LISTA DE LUCRĂRI PUBLICATE

CĂRŢI

1. Alexandru, N.D., Morgenstern, G., 1998, *Digital Line Codes and Spectral Shaping, Editura Matrix ROM, Bucureşti, 1-200, ISBN 973-9390-44-7*
2. Alexandru, N.D., Kim, Dae Young, 2003, *Spectral Shaping via Coding, CERMI, Iasi,, 1-316, ISBN 973-667-023-6*
3. Alexandru N.D., Onofrei L.A. *Improved Nyquist Filters*, POLITEHNIUM, Iaşi, 2009, 232 p. *ISBN 978-973-621-275-8*
4. Alexandru N.D., Graur, A., *Noise and Fluctuations in Electronics and Telecommunications*, Miskolc University Press, 2014, ISBN 978-615-5216-62-6, 256 p.
5. Graur, A., Alexandru N.D., Pohoaţă S., *Fundamentals of Analog Electronics,* Druk Art Printing House, Chernivtsi, 2015, ISBN 978-6177172-47-4
6. Alexandru N.D., *2004, Introducere în telecomunicaţii, CERMI, Iasi,, 1-248, ISBN 973-667-032-5*
7. Alexandru N.D., Graur, A., *2005, Sisteme Spread Spectrum, MEDIAMIRA, Cluj, 1-274, ISBN 973-713-074-X*
8. Alexandru N.D., *2006, Radiocomunicaţii digitale, vol.II, Comunicaţii digitale,* STEF, Iasi, 1-150, ISBN973-8961-39-4
9. Alexandru N.D., Graur, A., *2006, Domotica: O incursiune în casa viitorului, MEDIAMIRA, Cluj, 1-252, ISBN (10) 973-713-138-X ISBN (13) 978-973-713-138-6*
10. Alexandru N.D., *2008, Sisteme de comunicaţii, CERMI, Iaşi, 268 p, ISBN 978-973-667-320-7*
11. Alexandru N.D., *2009, Comunicaţii digitale, CERMI, Iaşi, 250 p, ISBN 978-973-667-341-2*
12. Alexandru N.D., Graur, A., *"Zgomote şi fluctuaţii în electronică şi telecomunicaţii", MEDIAMIRA, Cluj, 2011, 245 p.* ISBN 978-973-713-284-0
13. Alexandru, N.D., Cotae, P., 1990, Tehnica modernă a telecomunicaţiilor, Rotaprint, Iaşi, 350 p.
14. Alexandru, N.D., Cotae, P., 1987, Telegrafie şi transmisiuni de date, Rotaprint, Iaşi, 350 p.

MANUALE

1. Suchar, I, Serban, G., Haba P., Vasilache, V., Cretu, A., Cosma, V., Alexandru, N.D., "Electrotechnică generală - culegere de probleme", Rotaprint, Iaşi, 1974.
2. Alexandru, N.D., Cotae, P. "Tehnica modernă a comunicaţiei", Îndrumar de laborator, Rotaprint, Iaşi, 1990, 200 p.
3. Diaconu, F., Alexandru N.D., *Sisteme de comunicaţii. Îndrumător de laborator*, Stef, Iaşi, 2008, pp.1-52, ISBN 978-973-1809-18-2

ARTICOLE ISI

În reviste cotate ISI:

1. **Nicolae Dumitru Alexandru**, and Felix Diaconu, "Quick Performance Assessment of Improved Nyquist Pulses", Wireless Communications and Mobile Computing, accepted.

2. **Nicolae Dumitru Alexandru**, and A. L. Bălan, „ISI-free pulse with piecewise exponential frequency characteristic", AEÜ - International Journal of Electronics and Communications, Vol.70, Issue 8/2016, pp.1020-1027.
3. **Nicolae Dumitru Alexandru**, and A. L. Bălan, „Investigation of the Mechanism of Improvement in Improved Nyquist Filters", IET Signal Processing, Volume 8, Issue 1, February 2014, p.95– 105, DOI: 10.1049/iet-spr.2013.0050, Print ISSN 1751-9675, http://digital-library.theiet.org/content/journals/10.1049/iet-spr.2013.0050
4. **Nicolae Dumitru Alexandru**, and A. L. Bălan, „Improved Nyquist Pulses Produced By A Filter with Senary Piece-wise Polynomial Frequency Characteristic", *Advances in Electrical and Computer Engineering*, vol. 14, No. 2, pp.129-134, 2014. DOI: 10.4316/AECE.2014.0202
5. Alexandra Ligia Bălan, and **Nicolae Dumitru Alexandru**, „Construction of New ISI-Free Pulses Using a Linear Combination of Two Polynomial Pulses", Telecommunication Systems, 2015 DOI: 10.1007/s11235-014-9907-2, August 2015, Volume 59, Issue 4, pp 469-476.
6. S. Pohoaţă, A. Popa, and **Nicolae Dumitru Alexandru**, „Generation of Quasi-Gaussian Pulses Based on Correlation Techniques", *Advances in Electrical and Computer Engineering*, vol. 10, No. 1, pp.71-76, 2012.
7. Alexandra Ligia Balan, and **Nicolae Dumitru Alexandru**, „Two Improved Nyquist Filters with Piece-Wise Rectangular-Polynomial Frequency Characteristics", AEÜ - International Journal of Electronics and Communications, Vol.66, No.11/2012, pp.880-883.
8. **Nicolae Dumitru Alexandru**, and A. L. Bălan, „Improved Nyquist Filters with Piece-Wise Parabolic Frequency Characteristics", IEEE Communication Letters, Vol.15, No.5, pp. 473–475, May, 2011.
9. **Nicolae Dumitru Alexandru**, and A. L. Bălan, „ISI-free pulses produced by improved Nyquist filter with piece-wise linear characteristic**",** *Electronics Letters*, Vol.47, 4, pp. 256–257, 2011.
10. **Nicolae Dumitru Alexandru**, and L.A. Onofrei, "ICI Reduction in OFDM Systems Using Phase Modified Sinc Pulse" Wireless Personal Communications, Volume 53, Number 1 / March, 2010, pp. 141-151, DOI: 10.1007/s11277-009-9675-6
11. **Nicolae Dumitru Alexandru**, and L.A. Onofrei, "Improved Nyquist Filter with an Ideal Piece-Wise Rectangular Characteristic", AEŰ - International Journal of Electronics and Communications, Vol. 64, Issue 8, pp.766-773, 2010.
12. **Nicolae Dumitru Alexandru**, and M.L. Alexandru, „A Comparison of Double Convex and Double Concave Improved Nyquist Filters", *Advances in Electrical and Computer Engineering*, vol. 10, No. 1, pp.63-66, 2010
13. L.A. Onofrei, and **Nicolae Dumitru Alexandru**, "Improved Nyquist Filter Characteristics Using Spline Interpolation", Annales des Telecommunications, Volume 64, Numbers 11-12 / December, pp.793-799, 2009, DOI: 10.1007/s12243-009-0111-4
14. T.N. Durnea, **Nicolae Dumitru Alexandru**, "Calculus of the Power Spectral Density of UWB-PPM Signals coded with Totally Flipped Code", *Advances in Electrical and Computer Engineering*, Vol. 9, No.1 (29), pp.16-21, 2009.
15. **Nicolae Dumitru Alexandru**, and S. Pohoaţă "Improved Nyquist Filters with a Transfer Characteristic Derived from a Staircase Characteristic Interpolated with Sine Functions", Advances in Electrical and Computer Engineering, vol. 10, No. 2, pp.103-108, 2009
16. **Nicolae Dumitru Alexandru,** Alexandru, M.L. "Spectral Shaping for Codes with P.S.D. Expressed by Rational Functions", Advances in Electrical and Computer Engineering, Vol. 8, No.1, pp.31-35, 2008.
17. P. Cotae, **Nicolae Dumitru Alexandru**, "A Class of Generalized Constant Envelope Shaping Functions, Archiv für Elektronik und Übertragungstechnik, Vol.46, No 2, pp.102-106, 1992.

