

LISTA DE LUCRĂRI

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1. Teza de doctorat: Analiza Fetei Umane, (link: <http://hermes.etc.upt.ro/cercetare/teze.html>)

2. Publicatii:

A) Cărți cu ISBN/capitole ca autor publicate în edituri internaționale:

2.A 1. I. Buci and I. Pitas, "Subspace image representation for facial expression analysis and face recognition and its relation to the human visual system", *Organic Computing*, in the Series "Understanding Complex Systems", (ISBN: 978-3-540-77656-7), Springer Verlag, pp. 303 – 320, March, 2008, (link: <http://www.springer.com/physics/book/978-3-540-77656-7>).

2.A 2. I. Buci and I. Pitas, "Image representations based on discriminant non-negative matrix factorization with application to facial expression recognition", *Advances in Intelligent Information Processing: Tools and Applications*, B. Chanda and C.A. Murthy Eds., ISBN 978-981-281-898-0, in ISI Platinum Jubilee Series on Statistical Science and Interdisciplinary Research, World Scientific Publishing, pp. 125 – 143, 2008, (link: <http://www.worldscibooks.com/compsci/6901.html>).

2.A 3. I. Buci and I. Naornita, "Non-negative Matrix Factorization Methods and their Applications", Zadeh L.A., Tufis D., Filip F.G., Dzitac I. (Eds.), *From Natural Language to Soft Computing: New Paradigms in Artificial Intelligence*, Editing House of Romanian Academy, Bucharest, ISBN 978-973-27-1678-6, pp. 32-50, 2008, (link: http://www.acad.ro/carti2008/carte08_06Zadeh.htm).

2.A 4 I. Buci, I. Naornita and C. Gordan, "Facial Expression Synthesis and Animation", Didem Gokcay and Gulsen Yildirim (Eds.), *Affective Computing and Interaction: Psychological, Cognitive and Neuroscientific Perspectives*, IGI-Global, ISBN 978-1-61692-892-6, pp. 184 - 206, 2010 (<http://www.igi-global.com/chapter/facial-expression-synthesis-animation/49535>).

B) Cărți cu ISBN/capitole ca autor publicate în edituri naționale,

2.B 1. I. Buci, I. Naornita, *Human Face Analysis*, Universitatea „Politehnica” din Timisoara, 120 pg, ISBN 978-973-625-750-6, 2009

2.B 2. C. Grava, I. Buci, *Computer Vision: Detectia si Estimarea Miscarii, Estimarea Formelor 3D din Imagini 2D*, Universitatea din Oradea, 2013.

2. B 3. I. Buci, *Principii de Codare si Compresie a Informatiei*, Matrix Rom, 270 pg, Bucuresti, ISBN 978-606-25-0079-5, 2014.

2.B.5 I. Buci, "Using filters for economic prediction", Marcel Ioan Bolos and Diana Claudia Sabau-Popa (Eds.), *Using Levy Distribution processes in modeling economic and financial indicators of companies*, Editura Economica, Bucuresti, ISBN 978-973-709-648-7, pp. 83 - 124, 2013

C) Suport de curs inclusiv electronic,

2.C1. I. Buci, *Note de Curs - Compresia si Codarea Informatiei*, 2009 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

2.C2. I. Buci, *Note de curs – Software de Telecomunicații*, 2014 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

2.C3. I. Buci, *Note de curs – Electronica Digitală*, 2018 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

D) Îndrumătoare de laborator/aplicații.

2.D1 I. Buci, *Culegere de probleme – Informatica Medicala*, 2008.

2.D2 I. Buci, *Laboratoare – Compresia si codarea Informatiei*, 2009 (link: <https://prof.uoradea.ro/ibuciu/courses/>)

2.D3. I. Buci, *Laboratoare – Software de Telecomunicatii*, 2016 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

2.D4. I. Buci, *Laborator – Sisteme de Recunoaștere a Formelor*, 2020 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

2.D5. I. Buci, *Laborator – Grafica electronica pe calculator*, 2021 (link: <https://prof.uoradea.ro/ibuciu/courses/>).

