Universitatea Tehnică din Cluj-Napoca
Facultatea de Electronică, Telecomunicaţii şi Tehnologia Informaţiei
Departamentul de Comunicații
Prof. dr.ing. Romulus TEREBEŞ

LISTA
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

Titlul tezei de doctorat : Diffusion directionnelle. Applications à la restauration et à l'amélioration d'images de documents anciens (lb. franceză) - Difuzie direcţională. Aplicaţii în restaurarea si ameliorarea imaginilor reprezentând documente vechi (lb. română). **Conducători ştiinţifici**: Prof. dr.ing. Monica Borda (UTCN), Prof.dr.Pierre Baylou (Universitatea Bordeaux 1, Franța)

Domeniul: Inginerie electronică și telecomunicații (România)/Automatique, productique, signal et image (Franța)

Universitatea: Universitatea Tehnică din Cluj-Napoca / Universitatea Bordeaux 1, Franța, Teză de doctorat în cotutelă Universitatea Tehnică din Cluj-Napoca – Universitatea Bordeaux 1, Franţa.

Distincţii:"Magna cum laude" (România)/ menţiune "Tres honorable" (Franţa).

Susținere publică: 28.05.2004

B – Cărţi şi capitole în cărţi publicate

CĂRȚI

1. Monica Borda, **Romulus Terebes**, Raul Malutan, Ioana Ilea, Mihaela Cislariu, Andreia Miclea, Stefania Barburiceanu - "Randomness and Elements of Decision Theory Applied to Signals", Springer, 2021, Hardcover ISBN: 978-3-030-90313-8, Softcover ISBN: 978-3-030-90316-9, eBook ISBN: 978-3-030-90314-5, https://doi.org/10.1007/978-3-030-90314-5.
2. **Romulus Terebeș** - *Comunicații Mobile (îndrumător de laborator)*, Editura UTPRESS, Cluj-Napoca, 2019, (https://biblioteca.utcluj.ro/files/carti-online-cu-coperta/385-1.pdf), ISBN 978-606-737-385-1, 96 pagini.
3. **Romulus Terebeș** - *Techniques avancées pour le traitement des images et de la vidéo (Travaux pratiques)*, Editura UTPRESS, Cluj-Napoca, ISBN ISBN 978-606-737-386-8, 2019 (https://biblioteca.utcluj.ro/files/carti-online-cu-coperta/386-8.pdf), 69 pagini.
4. Monica Borda, Ioana Ilea, Mihaela Cîslariu, Raul Măluțan, **Romulus Terebeș**- *Decizie și estimare în prelucrarea informației. Aplicații (îndrumător de laborator)*, Editura UTPRESS Cluj-Napoca, 2019, ISBN 978-606-737-252-6, 2017, 254 pagini.
5. Marian Alexandru, Camelia Butnaru, Mihai Romanca, Daniela Manea, Nicolae Aleman **Romulus Terebeș** – *Dezvoltarea carierei universitare în domeniul tehnic*, Editura U.T. Press, ISBN 978-973-662-820-7, 2013, 60 pagini.
6. **Romulus Terebes**; coord. Aurel Vlaicu, Bogdan Orza, Şerban Meza, Laura Grindei - Modul 2 – *Utilizarea TIC în procesul educațional. Distribuirea și accesarea materialelor online. Blended & e-learning*, Editura UTPRESS, Cluj-Napoca, ISBN 978-973-662-694-4, 2012, 52 pagini.

7. Sorin Pop, **Romulus Terebes**, M. Borda - *Traitement du signal et d'image par ondelettes. Travaux pratiques*, Editura UTPRESS, Cluj-Napoca, ISBN 978-973- 662-427-8, 2008, 52 pagini.
8. **Romulus Terebeş** – *Mobile communication systems. Part one: GSM networks*, Editura UTPRESS, Cluj-Napoca, 2006, ISBN 978-973-662-221, 978-973-622-222-9, 159 pagini.
9. Borda Monica Elena, Sorina Zahan, Calin Vaduva, **Romulus Terebeş** -*Teoria Transmiterii Informaţiei, îndrumător de laborator*, Litografia UTCN, 1996, program TEMPUS S-JEP 08012-94, 72 pagini.

