

LISTĂ LUCRĂRI ȘTIINȚIFICE

A. Teza de doctorat

Lupu, E. "Contribuții la recunoașterea vorbitorului" *Universitatea Tehnică Cluj-Napoca* 1998

B. Cărți și capitole din cărți

Lupu, E. Microprocesoare. Indrumator de laborator. Ed. RISOPRINT Cluj-Napoca 2000, **ISBN 973-9464-70-x** (132pg.)

Lupu, E., Suciu, A.F. Procesoare digitale de semnal - Lucrări practice Ed. U.T. Pres Cluj-Napoca 2002, **ISBN 973-8335-53-1** (130pg)

Lupu, E., Mesaroș, A., Suciu, A.F. MICROPROCESSORS - Architectures and Applications Ed. RISOPRINT Cluj-Napoca 2003, **ISBN 973-656-392-8** (160pg.)

Lupu, E. SISTEME CU MICROPROCESOARE. Resurse hardware. Prezentare, programare și aplicații. Ed. Albastră Cluj-Napoca 2004, **ISBN 973-650-109-4** (224 pg.)

Lupu, E., Pop, G. Petre Prelucrarea numerică a semnalului vocal. Elemente de analiză și recunoaștere. Ed. Risoprint 2004, **ISBN 973-656-652-8** (220 pg.)

Lupu, E. Verificatori biometrici Ed. RISOPRINT 2005, **ISBN 973-656-918-7** (264pg)

Lupu, E., Mesaros, A., Moldovan, S., Ed. RISOPRINT 2006, **ISBN 973-751-146-8** (121pg)

Lupu, E., Emerich, S., Apatean, A. Elemente de Programare in limbaj de asamblare X86 Ed. Galaxia Gutenberg 2009, **ISBN 978-973-141-191-0** (150pg)

C. Lucrări științifice indexate ISI/BDI (2000-2011)

1. **E. Lupu, M. Cioban** "Low Complexity Speaker Identification Approach" *Carpathian Journal of Electronic and Computer Engineering* Vol.1, nr.3/2010, pp. 61-66, **ISSN 1844 – 9689(CNCSIS B+)**
Indexat: *Copernicus*
2. **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+)**
Indexat: *CSA, Google Scholar, Copernicus*
3. **E. Lupu, S. Emerich, F. Beaufort** "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+)** **Indexat:** *CSA, Google Scholar, Copernicus*
4. **Lupu, E.** Pop, P.G., "Multimodal Biometric Systems Overview", *Acta Technica Napocensis*, Vol. 49, Number 3/2008 – special issue **ISSN 1221-6542**, pp.39-44, (*CNCSIS B+*) **Indexat:** *CSA, Google Scholar, Copernicus*
5. Pop, G.P., **E. Lupu**, "Detecting DNA Tandem Repeats With a Modified Fourier Product Method and Spectrograms", *Buletinul Stiintific al Universitatii POLITEHNICA Timisoara*, Tom 53(67), Fasc.2, pp. 109-112, **2008**, **ISSN 1583-3380 (CNCSIS B+)**, **Indexat:** *CSA, Google Scholar, Copernicus*
6. **Lupu E.,** Pop, G.P., "An overview of Biometrics", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 47, no. 2, **2006**, pp. 42-56, **ISSN 1221-6542, (CNCSIS B)**. **Indexat:** *CSA, Google Scholar*
7. Pop, G.P., **Lupu, E.**, "Voice Biometrics", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 47, no. 2, **2006**, pp. 14-29, **ISSN 1221-6542 (CNCSIS B)**. **Indexat:** *CSA, Google Scholar*
8. **Pop, G.P.,** Lupu E., "Time And Spectral Domain Methods In Speaker Verification", *WSEAS Trans. Signal Proc.*, Issue 10, vol. 2, Oct. **2006**, pp. 1408-1415, **ISSN 1790-5022**. **Indexat:** *Inspec, CSA, Google Scholar*
9. **Lupu, E.,** Pop, G.P., R. Arsinte, "Speech and Speaker recognition Application on the TMS320C541 board", *Buletinul stiintific al Universitatii POLITEHNICA Timisoara*, Tomul 51(65), Fascicula 2, pp. 177-180, **2006**, **ISSN 1583-3380 (CNCSIS B)**. **Indexat:** *CSA, Google Scholar*

