure access system on the QorIQ NXP platform using RSA and DSA, Acta Tehnica Napocensis, ISSN 121-6542, vol. 48(4), pp. 23-26, 2016

- Selecţie cu maximum 20 lucrări în volume de conferinţe

E – Brevete obţinute pentru întreaga activitate

1. Bogdan Belean, Monica Borda, Romulus Terebeș, Raul Emil Măluțan, Method and hardware architecture for automatic microarray image addressing, Patent Number(s): RO127341-A2, 30 Apr 2012
2. Monica Borda, Olga Tornea, Romulus Terebeș, Raul Emil Măluțan, OTP encryption system and method based on random sequences determined by DNA structures,Patent Number(s): RO129751-A2, 30 Dec 2020

F – Contracte de cercetare (2021-2026)

Data Semnătura