CAPITOLE DE CARTE

10. **Romulus Terebeș** – *Implementarea sistemelor ierarhizate și distribuite*, capitolul 4 din cartea *Sisteme ierarhizate și distribuite,* **autor H.Vălean**, Editura Oamenilor de știință din România, 2011, ISBN 978-606-8371-26-9, paginile 53-52.

MATERIALE DIDACTICE ÎN FORMAT ELECTRONIC

11. Romulus Terebeș – Mobile communications, suport de curs și laborator în format electronic https://ares.utcluj.ro/mc.

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

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

Reviste

1. IA. Potarniche, C, Sarosi, RM, Terebes, L. Szolga, R. Galatus, - Classification of Food Additives Using UV Spectroscopy and One-Dimensional Convolutional Neural Network, *SENSORS* Volume 23 Issue 17, DOI10.3390/s23177517, WOS: 001060622600001, 2023

1. T. Adnane, H. Moulai, **R. Terebes**. Analysis of DC low energy discharges emitted light for transformer oil state assessment, *ELECTRICAL ENGINEERING* Vol. 104 , Issue: 6, pp. 4019-4029, DOI: 10.1007/s00202-022-01606-4, 2022 (WOS:000826126600001), ISSN: 0948-7921.
2. AV. Miclea, **RM Terebes**, S. Meza, M. Cislariu, M. On Spectral-Spatial Classification of Hyperspectral Images Using Image Denoising and Enhancement Techniques, Wavelet Transforms and Controlled Data Set Partitioning, *REMOTE SENSING,* Vol. 14 Issue: 6 Article Number: 1475 DOI: 10.3390/rs14061475 2022, (WOS:000776347600001), eISSN: 2072-4292
3. A. Maali, **R. Terebes**, S. Laafar, H. Semlali, N. Boumaaz, A. Soulmani, .Hardware Implementation of Spectrum Sensing Applying Random Sampling in Cognitive Radio Networks, *ENGINEERING LETTERS,* Vol. 29 Issue: 2 pp. 775-780, 2021 (WOS:000652486600047), ISSN: 1816-093X.
4. 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*, Vol.9, pp. 160085-160103, 2021 (WOS:000728916800001), ISSN 2169-3536.
5. S. Barburiceanu, **R. Terebes**, S. Meza. 3D Texture Feature Extraction and Classification Using GLCM and LBP-Based Descriptors, *APPLIED SCIENCES-BASEL*, Vol. 11, Issue 5, Article Number: 2332, DOI: 10.3390/app11052332, 2021 (WOS:000627990600001), eISSN2076-3417.

6. **Romulus Terebes**, Raul Malutan, Monica Borda, Christian Germain, Lionel Bombrun, Ioana Ilea. Polarimetric radar image classification using directional diffusion and descriptive statistics, *Revue Roumaine Des Sciences Techniques-Série Electrotechnique et Energétique*, Volume: 63 Issue: 1, 2018, pp. 83-88, (WOS:000430897800014), ISSN: 0035-4066
7. Ioana Ilea, Lionel Bombrun, **Romulus Terebes**, Monica Borda, Christian Germain. An M-Estimator for Robust Centroid Estimation on the Manifold of Covariance Matrices, *IEEE Signal Processing Letters* (Volume: 23, Issue: 9, Sept. 2016), pp: 1255-125 , DOI 10.1109/LSP.2016.2594149/ (WOS:000381454400022), ISSN: 1070-9908
8. Bogdan Belean, **Romulus Terebeș**, Adrian Bot. Low-complexity PDE-based approach for automatic microarray image processing , *MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING*, Volume: 53 Issue: 2, 2015, pp. 99-110, , (WOS:000348417200001), ISSN: 0140-0118.

