

СПИСЪК НА НАУЧНИТЕ ТРУДОВЕ ЗА УЧАСТИЕ В КОНКУРСА

на проф. дн Валери Младенов

I. Статии, публикувани в реферирани чуждестранни издания и в списания с импакт-фактор (77)

1. **Mladenov, V.** and Kirilov, S., **2024**. "A Memristor Neural Network Based on Simple Logarithmic-Sigmoidal Transfer Function with MOS Transistors," *Electronics*, vol. 13, issue (5), pp. 1-26, ISSN 20799292, DOI 10.3390/electronics13050893 (Web of Science, Scopus, Google Scholar) **IF 2.9, SJR 0.628**.
2. Pavlatos, C., Makris, E., Fotis, G., Vita, V. and **Mladenov, V.**, **2023**. "Enhancing Electrical Load Prediction Using a Bidirectional LSTM Neural Network," *Electronics*, vol. 12, issue (22), pp. 1-13, <https://doi.org/10.3390/electronics12224652>, ISSN 20799292 (Web of Science, Scopus, Google Scholar) **SJR 0.628, IF 2.9**
3. Valchev, R., Nikolov, M., Nakov, O., Lazarova, M., **Mladenov, V.** "Timely Detection of Diabetes with Support Vector Machines, Neural Networks and Deep Neural Networks," *WSEAS Transactions on Computer Research*, **2023**, vol. 11, ISSN 19918755, DOI 10.37394/232018.2023.11.24, pp. 263–274 (Scopus) **SJR 0.105**
4. Pavlatos, C., Makris, E., Fotis, G., Vita, V. and **Mladenov, V.**, **2023**. Utilization of Artificial Neural Networks for Precise Electrical Load Prediction. *Technologies*,

- vol. 11, issue (3), pp. 1 - 14. <https://doi.org/10.3390/technologies11030070> (Web of Science, Scopus, Google Scholar) **IF 3.6**.
5. **Mladenov V.** AICAS—PAST, PRESENT, AND FUTURE. *Electronics*. **2023**; vol. 12, issue (6);, 1483. <https://doi.org/10.3390/electronics12061483>, pp. 1 – 4, (Web of Science, Scopus, Google Scholar) **SJR 0.59, IF 2.69**.
 6. Vita, V.; Fotis, G.; Chobanov, V.; Pavlatos, C.; **Mladenov, V., 2023**. Predictive Maintenance for Distribution System Operators in Increasing Transformers' Reliability, *Electronics*, vol. 12, issue 1356, pp. 1 – 23, <https://doi.org/10.3390/electronics12061356> (Web of Science, Scopus, Google Scholar) **IF 2.69, SJR 0.59**.
 7. **Mladenov, V., 2023**. Application of Metal Oxide Memristor Models in Logic Gates. *Electronics*, vol. 12, issue (2), <https://doi.org/10.3390/electronics12020381>, p. 1 - 14. (Web of Science, Scopus, Google Scholar) **IF 2.657, SJR 0.59**.
 8. Vita, V., Fotis, G., Pavlatos, C. and **Mladenov, V., 2023**. A New Restoration Strategy in Microgrids after a Blackout with Priority in Critical Loads. *Sustainability*, vol. 15, issue (3), pp. 1 – 21, <https://doi.org/10.3390/su15031974> (Web of Science, Scopus, Google Scholar) **SJR 0.664, IF 4.089**.
 9. **Mladenov, V., 2023**. Application and Analysis of Modified Metal-Oxide Memristor Models in Electronic Devices. *Technologies*, vol. 11, issue (1), p. 1 – 20, <https://doi.org/10.3390/technologies11010020> (Web of Science, Google Scholar) **IF 3.6**
 10. Seritan, G.C., Enache, B.A., Vilciu, I., Grigorescu, S.D. and **Mladenov, V., 2022**. Comparison Study of Top Development Boards in the Context of IOT. *Revue Roumaine des Sciences Techniques—Serie Électrotechnique Et Énergetique*, ISSN 0035-4066, vol. 67, issue (4), pp.483-486. (Web of Science, Scopus, Google Scholar)
 11. Violeta Todorova, Veska Gancheva, Valeri Mladenov, **2022**, “COVID-19 Medical Data Integration Approach,” *WSEAS International Journal of MOLECULAR*

- SCIENCES AND APPLICATIONS*, Print ISSN: 2944-9138, E-ISSN: 2732-9992, DOI: 10.37394/232023.2022.2.11pp. 102 – 106, vol. 2, No 11. (Google Scholar)
12. Ntalianis, K., Lepadatescu, B., Tarasov, D.A., Rudas, I.J., Niola, V., **Mladenov, V.**, Mastorakis, N., Kechagias, J. and Vasek, V., **2022**. Why the WSEAS is Not a Predatory Publisher. Is WSEAS a Predatory Publisher? No! Of Course, No!. *International Journal of Systems Applications, Engineering & Development*, vol. 16, pp.84-90, DOI: 10.46300/91015.2022.16.15, E-ISSN: 2074-1308. (Google Scholar)
 13. Vita, V., Christodoulou, C.A., Zafeiropoulos, E., **Mladenov, V.**, Chobanov, V., Asprou, M. and Kyriakides, E., **2022**. Flexibility adequacy assessment in the SEE region with new technology integration. *WSEAS Trans. Power Syst.*, DOI 10.37394/232016.2022.17.9, vol. 17, pp.76-83, E-ISSN: 2224-350X. (Scopus, Google Scholar) **SJR 0.19**.
 14. **Mladenov, V.**, Chobanov V, Seritan GC, Porumb RF, Enache B-A, Vita V, Stănculescu M, Vu Van T, Bargiotas D., A Flexibility Market Platform for Electricity System Operators Using Blockchain Technology, *MDPI Energies* **2022**; vol. 15, issue (2): No. 539., <https://doi.org/10.3390/en15020539>, pp. 1-26, (Scopus, Web of Science, Google Scholar) **SJR 0.598, CiteScore 4.7, IF 3.085**.
 15. Rácz L, Németh B, Göcsei G, Zarchev D, **Mladenov V.**, Performance Analysis of a Dynamic Line Rating System Based on Project Experiences, *MDPI Energies*, **2022**; vol. 15, issue (3), No. 1003. <https://doi.org/10.3390/en15031003>, pp. 1-11, (Scopus, Web of Science, Google Scholar) **SJR 0.598, CiteScore 4.7, IF 3.085**.
 16. **Mladenov V.**, Kirilov S., A Simplified Tantalum Oxide Memristor Model, Parameters Estimation and Application in Memory Crossbars, *MDPI Technologies* **2022**; vol. 10, issue (1), 6. <https://doi.org/10.3390/technologies10010006>, pp. 1-16, (Web of Science, Scopus, Google Scholar) **IF 3.6**
 17. **Mladenov V.**, A Unified and Open LTSPICE Memristor Model Library, *MDPI Electronics*, **2021**; vol. 10, issue (13), No. 1594.