ISI PROCEEDINGS

1. **N.D. Alexandru**, Felix Diaconu, „Thorough Spectral Investigation of the β-α Pulse Shaping Filter", Proc. ISSCS 2015, Iaşi, on CD
2. Adrian Popa, **N.D. Alexandru**, "Waveform and CMOS Generator for a Pulse Designated for UWB European Band 6-8.5 GHz", Proc. ISSCS 2015, Iaşi, on CD
3. Alexandra Ligia Balan, **Nicolae Dumitru Alexandru**, "Inter-symbol Interference Free Pulses for Transmission Over Intensity-Modulated Channels", Communications'2014, Bucharest, Romania, pp.67-70, ISBN: 978-1-4799-2385-4/14
4. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, Felix Diaconu and Mihai Dimian, "Development of Improved Nyquist Filters with Piecewise Linear Frequency Characteristics", 36th Internat. Conf. on Telecommunications and Signal Processing - TSP, Rome, Italy, 2013
5. **Nicolae Dumitru Alexandru**, Nicolae Cleju, "Implementation Considerations of Improved Nyquist Filters", Proc. ECAI, Piteşti, Vol.3, /2013, pp.13-16, ISSN-1843-2115, indexat IEEEXplore DOI: 10.1109/ECAI.2013.6636187
6. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, "Optimization of a Square-Root Nyquist Filter with Staircase Frequency Characteristic", ISEEE Galaţi, 2013
7. Alexandra Ligia Balan and **Nicolae Dumitru Alexandru** "ISI-Free Pulses Produced by a Linear Combination of Two Polynomial Pulses", 35th Internat. Conference on Telecommunications and Signal Processing - TSP, July 3-4, 2012, Prague, pp.182-185
8. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, Felix Diaconu, "Square-Root Improved Nyquist Filter with a Piece-wise Rectangular Frequency Characteristic", Proc. ISSCS 2013, Iaşi, on CD
9. Alexandra Ligia Balan and **Nicolae Dumitru Alexandru**, "Improved Nyquist Filters with Piecewise Rectangular-Sine Frequency Characteristics", Communications'2012, Bucharest, Romania, pp.67-70
10. Sorin Pohoaţă, Adrian Popa, **Nicolae Dumitru Alexandru**, "Approximation of the Third Derivative of the Gaussian Pulse", Proc. ISSCS 2011, Iaşi, pp.265-268.
11. Alexandra Ligia Balan, **Nicolae Dumitru Alexandru**, "Construction of the New Improved Nyquist Filters Using Interpolation with Polynomial Functions", Proc. ISSCS 2011, Iaşi, pp.261-264, DOI: 10.1109/ISSCS.2011.5978709
12. **Nicolae Dumitru Alexandru**, Breabăn G.D., "Improved Nyquist filter with a convex-convex piecewise-parabolic transfer function", Communications'2010, Bucharest, Romania, pp.191-194
13. Onofrei, L.A., and **Nicolae Dumitru Alexandru**, „The effect of ICI in OFDM Systems Using Improved Phase Modified Sinc Pulse", ISSCS 2009, July 9-10, Iaşi, pp.279-282.
14. **Nicolae Dumitru Alexandru**, Diaconu, F., "Improved Nyquist Filter with Piece-wise Linear Transfer Characteristic", ISSCS 2009, July 9-10, Iaşi, Romania, pp.275-278, DOI: 10.1109/ISSCS.2009.5206094
15. **Nicolae Dumitru Alexandru**, "A Family of Improved Nyquist Pulses", ISSCS 2007, July 12-13, Iaşi, Romania, pp.585-588, ISBN 1-4244-0968-3, DOI: 10.1109/ISSCS.2007.4292793
16. Onofrei, L.A., **Nicolae Dumitru Alexandru**, "An Investigation of The Improved Nyquist Pulses Families for OFDM Use", ISSCS 2007, July 12-13, Iaşi, Romania, pp.593-596, ISBN 1-4244-0968-3, DOI: 10.1109/ISSCS.2007.4292795
17. Voukalis D., **Nicolae Dumitru Alexandru**, „A New Design Technique for Optimum Logic Filter Using Matrix Type-B Error Correcting Coding", SSCS 2005, Iasi, 235-240, ISBN 0-7803-9029-6, 2005, DOI: 10.1109/ISSCS.2005.1509897.

18. Ionescu D., **Nicolae Dumitru Alexandru**, „A Study of Effective Permittivity for Thermotropic Liquid Crystals in 7.8 – 12.4 GHz Frequency Range", Proc. of the ISSCS 2005, July 14-15, Iasi, Romania, p 737-740, 0-7803-9029-6, 2005

REVISTE INDEXATE BDI:

1. **Nicolae Dumitru Alexandru**, and S. Pohoaţă "Improved Nyquist Filters Using Interpolation with Sine Functions", ICGST International Journal on Automatic Control and Systems Engineering, ACSE, Dec. 2009, Vol.9, Issue III, pp.1-7, indexat in Google Scholar.
2. **Nicolae Dumitru Alexandru**, *"Spectral Characterization of two Families of Fiber Optic Transmission Codes"*, Acta Technica Napocensis, Vol. 49, No. 1, pp.16-19, 2008, indexat Proquest, Copernicus.
3. Onofrei, L.A., **Nicolae Dumitru Alexandru**, *"An Investigation of ISI and ICI Properties for a Family of Offset Ramp Improved Nyquist Filters"*, pp.13-20, Acta Technica Napocensis, Vol. 48, No. 1/2007, indexat Proquest, Copernicus.
4. **Nicolae Dumitru Alexandru**, M.L. Alexandru, Onofrei, L.A., "A Class of Improved Pulses Generated by Nyquist Filters", Advances in Electrical and Computer Engineering, Vol. 5, No.2, pp.10-14, 2005.
5. **Nicolae Dumitru Alexandru**, D. Ionescu, Dielectric Properties Analysis of a Nematic Liquid Crystal at Microwave Frequencies, Acta Technica Napocensis, Cluj, Volume 44, Number 1/2004, p. 51-54, indexat Proquest, Copernicus.
6. Pletea I., Bogdan I., **Nicolae Dumitru Alexandru**, „Secure Communication Systems using TMS320C5x DSP", Acta Technica Napocencis, vol.41, Nr.1, pp.1-5, ISSN 1221-6542, 2001, indexat Proquest, Copernicus.
7. **Nicolae Dumitru Alexandru**, V. Cehan, and L. Păncescu, "An Evaluation of Spectral Properties for Some Minimum-Bandwidth Line Codes", Advances in Electrical and Computer Engineering, No.13, pp.5-8., ISSN 1222-4316, 2000.
8. **Nicolae Dumitru Alexandru**, V. Cehan, "A Complete Investigation of Spectral Properties of Some Alphabetic Codes", Buletinul Institutului Politehic din Iaşi - secţia III - Electrotehnică, Energetică, Electronică, tom. XLIV (XLVIII), fasc. 1-2, ISSN 0258-9109, 1999.
9. Cehan, V., **Nicolae Dumitru Alexandru**, **"**Analysis of RF signal envelope distortions in AM radio receivers in combined AM audio and FM data transmission", Acta Tehnica Napocensis, Electronics and Telecommunications, Vol.38, No 1, 20-25, ISSN 1221-6542, 1998.
10. Cehan, V., **Nicolae Dumitru Alexandru**, 1998, Some methods for superimposing data on amplitude modulated radio signals, Acta Technica Napocensis, Vol.38, No 2, pp.16-21, ISSN 1221-6542
11. Cehan, V., **Nicolae Dumitru Alexandru**, „On Transient Envelope Distorsions in Simultaneous AM Audio and FM of the RF Carrier Data Transmission", Buletinul Institutului Politehnic din Iaşi - secţia III - Electrotehnică, Energetică, Electronică, tom. XLIV (XLVIII), fasc. 3-4, ISSN 0258-9109, 1998.