Conferințe

1. S. Barburiceanu, S. Meza, **R. Terebes** - Grape Leaf Disease Classification using LBP-derived Texture Operators and Colour,2020 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), DOI: 10.1109/AQTR49680.2020.913001 (WOS:000643732600004)
2. S. Barburiceanu, S. Meza, **R. Terebes**, - Improved 3D Co-Occurrence Matrix for Texture Description and Classification, , 2020 14TH INTERNATIONAL SYMPOSIUM ON ELECTRONICS AND TELECOMMUNICATIONS (ISETC), (WOS:000612681000059).
3. S.Barburiceanu, S. Meza, **R. Terebes**, 3D Texture Feature Extraction and Classification using the BM3DELBP approach, 2020 IEEE 16TH INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTER COMMUNICATION AND PROCESSING (ICCP 2020), WOS:000646618600059).
4. C. Bic, **R. Terebes**, R. Malutan, R Shape and Contrast Adaptive Non-local Means Filter, 2020 IEEE 16TH INTERNATIONAL CONFERENCE ON INTELLIGENT COMPUTER COMMUNICATION AND PROCESSING (ICCP 2020), (WOS:000646618600050)
5. A.V. Miclea**, R. Terebes**, S. Meza- One dimensional convolutional neural networks and local binary patterns for hyperspectral image classification, 2020 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), DOI: 10.1109/AQTR49680.2020.9129920 (WOS:000643732600065)
6. A.V. Miclea**, R. Terebes**, S. Meza-Local binary patterns and Fourier transform based hyperspectral image classification, 2020 14TH INTERNATIONAL SYMPOSIUM ON ELECTRONICS AND TELECOMMUNICATIONS (ISETC), (WOS:000612681000074).
7. Stefania Barburiceanu, **Romulus Terebes**, Serban Meza. Hyperspectral Image Classification Using the MRELBP Texture Descriptor. *Proceedings of the 7-th edition of the International Conference on e-Health and Bioengineering*, EHB 2019, noiembrie 21-23, 2019, Grigore T Popa Univ Med & Pharmacy, Iasi, ROMANIA ISBN: 978-1- 7281-2603-6 (WOS:000558648300006)
8. Andreia Valentina Miclea, Monica Borda, **Romulus Terebes**, Serban Meza. Hyperspectral Image Enhancement using Diffusion and Shock Filtering Techniques, *Proceedings of the 7-th edition of the International Conference on e-Health and Bioengineering*, EHB 2019, noiembrie 21-23, 2019, Grigore T Popa Univ Med & Pharmacy, Iasi, ROMANIA ISBN: 978-1- 7281-2603-6 (WOS:000558648300086).
9. Claudiu Bic, **Romulus Terebes**. An improved NLM filter with increased noise robustness and adaptive similarity function. *Proceedings of the 15th International Conference on*

Intelligent Computer Communication and Processing (ICCP 2019) 2019, SEP 05-07, 2019, Cluj Napoca, ROMANIA, pp. 365-370 , ISBN:978-1-7281-4914-1, (WOS:000532493700048)