- <https://doi.org/10.3390/electronics10131594>, pp. 1 - 27, (Web of Science, Google Scholar) **IF 2.408**.
18. Kirilov, S. M., Todorova, V. I., Nakov, O. N., **Mladenov, V. M.**, Application of a memristive neural network for classification of covid-19 patients, *International Journal of Circuits, Systems and Signal Processing*, **2021**, vol. 15, DOI: 10.46300/9106.2021.15.138, E-ISSN: 1998-4464, pp. 1282 – 1291. (Google scholar, Scopus), **SJR 0.195**.
 19. **Mladenov V.**, Chobanov, V., Georgiev, A., Impact of Renewable Energy Sources on Power System Flexibility Requirements., *Energies* **2021**, vol. 14, 2813. <https://doi.org/10.3390/en14102813>, 2021., pp. 1 – 20, (Web of Science, Scopus, Google Scholar) **IF 3.333, SJR 0.653**.
 20. Koltsaklis N E., Dagoumas A S., **Mladenov V.**, Electricity market clearing algorithms: A case study of the Bulgarian power system, *Energy sources part b-economics planning and policy*, Volume: 16, Issue: 1, Special Issue: SI, DOI: 0.1080/15567249.2020.1845252, pp. 91 - 117, **2021**. (Web of Science, Scopus, Google Scholar), **SJR 0.600, CiteScore 5.2, IF 1.758**.
 21. **Mladenov V.**, A New Simplified Model and Parameter Estimations for a HfO₂-Based Memristor, *MDPI Technologies* pp. 1-14, **2020**, vol. 8, issue 16. <https://doi.org/10.3390/technologies8010016> (Web of Science, Google Scholar).
 22. **Mladenov V.**, Analysis of Memory Matrices with HfO₂ Memristors in a PSpice Environment, *MDPI Electronics* 2019, vol. 8, 383, pp. 1–15, <https://doi.org/10.3390/electronics8040383> (Web of Science, Scopus, Google Scholar) **IF 2.412, SJR 0.360, CiteScore 2.7**.
 23. **Mladenov V.**, Analysis and Simulations of Hybrid Memory Scheme Based on Memristors, *MDPI Electronics* **2018**, vol. 7, No. 289. <https://doi.org/10.3390/electronics7110289> (Scopus, Web of Science, Google scholar) **IF 2.412, SJR 0.360, CiteScore 2.7**.

24. Christodoulou C. A., Vita V., **Mladenov V.**, Ekonomou L., On the Computation of the Voltage Distribution along the Non-Linear Resistor of Gapless Metal Oxide Surge Arresters, *MDPI Energies*, **2018**, vol. 11, No. 3046. <https://doi.org/10.3390/en11113046>, pp. 1 – 14, (Scopus, Web of Science, Google Scholar), **IF 2.822, SJR 0.598, CiteScore 4.7**
25. **Mladenov V.**, Kirilov S., Analysis of a Passive Memristor Crossbar, *Oriental Journal of Computer Science and Technology*, ISSN: 0974-6471, Vol. 11, No. (1) **2018**, pp. 4-11. (Google Scholar)
26. **Mladenov V.**, Kirilov S., Analysis of an anti-parallel memristor circuit, *Informatyka, Automatyka, Pomiar w Gospodarce i Ochronie Środowiska*, **2018**, DOI: 10.5604/01.3001.0012.0696, IAPGOŚ 2/2018, pp. 9–14. (Google Scholar)
27. **Mladenov V.**, Kirilov S., Advanced memristor model with a modified Biolek window and a voltage-dependent variable exponent, *Informatyka, Automatyka, Pomiar w Gospodarce i Ochronie Środowiska*, **2018**, DOI: 10.5604/01.3001.0012.0697, IAPGOŚ 2/2018, pp. 15 - 20. (Google Scholar)
28. **Mladenov V.**; Kirilov S., A Nonlinear Drift Memristor Model with a Modified Biolek Window Function and Activation Threshold, *MDPI Electronics* **2017**, vol. 6, issue 77. <https://doi.org/10.3390/electronics6040077>, pp. 1 – 15, (Scopus, Web of Science, Google Scholar), **IF 2.412, SJR 0.360, CiteScore 2.7**.
29. Vetova S., Draganov I., Ivanov I., **Mladenov V.**, CBIR Efficiency Enhancement using Local Features Algorithm with Hausdorff Distance, *WSEAS Transactions on Computer Research*, 2017, E-ISSN: 2415-1521, Vol. 5, **2017**, pp. 116 – 123. (Google Scholar)
30. Ekonomou L., Christodoulou C. A., **Mladenov V.**, An artificial neural network software tool for the assessment of the electric field around metal oxide surge arresters, *Neural Comput & Applic* 27, pp. 1143–1148, **2016**. <https://doi.org/10.1007/s00521-015-1969-x>, (Scopus, Web of Science, Google Scholar) **SJR 0.713, IF 4.774, CiteScore 7.3**.

31. **Mladenov V.**, Kirilov S., Synthesis and Analysis of a Memristor-Based Perceptron for Logical Function Emulation, *Przegląd Elektrotechniczny* vol. 1, **2016**, pp. 24-27. (Scopus, Google Scholar), **SJR 0.19, CiteScore 1.0.**
32. **V.M. Mladenov**, "Spatio-Temporal Phenomena in Two-dimensional Cellular Nonlinear Networks Based on Second Order Cells", *Functional Differential Equations*, ISSN 0793-1786, vol. 13, No. 1, **2006**, pp. 99-106. (Google Scholar)
33. Dondon Ph., Cifuentes M., Tsenov G., **Mladenov V.**, Simple modelling and method for the design of a sigma delta class D power amplifier, *International Journal of Circuits, Systems and Signal Processing*, vol. 5, Issue 1, **2011**, ISSN: 1998-4464, pp. 478-487, (Scopus, Google Scholar) **SJR 0.156.**
34. **Mladenov V.**, Application of Neural Networks for Control of Inverted Pendulum, *WSEAS Trans. on Circuits and Systems*, vol. 10, Issue 2, February **2011**, ISSN: 1109-2734, pp. 49-58. (Scopus, Google Scholar) **SJR 0.031.**
35. **Mladenov V.**, Karampelas P., Tsenov G., Vita V., **2011**, Approximation Formula for Easy Calculation of Signal-to-Noise Ratio of Sigma-Delta Modulators, *ISRN Signal Processing*, Vol. 2011, Article ID 731989, 7 pages, (Scopus, Google Scholar) **SJR 0.188.**
36. Gevaer, W., Tsenov G., **Mladenov V.**, Neural networks used for speech recognition, *Journal of Automatic control*, vol. 20, issue (1), **2010**, pp.1-7., DOI: 10.2298/JAC1001001G, (Google Scholar)
37. Dimov B., Ortlepp Th., **Mladenov V.**, Terzieva S., Uhlmann F. H., The asynchronous rapid single-flux quantum electronics – a promising alternative for the development of high-performance digital circuits, *Adv. Radio Sci.*, 6, <https://doi.org/10.5194/ars-6-165-2008>, **2008**, pp. 165–173, (Scopus, Web of Science, Google Scholar) **SJR 0.211, CiteScore 1.5., Journal Citation Indicator 0.24.**
38. Yordanova S., **Mladenov V.**, Real Time Sugeno Neuro-Fuzzy Predictive Control of Nonlinear Plant with Time Delay, *Int. Journal of Neural Networks and*

