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Gradul didactic: Lector univ. dr.

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Facultatea: de Economie și Administrarea Afacerilor

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L I S T A lucrărilor științifice

A. Teza de doctorat

Contribuții privind dezvoltarea sistemelor independente CAD pentru procesarea complexă a imaginilor 2D/3D susținută la Universitatea Dunărea de Jos din Galați în anul 2013, Coordonator științific: Prof. dr. Luminița Moraru.

B. Cărţi si capitole în cărţi publicate

1.   L. Moraru, S. Moldovanu, **D. Bibicu**, Metode avansate de procesare și analiză a imaginilor complexe, Galati University Press, 2013, ISBN 978-606-8348-67-4, pp.1-196.

C. Lucrări indexate ISI/WOS/BDI

Ca) Articole indexate ISI cu factor de impact

1. Simona Moldovanu, Luminita Moraru, **Dorin Bibicu**, *Characterization of Myocardium Muscle Biostructure using First Order Features*, Digest Journal of Nanomaterials and Biostructures, Vol. 6, No. 3, 2011, pp. 1357-1365, F.I. 1.3. http://www.chalcogen.ro/1357_Moldovanu.pdf

2. L. Moraru, **D. Bibicu**, A. Biswas, Standalone functional CAD system for multi-object case analysis in hepatic disorders, Computers in Biology and Medicine, 2013, ISSN 0010-4825, Factor Impact=1.089, https://www.sciencedirect.com/science/article/pii/S0010482513001030

3. **D. Bibicu**, L. Moraru, Cardiac Cycle Phase Estimation in 2-D Echocardiographic Images using an Artificial Neural Network, IEEE Transactions on Biomedical Engineering, 60 (5), pp. 1273-1279, 2013, Print ISSN: 0018-9294, Factor Impact 2.278. https://ieeexplore.ieee.org/abstract/document/6378436

4. **Dorin Bibicu**, Luminita Moraru, Anjan Biswas, Thyroid Nodule Recognition Based on Feature Selection and Pixel Classification Methods, Journal of Digital Imaging, ISSN 0897-1889, Volume 26, Number 1, pp. 119-128, 2013, Factor Impact=1.255.
https://link.springer.com/article/10.1007/s10278-012-9475-5

5. **Dorin Bibicu**, Luminita Moraru and Anjan Biswas, *Efficient Segmentation Using Active Contours Embedded in an Image Feature*, Journal of Medical Imaging and Health Informatics Vol. 5, 241–247, 2015, FI 0.621
https://www.researchgate.net/publication/271224355_Efficient_Segmentation_Using_Active_Contours_Embedded_in_an_Image_Feature
https://www.ingentaconnect.com/content/asp/jmihi/2015/00000005/00000002/art00009

6. Moraru L , Moldovanu S , Culea-Florescu AL , **Bibicu D** , Ashour AS , Dey N, Texture analysis of parasitological liver fibrosis images, Microsc. Res. Tech. 2017 Aug;80(8):862-869, ISSN 1059-910X, FI 1.147
https://onlinelibrary.wiley.com/doi/full/10.1002/jemt.22875

7. Moraru, L., Moldovanu, S., Culea-Florescu, A.-L., **Bibicu, D**., Dey, N., Ashour, A. S. and Sherratt, S, Texture spectrum coupled with entropy and homogeneity image features for myocardium muscle characterization, Current Bioinformatics. Print ISSN: 1574-8936, FI 0.6, january 2018
https://scholar.google.ro/citations?user=_AGAOIEAAAAJ&hl=ro#d=gs_md_cita-d&p=&u=%2Fcitations%3Fview_op%3Dview_citation%26hl%3Dro%26user%3D_AGAOIEAA AAJ%26citation_for_view%3D_AGAOIEAAAAJ%3AcF7EPgIk0B4C%26tzom%3D-120

8. M. Ozisik, A. Secer, M. Bayram, A. Biswas, O. González-Gaxiola, L. Moraru, S. Moldovanu, C. Iticescu, **D. Bibicu**, and A. A. Alghamdi, Retrieval of optical solitons with anti-cubic nonlinearity, Mathematics 11 (2023), no. 5, 1215, F. I. 2.2.