10. Arsinte, R., **Lupu, E.** "Streaming Multimedia information using features of the DVB-S card" *Buletinul stiintific al Universitatii POLITEHNICA Timisoara*, Tomul 51(65), Fascicula 2, pp.181-184, **2006**, ISSN1583-3380 (CNCSIS B) **Indexat: CSA, Google Scholar**
11. Pop, G.P., **Lupu, E.**, "Genomic Signal Processing (II). Fourier Analysis, A Short Review", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 46, no. 2, **2005**, pp. 7-14, ISSN 1221-6542 (CNCSIS B). **Indexat: CSA, Google Scholar**
12. Pop, G.P., Pop, I.V., **Lupu, E.**, "Genomic Signal Processing (I)", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 46, no. 1, **2005**, pp. 40-47, ISSN 1221-6542 (CNCSIS B). **Indexat: CSA, Google Scholar**
13. **Lupu, E.**, Moca, V., Pop, G.P., "Application for TESPAP coding study and speaker recognition experiments", *Buletinul stiintific al Universitatii POLITEHNICA Timisoara*, Tomul 49(63), Fascicula 1, pp. 279-282, **2004**, ISSN 1583-3380 (CNCSIS B).
14. Pop, G.P., **Lupu, E.**, "Speaker Verification Employing TESPAP Coding and DTW", *Buletinul stiintific al Universitatii POLITEHNICA Timisoara*, Tomul 49(63), Fascicula 1, pp. 275-278, **2004**, ISSN 1583-3380 (CNCSIS B). **Indexat: CSA, Google Scholar**
15. **Lupu, E.**, Pop, G.P., Kranics, E., "Low-complexity System for Speaker Recognition", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 45, no. 1, **2004**, pp. 43-46, ISSN 1221-6542 (CNCSIS B). **Indexat: CSA, Google**
16. Pop, G.P., **Lupu, E.**, "The Influence of Features Coefficients Sequences in Speaker Recognition", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 45, no. 1, **2004**, pp. 35-38, ISSN 1221-6542 (CNCSIS B). **Indexat: CSA, Google Scholar**
17. Mesaros, A., **Lupu, E.** "Musical instrument class identification using cepstral coefficients derived from a constant Q transform" *Acta Technica Napocensis, Technical Univ. of Cluj-Napoca Vol. Nr.1 - 2004 pg.5-10 ISSN 1221-6542* **Indexat: CSA, Google Scholar**
18. Pop, G.P., **Lupu, E.**, Todorean, G., "Tespap Alphabet Generation Using Standard VQ And Kohonen NN", *Acta Technica Napocensis, Electronics and Telecommunications*, vol. 44, no. 1, **2003**, pp. 39-42, ISSN 1221-6542 (CNCSIS B). **Indexat: CSA, Google Scholar**
19. Pop, G.P., **Lupu, E.**, Todorean, G., "On the Use of Speech Energy Local Maxima in Speaker Verification With VQ", *Buletinul stiintific al Universitatii POLITEHNICA Timisoara*, vol. I, pp. 135-139, **2002**, ISSN 1224-6034 (CNCSIS B).
20. Pop, G.P., Todorean, G., **Lupu, E.**, "Software for speech analysis", *Buletinul stiintific al Univ. POLITEHNICA Timisoara*, vol. II, pp. 109-112, **2000**, ISSN 1223-6063 (CNCSIS B).
21. Fratila, A., **Lupu, E.** "MIDI Violin implemented on TMS320C31 DSP Starter Kit" *Acta Technica Napocensis, Vol. 40 Nr.1 - 2000 pg.1-6 ISSN 1221-6542 (CNCSIS B)*.
22. **E. Lupu, S. Emerich** "Speaker Identification Approach Based On Time Domain Extracted Features", 52nd IEEE International Symposium *ELMAR-2010*, *Zadar* 15-17 sept. 2010, pp. 355-358, **Indexat: IEEE Xplore**,
23. **S. Emerich, E.Lupu, C.Rusu** "On-line Signature Recognition Approach Based on Wavelets and Support Vector Machines", IEEE International Conference on Automation, Quality and Testing, Robotics AQTR 2010, pp.230-233 **Indexat: ISI Proceedings, IEEE Xplore**
24. **S. Emerich, E. Lupu, A. Apatean** "An Approach on Emotion Recognition by Using Speech Signals" 13th International Conference *SPECOM' 2009*, St. Petersburg, 21-25 June 2009, pp.309-312
25. **Lupu M. Cioban** "Voice Biometric System" International Conference on Advancements of Medicine and Health Care through Technology, *MEDITECH '2009*, Cluj-Napoca, 23-26 sept. 2009, IFMBE Vol. 26, pp.239-242, Indexat Springer **DOI: 10.1007/978-3-642-04292-8_53**
26. **S. Emerich, E. Lupu, A. Apatean** "Emotions recognition by speech and facial expressions analysis" 17th European Signal Processing, *EUSIPCO'2009*, Glasgow, 24-28 August 2009, pp.1617-1621 **Indexat: IEEE Xplore**,
27. **S. Emerich, E. Lupu, A. Apatean** "Bimodal Approach in Emotion Recognition using Speech and Facial Expressions" 9th IEEE International Symposium on Signals, Circuits and Systems, *ISSCS' 2009*, Iasi, 9-10 July 2009, Vol.2, pp.297-300 **Indexat: ISI Proceedings, IEEE Xplore, Scopus, Inspec, Compendex, Google Scholar**
28. Emerich S., **Lupu E.** "The Estimation of Glottal Closure Instants in Voiced Speech using Fractional B spline Wavelets", 19th international *EURASIP* conference BIOSIGNAL, Brno, Czech Republic June 29 - July 1, **2008** CD Proceeding, ISSN 1211-412X.
29. Pop, G.P., **Lupu E.**, "Tandem Repeats Detection in Biological Sequences", *Proc.7th Int. Conf. COMMUNICATIONS 2008*, June 5-7, **2008**, Bucharest, pp. 51-54, ISBN: 978-606-521-008-0.