Applications, vol. 1, No. 2, *Int. Science Press*, ISSN 0974-6048, **2008**, pp. 47-53.
(Google Scholar)

39. Dimov B., **Mladenov V.**, Ortlepp Th., Uhlmann, F. H., Designing of Ultra High-Speed Asynchronous Digital Electronics with Higher Complexity, *Przegląd Elektrotechniczny*, ISSN 0033-2097, R. 83 NR 11/ **2007**, pp. 101-104. (**Scopus, Web of science, Google Scholar**) **IF 0.244, SJR 0.029, CiteScore 1.0.**
40. **Mladenov V.**, Filipova K., Petrakieva S., Dimov B., Uhlmann F.H., Analysis of Signal Competition in Asynchronous Ultra High-Speed Digital Circuits, *Przegląd Elektrotechniczny*, ISSN 0033-2097, R. 83 NR 11/ **2007**, pp. 197-200. (**Scopus, Web of science, Google Scholar**) **IF 0.244, SJR 0.029, CiteScore 1.0.**
41. Dimov B., **Mladenov V.**, Ortlepp T., Uhlmann, H., A constraint propagation algorithm for determining the stability margin of linear parameter circuits and systems, *Przegląd Elektrotechniczny*, **2007**, vol. 83, issue 11, pp. 101 – 104, ISSN 00332097 (**Scopus, Web of science, Google Scholar**) **IF 0.244, SJR 0.029, CiteScore 1.0.**
42. Radev N., Mastorakis N., Ivanov K., Stanchev K., **Mladenov V.**, Petrakieva S., "Right-LUD bandpass SC ladder filter with reduced sensitivity to finite amplifier gain and offset voltage", *WSEAS Trans. on Circuits and Systems*, Issue 6, vol. 6, June **2007**, ISSN: 1109-2734, pp. 481-487. (**Scopus, Google Scholar**) **SJR 0.029.**
43. Savov V., Georgiev Zh., Todorov T., Karagineva I., Mastorakis N., **Mladenov V.**, Using the Melnikov Function for a Synthesis of Generalized Van der Pol Systems, *WSEAS Trans. On Circuits and Systems*, Issue 11, Volume 5, Nov. **2006**, ISSN: 1109-2734, pp 1602-1607. (Scopus, Google Scholar) **SJR 0.032.**
44. Yordanova S., Petrova R., Mastorakis N., **Mladenov V.**, Sugeno Predictive Neuro-Fuzzy Controller for Control of Nonlinear Plant under Uncertainties, *WSEAS Trans. on Systems*, Issue 8, vol. 5, ISSN 1109-2777, **2006**, pp. 1814-1821 (Scopus, Google Scholar) **SJR 0.151.**

45. Tzeneva R., Slavtchev Y., **Mladenov V.**, Analysis of Bolted Busbar Connections with Slotted Bolt Holes, *WSEAS Trans. on Circuits and Systems*, Issue 7, vol. 5, July **2006**, pp. 1021-1027, ISSN 1109-2734. (Scopus, Google Scholar), **SJR 0.11**.
46. Dimov B., Todorov V., **Mladenov V.**, Khabipov M., Balashov D., Hagedorn D., Buchholz F.-Im., Niemeyer J., Uhlmann F. H., An improved technique for the design of Josephson transmission lines, *Superconductor Science and Technology*, vol.19, pp. S213-S216, **2006**. (Scopus, Web of Science, Google Scholar) **IF 3.067**, **SJR 1.033**, **CiteScore 5.7**.
47. Kolev L., Filipova-Petrakieva S., **Mladenov, V.**, Interval criterion for stability analysis of discrete-time nonlinear systems with partial state saturation nonlinearities, **2006** *Facta universitatis-series: Electronics and Energetics*, 19(2), pp.271-286, ISBN 0780385470, (Scopus, Google Scholar).
48. Radev N., Mastorakis N., Ivanov K., **Mladenov V.**, Reduction of the gain errors in multi-input Nagaraj-89 very large time constant integrators, **2005** *WSEAS Transactions on Electronics*, vol. 2, issue (4), pp. 135-138, ISSN 11099445 (Scopus, Google Scholar) **SJR 0.107**.
49. Trushev I., Mastorakis N., Tabahnev I., **Mladenov V.**, Adaptive sliding mode control for dc/dc buck converters, *WSEAS Transactions on Electronics*, Issue 4, Vol. 2, October **2005**, ISSN: 1109-9445, pp. 109-113 (Scopus, Google Scholar) **SJR 0.107**.
50. **Mladenov V.**, A discrete-time recurrent neural network for solving general quadratic programming problems, *WSEAS Transactions on Systems*, pp. 996-1002, Issue 7, Vol. 4, **2005**, ISSN 1109 2777. (Scopus, Google Scholar) **SJR 0.151**.
51. Zeghibib A., Palis F., Tsenov G., Shoylev N., **Mladenov V.**, Performance of Surface EMG signals Identification Using Intelligent Computational Methods, *WSEAS Transactions on Systems*, pp. 1118-1125, Issue 7, Volume 4, **2005**, ISSN 1109 2777 (Scopus, Google Scholar) **SJR 0.151**
52. Slavova A., Markova M., Tsenov G., Zeghibib A., Palis F., Stoylev N., **Mladenov V.**, Kostova M., Djurov V., Prabhu S., Yordanova S., **2005**. Receptor-based