9. Malik, S., Kumar, S., Biswas, A., Yıldırım, Y., Moraru, L., Moldovanu, S., Iticescu, C., Moshokoa, S.P., **Bibicu, D**., Alotaibi, A.: Gap solitons in fiber Bragg gratings having polynomial law of nonlinear refractive index and cubic-quartic dispersive reflectivity by lie symmetry. Symmetry 15(5), 963 (2023a), F. I. 2.7.

10. Elsayed M.E. Zayed , Reham M.A. Shohib, Mohamed E.M. Alngar, Anjan Biswas,Yakup Yıldırım, Luminita Moraru, Catalina Iticescu, Simona Moldovanu, **Dorin Bibicu**, Abdulah A. Alghamdi, Dispersive optical solitons with DWDMtopology and multiplicative white noise, Results in Physics 51 (2023) 106723, F.I. 5,3
https://www.sciencedirect.com/science/article/pii/S2211379723005168?via%3Dihub

11. E.M. Zayed, M. El-Horbaty, M.E. Alngar, R.M. Shohib, A. Biswas, Y. Yıldırım, L. Moraru, C. Iticescu, **D. Bibicu**, P.L. Georgescu, A. Asiri, Dynamical system of optical soliton parameters by variational principle (super-Gaussian and super-sech pulses). J. Eur. Opt. Soc. Rapid Publ. 19(2), 38 (2023), F. I. 1.9.

12. **Dorin Bibicu**, Luminița Moraru, Two-Dimensional Simulation of Multiple Acoustic Wave Scattering by a Human Body Model inside an Acoustic Enclosed Space, Applied Sciences 2.5 FI, https://doi.org/10.3390/app16020979

Cb) Lucrări publicate în volumele Conference Proceedings Citation cu ISI Proceedings

1. S. Moldovanu, **D. Bibicu**, L. Moraru, M.C. Nicolae, *Classification Features of US Images Liver Extracted with Co- occurrence Matrix Using the Nearest Neighbor Algorithm*, AIP Conf. Proc. International Congress on Advances in Applied Physics and Materials Science, Vol. 1400, ISBN 978-0-7354-0971-2, ISSN 0094-243X, 2011, pp. 565-570., https://aip.scitation.org/doi/10.1063/1.3663182

2. **Dorin Bibicu**, Luminita Moraru, Simona Moldovanu, Automatic Investigation Of The Thyroid Nodules From US Images, American Institute of Physics (AIP) Conf. Proc. 1472, 238 (2012); doi: 10.1063/1.4748092, pp. 221-229 https://www.researchgate.net/publication/233419578_Automatic_Investigation_Of_The_Thyroid_Nodules_From_US_Images

3. Simona Moldovanu, **Dorin Bibicu**, Luminita Moraru, Liver ultrasound image classification by using fractal dimension of edge, American Institute of Physics (AIP) Conf. Proc. 1472, 238 (2012); doi: 10.1063/1.4748094, pp. 238-244. https://www.researchgate.net/publication/233388440_Liver_ultrasound_image_classification_by_using_fractal_dimension_of_edge

4. **D. Bibicu**, D. Barbosa, B. Heyde, O. Bernard, L. Moraru, D. Friboulet, P. Claus, J. D'hooge, An Integrated Solution for Semi-automatic Segmentation of Volumetric Ultrasound Data Based on B-spline Explicit Active Surfaces, Proceedings of the IEEE Ultrasonics Symposium 2012, pp. 2643-2646, (2012).
   https://ieeexplore.ieee.org/document/6562394

5. Simona Moldovanu, Luminita Moraru, **Dorin Bibicu**, Mathematical models used in segmentation and fractal methods of 2-D ultrasound images, American Institute of Physics (AIP) Conf. Proc. 1493, 678 (2012); doi: 10.1063/1.4765560, pp. 678-683.
   https://www.tib.eu/en/search/id/BLCP%3ACN083655688/Mathematical-models-used-in-segmentation-and-fractal/