3. Articole/studii publicate:

A) în reviste de specialitate de circulație internațională recunoscute cotate ISI sau indexate în baze de date internaționale specifice domeniului, care fac un proces de selecție a revistelor pe baza unor criterii de performanta:

- 3 A.1.** I. Buciu, C. Kotropoulos, and I. Pitas, "Comparison of ICA approaches for facial expression recognition", **Signal, Video and Image Processing**, ISSN: 1863-1703, Volume 3, Issue 4, pp. 345 – 361, Dec. 2009 (link: <http://www.springerlink.com/content/c2618tl145m02030/>), WOS:000283285100004.
- 3 A.2.** I. Buciu and I. Naornita, "Feature extraction through phase congruency for facial expression analysis", **International Journal of Pattern Recognition and Artificial Intelligence**, Special Issue on Facial Image Processing and Analysis, ISSN: 0218-0014, Volume 23, Issue 3, pp. 617 – 635, May 2009 (link: <http://www.worldscinet.com/ijprai/23/2303/S02180014092303.html>), WOS:000267114600012.
- 3 A.3.** I. Kotsia, I. Buciu, and I. Pitas, "An analysis of facial expression recognition under partial facial image occlusion", **Journal of Image and Visual Computing**, ISSN:0262-8856, Volume 26, Issue 7, pp. 1052-1067, July, 2008 (link: <http://dx.doi.org/10.1016/j.imavis.2007.11.004>), WOS:000256260800017.
- 3 A.4.** I. Buciu, N. Nikolaidis, and I. Pitas, "Non-negative matrix factorization in polynomial feature space", **IEEE Transactions on Neural Networks**, ISSN: 1045-9227, Volume 19, Issue 6, pp. 1090 – 1100, June 2008 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=4531603&arnumber=4488103&count=18&index=12), WOS:000256670500013.
- 3 A.5.** I. Buciu, "Non-negative Matrix Factorization, A New Tool for Feature Extraction: Theory and Applications", **International Journal of Computers Communications and Control**, ISSN: 1841 - 9836, Volume 3, Suppl. S, pp. 67 – 74, May 2008, (link: http://www.journal.univagora.ro/?page=article_details&id=258), WOS:000257497600007.
- 3 A.6.** I. Buciu and I. Pitas, "NMF, LNMF, and DNMF modeling of neural receptive fields involved in human facial expression perception", **Journal of Visual Communication and Image Representation**, ISSN: 1047-3203, vol. 17, no. 5, pp. 958 - 969, Oct., 2006 (link: <http://dx.doi.org/10.1016/j.jvcir.2006.06.001>), WOS:000248853700002.
- 3 A.7.** I. Buciu, C. Kotropoulos, and I. Pitas, "Demonstrating the stability of support vector machines for classification", **Signal Processing**, ISSN: 0165-1684, Volume 86, Issue 9, pp. 2364 - 2380, Sept. 2006 (link: <http://dx.doi.org/10.1016/j.sigpro.2005.11.005>), WOS:000239256300021.
- 3 A.8.** S. Zafeiriou, A. Tefas, I. Buciu, and I. Pitas, "Exploiting discriminant information in nonnegative matrix factorization with application to frontal face verification", **IEEE Transactions on Neural Networks**, ISSN: 1045-9227, vol. 17, no. 3, pp. 683 – 695, May, 2006 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=34174&arnumber=1629091&count=31&index=11), WOS:000237521300012.
- 3 A.9.** I. Buciu and A. Gacsadi, "Directional Features for Automatic Tumor Classification of Mammogram Images", **Biomedical Signal Processing & Control**, 6(4), pp. 370 – 378, October 2011 (link: <http://www.sciencedirect.com/science/article/pii/S1746809410000820>), WOS:000295495300005.

B) indexate în baze de date internaționale recunoscute (BDI).

