LISTĂ LUCRĂRI ŞTIINŢIFICE

A. Teza de doctorat
(Titlul tezei, domeniul şi anul susţinerii)

"Several Approaches to Cost Function Adaptation and Phase Approximation"

1997-2000: *Dr. Tech.* (with honors) in Signal and Image Processing, Signal Processing Laboratory, Tampere University of Technology, Tampere, Finland

"Contributii la analiza si sinteaza asistata de calculator a circuitelor electronice"

1990-1996: *Ph. D.* in Electronics Engineering, Faculty of Electronics and Telecommunications, Technical University of Cluj-Napoca, Cluj-Napoca, Romania

B. Cărţi şi capitole din cărţi
(Autorii, titlul cărţii, editura, locul şi anul publicării, nr. pagini, ISBN)

C. Rusu, *Filtrari Adaptive si Modelarea Statistica a Semnalelor*. Cluj-Napoca: Risoprint, 2009.

C. Rusu, L. Grama, and J. Takala, *SPICE Simulation of Analog Filters: A Method for Designing Digital Filters*. Berlin / Heidelberg: Lecture Notes in Computer Science, Springer, 2009, vol. 5717, pp. 534-539.

C. Rusu and L. Grama, *Lecture Notes in Digital Signal Processing*. Cluj-Napoca: Risoprint, 2009.

L. Grama, A. Grama, and C. Rusu, *Filtre Numerice - Aplicatii si Probleme*. Cluj-Napoca: U.T.Press, 2008.

L. Grama and C. Rusu, *Prelucrarea Numerica a Semnalelor - Aplicatii si Probleme*. Cluj-Napoca: U.T.Press, 2008.

R. Bilcu and C. Rusu, *Prelucrarea Numerica a Semnalelor - Indrumator de Laborator*, 2nd ed. Cluj-Napoca: Risoprint, 2004.

C. Rusu, *Prelucrarea Numerica a Semnalelor*, 2nd ed. Cluj-Napoca: Risoprint, 2002.

C. Rusu, *Prelucrari Digitale de Semnale*. Cluj-Napoca: Mediamira, 2000.

C. Rusu, *Prelucrarea Numerica a Semnalelor*. Cluj-Napoca: Risoprint, 2000.

C. Rusu, *Several Approaches to Cost Function Adaptation and Phase Approximation*. Tampere: Tampereen teknillinen korkeakolu, 2000.

C. Lucrări ştiinţifice indexate ISI/BDI (2000-2011)
(Autorii, titlul lucrării, conferinţa/revista, locul şi data publicării, paginile, ISBN/ISSN, indexările)

Jurnale ISI

[1] C. Rusu and C. F. N. Cowan, The exponentiated convex variable step-size (ECVSS) algorithm, Signal Processing, vol. 90, no. 9, p. 2784-2791, Sept. 2010.

[2] C. Rusu and J. Astola, Minimum-phase parts of zero-phase sequences, Signal Processing, vol. 84, no. 6, pp. 1032-1037, June 2009.

[3] C. Rusu and J. Astola, A note on argument principle, IEEE Signal Processing Letters, vol. 11, no. 10, pp. 817-820, Oct. 2004.

[4] C. Rusu and P. Kuosmanen, Phase approximation by logarithmic sampling of gain, IEEE Trans- actions on Circuits and Systems II: Analog and Digital Signal Processing, vol. 50, no. 2, pp. 93-101, Feb. 2003.

[5] C. Rusu, M. Tico, P. Kuosmanen, and E. J. Delp, Classical geometrical approach to circle fitting - review and new developments, Journal of Electronic Imaging, vol. 12, no. 1, pp. 179-193, Jan. 2003.

[6] A. Burian, P. Kuosmanen, and C. Rusu, 1-D direct phase retrieval, Signal Processing, vol. 82, no. 8, pp. 1059-1066, Aug. 2002.

[7] C. Rusu, I. Gavrea, and P. Kuosmanen, Deriving phase from logarithmic gain derivatives, Circuits, Systems and Signal Processing, vol. 21, no. 3, pp. 243-261, 2002.

[8] C. Rusu and C. F. N. Cowan, Cost function adaptation (CFA): a stochastic gradient algorithm for data echo cancellation," Proc. IEE Vis.Image and Signal Processing, vol. 147, no. 6, pp. 516-526, Dec. 2000.

[9] C. Rusu and C. F. N. Cowan, Adaptive echo cancellation using cost function adaptation, Signal Processing, vol. 80, no. 11, pp. 2457-2473, Nov. 2000.

[10] C. Rusu and C. F. N. Cowan, Convex variable step-size (CVSS), IEEE Signal Processing Letters, vol. 7, no. 9, pp. 256-258, Sept. 2000.