6. **Bibicu D**., Moraru L., Moldovanu S., An approach based on integrated solution for semiautomatic breast diseases investigation, International Conference on System Theory, Control and Computing (ICSTCC), 2012 16th, pp. 1-6, 2012. https://ieeexplore.ieee.org/document/6379286

7. **Dorin Bibicu**, Maria (Stan) Necula, Luminita Moraru, *Acoustic Radiation from Baffled Vibrating Plates with Various Geometries - Simulation Results*, TIM18 Physics Conference Proceedings, Timisoara, Romania, 24-26 May 2018, AIP Conference Proceedings, **Vol.** 2071, **Art.** 040009 https://www.researchgate.net/publication/330760214_Acoustic_radiation_from_baffled_vibrating_plates_with_various_geometries

8. **D Bibicu**, S Moldovanu, L Moraru, Numerical evaluation of low frequency sound propagation in two layered media, Conference: 8th International Conference on Mathematical Modeling in Physical Sciences, August 26-29, 2019 Bratislava, Slovakia, Journal of Physics: Conference Series 1391 (2019) 012032 IOP Publishing doi:10.1088/1742-6596/1391/1/012032.

9. Maria (Stan) Necula, **Dorin Bibicu**, Luminita Moraru, Backscattering Problems by a Non-Convex Kite-Shape Objects in Acoustic Frequency Domain, TIM18 Physics Conference Proceedings, Timisoara, Romania, 24-26 May 2018, AIP Conference Proceedings**, Vol.** 2071**, Art.** 040008 https://aip.scitation.org/doi/10.1063/1.5090075

10. **Dorin Bibicu**, Maria (Stan) Necula, Luminita Moraru, Inverse Scattering Problem for Concealed Objects Detection, TIM 19 Physics Conference AIP Conf. Proc. 2218, 030007-1–030007-6; https://doi.org/10.1063/5.0001012

11. **Dorin Bibicu**, Anisia Florescu Culea, Simona Moldovanu and Luminita Moraru, 2D multiple waves scattering for active detection of a dummy human body in a low frequency range and for various boundary conditions, Journal of Physics: Conference Series, Volume 2701, 12th International Conference on Mathematical Modeling in Physical Sciences (IC-MSQUARE 2023) 28/08/2023 - 31/08/2023 Belgrade, Serbia

Cc) Articole indexate BDI publicate în reviste indexate în baze de date internaţionale

1. **Dorin Bibicu**, Simona Moldovanu, Luminita Moraru, *Automatic System for Analysis of Metabolic Disease*, B+, JOSA, (2011), No. 3(16), pp. 347-352, SSN / eISSN:1844-9581 http://www.icstm.ro/DOCS/josa/josa_2011_3/cuprins.htm

2. **Dorin Bibicu**, Simona Moldovanu, Luminita Moraru, *Denoising the Echographic Images using Fourier Transform*, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, Theoretical Mechanics, Fascicle II, Year III (XXXIV) 2011, pp. 73-80. http://www.phys.ugal.ro/Annals_Fascicle_2/Year2011/Summary%20Annals%20Fasc_II_2011_No_1.htm

3. Simona Moldovanu, Luminita Moraru, **Dorin Bibicu**, *Bio-structural Analysis of Breast Lesion using Fractal Analysis in Ultrasound Images*, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, Theoretical Mechanics, Fascicle II, Year III (XXXIV) 2011, pp. 67-72. http://www.phys.ugal.ro/Annals_Fascicle_2/Year2011/Summary%20Annals%20Fasc_II_2011_No_1.htm

4. S. Moldovanu, L. Moraru, **D. Bibicu**, *Monitoring Breast Tumors using Thresholding and Interpolation Methods in Ultrasound Images*, FASCICLE II, YEAR III (XXXIV) No. 2, 2011, pp. 167-174.

http://www.phys.ugal.ro/Annals_Fascicle_2/Year2011/Summary%20AnnalsFasc_II_2011_No_2.htm

