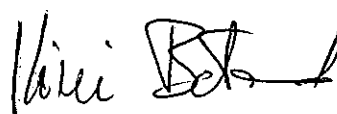


Lista lucrărilor didactice și științifice

ale candidatului Kirei Botond Sandor

Cele mai relevante lucrări științifice

1. **Botond Sandor Kirei**, „*Proiectarea sistemelor digitale cu instrumente HDL*”, Editura Casa Cărții de Știință, Cluj Napoca, 2016, ISBN: 978-606-17-0958-8.
2. **B.S. Kirei**, “*An energy management discipline for future professionals in the energy sector*”, In M.J. Chern, V. Lanin, M. Sarker and N. Vaziri ed. “*Advances in Energy Research and Development*”, ORIC Publications, Publicat Online, Octombrie 2014, ISBN 978-0-9895590-1-0
3. **B. S. Kirei**, M. Neag, M.D. Topa, "Blind Frequency-Selective I/Q Mismatch Compensation Using Subband Processing", *Circuits and Systems II: Express Briefs, IEEE Transactions on*, ISSN : 1549-7747, Vol. 59 , Iss. 5, pp. 302 - 306 , MAY 2012.
4. **B. S. Kirei**, M.D. Topa, I. Muresan, I. Homana, N. Toma, "Blind Source Separation for Convolutional Mixtures with Neural Networks", *Advances in Electrical and Computer Engineering*, pg. 63-68, Issue 1, 2011, ISSN: 1582-7445
5. C. Contan, **B. S. Kirei**, M.D. Topa, "Modified NLMF Adaptation of Volterra Filters Used for Nonlinear Acoustic Echo Cancellation", *Signal Processing*, Vol. 93 (2013), pp. 1152-1161 doi:10.1016/j.sigpro.2012.11.017
6. **B. S. Kirei**, M. Neag, M. D. Topa, "On I/Q Imbalance Compensation Based on Adaptive Filtering in Low-IF and Zero-IF receiver", *Proceedings of 2010 IEEE International Conference on Automation, Quality and Testing, Robotics*, TOME II, 28-30 May 2010, Cluj-Napoca, Romania, ISSN: 978-1-4244-6722-8, pg. 166-169
7. **B. S. Kirei**, M. Topa, M. NEAG, R.C. Onet, "I/Q Imbalance Compensation Algorithm Based on Neural Networks", *Journal of Automatization, Mobile Robotics & Intelligent Systems*, Volume 3, No. 2, 2009, pg. 88-92, ISSN 1897-8649
8. **B. S. Kirei**, M. Neag, M.D. Topa, "Composite RF tuner models and their object oriented implementation ", *34th International Conference on Telecommunications and Signal Processing (TSP)*, pp. 150–154, Budapest, Hungary, 18-20 Aug. 2011, ISBN: 978-1-4577-1410-8
9. **B. S. Kirei**, M. D. Topa, M. Neag, "Reconfigurable Zero/Low-IF Receiver", *Proceedings of IEEE International Symposium on Signals, Circuits and Systems - ISSCS 2009*, July 9-10, 2009, Iasi, Romania, ISBN 978-1-4244-3786-3
10. **B. S. Kirei**, V. Popescu, M. Topa, I. Popescu, "A Propagation Model for Coupled Lines", *Proceedings of IEEE 31th International Spring Seminar on Electronics Technology, Reliability and Life-time Prediction*, 7-11 May 2008, Budapest, Hungary, pg. 624-629, ISBN 978-963-06-4915-5



A. Teză de doctorat

1. **Botond Sandor Kirei**, "Contributions to Complex Signal Processing for Wireless Applications", elaborată în limba engleză sub îndrumarea prof. dr. ing. Marina Dana Topa

B. Cărți și capitole în cărți

a. Lucrări didactice publicate la edituri internaționale

2. **B.S. Kirei**, "An energy management discipline for future professionals in the energy sector", In M.J. Chern, V. Lanin, M. Sarker and N. Vaziri ed. "Advances in Energy Research and Development", ORIC Publications, Publicat Online, Octombrie 2014, ISBN 978-0-9895590-1-0.