12. Cehan, V., **Nicolae Dumitru Alexandru**, „CAD Systems for PCB Need Human Helpers", Buletinul Institutului Politehnic din Iaşi - secţia III - Electrotehnică, Energetică, Electronică, tom. XLIV (XLVIII), fasc. 3-4. ISSN 0258-9109, 1998.
13. Duma, P. , **Nicolae Dumitru Alexandru**, Scripcariu, L., Defining the audio-conference telephone service in a low capacity electronic telephone exchange based on spatial switching, Acta Tenhnica Napocensis, Electronics and Telecommunications, Vol.38, No 1, pp.9-12, ISSN 1221-6542, 1998.
14. **Nicolae Dumitru Alexandru**, Cehan, V., Galeata, L, Toderica, V.V., A New Family Of Constant Envelope CSK Signals, Buletinul Stiintific al Univ.Politehnica din Timisoara, Proc. of the Symposium on Electronics and Telecommunications, Sept. 26-27, vol.II, pp.41-46, 1996.
15. **Nicolae Dumitru Alexandru**, „An Investigation of the Power Spectrum of AMSI Codes", Bulletin IPI, tome XVI (XLV), Fasc. 3-4, Sect.III, 59-62, ISSN 0258-9109, 1995.
16. **Nicolae Dumitru Alexandru**, „A Modified M3 Coder", Bulletin IPI, tome XLI (XLV), Fasc. 1-2, Sect.III, pp.47-50, ISSN 0258-9109, 1995,
17. **Nicolae Dumitru Alexandru**, „Combined Delay Modulation and Correlative Coding", Bulletin IPI, tome XLI (XLV), Fasc. 1-2, Sect.III, 41-46, ISSN 0258-9109, 1995.
18. **Nicolae Dumitru Alexandru**, e.a., "A Simplified Decoder For DM Coded Data", Bulletin IPI, tome XL (XLIV), Fasc. 1-4, Sect.III, 87-90, ISSN 0258-9109, 1994.
19. **Nicolae Dumitru Alexandru**, e.a., "A Modified M2 Decoder", Bulletin IPI, tome XL (XLIV), Fasc. 1-4, Sect. III, 83-86, ISSN 0258-9109, 1994.
20. P. Cotae, **Nicolae Dumitru Alexandru**, „Some General Remarks on Smoothed Shaping Functions", Bulletin IPI, tome XXIX (XLIII), Fasc. 1-4, Sect.III, 39-44, ISSN 0258-9109, 1993.
21. P. Cotae, **Nicolae Dumitru Alexandru**, „A Class Of Generalized Constant Envelope Shaping Functions", Bulletin IPI, tome XXIX (XLIII), Fasc. 1-4, Sect.III, 33-38, ISSN 0258-9109, 1993.
22. Imad, F.M., **Nicolae Dumitru Alexandru**, „A New Bi-phase S Coding Technique", Bulletin IPI, tome XXXVIII (XLII), Fasc. 1-4, Sect.III, 39-41, ISSN 0258-9109, 1992.
23. P. Cotae, **Nicolae Dumitru Alexandru**, „Spectral Width of MSK-type Signaling Waveforms Used in QAM Systems", Bulletin IPI, tome XXXVII (XLI), Fasc. 1-4, Sect. III, 57-61, ISSN 0258-9109, 1991.
24. P. Cotae, **Nicolae Dumitru Alexandru**, "Performance Evaluation of Spectral Bandwidth of Some Typical Constant Envelope Signaling Waveforms Used in Digital FM, Bulletin IPI, tome XXXVIII (XLII), Fasc. 1-4, Sect. III, 17-26, ISSN 0258-9109, 1991.
25. **Nicolae Dumitru Alexandru**, e.a., Synthesis of a CMI Coder, Bulletin IPI, tome XXXVI (XL), Fasc. 3-4, Sect.III, 65-68, ISSN 0258-9109, 1990.
26. **Nicolae Dumitru Alexandru**, Alexandru, M.L , 1988, About Bi-phase Decoding, Bulletin IPI, tome XXXIV (XXXVIII), Fasc. 1-4, Sect. III, 43-46, ISSN 0258-9109

27. Cosma, V. **Nicolae Dumitru Alexandru**, 1985, Synthesis of Some Triangular Waveforms, Bulletin IPI, tome XXX (XXXIV), Fasc. 1-4, Sect.III, 25-30.

28. **Nicolae Dumitru Alexandru**, Alexandru, M.L**.,** 1981, Synthesis of a Bi-phase M Coder with a Symbolic Method, Bulletin IPI, tome XXVII (XXXI), Fasc. 3-4, Sect. III, 97-100.

29. Haba, , **Nicolae Dumitru Alexandru**, Cosma, V., 1978, On the Possibility of Using Ring-Core Flux-Gate Circuit as a Thickness Transducer, Bulletin IPI, tome XXIV (XXVIII), Fasc. 1-2, Sect. III, 95-99.

30. Munteanu V**., Nicolae Dumitru Alexandru**, 1976, The Synthesis of Linear Automatic Systems with Time- Varying Parameters (II), Bulletin IPI, tome XXII (XXVI), Fasc. 3-4, Sect.III, 51-55.

31. Munteanu V., **Nicolae Dumitru Alexandru**, 1975, Transfer Functions Attached to Linear Automatic Systems with Time-Varying Parameters (II), Bulletin IPI, tome XXI (XXV), Fasc. 1-2, Sect. III, 73-77.