5. S. Moldovanu, L. Moraru, **D. Bibicu**, *Computerized decision support in liver steatosis investigation, International Journal of Biology and Biomedical Engineering*, ISSN: 1998-4510, Issue 1, Volume 6, 2012, pp. 69-76.
https://scholar.google.ro/citations?view_op=view_citation&hl=ro&user=Z8iV9l8AAAAJ&citation_for_view=Z8iV9l8AAAAJ:u-x6o8ySG0sC

6. **D. Bibicu**, S. Moldovanu, L. Moraru, *De-noising of Ultrasound Images from Cardiac Cycle using Complex Wavelet Transform with Dual Tree*, Journal of Engineering Studies and Research, vol. 18, no. 1, 2012, pp. 24-30

http://pubs.ub.ro/?pg=revues&rev=jesr&num=201201&vol=18&aid=3590

7. S. Moldovanu, **D. Bibicu**, L. Moraru, *Comparative study of density distribution of microbubbles between frames end-systole and end-diastole inside cavity left ventricle*, Journal of Engineering Studies and Research, vol. 18, no. 3, 2012, pp. 87-91
http://pubs.ub.ro/?pg=revues&rev=jesr&num=201203&vol=18

8. **D. Bibicu**, L. Moraru, Run-Length *Textural Descriptors and Artificial Neural Networks for Steatosis Liver Disease Detection*, Advanced Science, Engineering and Medicine, 5(11), November 2013 , pp. 1137-1143, DOI: http://dx.doi.org/10.1166/asem.2013.1419
https://www.researchgate.net/publication/261985400_Run-Length_Textural_Descriptors_and_Artificial_Neural_Networks_for_Steatosis_Liver_Disease_Detection

9. **D. Bibicu**, L. Moraru, *Echocardiographic evaluation of myocardium wall via CAD application and Artificial Neural Network*, Scientific Annals of the University Dunarea de Jos of Galati: Fascicle II, Mathematics, Physics, Theoretical Mechanics . 2013, Vol. 36
Issue 1, p5-11. 7p.
http://www.phys.ugal.ro/Annals_Fascicle_2/Year2013/Annals%202013%20volume%20I.htm

10. Luminiţa Moraru, **Dorin Bibicu**, Segmentarea Imaginilor Digitale, Revista de Fizică Medicală, Vol 2, nr 1, Aprilie 2014, ISSN 2344-3944, pp.
http://www.medicalphysics.ro/articole/2014

11. **D. Bibicu**, L. Moraru, *Hybrid CADiSolution for Foreign Bodies Detection in Abdominal Echographic Images*, Annals of "Dunarea de Jos" University of Galati Mathematics, Physics, Theoretical Mechanics Fascicle II, year VI (XXXVII) 2014, No. 1, Proceedings of the Scientific Conference of Doctoral Schools from "Dunărea de Jos" University of Galati (CCSD-UDJG 2014), Galati, May 15-16, 2014 Section 4 - applied sciences and environment, pp 17-24
http://www.cssd-udjg.ugal.ro/site/2014/resources/Book_of_Abstracts_2014.pdf

12. **Dorin Bibicu**, Luminita Moraru, Simona Moldovanu, *Thyroid Nodules Investigation based on an Artificial Neural Network*, Annals of the University Dunarea de Jos of Galati: Fascicle II, Mathematics, Physics, Theoretical Mechanics . 2017, Vol. 40 Issue 1, p43-54. 12p
http://www.phys.ugal.ro/Annals_Fascicle_2/Year2017/SummaryAnnals2017V1.htm

13. Simona Moldovanu, Luminita Moraru, Diana Stefanescu, **Dorin Bibicu**, *Edge-Preserving Filters in a Boundary Options Context*, Annals of the University Dunarea de Jos of Galati: Fascicle II, Mathematics, Physics, Theoretical Mechanics . 2017, Vol. 40 Issue 1, p5-11. 7p.
https://web.b.ebscohost.com/abstract?direct=true&profile=ehost&scope=site&authtype=crawler&jrnl=20672071&AN=127914878&h=pPChg2c4bzqP7q12%2bPP5S1jCSdXgX5z03r9fb85Hr%2f9h1rm%2frgM50TaL%2f%2flxZWxMOpVCnRXGZa1GjLr67LzzxQ%3d%3d&crl=c&resultNs=AdminWebAuth&resultLocal=ErrCrlNotAuth&crlhashurl=login.aspx%3fdirect%3dtrue%26profile%3dehost%26scope%3dsite%26authtype%3dcrawler%26jrnl%3d20672071%26AN%3d127914878