30. Pop, G.P., **Lupu, E.**, “DNA Repeats Detection Using BW Spectrograms”, *IEEE-TTTC Int. Conf. on Automation, Quality and Testing, Robotics, AQTR 2008*, May 22-25, **2008**, Cluj-Napoca, Romania, Tome III, pp. 408-412, IEEE Catalog Number: CFP08AQT-PRT, ISBN: 978-1-4244-2576-1, Library of Congress: 2008904446. **Indexat:** *ISI Proceedings, IEEE Xplore, Scopus, Inspec, Compendex, Google Scholar*
31. Trusca, M., Lazea, G., **Lupu, E.** Adaptive control approach in case of a rigid link robot system, *IEEE International Conference on Automation, Quality and Testing, Robotics Proceedings, 22-24 May 2008*, pp 211-214, IEEE Catalog Number: CFP08AQT-PRT, ISBN: 978-1-4244-2576-1, Library of Congress: 2008904446. **Indexat:** *ISI Proceedings, IEEE Xplore, Scopus, Inspec, Compendex, Google Scholar*
32. Trusca, M.; Dobra, P.; Petreus, D.; **Lupu, E.**; “Adaptive approach in case of robotic system tracking control” The The 16th Mediterranean Conference on Control and Automation, 25-27 June 2008 pp.1089-1093, **Indexat:** *ISI Proceedings, IEEE Xplore, Inspec, Google Scholar, DOI10.1109/MED.2008.4602241*
33. Apatean, A. Emerich, S. **Lupu, E.** Alexandrina, R. Bensrhair, A. “Wavelets and moments for obstacle classification” **ISCCSP 2008**, 3rd International Symposium on Communications, Control and Signal Processing, Malta 12-14 March 2008, pp 882 – 887 **Indexat:** *ISI Proceedings, IEEE Xplore, DOI 10.1109/ISCCSP.2008.4537348*
34. Balan, R. , Hancu, O., **Lupu, E.** “Modeling and adaptive control of an electric arc furnace” *IFAC Workshop ICPS'07 2007, July 09-11 Cluj-Napoca, Romania pp 163-168*, ISSN: 1474-6670 **Indexat:** *IFAC-Papers Online, Elsevier*
35. Pop, G.P., **Lupu, E.**, “Speaker Verification With Combined Time And Spectral Domain Methods“, *Proc. 8th WSEAS Int. Conf. on Mathematical Methods and Computational Techniques in Electrical Engineering*, Bucharest, October 16-17, **2006**, pp. 270-275, ISSN 1790-5117, ISBN: 960-8457-54-8. **Indexat:** *CSA, Google Scholar*
36. Pop, G.P., **Lupu E.**, “Fourier Analysis of Biomolecular Sequences”, *Proc.6th Int. Conf. COMMUNICATIONS 2006*, June 08-10, **2006**, Bucharest, ROMANIA, pp. 49-52, ISBN 973-718-479-3, 978-973-479-5.
37. Mesaros, A., Moldovan, S., **Lupu, E.** Band Decomposition of Voice Signals Using Wavelets Defined from Fractional B-spline Functions *IEEE International Symposium ELMAR-2006*, pp. 135-138, ISSN 1334-2630 **Indexat:** *ISI Proceedings, IEEE Xplore, Inspec, DOI: 10.1109/ELMAR.2006.329533*
38. Pop, G.P., **Lupu, E.**, “On the Use of Teager Energy in Speaker Verification Employing DTW”, *Proc.9th Int. Conf.on Optimization of Electrical and Electronic Equipment*, Brasov, May 20-21, **2004**, vol. IV, pp. 159-162, ISBN 973-635-285-4. **Indexat:** *ISI Proceedings, IEEE explore*
39. **Lupu, E.**, Feher, Z, Pop, G.P., “On the Speaker Verification Using the TESPAP Coding Method”, *Proc. Int. Symp. on Signals, Circuits and Systems, SCS 2003*, Iasi, July 10-11, 2003, vol. 1, pp. 173-176, IEEE Catalog Number 03EX721, ISBN 0-7803-7979-9, Library of Congress 2003106445 **Indexat:** *ISI Proceedings, IEEE Xplore, Inspec, Google Scholar*
40. Mesaroş, A., **Lupu, E.**, Rusu, C. “Singing voice features by time-frequency representations” *Proceedings of the 3rd IEEE International Symposium on Image and Signal Processing and Analysis*” Rome, Italy, 18-20 September 2003, pp.471-475, **ISBN 953184063-6 Indexat:** *ISI Proceedings, IEEE Xplore, Inspec, Google Scholar*