- 3 B.1.** I. Buciu and I. Naornita, "Linear and nonlinear dimensionality reduction techniques", **Journal of Studies in Informatics and Control**, ISSN1220-1766, vol. 16, no. 4, pp. 431 – 444, Dec. 2007 (link: http://www.ici.ro/ici/revista/sic2007_4/art10.html).

4. A)Articole/studii publicate în volumele unor manifestări științifice: (se precizeaza daca este cazul - cotate ISI sau indexate în baze de date internaționale-BDI).

- 4 A.1.** A. Fazekas, C. Kotropoulos, I. Buciu and I. Pitas, "Support vector machines on the space of Walsh functions and their properties", in 2nd International Symposium on Image and Signal Processing and Analysis, ISPA, Pula, Croatia, pp. 43 – 48, 2001 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?tp=&arnumber=938601&isnumber=20289).
- 4 A.2.** A. Fazekas, C. Kotropoulos, I. Buciu and I. Pitas, "Face detection by support vector machines with Walsh transform domain", 8th Panhellenic Conference on Informatics, (PCI 2001), Cyprus, 8-10 November, Vol. 2, pp. 156 – 164, 2001.
- 4 A.3.** I. Buciu, C. Kotropoulos, I. Pitas, "Combining support vector machine for accurate face detector", Proc. 2001 IEEE International Conference on Image Processing. pp. 1054 – 1057, 2001 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=959230)
- 4 A.4.** I. Buciu, C. Kotropoulos, I. Pitas, "On the stability of support vector machines for face detection", 2002 IEEE International Conference on Image Processing, vol. III, Rochester, N. Y., USA, pp. 121 – 124, 2002 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=22267&arnumber=1038919&count=254&index=31)
- 4 A.5.** I. Buciu, C. Kotropoulos, I. Pitas, "Face detection by using independent component decomposition", Proc. of Workshop Dynamic Perception, Bochum, Germany, pp. 257 – 252, 2002.