14. **Dorin Bibicu**, Luminita MORAR, Simona MOLDOVANU, *Local or External Databases in Android Programming. A Practical Comparative Study*, Annals of "Dunarea de Jos" University of Galati Fascicle I. Economics and Applied Informatics Years XXIV – no1/201
http://www.eia.feaa.ugal.ro/index.php/2-latest

15. Maria (Stan) Necula, **Dorin Bibicu**, Simona Moldovanu, Luminita Moraru, *Performance Analysis of an Array of Sensors Based on the Direction of Arrival algorithm*, Conference of Doctoral Schools from Dunarea de Jos University Galati, Romania, 7-8 June 2018, prezentare poster, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, theoretical mechanics, Fascicle II, year X (XLI) 2018, No. 1, pp. 70-75.

http://www.phys.ugal.ro/Annals_Fascicle_2/year2018/summary1.htm

16. Simona Moldovanu, Luminița Moraru, **Dorin Bibicu**, *Face detection with Euler number algorithm based on morphological operators*, Conference of Doctoral Schools from Dunarea de Jos University Galati, Romania, 7-8 June 2018, prezentare poster, Annals of "Dunarea de Jos" University of Galati, Mathematics, Physics, theoretical mechanics, Fascicle II, year X (XLI) 2018, No. 1, pp. 65-69.

http://www.phys.ugal.ro/Annals_Fascicle_2/year2018/summary1.htm

17. Necula (Stan), M., **Bibicu, D.** and Moraru, L. (2019) "Vibration of rectangular plates: fundamental mode and integer multiple of the fundamental period of vibration", *Analele Universității "Dunărea de Jos" din Galați. Fascicula II, Matematică, fizică, mecanică teoretică / Annals of the "Dunarea de Jos" University of Galati. Fascicle II, Mathematics, Physics, Theoretical Mechanics*, 42(1), pp 43-48. Chemometric application operating a portable laser infrared sensor detecting illicit phenethylamines. doi: https://doi.org/10.35219/ann-ugal-math-phys-mec.2019.1.06.

18. Maria (Stan) Necula[1,2,3] , Dorin Bibicu[3,4,5], Luminita Moraru[1,3]*, Cristian-Victor-Eugen Rusu[6], Multiple closely spaced scatterers location based MUSIC via inverse scattering amplitude estimation ANNALS OF "DUNAREA DE JOS" UNIVERSITY OF GALATI MATHEMATICS, PHYSICS, THEORETICAL MECHANICS FASCICLE II, YEAR XII (XLIII) 2020, No. 1 DOI: https://doi.org/10.35219/ann-ugal-math-phys-mec.2020

19. **Dorin Bibicu**, An Original Algorithm for Password Encryption, Annals of "Dunarea de Jos" University of Galati Fascicle I. Economics and Applied Informatics Years XXVII – no2/2021, DOI https://doi.org/10.35219/eai15840409201, pp. 133-136

20. **Dorin Bibicu**, Performance Evaluation of Digital Image Denoising Techniques, Annals of "Dunarea de Jos" University of Galati Fascicle I. Economics and Applied Informatics Years XXXI – no2/2025, ISSN-L 1584-0409 ISSN-Online 2344-441X, DOI https://doi.org/10.35219/eai15840409521

D. Lucrări prezentate la conferinţe internaționale (fără indexare ISI)

1. Simona Moldovanu, Luminita Moraru, **Dorin Bibicu**, *Automatic System for Investigating the Correlation of Liver Features*, Proceedings of International Conference on Enviroment, Economics, Energy, Devices, Systems, Communications, Computers, Mathematics, Models and Methods in Applied Sciences, 27-29 octombrie 2011, Drobeta Turnu Severin, ISBN: 978-1-61804-044-2, pp. 74-78
   http://www.wseas.us/e-library/conferences/2011/Drobeta/IAASAT/IAASAT-11.pdf