32. P. Haba, **Nicolae Dumitru Alexandru**, Cosma, V., 1974, The Influence of the Frequency on the Operation of the Self-Saturating Ring-Core Flux-Gate Push-Pull Circuits, Bulletin IPI, tome XX (XXIV), Fasc. 1-2, Sect. III, 46-50.

33. Munteanu V., **Nicolae Dumitru Alexandru**, 1974, The Synthesis of Linear Automatic Systems with Time- Varying Parameters (I), Bulletin IPI, tome XX (XXIV), Fasc. 3-4, Sect. III, 69-74.

34. Munteanu V., **Nicolae Dumitru Alexandru**, 1974, Transfer Functions Attached to Linear Automatic Systems with Time-Varying Parameters (I), Bulletin IPI, tome XX (XXIV), Fasc. 1-2, Sect. III, 71-79.

35. Cosma, V., **Nicolae Dumitru Alexandru**, Haba, , 1973, Adjustable Frequency-Type Magnetic Coupled Multivibrator with Single Phase Output Bulletin IPI, tome XIX (XXIII), Fasc. 3-4, Sect. III, 61-66.

CONFERINŢE INTERNAŢIONALE

1. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, "A Generalization of Raised Cosine Pulses", Proc. DAS 2016, Suceava, Romania, May 19-21, 2016, pp.139-142.
2. Adrian Popa, **Nicolae Dumitru Alexandru**, Radu Bozomitu, "2-PPM CMOS Modulator for IR-UWB Signals", Communications 2016, Bucharest, June 9-10, 2016, 978-1-4673-8197-0/16, IEEE
3. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, "Optimization of an Improved Nyquist Filter With Piece-Wise Polynomial Frequency Characteristic", Proc. DAS 2014, pp.62-65, Suceava, Romania, indexat IEEE, GoogleScholar, ISBN:978-1-4799-5094-2/14.
4. **Nicolae Dumitru Alexandru**, Alexandra Ligia Balan, "Optimization of the POWER Pulse", Ecumict 2014, Gent, Belgium, Lecture Notes in Electrical Engineering, Volume 302, 2014, pp.1-9, Springer, DOI: 10.1007/978-3-319-05440-7_1, Print ISBN: 978-3-319-05439-1.
5. **Nicolae Dumitru Alexandru**, "State of the Art in Improved Nyquist Filters", Workshop on Circuits, Systems and Information Technology, Iaşi, July 3-4 2014, on CD, indexat în i-Scover şi GoogleScholar.

6. **Nicolae Dumitru Alexandru**, "Optimization of an Improved Nyquist Filter with Piece-Wise Polynomial Frequency Characteristic", ASTR Conference „Zilele Academiei de Ştiinţe Tehnice din Romania" , ediţia a 8-a Braşov, 4-5 octombrie 2013, accepted.
7. Alexandra Ligia Balan and **Nicolae Dumitru Alexandru**, "A New Pulse Shape Used to Reduce ICI Power in OFDM Systems", PECCS 2012, Rome, Italy, pp.308-311,ISBN:978-989-8565-00-6, BibSonomy: http://dblp.uni-trier.de/db/conf/peccs/peccs2012.html#BalanA12
8. **Nicolae Dumitru Alexandru**, "Power Spectral Density of MB 810 Code", Proc. DAS 2012, pp.50-55, Suceava, Romania, indexat in Google Scholar
9. **Nicolae Dumitru Alexandru** and Alexandra Ligia Balan, "Optimization of an Improved Nyquist Filter with a Staircase Frequency Characteristic", Proc. ECUMICT 2012, March 22-23 2012, Gent, Belgium, pp.73-81.
10. S. Pohoaţă, **N.D. Alexandru**, A. Popa, "An Approximation of Gaussian Pulses", PECCS 2011, Vilamoura, Portugal, pp.359-364, indexat in Researchgate, **DOI:** 10.13140/2.1.4652.5447.
11. **Nicolae Dumitru Alexandru**, „Trends in Communication Technology used in Automotive Field", Proc. ECAI, Piteşti, Vol.4, No.1/2011, pp.77-82.
12. Alexandra Ligia BALAN, **Nicolae Dumitru Alexandru**, "New Techniques Used For Designing Improved Nyquist Filters", *Proc. IASTED Internat. Conf. Signal and Image Processing and Applications (SIPA)* June 22 - 24, 2011 Crete, Greece, pp.39-46, DOI: 10.2316/P.2011.738-043, indexat in Google Scholar şi ActaPress.
13. Sorin POHOAŢĂ, **Nicolae Dumitru ALEXANDRU**, Adrian POPA, "A Comparison of Bell-Shape Pulses", *Proc. IASTED Internat. Conf. Signal and Image Processing and Applications (SIPA)* June 22 - 24, 2011 Crete, Greece, pp.84-87, indexat in Google Scholar şi ActaPress.
14. **Nicolae Dumitru Alexandru**, "A Review of Improved Nyquist Filters", - Keynote speech, Proc. ECUMICT 2010, March 25-26 2010, Gent, Belgium, pp.37-55, ISBN 978-9-08-0825550-5
15. **Nicolae Dumitru Alexandru**, "A Thorough Analysis of Spectral Properties of mB1I Codes", Proc. ECUMICT 2010, March 25-26 2010, Gent, Belgium, pp.79-84, ISBN 978-9-08-0825550-5
16. Onofrei L.A., **Nicolae Dumitru Alexandru**, Balan, D.G., Chiuchişan, I., "Improved Nyquist Filters Characteristics obtained Using Interpolation Techniques", Proc. ECUMICT 2010, March 25-26 2010, Gent, Belgium, pp.261-272, ISBN 978-9-08-0825550-5
17. **Nicolae Dumitru Alexandru**, "Improved Pulses Generated By Piece-wise Parabolic Nyquist Filters" – invited speaker, DAS 2010, Abstract book, pp.20.
18. **Nicolae Dumitru Alexandru**, "A New Family of CSK Signals", DAS 2010, pp.140-142, Suceava, Romania, indexat în Google Scholar
19. **Nicolae Dumitru Alexandru**, "Spectral Analysis of Three Miller-like Codes", DAS 2010, pp.148-151, Suceava, Romania, indexat în Google Scholar
20. **Nicolae Dumitru Alexandru**, Pohoaţă, S., "Improved Nyquist Filters Using Interpolation with Sine Functions", 5th International Conference SETIT 2009, Hammamet, Tunisia, on CD., pp.1-9, indexat Research Gate
21. **Nicolae Dumitru Alexandru**, "Spectra of Several Higher Order D.C.-Free Codes", ECAI, Piteşti, 2009, pp.1-6

22. N.D. Alexandru, Pohoaţă, S., "On a Class of Improved Nyquist Filters for DVB Use", Proc. ECUMICT 2008, March 13-14 2008, Gent, Belgium, pp.21-30, ISBN 9-78908082-553-6

23. Onofrei, L.A., **Nicolae Dumitru Alexandru**, "A New Family of ISI-Free Pulses Investigated in Terms of ISI and ICI Properties", Proc. ECUMICT 2008, March 13-14 2008, Gent, Belgium, 297-307, ISBN 9-78908082-553-6

24. **Nicolae Dumitru Alexandru**, Alexandru, M.L. "Spectral Shaping for Codes with P.S.D. Expressed by Rational Functions", Proc. of 9 th *Int. Conference Development and Application Systems*, Suceava, 23-25 May 2008, pp. 107-111, indexat în Google Scholar şi Research Gate

25. Onofrei, L.A., **Nicolae Dumitru Alexandru**, „Optimization of the Improved Nyquist Filter with a Piece-Wise Rectangular Characteristic", Proc. of 9 th *Int. Conference Development and Application Systems*, Suceava, 23-25 May 2008, pp.128-137, indexat în Citer Seer, Google Scholar şi Research Gate

26. **Nicolae Dumitru Alexandru**, „Spectral Properties of PF 3B/4B Code", *International Conference COMMUNICATIONS' 2008*, June 5-7, Bucharest, Romania, Workshop "New technologies and Trends in IT and Communications", pp.53-56.

