

Lista de lucrări

Ș.L. dr.ing. Simina Emerich

a) Lista lucrărilor cele mai relevante pentru realizările profesionale proprii care sunt incluse în format electronic în dosar

1. **Simina Emerich**, Raul Măluțan, Eugen Lupu, László Lefkovits, '*Patch based descriptors for iris recognition*' IEEE 12th International Conference on Intelligent Computer Communication and Processing (ICCP), pp. 187-191, Cluj-Napoca, 2016, ISBN 978-1-5090-3898-5 (Web of Science)
2. **Simina Emerich**, Raul Malutan, Septimiu Crisan, László Lefkovits, '*Iris Indexing based on Local Intensity Order Pattern*', The 9th International Conference on Machine Vision (ICMV 2016), November 18-20, 2016, Nice, France (Spie)
3. Raul Malutan, **Simina Emerich**, Olimpiu Pop, László Lefkovits, '*Half Iris Biometric System based on HOG and LIOP*', 2016 2nd International Conference on Frontiers of Signal Processing (ICFSP 2016), 2016, Poland, IEEE, ISBN 978-1-5090-3814-5 (Web of Science)
4. Crisan, S., Tebrean, B., **Emerich, S.**, '*Optimized vein pattern recognition for biometric applications - A modern approach*' 14th IMEKO TC10 Workshop on Technical Diagnostics 2016: New Perspectives in Measurements, Tools and Techniques for Systems Reliability, Maintainability and Safety, pp. 50-55, 2016, ISBN 978-92-990073-9-6 (Scopus)
5. Bogdan Bot, **Simina Emerich**, Sorin Martoiu, Bogdan Belean, „FSL-based Hardware Implementation for Parallel Computation of cDNA Microarray Image Segmentation”, International Journal of Advanced Computer Science & Applications, IJACSA, Vol. 6, No 7, pp. 20-27, 2015, ISSN 2158-107x, (Web of Science)
6. **Simina Emerich**, Eugen Lupu, Radu Arsinte, "*A New Approach to Iris Recognition*", ISSCS 2011- Proceedings of International Symposium on Signals, Circuits and Systems, Iasi, Romania, 2011, pp. 217-220, ISBN:978-1-4577-0201-3, (IEEE Explore, Scopus)
7. **Emerich S.**, Lupu E., Rusu C., „*Online signature recognition approach based on wavelets and support vector machines*”, IEEE International Conference on Automation Quality and Testing Robotics (AQTR), 2010, ISBN: 978-1-4244-6724-2, (IEEE Explore, Scopus)
8. **Emerich S.**, Lupu E., Apatean A., "*Emotions Recognition by Speech and Facial Expressions Analysis*", 17th European Signal Processing, EUSIPCO'2009, Glasgow, 24-28 August 2009, pp.1617-1621, ISBN: 978-161-7388-76-7 (IEEE Explore, Scopus)
9. Lupu E, **Emerich S.**, Beaufort F., "*On-line Signature Recognition using a Global Features Fusion Approach*", Acta Tehnica Napocensis Electronics and Telecommunications Vol. 50, nr. 3/2009, pp. 13-20, ISSN 1221-6542, (CNCSIS B+, IndexCopernicus)
10. **Emerich S.**, "*The Improvement of the Wavelet Analysis Techniques by using B-spline Functions Family*", Acta Tehnica Napocensis, vol 49 no. 4, 2008, (CNCSIS B+, IndexCopernicus)

b) Teza de doctorat

Emerich Simina, "*Aplicații ale analizei wavelet B-spline în biometrie*", Universitatea Tehnică Cluj-Napoca, Facultatea Electronica, Telecomunicatii si Tehnologia Informatiei, Domeniul Inginerie Electronica si Telecomunicatii, 2011 (distincție: *cum laude*)

e) Cărți si capitole în cărți

1. **Simina Emerich**, Eugen Lupu, Bogdan Belean, Septimiu Crisan, “*Image Analysis and Coding Based on Ordinal Data Representation.*” book chapter in *Image Feature Detectors and Descriptors: Foundations and Applications*, volume 630 of the series *Studies in Computational Intelligence*, Springer International Publishing, pp 281-303, ISBN 978-3-319-28852-9 2016
2. **Simina Emerich**, Eugen Lupu, “*Sisteme de Securitate biometrică*”, U.T.PRESS, 2016, ISBN 978-606-737-153-6
3. **Simina Emerich**, Eugen Lupu, *Procesoare digitale de semnal, Lucrari practice*, Galaxia Gutenberg, 2014, 96 pag., ISBN 978-973-141-542-0
4. Eugen Lupu, **Simina Emerich**, Anca Apatean, *Initiere in limbajul de asamblare x86, Lucrari practice, teste si probleme*, Galaxia Gutenberg, 2012, 184 pag., ISBN 978-973-141-498-0
5. Eugen Lupu, Anamaria Mesaros, **Simina Moldovan**, *Programare in limbaj de asamblare x86, Lucrari practice*, Galaxia Risoprint, 2006, 120 pag., ISBN 973-751-146-8

d) Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

1. Lefkovits, Szidónia, László Lefkovits, and **Simina Emerich**, “*Detecting the eye and its openness with Gabor filters*”, *Digital Forensic and Security (ISDFS)*, 2017 5th International Symposium on. IEEE, 2017, ISBN: 978-1-5090-5835-8
2. **Emerich, S.**, Măluțan, R., Lupu, E., & Lefkovits, L., ‘*Patch based descriptors for iris recognition*’, In *Intelligent Computer Communication and Processing (ICCP)*, 2016 IEEE 12th International Conference on, (pp. 187-191), Romania, ISBN: 978-1-5090-3898-5
3. **Simina Emerich**, Raul Malutan, Septimiu Crisan, László Lefkovits, ‘*Iris Indexing based on Local Intensity Order Pattern*’, The 9th International Conference on Machine Vision (ICMV 2016), November 18-20, 2016, Nice, France
4. Raul Malutan, **Simina Emerich**, Olimpiu Pop, László Lefkovits, ‘*Half Iris Biometric System based on HOG and LIOP*’, 2016 2nd International Conference on Frontiers of Signal Processing (ICFSP 2016), 15-17, 2016, Warsaw, Poland, IEEE, ISBN 978-1-5090-3814-5
5. L. Lefkovits, Sz. Lefkovits, M. F. Vaida, **S. Emerich** and R. Măluțan, ‘*Comparison of Classifiers for Brain Tumor Segmentation*’, 5th International Conference on Advancements of Medicine and Health Care through Technology – MediTech2016, pp. 195-200, Cluj-Napoca, Romania. IFMBE Proceedings, Vol. 59, Springer, DOI: 10.1007/978-3-319-52875-5_43
6. László Lefkovits, Szidónia Lefkovits, **Simina Emerich**, Mircea Florin Vaida, ‘*Random Forest Feature Selection Approach for Image Segmentation*’, The 9th International Conference on Machine Vision (ICMV 2016), November 18-20, 2016, Nice, France
7. Crisan, S., Tebrean, B., **Emerich, S.**, ‘*Optimized vein pattern recognition for biometric applications - A modern approach*’ 14th IMEKO TC10 Workshop on Technical Diagnostics

2016: New Perspectives in Measurements, Tools and Techniques for Systems Reliability, Maintainability and Safety

8. **Simina Emerich**, Eugen Lupu, Radu Arsinte, "*A New Approach to Iris Recognition*", ISSCS 2011- Proceedings of International Symposium on Signals, Circuits and Systems, Iasi, Romania , June 30 - July 1, 2011, pag. 217-220, ISBN:978-1-4577-0201-3, (IEEE Explore, Scopus)
9. Eugen Lupu, **Simina Emerich**, Radu Arsinte, "*Emotion Investigation Based on Biosignals*", International Conference on Advancements of Medicine and Health Care through Technology, MEDITECH 2011, IFMBE Proceedings, 2011, Volume 36, Part 3, 194-197, (Springer)
10. Radu Arsinte, Eugen Lupu, **Simina Emerich**, "*A Generic Platform to Study the Basic Aspects of DVB-IPTV Conversion Process*", ISSCS 2011- Proceedings of International Symposium on Signals, Circuits and Systems, Iasi, Romania, June 30 - July 1, 2011, pag.65-68, (IEEE Explore, Scopus)
11. **Emerich S.**, Lupu E., Rusu C., „*Online signature recognition approach based on wavelets and support vector machines*”, IEEE International Conference on Automation Quality and Testing Robotics (AQTR), 2010, ISBN: 978-1-4244-6724-2, (IEEE Explore, Scopus)
12. Lupu E., Ghiurcau M., Hodor V., **Emerich S.**, "*Combustion Sound Classification Employing Gaussian Mixture Models*", IEEE International Conference on Automation Quality and Testing Robotics (AQTR), 2010, ISBN: 978-1-4244-6724-2, (IEEE Explore, Scopus)
13. Lupu E., **Emerich S.**, "*Speaker Identification Approach Based On Time Domain Extracted Features*", 52nd IEEE International Symposium ELMAR-2010, Zadar, Croatia, (IEEE Explore, Scopus)
14. **Emerich S.**, Lupu E., Apatean A., "*Emotions Recognition by Speech and Facial Expressions Analysis*", 17th European Signal Processing, EUSIPCO'2009, Glasgow, 24-28 August 2009, pp.1617-1621, (IEEE Explore, Scopus)
15. **Emerich S.**, Lupu E, Apatean A, "*Bimodal Approach in Emotion Recognition using Speech and Facial Expressions*", 9-th IEEE International Symposium on Signals, Circuits and Systems, ISSCS' 2009, Iasi, 9-10 July 2009, Vol.2, pp.297-300, (IEEE Explore, Scopus)
16. **Emerich S.**, Lupu E., Apatean A., "*The Estimation of Glottal Closure Instants in Voiced Speech using Fractional B-spline Wavelets*", 19th International EURASIP Conference BIOSIGNAL 2008, Brno, June 29-July 1, ISBN: 978-80-214-3613-8
17. Apatean A., **Emerich S.**, Lupu E., Rogozan A., Bensorhair A., „*Wavelets and Moments for Obstacle Classification*", International Symposium on Communications, Control and Signal Processing, ISCCSP, 2008, Malta, pg 882-887, ISBN 978-1-4244-1688-2, (IEEE Explore, Scopus)
18. **Emerich S.**, Discant A., Lupu E., Demea S., "*B-spline and Wavelet Based Techniques for Iris Recognition*", Proceedings of The IEEE International Symposium on Signals, Circuits and Systems ISSCS 2007, 13-14 July 2007, Iasi, Romania, ISBN: 1-4244-0969-1, (IEEE Explore, Scopus)
19. Discant A., **Emerich S.**, Lupu E., Rogozan A., Bensorhair A., "*Ruttier Obstacle Classification by use of Fractional B-spline Wavelets and Moments*", Proceedings of The IEEE Region 8 EUROCON 2007 Conference Computer as a Tool, Warsaw, Poland, September 9-12, 2007, (IEEE Explore, Scopus) - **Best Poster Award for this article**
20. Mesaros A., **Moldovan S.**, Lupu E., "*Band Decomposition of Voice Signals Using Wavelets Defined from Fractional B-spline Functions*", 48th International Symposium ELMAR