b. Lucrări didactice publicate la edituri recunoscute

3. **Botond Sandor Kirei**, „*Proiectarea sistemelor digitale cu instrumente HDL*”, Editura Casa Cărții de Știință, Cluj Napoca, 2016, ISBN: 978-606-17-0958-8.
4. **Botond Sandor Kirei**, "*Managementul Energiei - Îndrumător de laborator*", Editura Casa Cărții de Știință, Cluj Napoca, 2013, ISBN: 978-606-17-0301-2.
5. Paul Farago, **B.S. Kirei**, Gabor Csipkes, Sorin Hintea, "*Descrierea în VHDL a sistemelor cu circuite integrate digitale : îndrumar de proiectare și simulare*", Editura U.T. Press, Cluj-Napoca, 2014, ISBN 978-973-662-950-1

C. Articole/studii in extenso, publicate în reviste din fluxul științific internațional principal

a. Lucrări în reviste cotate ISI

1. C. Contan, **B. S. Kirei**, Marina D. Topa, "Error-dependent step-size control of adaptive normalized least-mean-square filters used for nonlinear acoustic echo cancellation", *Signal, Image and Video Processing*, first online April 2015, ISSN: 1863-1703, printed March 2016, Volume 10, Issue 3, pp 511-518
2. C. Contan, **B. S. Kirei**, M.D. Topa, "Modified NLMF Adaptation of Volterra Filters Used for Nonlinear Acoustic Echo Cancellation", *Signal Processing*, Vol. 93 (2013), pp. 1152-1161 doi:10.1016/j.sigpro.2012.11.017
3. Irina Muresan, **B. S. Kirei**, Cristian Contan, Marina Dana Topa, "Rapid Prototyping of Sub-band Acoustic Echo Cancellers on FPGA Platforms", *Advances in Electrical and Computer Engineering*, Volume 13, Issue 3, Year 2013, On page(s): 45 - 50, ISSN: 1582-7445, e-ISSN: 1844-7600, doi: 10.4316/AECE.2013.03008
4. **B. S. Kirei**, M. Neag, M.D. Topa, "Blind Frequency-Selective I/Q Mismatch Compensation Using Subband Processing", *Circuits and Systems II: Express Briefs, IEEE Transactions on*, ISSN: 1549-7747, Vol. 59 , Iss. 5, pp. 302 - 306, MAY 2012.

Botond Sandor Kirei

5. M.D. Topa, N. Toma, **B. S. Kirei**, I. Homana, M. Neag, Gilbert De Mey, "Comparison of Different Experimental Methods for the Assessment of the Room's Acoustics", *Acoustical Physics*, 2011, Vol. 57, No. 2, pp. 199–207, ISSN 1063-7710.
6. **B. S. Kirei**, M.D. Topa, I. Muresan, I. Homana, N. Toma, "Blind Source Separation for Convulsive Mixtures with Neural Networks", *Advances in Electrical and Computer Engineering*, pg. 63-68, Issue 1, 2011, ISSN: 1582-7445
7. M.D. Topa, I. Muresan, **B. S. Kirei**, I. Homana, "Digital Adaptive Echo-Canceller for Room Acoustics Improvement", *Advances in Electrical and Computer Engineering*, Vol. 10, Nr. 1, 2010, ISSN: 1582-7445

b. Lucrări în reviste indexate în baze de date internațional (Scopus, Proquest)