27. Onofrei, L.A., **Nicolae Dumitru Alexandru**, "Improved Nyquist Filter Characteristic Using Spline Functions Interpolation", *International Conference COMMUNICATIONS'2008*, June 5-7, Bucharest, Romania, pp.115-118, indexat GoogleScholar.

28. **Nicolae Dumitru Alexandru**, "Spectral Analysis of Paired DMT Codes", Proc. ISEEE 2008, Galaţi, Romania, pp.38-41.

29. **Nicolae Dumitru Alexandru**, "Power Spectrum of 8B/10B Code", ECUMICT 2006, March 30-31 2006, Gent, Belgium, 315-322, ISBN 9-08082-552-2

30. **Nicolae Dumitru Alexandru**, Onofrei, L.A., "ISI-Free Pulses With Reduced Sensitivity To Timing Errors Produced By Linear Combinations Of Filters Characteristics", *International Conference COMMUNICATIONS'2006*, Bucharest, Romania, pp.115-118, indexat GoogleScholar, CiteSeer, research Gate

31. **Nicolae Dumitru Alexandru**, Onofrei, L.A., "A Novel Class of Improved Nyquist Pulses", ECUMICT 2006, 30-31 March 2006, Gent, Belgium, 363-370, ISBN 9-08082-552-2, , indexat in Google Scholar.

32. **Nicolae Dumitru Alexandru**, Onofrei, L.A., "A Class of A Class Of ISI-Free And Bandlimited Pulses", Proc. of 8th *Int. Conference Development and Application Systems*, Suceava, 25-27 May 2006, pp. 189-194, ISBN (10) 973-666-194-6

33. **Nicolae Dumitru Alexandru**, "Improved Encoder Circuit for Inverse Differential Manchester Code", Proc. of 8th *Int. Conference Development and Application Systems*, Suceava, 25-27 May 2006, pp. 181-183, ISBN (10) 973-666-194-6

34. Ionescu D., **Nicolae Dumitru Alexandru**, Bozomitu R. G. "The Influence of Metallic Drills on the Effective Permittivity Resonances of Some PCB Samples", ECUMICT 2006, 30-31 March 2006, Gent, Belgium, 205-216, ISBN 9-08082-552-2

35. **Nicolae Dumitru Alexandru**, Power Spectrum of Transparent Interleaved Bipolar Codes, ECUMICT 2004, 1-2 April, Gent, Belgium, pp.15-20, ISBN 9-08082-551-4,

36. Scripcariu, L., **Nicolae Dumitru Alexandru**, „Analysis of High Coding-Rate Turbo-Codes Performances on Error-Burst", ECUMICT 2004, 1-2 April 2004, Gent, Belgium, pp.45-52, ISBN 9-08082-551-4

37. Bojneagu D., **Nicolae Dumitru Alexandru**, „Space-Time Coding Using EDGE System", ECUMICT 2004, Gent, Belgium, pp.85-95, ISBN 9-08082-551-4, 2004.

38. Ionescu D., N.D. Alexandru, „Study of Dielectric Properties for a Composed Material by Simulation in HF Fields", ECUMICT, Gent, Belgium, pp.131-137, ISBN 9-08082-551-4, 2004.

39. Ionescu D., **Nicolae Dumitru Alexandru**, „Determination of Resonance Frequency for Basic Multilayered PCB Samples in Microwave Range", ECUMICT, Gent, Belgium, pp.155-162, ISBN 9-08082-551-4, 2004.

40. **Nicolae Dumitru Alexandru**, Alexandru, M.L., "A Spectral Characterization of Tazaki Code", Proc. of *Development and Application Systems*, Suceava, 27-29 May, pp.191-194, ISBN 973-666-106-7, 2004, indexat in Google Scholar

41. **Nicolae Dumitru Alexandru**, C. Chatellier, An Exact Formula of 8B6T Code, *Internat. Conf. COMMUNICATIONS'2004*, June.3-5, Bucharest, Romania, 101-104, ISBN 973-640-035-2

42. D. Ionescu, **Nicolae Dumitru Alexandru**, Determination of the Electromagnetic Field Irradiated by the PCB Samples Tested in HF Fields, *International Conference COMMUNICATIONS'2004*, June.3-5, Bucharest, Romania, pp.389-394, ISBN 973-640-035-2

43. **Nicolae Dumitru Alexandru**, C. Chatellier, Extending the Calculation of Correlation Function for 1I – nO Block Coded Signals, Proceedings of the *International Symposium* SCS2003, 629-632, Iasi, July 10-11, 2003, ISBN 0-7803-7979-9

44. **Nicolae Dumitru Alexandru**, D. Voukalis, V. Cehan, L. Scripcariu, 2002, Spectral Shaping with T-type Flip Flops, Proc. of *Int. Conference Development and Application Systems*, Suceava, 23-25 May, 213-218, ISBN 973-98670-9-X

45. **Nicolae Dumitru Alexandru**, A Complete Characterization of Some HDBn Codes, Proc. of *Int. Conference Development and Application Systems*, Suceava, 206-212, ISBN 973-98670-9-X, also in ISSN 1582-7445, 2002.

46. Scripcariu, L., **Nicolae Dumitru Alexandru**, „Decision-Feedback Equalizer for Discrete Fading Dispersive Channels", *International Conference COMMUNICATIONS2002*, Dec.5-7, Bucharest, Romania, pp.126-129, ISBN 973-8290-67-8, 2002.

47. **Nicolae Dumitru Alexandru**, V. Cehan, L. Scripcariu and D. Voukalis, 2001, A New Family of Minimum-Bandwidth Line Codes for High-Speed Twisted Pair Data Links, *ICT2001 International Conference on Telecommunications, Bucharest, Romania, vol.2, 399-403*, ISBN 973-99995-1-4.

48. V. Cehan, R. Bozomitu, **Nicolae Dumitru Alexandru**, Using BJT as a Controlled Resistor in the Saturated Regime of Functioning, SITME 2001, Bucharest, Romania, 2001,

49. **Nicolae Dumitru Alexandru**, Cehan, V., Păncescu, L., 2000, An Extended Method for Calculating the Autocorrelation Function for 1I-2O Codes Based on Entry and Departure Matrices, *International Conference COMMUNICATIONS2'000*, Dec.7-9, Bucharest, Romania, 55-58.