10. A.V. Miclea, **R. Terebes**, I. Ilea, M. Borda. Hyperspectral image classification using combined spectral-spatial denoising and deep learning techniques, *Proceedings of the 21st IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR THETA)* 24-26, MAY, 2018, Cluj Napoca, ROMANIA, ISBN:978-1-5386-2205-6 (WOS:000450065900063)
11. **Romulus Terebes**, Monica Borda, Raul Malutan, Christian Gemain, Lionel Bombrun, Ioana Ilea. PolSAR Image Denoising using Directional Diffusion. *Proceedings of the 12th IEEE International Symposium on Electronics and Telecommunications (ISETC)* 27-28, OCT, 2016, Timisoara, ROMANIA, pp. 339-342, ISBN:978-1-5090-3748-3 (WOS:000390717800075),
12. Raul Malutan, **Romulus Terebes**, Mihaela Cislariu, Christian Germain, Ioana Ilea. ICA Based PolSAR Image Denoising, 2016 *Proceedings of the 12th IEEE International Symposium on Electronics and Telecommunications (ISETC)* 27-28, OCT, 2016, Location: Timisoara, ROMANIA, pp. 349-352, ISBN:978-1-5090-3748-3 (WOS:000390717800077).
13. Ioana Ilea, Lionel Bombrun, Christian Germain, Yannick Berthomieu, **Romulus Terebes**, Monica Borda. Texture Image Classification with Riemmanian Fischer vectors. *Proceedings of the 23rd IEEE International Conference on Image Processing (ICIP)*, 25-28, SEP, 2016, Phoenix, USA, pp. 3543-3547 ISBN:978-1-4673-9961-6, (WOS:000390782003111).
14. **Romulus Terebes,** Monica Borda, Christian Germain, Raul Malutan, Ioana Ilea. A multiplicative gradient-based anisotropic diffusion approach for speckle noise removal, *Proceedings of the E-Health and Bioengineering Conference (EHB)*, 19-21, NOV, 2015, Iasi, Romania, ISBN:978-1-4673-7545-0, (WOS:000380397900258)
15. Ioana Ilea, Lionel Bombrun, Christian Germain**,Romulus Terebes,** Borda Monica. Statistical hypothesis test for robust classification on the space of covariance matrices. *Proceedings of the International Conference on Image Processing, ICIP2015*, 27-30, SEP, Quebec City, CANADA, pp. 271-275, ISBN: 978-1-4799-8339-1 (WOS: 000371696703077).
16. Ioana Ilea, Lionel Bombrun,Christian Germain, Isabelle Champion, **Romulus Terebes**, Monica Borda. Statistical hypothesis test for maritime pine forest SAR images classification based on the geodesic distance, *Proceedings of the IEEE International Geoscience and Remote Sensing Symposium 2015*, 26-31, JUL, 2015, Milan, ITALY pp.3215-3218, ISBN:978-1-4799-7929-5, (WOS: 000371696703077).
17. Raul Malutan, **Romulus Terebes**, Christian Germain, Monica Borda, Mihaela Cislariu**.** *Proceedings of the E-Health and Bioengineering Conference (EHB)*, 19-21, NOV, 2015, Iasi, Romania, ISBN:978-1-4673-7545-0 (WOS:000380397900047)**.**

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

[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)

1. E.R Ardelean, GF Grosu. **R. Terebes**, M. Dinsoreanu - Exploiting the Self-Organizing Map for Spike Sorting, Proceedings - 2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing Conference, ICCP 2023 Pages 363 – 369, DOI 10.1109/ICCP60212.2023.10398692, 2023, [IEEE], [Scopus]
2. G.F. Grosu, George Florin, **R. Terebes** - Chambolle's Projection-based Total Variation Deepnet Layer for Image Denoising, 2023 IEEE 19th International Conference on Intelligent Computer Communication and Processing Conference, ICCP 2023 Pages 229 – 236, DOI 10.1109/ICCP60212.2023.10398724 2023, [IEEE], [Scopus]
3. 4. I. Ilea, A. Miclea, **R. Terebes** - Polarimetric Image Classification using Texture Features based on the Gray Level Co-occurrence Matrix and Local Binary Patterns, 2023 International Symposium on Signals, Circuits and Systems, ISSCS, DOI 10.1109/ISSCS58449.2023.10190953 2023. [IEEE], [Scopus]
4. Jean Nkapkop, Joseph Yves Effa, Monica Borda, **Romulus Terebes** - A novel fast and secure chaos-based algorithm for image encryption, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) Volume 9522, 2015, Pages 87-101 8th International Conference on Innovative Security Solutions for Information Technology and Communications, SECITC 2015; Bucharest; Romania; 11 June 2015 through 12 June 2015; Code 161449 [Scopus], [Springer],[DBLP]