- cellular neural network models, *Wseas Transactions on Mathematics*, vol. 4, issue (3), p.212. (Scopus, Google Scholar), **SJR 0.161**.
53. Dimov B., Todorov V., **Mladenov V.**, Uhlmann H., RSFQ Technique for Generation of Ultra-Fast Pulse Chains Having Controlled and Variable Time-Domain Parameters, *WSEAS Trans. on Electronics*, Issue 4, Vol. 2, October **2004**, ISSN: 1109 9445, pp. 208-212, (Scopus, Google Scholar) **SJR 0.107**.
 54. Yordanova S., Petrova R., **Mladenov V.**, Neuro-Fuzzy Control for Anaerobic Wastewater Treatment, *WSEAS Transactions on Systems*, Issue 2, vol. 3, **2004**, ISSN 1109-2777, pp. 724-729 (Scopus, Google Scholar) **SJR 0.151**.
 55. Radev N., Mastorakis N., **Mladenov V.**, Reduction of the gain errors in finite gain insensitive switched-capacitor integrator pair, **2004**, *WSEAS Transactions on Circuits and Systems* vol. 3, issue (5), pp. 1135-1139. (Scopus, Google Scholar) **SJR 0.11**
 56. Radev N., Mastorakis N., **Mladenov V.**, Minimization of operational amplifiers finite gain effects in switched-capacitor biquads, **2004** *WSEAS Transactions on Circuits and Systems*, vol. 3, issue (5), pp.1130-1134. (Scopus, Google Scholar) **SJR 0.11**
 57. Dimov B., Todorov V., **Mladenov V.**, Uhlmann H., Possible connections of the Josephson junctions within the RSFQ logic circuits, **2004** *WSEAS Transactions on Circuits and Systems*, vol. 3, issue (5), pp.1398-1402, (Scopus, Google Scholar) **SJR 0.11**
 58. Dimov B., Todorov V., **Mladenov V.**, Uhlmann H., Optimal signal propagation speed of a Josephson Transmission Line, *Superconductor Science and Technology*, vol. 17, No. 6, **2004**, pp. 819-822, ISSN 09532048, DOI 10.1088/0953-2048/17/6/015 (Scopus, Web of Science, Google Scholar) **IF 3.067, SJR 1.033, CiteScore 5.7**.
 59. **Mladenov V.**, Hegt H., Roermund A., On the Stability Analysis of High Order Sigma-Delta Modulators, *An International Journal on Analog Integrated Circuits and Signal Processing*, *Kluwer Academic Publishers*, vol. 36, Issue 1-2, **2003**, pp 47-55,

ISBN 0780370570, 978-078037057-9, (Scopus, Web of Science, Google Scholar) **IF 0.925, SJR 0.240, CiteScore 2.1**

60. Tsakoumis A., Fessas P., **Mladenov V.**, Mastorakis N., Application of chaotic time series for short-term load prediction". *WSEAS Trans. on Systems*, vol. 2, issue (3), **2003**, pp.517-523. (Scopus, Google Scholar) **SJR 0.031**.
61. Tsakoumis C., Tashev T., **V.M. Mladenov**, Mastorakis N., Application of Neural Networks in Voice Recognition, *WSEAS Trans. on Systems*, ISSN: 1109-2777, vol. 2, Issue 3, **2003**, pp. 543-546. (Scopus, Google Scholar) **SJR 0.031**
62. Tsakoumis A., Fessas P., **Mladenov V.**, Mastorakis, N., Application of Neural Networks for Short Term Electric Load Prediction, **2003** *WSEAS Transactions on Systems*, vol. 2, issue (3), pp.513-517. (Scopus, Google Scholar) **SJR 0.031**.
63. Mastorakis N., **Mladenov V.**, On the general design problem of 2-dimensional recursive filters by using neural networks, **2002** *WSEAS Transactions on Circuits*, vol. 1, issue(1), pp.106-112. (Google Scholar)
64. Radev N., Ivanov K., **Mladenov V.**, Minimization of Pole Frequency Error and Pole Quality Factor Error in Switched-Capacitor Biquads, *WSEAS Trans. on Circuits*, vol. 1, Issue 1, ISSN: 1109-2734, **2002**, pp. 7-12. (Google Scholar)
65. **Mladenov V.**, Maratos N., Tsakoumis A., Tashev T., Mastorakis N., On solving nonlinear programming problems via Neural Networks, **2001** *Neural Network World*, vol. 11, issue (3), pp. 293-304 (Scopus, Google Scholar), **SJR 0.276, CiteScore 2.1**
66. Tsenov G., Zeghib A., Palis F., Stoylev N., **Mladenov V.**, Online Classification of Hand and Finger Movements With Neural Networks, *Int. Journal of Neural Networks and Applications*, vol. 1, No. 2, *Int. Science Press*, ISSN 0974-6048, **2008**, pp. 9-15. (Google Scholar)
67. **Mladenov V.**, Mastorakis N., Design of two-dimensional recursive filters by using neural networks, in *IEEE Transactions on Neural Networks*, vol. 12, no. 3, pp. 585-590, **2001**, doi: 10.1109/72.925560. (Web of Science, Google Scholar) **IF 2.952**

68. Ekonomou L., Fotis P., Vita V., **Mladenov V.**, Distributed Generation Islanding Effect on Distribution Networks and End User Loads Using the Master-Slave Islanding Method, *Journal of Power and Energy Engineering*, ISSN 2327-5901, DOI: 10.4236/jpee.2016.410001, **2016**, vol. 4, No 10, p. 1- 24. (Google Scholar)
69. **Mladenov V.**, Leenaerts D., Estimation of the basin of attractions of stable equilibrium points in full range cellular neural networks, *Computational Intelligence and Applications*, **1999**, pp. 119-122, ISBN 960805205X (Scopus, Google Scholar)
70. **Mladenov V.**, Mastorakis N., Design of 2-dimensional recursive filters by using neural networks, *Computational Intelligence and Applications*, **1999**, pp. 12-20, ISBN 960805205X, (Scopus, Google Scholar)
71. **Mladenov V.**, Leenaerts D., Uhlmann H., Estimation of the basin of attractions in CNN's, in *IEEE Transactions on Circuits and Systems I: Fundamental Theory and Applications*, vol. 45, no. 5, pp. 571-574, **1998**, doi: 10.1109/81.668869. (Web of Science, Google Scholar) **IF 3.201**.
72. Kolev L., **Mladenov V.**, Use of interval slopes in implementing an interval method for global non-linear DC circuit analysis, *International journal of circuit theory and applications*, vol. 25, issue (1), **1997**, pp.37-42, ISSN 00989886, DOI 10.1002/(SICI)1097-007X(199701/02)25:1<37::AID-CTA944>3.0.CO;2-G (Web of Science, Scopus, Google Scholar) **IF 1.581, SJR 0.45**.
73. Leenaerts D., **Mladenov V.**, On the restrictions of the sensitivities in single-amplifier biquadratic active filters, *International Journal of Circuit Theory and Applications*, vol. 23, issue (3), **1995**, pp. 247-252, <https://doi.org/10.1002/cta.4490230307>, (Scopus, Web of Science, Google Scholar) **IF 1.581, SJR 0.364, CiteScore 3.5**.
74. Kolev L., **Mladenov V.**, An interval method for global non-linear dc circuit analysis, *International journal of circuit theory and applications*, vol. 22, issue (3),