50. Scripcariu, L., **Nicolae Dumitru Alexandru**, Cehan, V., Păncescu, L., Spectral Analysis of GQ2PSK Signals, *COMMUNICATIONS2000*, Dec.7-9, Bucharest, Romania, pp.206-209, 2000.

51. **Nicolae Dumitru Alexandru**, Cehan, V. and Păncescu, L., "An Evaluation of Spectral Properties for Some Minimum-Bandwidth Line Codes", Proc. *Development and Application Systems*, Suceava, 18-20 May pp.248-251, ISBN 973-8122-11-2, also in ISSN 1222-4316, 2000.

52. **Nicolae Dumitru Alexandru**, Scripcariu, L., Cehan, V., Giurgiu, C., 2000, A Generalization of Q2PSK Signals, Proc. of *Int. Conference Development and Application Systems*, Suceava, 18-20 May 241-247, ISBN 973-8122-11-2

53. N.D. Alexandru, Cehan, V. and Păncescu, L., 2000, Calculating the Autocorrelation Function for mB-nB Codes, First IEEE Balkan Conference on Signal Processing, Communication, Circuits and Systems, June 2-3, Istanbul, Turkey.

54. **Nicolae Dumitru Alexandru**, Davideanu, C., Cehan, V., Păncescu, L., 2000, A Thorough Investigation Of The Spectra Of A Class Of Run-Length Limited MLT3 Codes, International Conference Controlo2000, Guimaraes, Portugal, 465-469, ISBN 972-98603-0-0.

55. **Nicolae Dumitru Alexandru**, Păncescu, L, Cehan, V., 1999, A Survey of Block Line Codes with Spectral Nulls Generated by Multirate Digital Filters, Proceedings of the *International Symposium* SCS99, 307-310, Iasi, July 6-7, ISBN 973-99210-6-X.

56. **Nicolae Dumitru Alexandru**, Davideanu, C., Cehan, V., Scripcariu,L., Păncescu, L., "On a Class of Continuous Pulse Shapes", *ICT98 International Conference on Telecommunications*, Porto Carras, Greece, 21-25 June vol.I, 208-212, 1998.

57. **Nicolae Dumitru Alexandru**, Scripcariu, L, Cehan, V., Butnaru, O., Lungu, C., "On Some DC-Constrained Line Codes for ADSL Use", *International Conference COMMUNICATIONS98*, Nov.19-20, Bucharest, Romania, pp.211-214, 1998.

58. **Nicolae Dumitru Alexandru**, Davideanu, C. Pancescu, L., "On a Class of Convoluted Cosine Pulses", Proc. *COMMUNICATIONS98*, Nov.19-20, Bucharest, Romania, pp.313-318, 1998.

59. **Nicolae Dumitru Alexandru**, Cehan, V., "A Complete Spectral Characterisation of mB1C Codes", Proc. *Development and Application Systems*, Suceava, 21-23 May number 10, pp. 1-4. 1998.

60. Cehan, V., **Nicolae Dumitru Alexandru** Bozomitu, R., Abdallah Al-Sliahat, "On Data Transmission Using AM Radio Transmitters with Frequency Modulation of the Carrier", Proc. Development and Application Systems Conference, Suceava, 21-23 May, No.10, pp.17-20. 1998,

61. *Scripcariu L.*, **Nicolae Dumitru Alexandru**, Binary Image Compression Based on Huffman Coding, Proceedings of the *International Conference Development and Application Systems*, Suceava, 21-23 May number 10, pp.97-102, 1998.

62. **Nicolae Dumitru Alexandru**, Cehan, V., Scripcariu, L., Paliciuc, M., Tanase, C., "An Optimization of the TSFSK Signal", SCS97, *Intern. Symposium Signals, Circuits & Systems*, Iaşi, pp.484-487, 1997.

63. Cehan, V., **Nicolae Dumitru Alexandru**, Abdallah Al-Sliahat, "Overruling Transient Envelope Distortions in Simultaneous AM Audio Broadcast and FM Data Transmission", SCS997, *Internat. Symposium on Signals, Circuits & Systems*, Oct. 2-3, Iasi, Romania, pp.292-295, 1997.

64. Scripcariu, L., **Nicolae Dumitru Alexandru**, P. Duma, "Generalized Window Functions for Digital Modulation Techniques", SCS997, *International Symposium on Signals, Circuits & Systems*, Oct. 2-3, Iasi, Romania, pp.476-479, 1997.

65. Cehan, V., **Nicolae Dumitru Alexandru**, Boariu, A., "An Investigation of Data Transmission Capabilities Using AM Broadcasting Radio Transmitters", *ICT96 International Conference on Telecommunications, Istanbul, Turkey*, vol.I, 349-352, 1996.

66. Boariu,A., Cehan, V., **Nicolae Dumitru Alexandru**, „AM Detection Analysis of an AM-PM Modulated Signal Assuming a Jump Variation of Carrier frquency; Part I The Transient Response", *ICT96 International Conference on Telecommunications, Istanbul, Turkey*, vol.II, pp.917-920. 1996,

67. **Nicolae Dumitru Alexandru**, Găleată, L, Giurgiu, C., Cehan, V., "An Investigation of Spectral Properties for a Particular Class of CSK Signals", Proc. *Development and Application Systems*, Suceava, 23-25 Mai, pp.3-6, 1996.

68. **Nicolae Dumitru Alexandru**, Găleată, L, "About a New Algorithm for Minimum Hamming Distance Estimation of Convolutional Codes", Proc. *Development and Application Systems*, Suceava, 23-25 Mai, pp.7-10, 1996.

69. **Nicolae Dumitru Alexandru**, Cehan, V., Galeata, L, "Differential Coherent Detection of Generalized SFSK Signals", Proc. *COMMUNICATIONS96*, Bucharest, pp.291-296, 1996.

70. Găleată, L, **Nicolae Dumitru Alexandru**, Asymmetrical Run-Length Limited Codes, Proc. *Development and Application Systems*, Suceava, 23-25 Mai, pp.33-38, 1996.

71. Galeata, L, **Nicolae Dumitru Alexandru**, Cehan, V., "An Approximate Method for Computing the Power Spectral Density of Digital Phase-Modulated Signals", Proc. *Development and Application Systems*, 23-25 Mai pp.39-44, 1996.

72. Cehan, V., **Nicolae Dumitru Alexandru**, Albulet, M., "Overcoming Difficulties in Data Transmission Using AM Radio transmitters with PSK Modulation of the Carrier (I şi II)", Proc. *Development and Application Systems*, Suceava, 23-25 Mai, pp.19-32, 1996.

73. Scripcariu, L., **Nicolae Dumitru Alexandru**, P. Duma, , "Asymmetrical Constrained Codes for Binary Optical Channel", *Proc. COMMUNICATIONS96*, Nov.27-29, Bucharest, pp.40-45, 1996.

74. Scripcariu, L., **Nicolae Dumitru Alexandru**, „Performances of QAM Signals in Rayleigh Fading", *Proc.COMMUNICATIONS96*, Nov.27-29, Bucharest, Romania pp.278-284, 1996.