D. Lucrări științifice publicate in reviste și volume de conferințe cu referenți (neindexate) (2000 - 2011 – selecție de 20 de articole):

1. **Lupu, E.**, Pop, G.P. Low-complexity system for speaker authentication, 19th International *EURASIP* conference BIOSIGNAL, Brno, Czech Republic June 29 - July 1, **2008**, CD Proceeding, ISSN 1211-412X.
2. Pop, G.P., **Lupu E.**, “DNA Repeats Detection Using Fourier Analysis“, *Proc.19th Int. EURASIP Conf. Analysis of Biomedical Signals and Images, BIOSIGNAL 2008*, June 29-July 01, **2008**, Brno, Czech Republic, CD Proceedings, ISSN 1211-412X.
3. Pop, G.P., **Lupu E.**, Roman N.M., “Pathological Voice Assesment”, *Acta Electrotehnica*, vol. 48, no. 4, **2007**, pp. 185-188, ISSN 1841-3323 (*CNCSIS B*).
4. **Lupu E.**, Pop, G.P., Roman N.M., “A Survey of Multimodal Biometric Systems”, *Acta Electrotehnica*, vol. 48, no. 4, **2007**, pp. 37-42, ISSN 1841-3323 (*CNCSIS B*).

5. Discant A., Emerich S., **Lupu E.**, Demea S. "Healthy and Cardiac People Iris Classification by use of B-spline Wavelet Decomposition" *Acta Electrotehnica*, vol. 48, no. 4, **2007**, pp. 235-238, ISSN 1841-3323 (CNCSIS B).
6. Moca V.V., Scheller B., Pipa G., **Lupu, E.** "TESPAR – towards biomedical applications" *Acta Electrotehnica*, vol. 48, no. 4, **2007**, Pp 281-286, SSN 1841-3323 (CNCSIS B).
7. Emerich, S., **Lupu, E.**, Discant, A. "Conformational Energy Search using Simulated Annealing" *Acta Electrotehnica*, vol. 48, no. 4, **2007**, pp. 401-404 (CNCSIS B).
8. **Lupu E.**, Pop G.P., Roman M., "Low-cost System for Biometric Signal Processing", *Acta Electrotehnica*, vol. 47, no. 4, **2006**, pp. 243-248, ISSN 1841-3323 (CNCSIS B).
9. Pop, G.P., **Lupu E.**, Roman M., "Computer Aided Design in Induction Hardening", *Acta Electrotehnica*, vol. 47, no. 4, **2006**, pp. 279-282, ISSN 1841-3323 (CNCSIS B).
10. Mesaros, A., **Lupu, E.** - Closed Phase Detection in the Singing Voice Using Information About Formant Frequencies During One Glottal Cycle, 10th International Conference on Speech and Computer SPECOM **2005**, Patras, Greece, ISBN 5-7452-0110-x
11. Pop, G.P., **Lupu, E.**, "Fourier Analysis of Genomic Sequences", *GSP 2005, Int. Workshop on Genomic Signal Processing*, July 11-13, **2005**, Bucharest, pp. 48-55, ISBN-10: 973-708-131-5.