D. Lucrări ştiinţifice publicate in reviste şi volume de conferinţe cu referenţi (neindexate) (2000 - 2011 – selecţie de 20 de articole):
(Autorii, titlul lucrării, conferinţa/revista, locul şi data publicării, paginile, ISBN/ISSN)

[1] M. V. Ghiurcau, C. Rusu, J. Astola, and R. C. Bilcu, Towards an application for detecting intruders in wildlife regions," in Proc. EUSIPCO 2010, Aalborg, Denmark, August 23-27 2010, pp. 1865-1868.

[2] C. Rusu, A. Lodin, A. Lodin, and J. Astola, Ordering minimum-phase sets: Numerical properties and systematic searches, in Proc. EUSIPCO 2010, Aalborg, Denmark, August 23-27 2010, pp. 1286-1290.

[3] C. Rusu and C. F. N. Cowan, An improved exponentiated stochastic gradient algorithm," in Proc. ISCAS 2010, Paris, May 2010, pp. 2980-2983.

[4] C. Rusu and J. Astola, On the energy concentration property for zero-phase sequences, in Proc. ISCAS 2010, Paris, May 2010, pp. 2694-2697.

[5] M. V. Ghiurcau, C. Rusu, and R. C. Bilcu, A modied TESPAR algorithm for wildlife sound classification," in Proc. ISCAS 2010, Paris, May 2010, pp. 2370-2373.

[6] M. V. Ghiurcau, C. Rusu, and R. C. Bilcu, Wildlife intruder detection using sounds captured by acoustic sensors, in Proc. ICASSP 2010, Dallas, Texas, USA, Mar. 2010, pp. 297-300.

[7] C. Rusu and J. Astola, Converting a set into a minimum-phase sequence, in Proc. ECCTD 2009, Antalya, Turkey, Aug. 2009, pp. 870-873.

[8] C. Rusu and J. Astola, About magnitude input data in 1-D direct phase retrieval," in Proc. EUSIPCO 2007, Poznan, Sept. 2007.

[9] C. Rusu and J. Astola, About ordering sequences in minimum-phase sequences, in Proc. EUSIPCO 2006, Florence, Sept. 2006.

[10] C. Rusu and C. Cowan, On convex variable step-size algorithm implementation, in CDROM Proceedings of 13. European Signal Processing Conference, EUSIPCO 2005, Antalya, Turkey, Sept. 2005.

[11] C. Rus, J. Astola, and C. Rusu, From a physical scanned map to a digital elevation model using the legend and kriging, in CDROM Proceedings of 13. European Signal Processing Conference, EUSIPCO 2005, Antalya, Turkey, Sept. 2005.

[12] C. Rusu and J. Astola, Argument principle and discrete Fourier transform, in Proc. ECCTD 2005, Cork, Ireland, Aug. 2005.

[13] C. Rusu, C. Rusu, and J. Astola, Elevation contours extraction from a color-coded relief scanned map, in Proceedings of IEEE International conference on Image Processing, ICIP 2004, Singapore, Oct. 2004, pp. 1699-1702.

[14] C. Rusu and J. Astola, Sequences ordering in minimum-phase sequences, in Proc. EUSIPCO 2004, TU Wien, Sept. 2004, pp. 93-96.

[15] R. Bilcu, K. Egiazarian, P. Kuosmanen, and C. Rusu, An adaptive variable lenght DCT transform for signal denoising, in Proceedings of the 16th European Conference on Circuits Theory and Design, ECCTD'03, vol. 1, Cracow, Poland, Sept. 2003, pp. 425-428.

[16] C. Rusu, P. Kuosmanen, and J. Astola, Phase approximation in linear frequency domain, in Proceedings of the 16th European Conference on Circuits Theory and Design, ECCTD'03, vol. 1, Cracow, Poland, Sept. 2003, pp. 165-168.

[17] M. Tico, C. Rusu, P. Kuosmanen, and E. J. Delp, Circle fitting by iterative inversion, in Proc. EUSIPCO 2002, Toulouse, France, Sept. 2002.

[18] C. Rusu and C. F. N. Cowan, Novel stochastic gradient adaptive algorithm with variable length, in Proceedings of the 15th European Conference on Circuit Theory and Design ECCTD'01, Espoo, Finland, Aug. 2001, pp. 341-344.

[19] A. Burian, J. Saarinen, P. Kuosmanen, and C. Rusu, Several approaches to signal reconstruction from spectrum magnitudes, in Proceedings of ICASSP 2001 Conference, vol. 6, Salt Lake City, Utah, May 2001, pp. 3921-3924.

[20] C. Rusu and C. F. N. Cowan, A novel approach to stationary cost function adaptation, in Proc. EUSIPCO 2000, vol. 2, Tampere, Sept. 2000, pp. 697-700.

E. Brevete

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

Sisteme de prelucrare a semnalelor pentru comunicatii mobile – CNCSIS WE_107_2008 – director Corneliu Rusu

Reconstituirea adaptiva a semnalelor pentru esantionarea comprimata a matricelor de senzori acustici – PN_ID_162_2008 – director Corneliu Rusu

Filtre adaptive cu structura variabilă – CNCSIS A-722 2001 -2004 – director Corneliu Rusu

Grad didactic, numele şi prenumele

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