8. **B. S. Kirei**, Gabriel Oltean, Marina D. Topa "Testbench for evaluations of maximum power point tracking algorithms for solar energy harvesting", International Symposium on Signals, Circuits and Systems, July 9 - 10, 2015, Iasi, Romania
9. Gabriel Oltean, Laura-Nicoleta Ivanciu, **B. S. Kirei** "Signal approximation using GA guided wavelet decomposition", International Symposium on Signals, Circuits and Systems, July 9 - 10, 2015, Iasi, Romania
10. Paul N. Martari, B. S. Kirei, Bogdan I. Olaios, Marina D. Topa, "Automated Power-Voltage Characterization Of Photovoltaic Panels", *ACTA TECHNICA NAPOCENSIS - ELECTRONICS AND TELECOMMUNICATIONS*, Vol. 55, Num. 2/2014, ISSN: 1221-6542, pp.13-18.
11. M.D. Topa, N. Toma, **B. S. Kirei**, I. Saracut, Angelo Farina "Experimental Acoustic Evaluation of an Auditorium", *Advances in Acoustics and Vibration*, Volume 2012 (2012), Article ID 868247, 8 pages, doi:10.1155/2012/868247
12. C. Bota, **B. S. Kirei**, A. Fazakas, M.D. Topa, "The Implementation of Schroeder Reverberator on an FPGA Platform Using XILINX System Generator", *Acta Technica Napocensis - Electronics And Telecommunications*, Vol. 52, Num. 4/2011, ISSN: 1221-6542, pp.54-59.
13. N. Toma, M.D. Topa, **B. S. KIREI**, I. Homana, "Acoustic Analysis of a Room", *ACTA TECHNICA NAPOCENSIS - ELECTRONICS AND TELECOMMUNICATIONS*, Vol. 51, Num. 2/2010, ISSN: 1221-6542, pp.14-19
14. C. Contan, M.D. Topa, I. Homana, **B. S. Kirei**, "Nonlinear System Identification Using Adaptive Volterra Filters for Echo Cancelling", *ACTA TECHNICA NAPOCENSIS - ELECTRONICS AND TELECOMMUNICATIONS*, Vol. 51, Num. 4/2010, ISSN: 1221-6542, pp.35-40
15. N. Toma, M. Topa, I. Mureșan, **B. S. Kirei**, M. Neag, A. Fazakas, "Acoustic Modelling and Optimization of a Room", *ACTA TECHNICA NAPOCENSIS - ELECTRONICS AND TELECOMMUNICATIONS*, Vol. 2, 2009, ISSN: 1221-6542
16. **B. S. Kirei**, M. Topa, M. NEAG, R.C. Onet, "I/Q Imbalance Compensation Algorithm Based on Neural Networks", *Journal of Automatization, Mobile Robotics & Intelligent Systems*, Volume 3, No. 2, 2009, pg. 88-92, ISSN 1897-8649

17. G. Oltean, **B. S. Kirei**, I. Dornean, I. Oltean, "Model Based Design of Control Systems", Acta Tehnica Napocensis, Vol. 48, 4/2007, pg. 19-22, Mediamira Science Publisher, ISSN 1221-6542
18. I. Dornean, M. Topa, **B. S. Kirei**, E. Szopos, "FPGA Implementation of the Adaptive Least Mean Square Algorithm", ACTA TEHNICA NAPOCENSIS- ELECTRONICS AND TELECOMMUNICATIONS, Vol. 48, 4/2007, Mediamira Science Publisher, pg. 19-22, ISSN 1221-6542
19. **B. S. Kirei**, A. Fazakas, M. TOPA, "MATLAB Modeling and FPGA Implementation for Neural Algorithms for Blind Signal Separation", *ACTA TEHNICA NAPOCENSIS- ELECTRONICS AND TELECOMMUNICATIONS*, Mediamira Science Publisher, Vol. 47, 4/2006, pg. 1-6, ISSN 1221-6542
20. I. Dornean, M.D. Topa, **B. S. Kirei**, "Digital Implementation of Artificial Reverberation Algorithms", *ACTA TEHNICA NAPOCENSIS- ELECTRONICS AND TELECOMMUNICATIONS*, Nr.4, 2008, ISSN: 1221-6542

D. Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

a. Lucrări în volumele manifestărilor științifice indexate ISI proceedings

21. **B. S. Kirei**, M. Neag, M.D. Topa, "Composite RF tuner models and their object oriented implementation ", *34th International Conference on Telecommunications and Signal Processing (TSP)*, pp. 150–154, Budapest, Hungary, 18-20 Aug. 2011, ISBN: 978-1-4577-1410-8
22. I. Homana, M. D. Topa, **B. S. Kirei**, C. Contan – "Adaptive Algorithms for Double-Talk Echo Cancelling", *Proceedings of the 2010 9th International Symposium on Electronics and Telecommunications*, November 11-12, 2010, Timisoara, Romania, ISBN: 978-1-4244-8458-4, pg. 349-352
23. **B. S. Kirei**, M. Neag, M. D. Topa – "Symmetric Adaptive Decorrelation for I/Q Imbalance Compensation in Narrowband Receivers", *Proceedings of the 2010 9th International Symposium on Electronics and Telecommunications*, November 11-12, 2010, Timisoara, Romania, ISBN: 978-1-4244-8458-4, pg. 353-356
24. I. Dornean, M. Topa, **B. S. Kirei**, M. Neag, "Sub-Band Adaptive Filtering for Acoustic Echo Cancellation", *Proceedings of the European Conference on Circuit Theory and Design ECCTD 2009*, 23-27 August, 2009, Antalya, Turkey
25. **B. S. Kirei**, M. D. Topa, M. Neag, "Reconfigurable Zero/Low-IF Receiver", *Proceedings of IEEE International Symposium on Signals, Circuits and Systems - ISSCS 2009*, July 9-10, 2009, Iasi, Romania, ISBN 978-1-4244-3786-3
26. **B. S. Kirei**, V. Popescu, M. Topa, I. Popescu, "A Propagation Model for Coupled Lines", *Proceedings of IEEE 31th International Spring Seminar on Electronics Technology, Reliability and Life-time Prediction*, 7-11 May 2008, Budapest, Hungary, pg. 624-629, ISBN 978-963-06-4915-5

27. V. Popescu, **B. S. Kirei**, M. Topa, "Analysis of Lossless Differential Microstrip Line", *Proceedings of IEEE International Spring Seminar on Electronics 2007*, pg. 551-554, May 2007, ISBN 1-4244-1218-8
28. **B. S. Kirei**, I. Dornean, M. Topa, "Image Rejection Filter Based on Complex LMS Filter for Low-IF Receivers", *Proceedings of IEEE 50th International Symposium ELMAR-2008*, Zadar, Croatia, 10-12 September 2008, pg. 203-206, ISBN 978-953-7044-08-4
29. **B. S. Kirei**, M. Topa, I. Dornean, A. Fazakas, "Novel Image Rejection Filter Based on Neural Networks", *12th Conference on Knowledge-Based Intelligent Information and Engineering Systems*, Vol. 5179/2008, KES 2008, Zagreb, Croatia, 3-5 September 2008, pg. 343-350, ISBN 978-3-540-85566-8
30. I. Dornean, M. Topa, **B. S. Kirei**, G. Oltean, "HDL Implementation of Variable Step Size N-LMS Adaptive Algorithm", *Proceedings of 2008 IEEE International Conference on Automation, Quality and Testing, Robotics*, Vol. TOME-III, 22-25 May 2008, Cluj-Napoca, Romania, pg. 243-246, ISBN 978-1-4244-2576-1
31. **B. S. Kirei**, M. Topa, V. Popescu, I. Dornean, "Image Rejection Filter Based on Blind Source Separation for Low-IF Receivers", *Proceedings of 2008 IEEE International Conference on Automation, Quality and Testing, Robotics*, Vol. TOME-III, 22-25 May 2008, Cluj-Napoca, Romania, pg. 253-256, ISBN 978-1-4244-2576-1

b. Lucrări în volumele conferințelor indexate în baza de date IEEEExplore

32. I. Homana, M. Topa, **B.S. Kirei**, C. Contan, "Behavior of variable step size NLMS algorithms for acoustic echo cancellation", *Proceedings of 10th International Symposium on Signals, Circuits and Systems (ISSCS 2011)*, ISBN: 978-1-61284-944-7, Iasi, Romania, June 30 - July 1 2011
33. C. Contan, M. Topa, **B.S. Kirei**, I. Homana, "Nonlinear acoustic system identification using a combination of Volterra and power filters", *Proceedings of 10th International Symposium on Signals, Circuits and Systems (ISSCS 2011)*, ISBN: 978-1-61284-944-7, Iasi, Romania, June 30 - July 1 2011
34. I. Homana, M.D. Topa, **B. S. Kirei**, "Semi-blind Equalization Using the Constant Modulus Algorithm", *Proceedings of 2010 IEEE International Conference on Automation, Quality and Testing, Robotics*, TOME II, 28-30 May 2010, Cluj-Napoca, Romania, ISSN: 978-1-4244-6722-8, pg. 299-302
35. **B. S. Kirei**, M. Neag, M. D. Topa, "On I/Q Imbalance Compensation Based on Adaptive Filtering in Low-IF and Zero-IF receiver", *Proceedings of 2010 IEEE International Conference on Automation, Quality and Testing, Robotics*, TOME II, 28-30 May 2010, Cluj-Napoca, Romania, ISSN: 978-1-4244-6722-8, pg. 166-169
36. **B. S. Kirei**, M. Topa, A. Fazakas, T. Norbert, "Novel FIR Implementation for Acoustic Signal Processing", *Proceedings of IEEE 15th International Symposium for Design and Technology of Electronics Packages*, 17-20 Sep 2009, Gyula, Hungary