12. **Lupu, E.**, Pop, G.P., Patras, M., "Low Complexity Speaker Recognition System Developed on the DSP TMS320C541 Board", *Proc. 9th Int. Conf. "Speech and Computer" SPECOM' 2004*, Sept. 20-22, **2004**, St. Petersburg, pp. 398-402, ISBN 5-7452-0110-x. **Indexat: ISCA, Google Scholar Citare in:** revista *Microprocessors and Microsystems*, vol. 31, Issue 6, 1 Sept. **2007**, pp. 381-392 (cotata ISI)
13. **Lupu, E.**, Pop, G.P., Patras, M., "Speech Recognition System Using Speech Coding on EVM TMS320C541 Board", *INES 2004-Proc. 8th Int. Conf. on Intelligent Engineering Systems*, Sept. 19-21, **2004**, Cluj-Napoca, pp. 530-533, ISBN 973-662-120-0.
14. Pop, G.P., **Lupu, E.**, "Combining VQ and DTW in Text Dependent Speaker Verification", *INES 2004-Proc. 8th Int. Conf. on Intelligent Engineering Systems*, Sept. 19-21, **2004**, Cluj-Napoca, pp. 526-529, ISBN 973-662-120-0.
15. **Lupu, E.**, Moca V., Pop G.P., "Environment for Speaker Recognition Using Speech Coding", *Proc. Int. Conf. COMMUNICATIONS 2004*, June 3-5, Bucharest, vol.1, pp. 199-204, ISBN 973-640-035-2.
16. Pop, G.P., **Lupu, E.**, "On the Influence of Individual Features Coefficients Over Speaker Recognition", *Int. Conf. on Electrical and Electronics Engineering, ELECO 2003*, Dec. 3-7, **2003**, Bursa, Turkey, CD Proc., B Sessions (oral), Signal Processing II, B3-09. **Indexat: Google Scholar**
17. **Lupu, E.**, Moca, V., **Pop, G.P.**, "Tespar Coding Study for Speaker Recognition Applications", *The 30th Int. Attended Scientific Conference of the Military Academy, "Modern Technologies in the 21st Century"*, Bucharest, Nov. 6-7, **2003**, pp. 214-221, ISBN 973-640-012-3.
18. **Lupu, E.**, Krainics, E. "Sistem low-cost cu microcontroller pentru recunoasterea vorbitorului" *Revista de Telecomunicatii nr.1/2003* pg. 67-77, ISSN 1223-6527 (CNCSIS B)
19. Pop, G.P., **Lupu, E.**, Todorean, G., "Data Reduction in Speaker Verification with DTW", *The Int. Conf. COMMUNICATIONS 2002*, Dec. 5-7, **2002**, pp. 360-365, Bucharest, Romania, ISBN 973-8290-67-8.
20. **Lupu, E.**, Feher, Z., Pop, G.P., "Speaker Verification Rate Study Using The Tespar Coding Method", *The 3rd Workshop on "Information and Knowledge Management for Integrated Media Communication"*, October 11-12, **2002**, Budapest, Hungary, CD Proceedings, pp. 90-95.