- 1994, pp. 233-241., ISSN 00989886, DOI 10.1002/cta.4490220306, (Scopus, Web of Science, Google Scholar) **IF 1.581, SJR 0.364, CiteScore 3.5.**
75. Kolev L., **Mladenov V.**, An interval method for finding all operating points of non-linear resistive circuits, *International Journal of Circuit Theory and Applications*, vol. 18, issue (3), 1990, pp. 257-267, <https://doi.org/10.1002/cta.4490180304> (Scopus, Web of Science, Google Scholar) **IF 1.581, SJR 0.364, CiteScore 3.5.**
76. Benedetti A., Guglielmi, N., Kolev, L., **Mladenov V.**, Finding Multiple Operating Points of Nonlinear Circuits by Interval Analysis: A Review and Recent Results, submitted to "*Analog integrated circuits and signal processing*", Kluwer, 1988, pp. 1 - 28. (Google Scholar)
77. Kolev L., **Mladenov V.**, Vladov S., Interval mathematics algorithms for tolerance analysis, in *IEEE Transactions on Circuits and Systems*, vol. 35, no. 8, pp. 967-975, Aug. 1988, doi: 10.1109/31.1843. (Web of Science, Scopus, Google Scholar) **SJR 0.113.**

II. Доклади в сборници на конференции, конгреси, и симпозиуми в чужбина (172)

78. Poulimenos, G.A., Ellinas, E.D., Christodoulou, C.A., Stathopoulos, J.P. and **Mladenov, V.**, 2023, September. "On the efficient design of wind farms' earthing system," In *2023 15th Electrical Engineering Faculty Conference (BulEF)* (pp. 1-5). IEEE. ISBN 979-835032653-6, DOI 10.1109/BulEF59783.2023.10474213 (Scopus, Google Scholar)
79. Fotis, G., Vita, V., Milushev, G. and **Mladenov, V.**, 2023, September. "After installation testing and fault detection during the operation of HV submarine power cables," In *2023 15th Electrical Engineering Faculty Conference (BulEF)* (pp. 1-

- 5). IEEE. ISBN 979-835032653-6, DOI 10.1109/BuIEF59783.2023.10406267 (Scopus, Google Scholar)
80. Andonov, S., Georgiev, S., Tsenov, G. and **Mladenov, V.**, **2023**, September. Neurophysiological Test with Use of EEG, GSR and Pulse Measurements Data for Focus Group Beverage Preference Aggregation. In *2023 International Scientific Conference on Computer Science (COMSCI)* (pp. 1-6). ISBN 979-835032525-6, DOI 10.1109/COMSCI59259.2023.10315904 IEEE. (Scopus, Google Scholar)
81. Kirilov, S., Tsenov, G. and Mladenov, V., **2023**, September. A Simplified Analog Neuron Model with Modified Memristor-based Positive Synaptic Weights. In *2023 International Scientific Conference on Computer Science (COMSCI)* (pp. 1-6). IEEE. ISBN 979-835032525-6, DOI 10.1109/COMSCI59259.2023.10315912 (Scopus, Google Scholar)
82. Mladenov, V., Tsenov, G. and Kirilov, S., **2023**, October. "Memristor-Based Neural Network Implementation with Adjustable Synaptic Weights in LTSPICE," In *2023 International Conference Automatics and Informatics (ICAI)* (pp. 403-408), DOI: 10.1109/ICAI58806.2023.10339092, IEEE, ISBN 979-835031291-1. (Scopus, Google Scholar)
83. S. Kirilov and V. Mladenov, "Application of New Metal-Oxide Memristor Models in Digital and Analog Electronic Circuits," **2023 19th International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD)**, Funchal, Portugal, 2023, pp. 1-4, doi: 10.1109/SMACD58065.2023.10192136, ISBN 979-835033265-0. (Scopus, Google Scholar)
84. Asimopoulos, D.C., Radoglou-Grammatikis, P., Makris, I., **Mladenov, V.**, Psannis, K.E., Goudos, S. and Sarigiannidis, P., **2023**, August. "Breaching the Defense: Investigating FGSM and CTGAN Adversarial Attacks on IEC 60870-5-104 Breaching the Defense AI-enabled Intrusion Detection Systems," In *Proceedings of the 18th International Conference on Availability, Reliability and*

- Security*, ISBN 979-840070772-8, DOI 10.1145/3600160.3605163, pp. 1-8, (Scopus, Google Scholar)
85. Nakov, O., Harizanova, O., Lazarova, M. and **Mladenov, V.**, **2023**. OPTIMAL VIRTUAL REALITY EXPERIENCE FOR CULTURAL HERITAGE EDUCATION. In *EDULEARN23 Proceedings* (pp. 1473-1481). IATED., *15th International Conference on Education and New Learning Technologies*, 3-5 July, 2023, Palma, Spain, ISBN: 978-84-09-52151-7, ISSN: 2340-1117, doi: 10.21125/edulearn.2023.0456 (Web of Science, Google Scholar)
 86. **V. Mladenov** and S. Kirilov, "An Improved Memristor Model and Applications," **2023** *12th International Conference on Modern Circuits and Systems Technologies (MOCAST)*, Athens, Greece, 2023, pp. 1-4, doi: 10.1109/MOCAST57943.2023.10176507, ISBN 979-835032107-4. (Scopus, Google Scholar)
 87. V. Mladenov, V. Chobanov and V. Ivanova, "DSO flexibility services Business Model Canvas," **2022** *14th Electrical Engineering Faculty Conference (BulEF)*, Varna, Bulgaria, 2022, pp. 1-5, doi: 10.1109/BulEF56479.2022.10021190, ISBN 978-166549026-9 (Scopus, Google Scholar)
 88. V. Mladenov, V. Chobanov and R. Rumenova, "Balance Responsibility Party in Local Flexibility Market," **2022** *14th Electrical Engineering Faculty Conference (BulEF)*, Varna, Bulgaria, 2022, pp. 1-5, doi: 10.1109/BulEF56479.2022.10020194., ISBN 978-166549026-9 (Scopus, Google Scholar)
 89. V. Mladenov, V. Chobanov, T. V. Van and P. Zlatev, "Blockchain-based trading process," **2022** *14th Electrical Engineering Faculty Conference (BulEF)*, Varna, Bulgaria, 14 – 17 September 2022, pp. 1-4, doi: 10.1109/BulEF56479.2022.10021150., ISBN 978-166549026-9 (Scopus, Google Scholar)
 90. S. Georgiev, S. Andonov, G. Tsenov and **V. Mladenov**, "Biosignal measurements for Neurophysiological tests aimed to determine new beverage responses," **2022** *International Conference Automatics and Informatics (ICAI)*, Varna, Bulgaria, 06 – 08