- 4 A.6. I. Buciu**, C. Kotropoulos and I. Pitas, "ICA and Gabor representations for facial expression recognition" Proc. 2003 IEEE International Conference on Image Processing, pp. 1054 – 1057, 2003 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=27931&arnumber=1246815&count=280&index=215)
- 4 A.7. I. Buciu**, I. Kotsia and I. Pitas, "Recognition of facial expressions in presence of partial occlusion", 9th Panhellenic Conference on Informatics, 2003, (link: <http://delab.csd.auth.gr/bci1/Panhellenic/IndexByPaper.html>.)
- 4 A.8. S. Krinidis, I. Buciu** and I. Pitas, "Facial expression analysis and synthesis: A survey (Invited paper)", HCI International 2003, 10th Int. Conference on Human-Computer Interaction, June 22-27, Crete, Greece, pp. 1432-1443, 2003 (link: <http://hcibib.org/bibtoc.cgi?file=bibdata/HCI03-4.bib>).
- 4 A.9. I. Buciu** and I. Pitas, "Application of non-negative and local non negative matrix factorization to facial expression recognition" Proc. 2004 International Conference on Pattern Recognition, pp. 288-291, Cambridge, UK, 2004 (link: <http://dx.doi.org/10.1109/ICPR.2004.177>).
- 4 A.10. I. Buciu** and I. Pitas, "A new sparse image representation algorithm applied to facial expression recognition", Proc. IEEE Workshop on Machine Learning for Signal Processing, pp.539 – 548, Sao Luis, Brazil, 2004 (link: <http://ieeexplore.ieee.org/Xplore/login.jsp?url=/iel5/9735/30718/01423017.pdf?isnumber=30718&prod=CNF&arnumber=1423017&arSt=539&ared=548&arAuthor=Bociu%2C+I.%3B+Pitas%2C+I>).
- 4 A.11. I. Buciu**, I Kotsia and I. Pitas, "Facial expression recognition under partial occlusion", Proc. 2005 IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP), vol. 5, pp.453 – 456, Philadelphia, Pennsylvania, USA, 2005 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=30654&arnumber=1416338&count=279&index=121).
- 4 A.12. S. Zaferious, A. Tefas, I. Buciu**, and I. Pitas, "Class-specific discriminant non-negative matrix factorization for frontal face verification", Proc. 2005 International Conference on Advance in Pattern Recognition (ICAPR 2005), Bath, United Kingdom, 22-25 August, 2005, (link: http://www.amazon.com/reader/3540288333?encoding=UTF8&ref=sib%5Fdp%5Fbod%5Ftoc&page=13#reader_3540288333)
- 4 A.13. I. Buciu**, N. Nikolaidis, and I. Pitas, "On the initialization of the DNMF algorithm", 2006 IEEE International Symposium on Circuits and Systems (ISCAS), pp 4671 – 4674, 2006 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=35661&arnumber=1693672&count=1453&index=1177).
- 4 A.14. I. Buciu**, N. Nikolaidis, and I. Pitas, "A comparative study of NMF, DNMF, and LNMF algorithms applied for face recognition", 2006 Second IEEE-EURASIP International Symposium on Control, Communications, and Signal Processing (ISCCSP), Marrakech, Morocco, 2006 (link: www.eurasip.org/Proceedings/Ext/ISCCSP2006/defevent/papers/cr1030.pdf).
- 4 A.15. I. Buciu**, A. Caplier, Z. Hammal, N. Nikolaidis, I. Pitas, "Enhancing the facial expression classification by information fusion", 14th European Signal Processing Conference (EUSIPCO), 2006 (link: <http://www.eurasip.org/Proceedings/Eusipco/Eusipco2006/papers/1568981917.pdf>)
- 4 A.16. I. Buciu**, "Learning sparse non-negative features for object recognition", IEEE Third International Conference on Intelligent Computer Communications and Processing (ICCP), pp. 73 – 79, 2007 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=4352128&arnumber=4352144&count=51&index=12)
- 4 A.17. I. Buciu**, "Non-negative matrix factorization, a new tool for feature extraction: Theory and Applications", IEEE 2nd International Conference on Computers, Communications and Control, pp. 45 – 52, 2008.
- 4 A.18. I. Pitas, I. Naornita**, "Holistic and local image representations for human face analysis – part I", IEEE International Conference on Communications, pp. 137 – 140, 2008 (link: <http://webapps1.ieee.org/conferenceSearch/details.do?tagNo=13725>).
- 4 A.19. I. Buciu**, I. Pitas, I. Naornita, "Holistic and local image representations for human face analysis – part II", IEEE International Conference on Communications, pp. 141 – 144, 2008 (link: <http://webapps1.ieee.org/conferenceSearch/details.do?tagNo=13725>).
- 4 A.20. I. Buciu**, I. Naornita, I. Pitas, "Global Gabor features for rotation invariant object classification", IEEE Fourth International Conference on Intelligent Computer Communications and Processing (ICCP), pp. 41 – 46, 2008 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=4648340&arnumber=4648352&count=55&index=9).
- 4 A.21. I. Buciu**, I. Naornita, I. Pitas, "Facial expression recognition under noisy environment using Gabor filters", IEEE International Symposium on Electronics and Telecommunications (ETC), 2008 (link: <http://www.etc.upt.ro/other/isetc2008/international.php>).
- 4 A.22. I. Buciu** and I. Naornita, "Non-negative Matrix Factorization Methods for Face Recognition under Extreme Lighting Variations", 2009 IEEE International Symposium in Signals, Circuits & Systems (ISSCS), pp. 125 – 128, 2009 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=5206080&arnumber=5206186&count=145&index=32)
- 4 A.23. I. Buciu** and A. Gascadi, "Gabor Wavelet Based Features for Medical Image Analysis and Classification" 2nd International Symposium on Applied Sciences in Biomedical and Communication Technologies (ISABEL), 2009 (link: <http://www.isabel2009.sk/?q=menu/2>).