E. Brevete

F. Granturi/contracte de cercetare (2000-2011)

1. "Filtre adaptive cu structura variabila" **CNCSIS nr.33531/2002-2004 – membru**
2. "Aplicatie software pentru consultarea de la distanta a bazelor de date prin mijloace de radiocomunicatii" **nr.9/2002 – ORIZONT 2000 - membru**
3. „Aplicatie software pentru măsurarea temperaturilor” contract terti nr. **59/2002 – director**
4. „Broadband services for everyone over fixed wireless access networks” **FP6-2002-IST-1 Contract 001930/2003 - membru**
5. “Sisteme biometrice pe baza amprentei vocale pentru controlul accesului” **Contract CNCSIS 1027/2004 , 2004-2006 -director**
6. The European University Program - Texas Instruments " Promovarea DSP în Universităţii" (2005-2006) **- director**
7. „Mecanisme moleculare ale recunoasterii si adeziunii celulare mediate de interactiuni glican-glican”, **CNCSIS AC-10/2005 nr. 27687/2005 2005-2007 - responsabil din partea UT Cluj-Napoca**
8. „Bioinformatica secvențelor genice implicate in diviziunea celulară la procarote”nr. **CEx-05-D11-52/07.10.2005, 2005-2007 - membru**
9. „Studiu privind modul de control al topirii in cuptorul cu arc electric KGYV-5T in vederea optimizarii consumului energetic” **nr. 40/2005 –ROMINSERV S.A. Buc. - membru**
10. Platforma de simulare, control si testare cu aplicatii in mecatronica **CEEX-M2 CONMEC nr.112/2006, 2006-2008 - membru**
11. Sistem de analiza si calcul a semnalelor din retelele electrice poluate si comanda a filtrelor active pentru compensarea armonicilor, **nr. 77/2006, CEEX, MEC-CNMP, 2006-2008 - membru**
12. Dezvoltarea PArteneriatelor la nivel national si international, in domeniul SistemE DedicatE, in vederea organizarii de manifestari stiintifice si pregatirea de proiecte comune in programul cadru 7 UE – **CEEX - M3 PASED - contract nr.: 253/2006 - responsabil din partea UT Cluj-Napoca**
13. Sistem biometric multimodal de autentificare, **2007-2010, PNCDI ID 904 nr. 339/2007 - director**
14. Prelucrarea genomurilor biologice prin tehnici de data mining, 2007-2010, **PNCDI ID 903, nr.334/2007 - membru**
15. Controlul si analiza numerica a instabilitatii combustiei prin utilizarea analogiei acustice **2007-2010, PNCDI IDEI 1071/2007, -membru**
16. Auto adaptation dynamique de services pour la personne handicapée, EcoNet, contract nr. 18826YM, **2008-2010 între Univ. de Nice Sophia Antipolis, Universitatea Tehnică din Cluj-Napoca și Universitatea de Stat din Moldova, - membru**
17. Reconstituirea adaptiva a semnalelor pentru esantionarea comprimata a matricelor de senzori acustici, **2008-2011, PNCDI ID 162/2008 - membru**
18. Digital environment home energy management system **DEHEMS FP7-2008 24609, 2008-2011 - membru**

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