- October 2022, pp. 324-329, doi: 10.1109/ICAI55857.2022.9960022. (Scopus, Google Scholar).
91. Nikolov, M., Tsenov, G., Nakov, O., Lazarova, M. and **Mladenov, V.**, 2022, May. Application of GPU Accelerated Deep Learning Neural Networks for COVID-19 Recognition from X-Ray Scans. In *2022 10th International Scientific Conference on Computer Science (COMSCI), Sofia, Bulgaria, 30 May 2022 - 02 June 2022* (pp. 1-5). IEEE. doi: 10.1109/COMSCI55378.2022.9912590, ISBN 978-166549777-0. (Scopus, Google Scholar)
 92. Liatifis, A., Dalamagkas, C., Radoglou-Grammatikis, P., Lagkas, T., Markakis, E., **Mladenov, V. M**, Sarigiannidis, P., 2022, "Fault-Tolerant SDN Solution for Cybersecurity Applications," *17th International Conference on Availability, Reliability and Security, ARES, Vienna, Austria, Aug 23, 2022 – Aug 26 2022*, pp. 1-6, ISBN 978-145039670-7, DOI 10.1145/3538969.3544479 (Web of Science, Scopus, Google Scholar)
 93. Nakov, P., Mihaylova, E., Lazarova, M., Nakov, O. and **Mladenov, V.**, „A SOFTWARE PLATFORM FOR DIGITAL ASSESSMENT OF PEDAGOGICAL SPECIALISTS' QUALIFICATION PROGRESS IN BULGARIA," In *EDULEARN22 Proceedings, IATED., 14th International Conference on Education and New Learning Technologies, 4-6 July, 2022, Palma, Spain*, pp. 832-837, ISBN: 978-84-09-42484-9, ISSN: 2340-1117, doi: 10.21125/edulearn.2022.0246 (Google Scholar)
 94. Radoglou-Grammatikis, Panagiotis Sarigiannidis, Panagiotis Efstathopoulos, Georgios Lagkas, Thomas Sarigiannidis, Antonios, **Mladenov, Valeri**, and Siaxabanis, Nikolaos, "Defending Industrial Internet of Things Against Modbus/TCP Threats: A Combined AI-Based Detection and SDN-Based Mitigation Solution,". IOT-D-22-00177, 2022, Available at SSRN: <https://ssrn.com/abstract=4141459> or <http://dx.doi.org/10.2139/ssrn.4141459> (Google Scholar)

95. **Mladenov, V.** and Kirilov, S., "A Modified Metal Oxide Memristor Model," - *Proceedings of 11th IEEE International Conference on Modern Circuits and Systems Technologies - MOCAST 2022*, 08-10 June 2022, Germany, Bremen, pp. 1 – 4, DOI 10.1109/MOCAST54814.2022.9837519, (Scopus, Web of Science, Google Scholar)
96. **Mladenov, V.**, Kirilov, S. and Zaykov, I., "A General Model for Metal Oxide-Based Memristors and Application in Filters," *Proceedings of 11th IEEE International Conference on Modern Circuits and Systems Technologies - MOCAST 2022*, 08-10 June 2022, Germany, Bremen, DOI 10.1109/MOCAST54814.2022.9837766, pp. 1 – 4, (Scopus, Web of Science, Google Scholar)
97. **V. M. Mladenov**, I. D. Zaykov and S. M. Kirilov, "A Nonlinear Titanium Dioxide Memristor Model for Memory Crossbars Analysis," **2022 26th IEEE International Conference Electronics**, 2022, 13 June 2022 - 15 June 2022, Palanga, Lithuania, pp. 1-6, doi: 10.1109/IEEECONF55059.2022.9810434. (Scopus, Web of Science, Google Scholar)
98. **V. M. Mladenov**, I. D. Zaykov and S. M. Kirilov, "Application of a Nonlinear Drift Memristor Model in Analogue Reconfigurable Devices," **2022 26th International Conference Electronics**, 13 June 2022 - 15 June 2022, Palanga, Lithuania, pp. 1-6, doi: 10.1109/IEEECONF55059.2022.9810389. (Scopus, Web of Science, Google Scholar)
99. **V. Mladenov** and S. Kirilov, "An Improved Model for Metal Oxide-Based Memristors and Application in Memory Crossbars," **2022 18th International Conference on Synthesis, Modeling, Analysis and Simulation Methods and Applications to Circuit Design (SMACD)**, Sardinia, Italy, 12 June 2022 – 16 June 2022, pp. 1-4, doi: 10.1109/SMACD55068.2022.9816355. (Scopus, Google Scholar)
100. **V. Mladenov** and S. Kirilov, A Neural Synapse Based on Ta₂O₅ Memristor, **2021 17th International Workshop on Cellular Nanoscale Networks and their Applications**

- (CNNA), Catania, Italy, 29 – 30 September 2021, pp. 1-4, doi: 10.1109/CNNA49188.2021.9610807. (Scopus, Google Scholar).
101. Nikolov, M. I, Tsenov, G. T, **Mladenov, V. M**, 2021, COVID-19 detection with X-Ray input data, *IEEE International Conference Automatics and Informatics 2021 (ICAI'21 Proceedings)*, Varna, Bulgaria, 30 September – 02 October **2021**, pp. 437-442, doi: 10.1109/ICAI52893.2021.9639562. (Scopus, Google Scholar)
102. **V. Mladenov**, V. Chobanov, T. Vu Van, N. Hong Phuong and D. Koster, "Forecasting and risk assessment in MV grids," 2021, *IEEE 13th Electrical Engineering Faculty Conference (BulEF)*, **2021**, pp. 1-6, doi: 10.1109/BulEF53491.2021.9690799 (Web of Science, Scopus, Google scholar).
103. **V. Mladenov**, V. Chobanov, Z. Popov, V. Vita, E. Zafeiropoulos and P. Zlatev, Electricity Energy Market Demonstration and Clearing, 2021 *13th IEEE Electrical Engineering Faculty Conference (BulEF)*, **2021**, pp. 1-5, doi: 10.1109/BulEF53491.2021.9690803 (Web of Science, Scopus, Google scholar).
104. **V. Mladenov**, V. Chobanov, T. V. Van and D. Steen, Peer to Peer technologies in energy network, 2021 *13th IEEE Electrical Engineering Faculty Conference (BulEF)*, **2021**, pp. 1-4, doi: 10.1109/BulEF53491.2021.9690795 (Web of Science, Scopus, Google Scholar).
105. **V. Mladenov**, V. Chobanov, T. Bobochikov, Thong Vu Van; İ. Gazioğlu, T. Rey, G. Wuilloud, Trading process and flexibility energy service exchange, **2021** *13th IEEE Electrical Engineering Faculty Conference (BulEF)*, Varna, Bulgaria, 08-11 September 2021, pp. 1-5, doi: 10.1109/BulEF53491.2021.9690838. (Web of Science, Scopus, Google scholar)
106. **V. Mladenov**, S. Kirilov, A Simplified Model of Tantalum Oxide Based Memristor and Application in Memory Crossbars, **2021** *10th IEEE International Conference on Modern Circuits and Systems Technologies (MOCASST)*, Thessaloniki, Greece, 05-07 July 2021, pp. 1-4, doi: 10.1109/MOCASST52088.2021.9493384. (Web of Science, Scopus, Google scholar).