37. I. Homana, M. D. Țopa, **B. S. Kirei**, "Echo cancelling using adaptive algorithms", *Proceedings of IEEE 15th International Symposium for Design and Technology of Electronics Packages*, 17-20 Sep 2009, Gyula, Hungary

E. Alte lucrări și contribuții științifice

38. **B. S. Kirei**, Marius Gheorghe Neag, Marina Dana Topa, "Matlab Toolbox for RF Receiver Modeling", *Advanced Engineering Forum* (2013), Vol. 8-9, pp. 500-507, doi:10.4028/www.scientific.net/AEF.8-9.500
39. **B. S. Kirei**, M. Neag, Tomina Fabiola Salajan, M.D. Topa, "Matlab Modeling of Zero-IF Radio Receivers by Using Object Oriented Programming", *ElectroRevue*, ISSN 1213-1539, Vol. 2, NO. 4/2011, pp. 72-78, DECEMBER 2011.
40. M.D. Topa, N. Toma, **B. S. Kirei**, I. Crisan, , "Evaluation of Acoustic Parameters in a Room", *Proceedings of the 9th WSEAS International Conference on SIGNAL PROCESSING*, ISBN: 978-954-92600-4-5, pg. 41-44, Catania, Italy, May 29-31, 2010
41. **B. S. Kirei**, M.D. Topa, I. Dornean, A. Fazakas, "Verilog Implementation of Image Rejection Filter Based on Statistical Computation", *Proceedings of The Seventh International PHD Students' Workshop Control & Information Technology, IWCIT'08*, Gliwice, Poland, 18-19 September 2008, pg. 60-65, EAN-9788390474380
42. B. S. Kirei, M. Topa, I. Dornean, A. Fazakas, "Simulink Modeling of Image Rejection Algorithms", *Proceedings of Inter-Ing 2007*, 15-16 Nov. 2007, Targu Mures, pg. IV.5.1 - IV.5.6, ISSN 1843-780X
43. A. Fazakas, M. Dabacan, L. Festila, B. S. Kirei, "Custom Memory Controller under Xilinx EDK for Digilent Nexys Board", *Proceedings of Inter-Ing 2007*, 15-16 November 2007, Targu Mures, pg. IV.2.1 - IV.2.6, ISSN 1843-780X
44. I. Dornean, M. Topa, B. S. Kirei, E. Szopos, "System Identification with Least Mean Square Adaptive Algorithm", *Proceedings of Inter-Ing 2007*, 15-16 November 2007, Targu Mures, pg. IV.1.1 - IV.1.4, ISSN 1843-780X
45. I. Dornean, **B. S. Kirei**, "*Contour detection approaches*" - *Novice Insights*, Vol. 1, 1/2007, pg. 13-18, Mediamira Publishing House, 2007, ISSN 1842-6085
46. B. S. Kirei, I. Dornean, "Overlap-addition and Overlap-save Methods for Hilbert Transform Computation", *Novice Insights*, Vol. 1, 1/2007, pg. 19-22, Mediamira Publishing House, 2007, ISSN 1842-6085
47. B. S. Kirei, I. Dornean, A. Fazakas, M. Topa, "Comparing Verilog and VHDL", *Proceedings of MicroCAD 2007*, 22-23 March 2007, pg. 35-40, ISBN 978-963-661-751
48. B. S. Kirei, "From the VHDL Code to the Implementation to FPGA-s", *Technical Review*, 2006, vol. 33, pg. 35-38, ISSN 1454-0746