75. **Nicolae Dumitru Alexandru**, Cehan, V, Boariu, A., "About RF Signal Envelope Distortion in Data Transmission On A Harmonic Subcarrier Using AM Radio Transmitters", SCS95, *Internat. Symposium on Signals, Circuits & Systems*, Oct. 19-21, Iasi, Romania, pp.245-248, 1995.

76. Cehan, V., **Nicolae Dumitru Alexandru**, Boariu, A., "Using Existing AM Radio Transmitters for Data Transmission On A Harmonic Subcarrier", SCS95, *International Symposium on Signals, Circuits & Systems*, Oct. 19-21, Iasi, Romania, pp.241-244, 1995.

77. Cehan, V., **Nicolae Dumitru Alexandru**, Boariu, A., "Using AM Radio Transmitters For Data Communications", SCS95, *Intern. Sym on Signals, Circuits & Systems*, Oct. 19-21, Iasi, Romania, pp.237-240, 1995.

78. Galeata, L., **Nicolae Dumitru Alexandru**, „Generalized Cosine Window Function", SCS95, *International Symposium on Signals, Circuits & Systems*, Oct. 19-21, Iasi, Romania, pp.213-216, 1995.

79. Boariu, A., **Nicolae Dumitru Alexandru**, „Some Considerations About Q^2PSK Modulation", SCS95, *Internat. Symposium on Signals, Circuits & Systems*, Oct. 19-21, Iasi, Romania, pp.153-156. 1995,

80. **Nicolae Dumitru Alexandru**, Boariu, A., Cotae, P., "A Thorough Investigation of MLT-3 Code Spectral Properties", *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, pp.121-124, 1994.

81. N.D. Alexandru, Boariu, A., Cotae, , Alexandru, M.L., 1994, A Novel Technique for Decoding Split-Phase Coded Data Signals, *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, p 125-128.

82. Boariu,A., **Nicolae Dumitru Alexandru**, Cotae, P., 1994,Characteristics of Hedeman H-1, H-2 and H-3 Codes, *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, p 129-132.

83. Scripcariu, L., **Nicolae Dumitru Alexandru**, Cotae, P., 1994, An Investigation of an 1/2 Run-Length- Limited Code (0;6;2), *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, p 113-119

84. Cotae, P., Scripcariu, L., **Nicolae Dumitru Alexandru,** 1994, Computer Simulation and Automatic Identification of Digitally Modulated M-ary PSK Signals, *Proc. Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, Lyon, France, Vol.2, p 95-98.

85. Cotae, P., Scripcariu, L., **Nicolae Dumitru Alexandru**, R. Cotae, 1994, Trellis Biphase M(S) Coded Data, *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, p 99-104.

86. Cotae, P. , Scripcariu, L., **Nicolae Dumitru Alexandru**, 1994, Bit Error Rate Evaluation of Miller Line Code Based on Trellis Structure, *Proceedings Intern. AMSE Conference* Systems Analysis, Control & Design, July 4-6, *Lyon, France*, Vol.2, p 105-111

87. M. Antoniu, **Nicolae Dumitru Alexandru,** E. Antoniu 1994, A TRI-AXIS ELECTROSTATIC FIELD TRANSDUCER *IMEKO XIII, Torino, Italy*, 2621-2626.

88. **Nicolae Dumitru Alexandru,** Cotae P., 1994, About a Technique for Obtaining Bi-phase M (S) Coded Data, Proceedings of the *International Conference Development and Application Systems*, Suceava, 26-28 Mai 15-18.

89. **Nicolae Dumitru Alexandru,** Cotae, P., 1994, Decoder for Delay-Modulated Data, Proceedings of the *International Conference Development and Application Systems*, Suceava, 26-28 Mai, 19-22.

90. **Nicolae Dumitru Alexandru,** Boariu, A., 1994, A Novel Technique for Obtaining DM Coded Data, Seminarul de Bazele Electronicii SBE94, Universitatea Tehnica din Cluj-Napoca, 27-28 Octombrie.

91. **Nicolae Dumitru Alexandru,** Scripcariu, L., Cotae, P., 1993, A Generalization of Sinusoidal Frequency Shift Keying Signal, *Proceedings of the International 93 Moscow A.M.S.E. Conference* Signals & Data, *Moscow, Russia*, June 23-34.

92. **Nicolae Dumitru Alexandru,** Boariu, A., 1993, An Investigation of the Spectral Properties of a Coding Circuit Using a T-type Flip Flop, *Proceedings of the International 93 Moscow A.M.S.E. Conference* Signals & Data, *Moscow Russia*, June, 35-38.

93. Boariu, A., **Nicolae Dumitru Alexandru**, 1993, Transition Probability Matrix and its Behaviour to Infinity, *Proc. of the Internat. Symposium on Signals, Circuits and Systems,* SCS93, Iasi, Romania, Nov. 4-5, 223-226

94. Boariu, A., **Nicolae Dumitru Alexandru,** 1993, A 3D Representation of P.S.D. for Some Line Codes, *Proc. of Intern. Symposium on Signals, Circuits and Systems,* SCS93, Iasi, Romania, Nov. 4-5, pp.240-243.

95. **Nicolae Dumitru Alexandru,** Cotae, P., 1992, A New Modified M2 Code, *Second International Seminar* Measurement Systems and Networks, *Gliwice, Poland*, Sept. 23-25, 180-183

96. Cotae, P., **Nicolae Dumitru Alexandru,** 1992, Contribution to the Study of Power Spectral Density of Digital Phase Keying Modulation with M-ary Alphabets, *Second International Seminar* Measurement Systems and Networks, *Gliwice, Poland*, Sept. 23-25, , 54-62.

97. **Nicolae Dumitru Alexandru,** 1992, Spectral Shaping of Data Signals Using Some Simple Coding Circuits, *Scientific Session Developing Systems & Applications*, Suceava, May 28-30 tome 2, 43-46.

98. **Nicolae Dumitru Alexandru,** 1992, About Two Ternary Miller-Based Codes, Proceedings of the *International Conference Development and Application Systems*, Suceava, May 28-30 tome 2, 39-42.

99. Cotae, P., **Nicolae Dumitru Alexandru**, e.a., 1991, Contribution to the Study of Constant Envelope Modulation Techniques Based on the Efficiency Bandwidth, *Proc. COMCONEL 91 Conference, Cairo, Egypt*, Conference Record, Part 1, 84-90.

100. Cotae, P., Croitoru V., **Nicolae Dumitru Alexandru**, 1991, A Generalized Form of Constant Envelope Modulation Functions, *Proc. COMCONEL 91 Conference, Cairo, Egypt*, Conference Record, Part 1, 28-31.

101. **Nicolae Dumitru Alexandru,** e.a., 1990, About Alcodem Coding, *Proc. COMCONEL 90 Conference, Cairo, Egypt*, 101.

102. **Nicolae Dumitru Alexandru,** e.a., 1990, Power Spectral Density of a Delay-Modulation Coded Random Data Sequence, *Proc. COMCONEL 90 Conference, Cairo, Egypt*, 83.

CONFERINŢE NAŢIONALE

1. **Nicolae Dumitru Alexandru,** e.a., 1988, Synthesis of a CMI Decoder, IPI Jubiliar Session, Nov. 10-12, vol.4, 327-330.