107. **Mladenov V.**, Chobanov V., Popov Z., Technologies for energy exchange and provision of grid services, *12th IEEE Electrical Engineering Faculty Conference (BulEF)*, **2020**, pp. 1-6, doi: 10.1109/BulEF51036.2020.9326050. (Scopus, Google Scholar)
108. **Mladenov V.**, Chobanov V., Popov Z., Network flexibility and risk assessment as part of NordPool energy market, *12th IEEE Electrical Engineering Faculty Conference (BulEF)*, **2020**, pp. 1-5, doi: 10.1109/BulEF51036.2020.9326075. (Scopus, Google Scholar)
109. **Mladenov V.**, Chobanov V., Sarigiannidis P., Radoglou-Grammatikis P. I., Hristov A., Zlatev P., Defense against cyber-attacks on the Hydro Power Plant connected in parallel with Energy System, *12th IEEE Electrical Engineering Faculty Conference (BulEF)*, September 9-12, 2020, Bulgaria, Varna Town, Resort, "St. St. Constantine and Elena. **2020**, pp. 1-6, doi: 10.1109/BulEF51036.2020.9326016. (Scopus, Google Scholar).
110. **Mladenov V.**, A Modified Tantalum Oxide Memristor Model for Neural Networks with Memristor-Based Synapses, *9th International Conference on Modern Circuits and Systems Technologies (MOCAST)*, Bremen, Germany, 07-09 September **2020**, pp. 1-4, doi: 10.1109/MOCAST49295.2020.9200238. (Web of Science, Scopus, Google Scholar)
111. **Mladenov V.**, Yordanov Y., Control of various robots through signals from the brain activity, *CompSysTech '20: Proceedings of the 21st International Conference on Computer Systems and Technologies*, Ruse, Bulgaria June 19 – 20, **2020**, pp. 1–6, <https://doi.org/10.1145/3407982.3407983> (Google Scholar, Scopus)
112. Todorova V., **Mladenov V.**, Early detection of multiple sclerosis and the improvement of clinical trials recruitment process with ML methods, *International Scientific Conference Computer Science, Velingrad, Bulgaria, October 18th - 21th 2020*. (Google Scholar)

113. **Mladenov V.**, A New Simplified Model for HfO₂-Based Memristor, *8th IEEE International Conference on Modern Circuits and Systems Technologies (MOCAST)*, Thessaloniki, Greece 13-15 May **2019**, pp. 1-4, doi: 10.1109/MOCAST.2019.8741953. (Scopus, Web of Science, Google Scholar)
114. Yordanov Y., Nakov O., **Mladenov V.**, Baxter Industrial Robot Online Control, *11th Annual International Conference on Education and New Learning Technologies (EDULEARN19)*, Palma (Spain), 1st - 3rd of July **2019**, pp. 10443-10448, ISBN 978-84-09-12031-4. (Web of Science, Google Scholar)
115. **Mladenov V.**, Chobanov V., Zafeiropoulos E., Vita V., Flexibility Assessment Studies Worldwide-Bridging with the Adequacy Needs: *Note: Sub-titles are not captured in Xplore and should not be used, *11th IEEE Electrical Engineering Faculty Conference (BulEF)*, Varna, Bulgaria, 11-14 September 2019, pp. 1-5, doi: 10.1109/BulEF48056.2019.9030794. (Scopus, Google Scholar)
116. **Mladenov V.**, Chobanov V., Zafeiropoulos E., Vita V., Characterisation and evaluation of flexibility of electrical power system, *10th IEEE Electrical Engineering Faculty Conference (BulEF)*, Sozopol, Bulgaria, 11-14 September **2018**, pp. 1-6, doi: 10.1109/BULEF.2018.8646924. (Scopus, Web of Science, Google Scholar)
117. Yordanov Y., Nakov O., **Mladenov V.**, System for monitoring and control of the Baxter robot, *MAURICON 2018: IEEE International Conference on Intelligent and Innovative Computing Applications*, pp. 1 - 4, DOI: 10.1109/ICONIC.2018.8601217, **2018** (Scopus, Web of Science, Google Scholar)
118. Trifonov R., Nakov O., **Mladenov V.**, Artificial Intelligence in Cyber Threats Intelligence, **2018 International Conference on Intelligent and Innovative Computing Applications (ICONIC)**, DOI: 10.1109/ICONIC.2018.8601235, pp. 1 - 4. (Scopus, Web of Science, Google Scholar)
119. Nakov O., Mihaylova E., Lazarova M., **Mladenov V.**, Parallel Image Stitching Based on Multithreaded Processing on GPU, *2018 International Conference on*

- Intelligent and Innovative Computing Applications (ICONIC)*, Mon Tresor, Mauritius, 06-07 December **2018**, DOI: 10.1109/ICONIC.2018.8601253, pp. 1 – 5, (Scopus, Web of Science, Google Scholar).
120. Tsenov G., **Mladenov V.**, EEG alphabet speller with Neural Network classifier for P300 signal detection, *14th IEEE Symposium on Neural Networks and Applications (NEUREL)* **2018**, DOI: 10.1109/NEUREL.2018.8587033, pp. 1 – 6, (Scopus, Web of Science, Google Scholar).
 121. Yordanov Y., **Mladenov V.**, Humanoid Robot Detecting Animals via Neural Network, *14th IEEE Symposium on Neural Networks and Applications (NEUREL)*, Belgrade, Serbia, 20-21 November **2018**, pp. 1-6, doi: 10.1109/NEUREL.2018.8587017. (Scopus, Web of Science, Google Scholar).
 122. Kirilov S., **Mladenov V.**, Integrator device with a memristor element, *7th IEEE International Conference on Modern Circuits and Systems Technologies (MOCAST)*, Thessaloniki, Greece, 07-09 May **2018**, pp. 1-4, doi: 10.1109/MOCAST.2018.8376656. (Web of Science, Scopus, Google Scholar)
 123. **Mladenov V.**, Kirilov S., A Memristor Model with a Modified Window Function and Activation Thresholds, *IEEE International Symposium on Circuits and Systems (ISCAS)*, Florence, Italy, 27-30 May **2018**, pp. 1-5, doi: 10.1109/ISCAS.2018.8351429. (Scopus, Web of Science, Google Scholar)
 124. **Mladenov V.**, Synthesis and Analysis of a Memristor-Based Artificial Neuron, *16th IEEE International Workshop on Cellular Nanoscale Networks and their Applications (CNNA)*, Budapest, Hungary, 28-30 August **2018**, pp. 1-4. (Scopus, Google Scholar)
 125. **Mladenov V.**, Kirilov S., Learning of an Artificial Neuron with Resistor-Memristor Synapses, *IEEE ANNA '18; Advances in Neural Networks and Applications*, St. Konstantin and Elena Resort, Bulgaria, 15-17 September **2018**, pp. 1-5. (Scopus, Google Scholar).