2. S. Moldovanu, L. Moraru, **D. Bibicu**, *Comparative Study of Myocardium Tissue Based on Gradient Features*, Proceedings of the 3rd International Conference on E-Health and Bioengineering - EHB 2011, 24-26 Noiembrie 2011, Iasi, Romania
   https://ieeexplore.ieee.org/document/6150369
   https://www.researchgate.net/publication/233388394_Comparative_study_of_myocardium_tissue_based_on_gradient_features

3. *M. Stan Necula, **D. Bibicu**, and L. Moraru,* Backscattering by Closely Spaced Scatterers using the K Matrix Data from an Active Array of N Transceivers, *6th International Conference on Sensors Engineering and Electronics Instrumentation Advances (SEIA' 2020), 23-25 September 2020, Porto, Portugal,* ISBN: *ISBN 978-84-09-23483-7*

E. Lucrări publicate în reviste şi volume de conferinţe naţionale (neindexate)

1. **Bibicu Dorin**, C# de la A la Z, 11 articole în revista de informatică IMPULS++, nr. 2-12, Galaţi, ISSN 2067-9815, http://www.dunarea-info.ro/.

2. Colţea Gabriela-Corina, **Bibicu Dorin**, Proiectarea și dezvoltarea unui sistem informatic pentru o agenţie de turism, SmartStudent, FEAA Galati, ISSN 2559-2513, 2021

3. Mazuru Andrei, **Bibicu Dorin**, Sistem informatic pentru o bibliotecă școlară, SmartStudent, FEAA Galati, ISSN 2559-2513, 2020

4. Gheorghiță Dana, **Bibicu Dorin**, O nouă abordare privind dezvoltarea aplicației ImageSlideShow în Android Studio, SmartStudent, FEAA Galati, ISSN 2559-2513, 2019

5. Dumitrov Cristian-Andrei, Fotache Ionela. **Bibicu Dorin**, StockUI, SmartStudent, ISSN 2559-2513, 2016 pp.131-136 http://feaa.ugal.ro/fisiere/student/cercetare/Smart_student_2016.pdf

6. **Bibicu Dorin**, Ignat Cristian, Negru Ionuţ, Credit E-Learning, SmartStudent, ISSN 2559-2513, 2016, 74-80 http://feaa.ugal.ro/fisiere/student/cercetare/Smart_student_2016.pdf

7. **Bibicu Dorin**, Negru Ionut, Iancu Tiberiu, Virtual catalog, SmartStudent, ISSN 2559-2513, 2016, pp 69-73 http://feaa.ugal.ro/fisiere/student/cercetare/Smart_student_2016.pdf

8. Luminiţa Moraru, **Dorin Bibicu**, Segmentarea Imaginilor Digitale, Revista de Fizică Medicală, Vol 2, nr 1, Aprilie 2014, ISSN 2344-3944. http://www.medicalphysics.ro/articole/2014

9. **Bibicu Dorin**, Programă școlară pentru disciplina Inteligența artificială-Curriculum la decizia școlii, , pp. 20-23, Revista de Informatică Impuls++, 31 mai 2025, 2067-9815 http://www.dunarea-info.ro/images/revista/Revista_impuls_5_2025_online.pdf

Proiecte de cercetare

1. Cercetător în proiectul Multi-Energy High Resolution Modular Scan System for Internal and External Concealed Commodities, contract MESMERISE 700399/2016, noiembrie 2016 – noiembrie 2017.

2. Cercetător în proiectul Mechanical Impedance and Multyphysics Concealed and Hidden Objects, contract MELCHIOR 101073899/2022, septembrie 2022 – septembrie 2025.

3. Cercetător în proiectul *Abordare multifizică și impedanță mecanică pentru detectarea obiectelor interzise ascune*, contract MELCHIOR 82PHE/2024, august 2024 – iulie 2025.

05.02.2026