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

- Reviste

1. Alexandru-Octavian BOGEANU-POPA, Ștefania BENEA, Romulus TEREBEȘ , “Evaluating BiLSTM and Clip Encoders for Resource-Constrained Text-to-Image Generation Using GANs”, pp.1-6, indexare ProQuest și EBSCO.
2. Andreia Valentina MICLEA-CECALACA, Ioana Ilea, Romulus TEREBES, “Extended Local Binary Patterns-Based Polarimetric Synthetic Aperture Radar Image Classification”, pp.20-25, ProQuest și EBSCO.
3. S. Barburiceanu, A. Miclea, **R. Terebes** – “Deep Learning Strategies Based on Fine-Tuning. Application to Medical Image Classification”, Acta Technica Napocensis Electronics and Telecommunications, vol. 62, no. 2, 2022, pp. 7-12, ISSN 1221-6542, indexare ProQuest și EBSCO.
4. S. Barburiceanu, **R. Terebes** – „Plant Disease Classification Using Texture and Colour”, Acta Technica Napocensis Electronics and Telecommunications, vol.61, no.1, pp. 21-28, 2021, ISSN 1221-6542, indexare ProQuest și EBSCO.
5. S. Barburiceanu, **R. Terebes** – “Feature Extraction Methods Based on Deep-Learning Approaches. Application To Automatic Diagnosis of Breast Cancer”, Acta Technica Napocensis Electronics and Telecommunications, vol. 62, no. 1, pp. 11-16, 2022, ISSN 1221-6542, indexare ProQuest și EBSCO
6. George Grosu, **Romulus T**erebeș - A Python-based Framework for Advanced Research and Development on Spectrum Sensing for Cognitive Radio”. Acta Technica Napocensis Electronics and Telecommunications, vol. 61, no. 2, pp. 11-18 2022, ISSN 1221-6542, indexare ProQuest și EBSCO
7. S. Barburiceanu, **R. Terebes** – “Colour texture classification using improved noise robust LBP descriptors”, Novice Insights in Electronics and Telecommunications, Student

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[SCOPUS] - (http://www.scopus.com)

Symposium on Electronics and Telecommunications UTCN, 2019, pp. 105-106, ISSN: 1842-6085.
- Selecţie cu maximum 20 lucrări în volume de conferinţe

8. S. Barburiceanu, R. Terebes – "Automatic detection of melanoma by deep learning models-based feature extraction and fine-tuning strategy", IOP Conference Series: Materials Science and Engineering, International Conference on Electromagnetic Fields, Signals and BioMedical Engineering (ICEMS-BIOMED 2022), vol. 1254 012035, DOI: 10.1088/1757-899X/1254/1/012035, indexare ProQuest.
9. Ioana Ilea,Lionel Bombrun,Christian Germain, **Romulus Terebes**, Monica Borda - Classification robuste sur l'espace des matrices de covariance : Application à l'imagerie polarimétrique radar,XXVème colloque GRETSI, 2015, Lyon, France. 2015 [Google Scholar]

E – Brevete obţinute pentru întreaga activitate

1. Bogdan Belean, Monica Borda, Romulus Terebeș, Raul Emil Măluțan - Metoda si arhitectura hardwarre pentru adresarea automata a imaginilor microarray, nr. brevet 127341/30.01.2018
2. Monica Borda, Olga Tornea, Romulus Terebeș, Raul Emil Măluțan Metoda și sistem de criptare de tip OTP bazate pe secvențe aleatoare determinate din structuri ADN, numar brevet 129751/30.12.2020

F – Contracte de cercetare (2015-2025)

1. Modelarea şi filtrarea texturilor multivariate. Aplicaţii în imagistica SAR pentru teledetecţia forestieră/Modélisation et débruitage de textures multivariées". Application à l'Imagerie SAR en télédétection forestière- ModText"", PN-II-CT-ROFR-2014-20030, PN2 - Capacități - Modulul III - Proiecte de sprijinire a participarii Romaniei la proiecte internationale de cercetare, Partener Franța:Université de Bordeaux (UB) -Laboratoire de l'Ingéniérie du Matériau au Système (IMS). Nr.contract UEFISCDI 779/27.06.2014 Perioada: 2015-2016 Sursa de finanțare: Unitatea Executivă pentru Finanțarea Învățământului Superior, a Cercetării, Dezvoltării și Inovării – UEFISCDI (România), Campus France (Franța) – **Romulus Terebeș**, director proiect.
2. Clasificarea automatizată a materiei prime"- proiect de cercetare inovare UTCN- Tenaris-Silcotub, 2015 Sursa de finanțare: Tenaris-Silcotub, Zalău, 2015, **Romulus Terebeș**, director proiect.

Data
08.11.2026

Semnătura