2. **Nicolae Dumitru Alexandru,** e.a., 1988, On a M2 (Modified Miller) Coder, CNETAC Works (National Symposium on Electronics, Communications, Automation and Computers), Dec.7-9, tome 2, 215-217.

3. Cotae, P., **Nicolae Dumitru Alexandru,** 1988, On MSK Signals, IPI Jubiliar Session, Nov. 10-12, vol.4, 338-344.
4. Cotae, P., **Nicolae Dumitru Alexandru,** 1988, Considerations on the MF Signals Spectra, CNETAC Works (National Symposium on Electronics, Communications, Automation and Computers), December 7-9, tome 2, p3.158-166.
5. **Nicolae Dumitru Alexandru,** e.a., 1986, Synthesis of a Digital PSK Modulator for a TOR-ARQ System , IPI Session, May 16-17, Sect.9, 9-14.
6. Cotae, P., **Nicolae Dumitru Alexandru,** e.a., 1986, On Digital Echo Modulation, IPI Session, May 16-17, Sect.9, 15-20.
7. Cotae, P., **Nicolae Dumitru Alexandru,** e.a., 1986, Radio-Telegraphic Keyer with Eprom Memory, IPI Session, May 16-17, Sect.9, 41-45.
8. **Nicolae Dumitru Alexandru**, e.a., 1984, On the Realization of a FSK Modulator for a TOR-ARQ System ICSITE Session Adavances in Professional Electronics, Snagov, Sept. 8, tome 2, 16-20.
9. **Nicolae Dumitru Alexandru,** e.a., 1983, Synthesis of the Decoding Circuit for Bi-impulse Codes, Symposium of Electronic Technology and Reliability, Iasi, December 1-3, tome 2, 299-306.
10. **Nicolae Dumitru Alexandru,** e.a., 1983, On a 5-6 bit Coding for a QAM Data Transmission System , Symposium of Electronic Technology and Reliability, Iasi, Dec. 1-3, tome 2, 299-306.
11. **Nicolae Dumitru Alexandru,** 1983, Visualising ROM Content on a Scope, Symposium of Electronic Technology and Reliability, Iasi, Dec. 1-3, tome 2, 911-920.
12. Dincescu, V., Cehan, V., **Nicolae Dumitru Alexandru,** e.a., 1983, Digital Transmission of Train Despatching Using Portable Radiotelephone Equipment, Symposium Cybernetic Island Videle, Bucharest, 19-20 Mai, tome 3, 70-79.
13. Cehan, V., **Nicolae Dumitru Alexandru**, e.a., 1983, Emploi des boucles à verrouillage de phase (PLL) dans les générateurs de signaux CPFSK, Symposium de technologie électronique et fiabilité, IPI, Iasi, 1-3 Déc. 295-299.
14. Cehan, V., **Nicolae Dumitru Alexandru**, e.a., 1983, Génération de signaux MSK par la synthèse de la sinusoide par segments de droite, idem, 317-325.
15. Alexa, D., Turic, L., **Nicolae Dumitru Alexandru,** 1983, Static Frequency Converter, Symposium of Electronic Technology and Reliability, Iasi, Dec. 1-3, tome 2, 751-755.
16. **Nicolae Dumitru Alexandru,** 1982, Synthesis of a Differential Coder, Second National Symposium on Systems Theory, Craiova, 60-63.
17. **Nicolae Dumitru Alexandru,** e.a., 1982, On Bi-phase Coding Realization Using Programmed Logic, Second National Symposium on Systems Theory, Craiova, 54-59.
18. **Nicolae Dumitru Alexandru,** e.a., 1982, On Implementing Miller Coding in Programmed Logic, CNETAC Works (National Symposium on Electronics, Communications, Automation and Computers), November 17-19, tome 2, p3.89-95.
19. **Nicolae Dumitru Alexandru,** Cehan, V., 1981, On the Indicative and Message Separating Block in the ITCCT Central Station, Session de lICPTT, 23-25 Avril, tome 1, 317-322.

20. **Nicolae Dumitru Alexandru,** Cehan, V., 1981, Structure of the ITCCT Central Station, Session de lICPTT, 23-25 Avril, tome 1, 311-316.
21. ***Alexandru, N.D.,*** e.a., 1981, Synthesis of a Pseudoternary Coder, Electrical Engineering Faculty Session, Craiova, 27-28 November, H79-82.
22. **Nicolae Dumitru Alexandru,** e.a., 1981, Synthesis of a PST Coder, Electrical Engineering Faculty Session, Craiova, 27-28 November, H83-88.
23. **Nicolae Dumitru Alexandru**, Cosma, V., 1981, On a Method of Obtaining Quadrature Signals, Electrical Engineering Faculty Session, Craiova, 27-28 November, C17-20.
24. **Nicolae Dumitru Alexandru,** 1981, Synthesis of a Miller Coding Circuit, Electrical Engineering Faculty Session, Craiova, 27-28 November, H89-93.
25. Cosma, V. **Nicolae Dumitru Alexandru**, 1981, Synthesis of Some Waveforms with Imposed Shape, Electrical Engineering Faculty Session, Craiova, 27-28 November, C21-29.
26. **Nicolae Dumitru Alexandru,** 1980, Synthesis of a RZ Decoder, First National Symposium on Systems Theory, Craiova, 14-15 November, tome 2, 376-379.
27. **Nicolae Dumitru Alexandru,** e.a., 1980, Synthesis of a Bi-impulse No. 2 Decoder, First National Symposium on Systems Theory, Craiova, 14-15 November, tome 2, 370-375.
28. **Nicolae Dumitru Alexandru,** Cehan, V., 1979, Converteur FSK - binaire avec un circuit PLL, Session jubiliaire de lICPTT, Bucharest, 9-12 Mai, tome 3, 71-76.
29. ***Alexandru, N.D.,*** Cehan, V., 1979, Logic Block of a Digital Transmission Installation for Railroad Despatching, Session jubiliaire de lICPTT, Bucharest, 9-12 Mai, tome 3, p 77-84.
30. Cehan, V**., Nicolae Dumitru Alexandru,** 1979, Sur les installations pour les transmission des données dans les triages férroviaires, Session jubiliaire de lICPTT, Bucharest, 6-12 Mai, tome 3, p 63-70.
31. **Nicolae Dumitru Alexandru,** Cehan, V., 1977, On FFSK Modulation for Digital transmission with Mobile/ Portable Radiotelephones, First National Symposium on Radiotelephony, Iasi 18-19.
32. Picos, C., Slatineanu, L., Gramescu, T., **Nicolae Dumitru Alexandru**, 1974, Tensometrie und Zerspannbarkeit, Works of the First National Tensometry Symposium, Iasi, vol.3, 395-402.

INVENTII

1. **Nicolae Dumitru Alexandru,** Cotae, P., *Generator complex de impulsuri*. Brevet nr. 102595/25.04.1994
2. Nemescu, M, **Nicolae Dumitru Alexandru,** e.a., *Instalaţie pentru controlul poziţiei ţesăturilor*, Brevet nr. 98678 / 1988

16 iunie 2016 Prof.dr.ing. Nicolae Dumitru ALEXANDRU
M.c. al Academiei de Ştiinţe Tehnice din România