focused on Multimedia Signal Processing and Communications, Croatia, 2006, (IEEE Explore, Scopus)

21. Mesaros A., Moldovan S., "Methods for Singing Voice Identification using Energy Coefficients as Features", 2006 IEEE-TTTC International Conference on Automation, Quality and Testing, Robotics AQTR (THETA 15), 2006, (IEEE Explore)
22. Discant A., Emerich S., Lupu E., Demea S., "Healthy and Cardiac People Iris Classification by use of B-spline Wavelet Decomposition", International Conference on Advancements of Medicine and Health Care through Technology, MEDITECH, September 27-29, 2007, Cluj-Napoca, Romania

e) Articole/studii in extenso, publicate în reviste din fluxul științific internațional principal

1. Bogdan Bot, Simina Emerich, Sorin Martoiu, Bogdan Belean, *FSL-based Hardware Implementation for Parallel Computation of cDNA Microarray Image Segmentation*, International Journal of Advanced Computer Science & Applications, IJACSA, Vol. 6, No 7, pp. 20-27, 2015, ISSN 2158-107x
2. Bogdan Muset, Simina Emerich, *Distance Measuring using Accelerometer and Gyroscope Sensors*, Carpathian Journal of Electronic and Computer Engineering Vol. 5, Nr. 1, 2012, pag. 83-86, ISSN 1844 – 9689 (CNCSIS B+, IndexCopernicus)
3. Simina Emerich, Eugen Lupu, "Improving Speech Emotion Recognition using Frequency and Time Domain Acoustic Features", Signal Processing and Applied Mathematics for Electronics and Communications, August 26-28, 2011, Cluj-Napoca, Romania, (Eurasip Proceedings)
4. Emerich S., "An Approach on Vowel Recognition", Carpathian Journal of Electronic and Computer Engineering, Volume 3, Number 1 – 2010, (CNCSIS B+, IndexCopernicus)
5. E. Lupu, S. Emerich, "An Approach on Bimodal Biometric Systems" Acta Tehnica Napocensis Electronics and Telecommunications, Vol. 51, nr.3/2010, pp. 45-52, ISSN 1221-6542, (CNCSIS B+, IndexCopernicus)
6. Lupu E, Emerich S., Beaufort F., "On-line Signature Recognition using a Global Features Fusion Approach", Acta Tehnica Napocensis Electronics and Telecommunications Vol. 50, nr. 3/2009, pp. 13-20, ISSN 1221-6542, (CNCSIS B+, IndexCopernicus)
7. Emerich S., "The Improvement of the Wavelet Analysis Techniques by using B-spline Functions Family", Acta Tehnica Napocensis, vol 49 no. 4, 2008, (CNCSIS B+, IndexCopernicus)
8. Apatean, S. Emerich, "Obstacle Recognition by the use of different wavelet families in Visible and Infrared Images", Carpathian Journal of Electronic and Computer Engineering Vol. 1, Nr. 1, 2008, ISSN 1844 – 9689 (CNCSIS B+, IndexCopernicus)
9. Apatean A., Rogozan A., Emerich S., Bensrhair A., "Wavelets as Features for Objects Recognition", Acta Tehnica Napocensis, vol 49 no. 2, 2008, ISSN: 1221-6542 (CNCSIS B+)

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