- 4 A.24.** C. Grava, A. Gacsadi and **I. Buciu**, “A Homogeneous Algorithm for Motion Estimation and Compensation by Using Cellular Neural Networks, International Conference on Computers, Communications and Control”, 2010 (link: http://journal.univagora.ro/?page=article_details&id=456)
- 4.25.** **I. Buciu**, A. Gacsadi and C. Grava, “Vision Based Approaches for Driver Assistance Systems”, 11th WSEAS international conference on Automation & information, pp. 92 - 97, 2010 (link: <http://dl.acm.org/citation.cfm?id=1863298>).
- 4 A.26.** **I. Buciu**, “Efficiency Analysis of Illumination Correction Methods For Face Recognition Performance”, IEEE International Conference on Intelligent Computer Communications and Processing (ICCP), pp. 211 - 216, 2010. (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=5606436).
- 4 A.27.** **I. Buciu** and A. Gacsadi, “Spatiotemporal facial features encoding for facial expression analysis in image sequences”, 2011 IEEE International Symposium in Signals, Circuits & Systems (ISSCS), 2011 (link: http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?asf_arn=null&asf_iid=null&asf_pun=5962067&asf_in=null&asf_rpp=null&asf_iv=null&asf_sp=null&asf_pn=5).
- 4 A. 28.** **I. Buciu** and A. Gacsadi, “Noise suppression methods for low quality images with application to face recognition”, In Proc. ELMAR, 2011 (link: http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=6044338).
- 4 A.29.** **I. Buciu**, “Dantzig Selector for Audio Data Reconstruction”, In Proc. The 7th International Conference on Speech Technology and Human-Computer Dialogue "SpeD 2013" , 2013 (link: <http://ieeexplore.ieee.org/xpl/mostRecentIssue.jsp?punumber=6678824#>).
- 4 A.30.** **I. Buciu**, “Image denoising via sparse data representation: A comparative study”, International Symposium on Fundamentals of Electrical Engineering (ISFEE), 2014, (link: <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?reload=true&arnumber=7050609>).
- 4 A.31.** **I. Buciu**, S. Goldenberg, “Oscillating patterns based face antispoofing approach against video replay”, Biometrics in the Wild 2015 (B - Wild 2015) - in conjunction with the 11th IEEE International Conference on Automatic Face and Gesture Recognition - FG 2015 (link: <https://ieeexplore.ieee.org/document/7284811>)
- 4 A.32.** **I. Buciu**, C. Grava, L. Telepea, A. Gacsadi Mammogram Classification with Local Phase Quantization Features , The 6th International Workshop on Cellular Nanoscale Networks and Tehri Applications (CNNA 2018) -28 – 30 August, 2018 (<https://ieeexplore.ieee.org/document/8470474>).
- 4 A.33.** **I. Buciu**, C. Grava, A. Gacsadi Facial Biometric Template Post-processing by Factorization , The 14-th International Symposium on Signals, Circuits and Systems (ISSCS), July 11 – 12, 2019 (<https://ieeexplore.ieee.org/abstract/document/8801730>)
- 4 A. 34.** **I. Buciu** , Color Quotient Based Mask Detection, the 2020 International Symposium on Electronics and Telecommunications (ISETC), Nov. 5 – 6, 2020.
- 4 A. 35** G.C. Creț, L. Țepelea, I. Buciu, I. Gavriluț, C. Grava, Using Block-Matching Methods to Help Navigating Visually Impaired People using Raspberry PI Platform, Proceedings of the 16th IEEE International Conference on Engineering of Modern Electric Systems (EMES'2021), ISBN 978-1-6654-4995-3, DOI: 10.1109/EMES52337.2021.9484126, Oradea, Romania, 10-11 June 2021, Accession Number: WOS: 000855847300016
- 4 A. 36.** I. Gavriluț, G.C. Creț, C. Grava, L. Țepelea, I. Buciu, Exploration Algorithm for a Mobile Robot. An Experiment, Proceedings of the 16th IEEE International Conference on Engineering of Modern Electric Systems (EMES'2021), ISBN 978-1-6654-4995-3, DOI: 10.1109/EMES52337.2021.9484122, Oradea, Romania, 10-11 June 2021, Accession Number: WOS: 000855847300022

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Semnătura