126. Yordanov Y., Tsenov G., **Mladenov V.**, Humanoid robot control with EEG brainwaves, *9th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS)*, 21-23 September **2017**, Bucharest, Romania, pp. 238-242, doi: 10.1109/IDAACS.2017.8095083. (Scopus, Web of Science, Google Scholar)
127. Pelzers K., **Mladenov V.**, Animal call segregation using self organizing map with speeded up robust features, *13th IEEE Symposium on Neural Networks and Applications (NEUREL)*, **2016**, pp. 1-5, doi: 10.1109/NEUREL.2016.7800139. (Scopus, Web of Science, Google Scholar)
128. Stoimenov S., Tsenov G., **Mladenov V.**, Face recognition system in Android using neural networks, *13th IEEE Symposium on Neural Networks and Applications (NEUREL)*, **2016**, pp. 1-4, doi: 10.1109/NEUREL.2016.7800138. (Scopus, Web of Science, Google Scholar)
129. **Mladenov V.**, Kirilov S., A Nonlinear Memristor Model with Activation Thresholds and Variable Window Functions, *15th IEEE International Workshop on Cellular Nanoscale Networks and their Applications*, VDE, **2016**, pp. 1-2, ISBN:978-3-8007-4252-3 (Scopus, Google Scholar)
130. **Mladenov V.**, Kirilov S. Memristor Modeling in MATLAB & PSPICE, *ECMS* (**2015**). DOI:10.7148/2015-0432. (Scopus, Google Scholar)
131. Arbo M., Raijmakers P., **Mladenov V.**, Applications of neural networks for control of a double inverted pendulum, *12th IEEE Symposium on Neural Network Applications in Electrical Engineering (NEUREL)*, **2014**, pp. 89-92, doi: 10.1109/NEUREL.2014.7011468. (Scopus, Web of Science, Google Scholar)
132. Dondon P., Carvalho J., Gardere R., Lahalle P., Tsenov G., **Mladenov V.**, Implementation of a feed-forward Artificial Neural Network in VHDL on FPGA, *12th IEEE Symposium on Neural Network Applications in Electrical Engineering (NEUREL)*, **2014**, pp. 37-40, doi: 10.1109/NEUREL.2014.7011454. (Scopus, Web of Science, Google Scholar)

133. **Mladenov V.**, Kirilov S., Synthesis and Analysis of a Memristor Frequency Converter for Radio-receiver, *Advances in Robotics, Mechatronics and Circuits*, inase.org, ISBN: 978-1-61804-242-2, **2014**, pp. 190 - 193. (Google Scholar)
134. Antonov S., Tsenov G., **Mladenov V.**, Speech processing strategy in a cochlear implant processing unit based on a combination of SNR and the number of frequency bands in amplitude and frequency modulation, *Mathematics and Computers in Science and Industry*, inase.org, **2014**, pp. 66 - 69, ISBN: 978-1-61804-247-7. (Google Scholar)
135. **Mladenov V.**, Kirilov S., Syntheses of a PSPICE model of a titanium-dioxide memristor and Wien memristor generator, *IEEE European Conference on Circuit Theory and Design (ECCTD)*, **2013**, pp. 1-4, doi: 10.1109/ECCTD.2013.6662302. (Scopus, Google Scholar)
136. Mladenov V., Kirilov S., Analysis of the mutual inductive and capacitive connections and tolerances of memristors parameters of a memristor memory matrix, *IEEE European Conference on Circuit Theory and Design (ECCTD)*, 2013, pp. 1-4, doi: 10.1109/ECCTD.2013.6662269, ISBN 978-300043785-4 (Scopus, Google Scholar)
137. Kirilov S., Dichev S., Trushev I., **Mladenov V.**, Analysis of a LCM equivalent circuit of memristor and impulse voltage sources, **2012**, *Summer School Advanced aspects of Theoretical Electrical Engineering Sozopol'12*, ISSN: 1313-9487, p.1-6. (Google Scholar)
138. Stoikov K., Filipova-Petrakieva S., **Mladenov V.**, Temperature problems in the furnace transformer aggregates, consisting of the main and the voltage-adding transformer., In *Information technology and electrical engineering-devices and systems, materials and technologies for the future* (Vol. 54) **2012**. (Google Scholar)
139. **Mladenov V.**, Kirilov S., Analysis of a serial circuit with two memristors and voltage source at sine and impulse regime, *13th IEEE International Workshop on*

- Cellular Nanoscale Networks and their Applications*, **2012**, pp. 1-6, doi: 10.1109/CNNA.2012.6331476. (Scopus, Google Scholar).
140. La Maire B. F. J., **Mladenov V.**, Comparison of neural networks for solving the travelling salesman problem, *11th IEEE Symposium on Neural Network Applications in Electrical Engineering*, **2012**, pp. 21-24, doi: 10.1109/NEUREL.2012.6419953. (Scopus, Google Scholar).
 141. Slavtchev Y., Mastorakis N., **Mladenov V.**, Thermal Field Distribution in Bolted Busbar Connections with Longitudinal Slots, *Proceedings of the 15th WSEAS International Conference on CIRCUITS-Recent Researches in Circuits, Systems and Signal Processing*, Corfu, Greece, July 14-16, **2011**, pp. 154-159, ISBN: 978-1-61804-017-6 (Scopus, Google Scholar).
 142. Dondon P., Cifuentes M., Tsenov G., **Mladenov V.**, A practical modelling for the design of a sigma delta class D power switching amplifier and its pedagogical application", *Recent Researches in Circuits, Systems and Signal Processing - Proc. of the 15th WSEAS Int. Conf. on Circuits, Part of the 15th WSEAS CSCC Multiconference*, **2011**, pp. 93-99. (Scopus, Google Scholar)
 143. Sijakovic N., Kostic M., **Mladenov V.**, Transmission system contingency statistics analysis, *Proceedings of the 15th WSEAS International Conference on SYSTEMS - Recent Researches in System Science*", Corfu, Greece, July 14-16, **2011**, pp. 386-389. (Scopus, Google Scholar)
 144. Kostic M., Sijakovic N., **Mladenov V.**, Automation of the Day Ahead Congestion Forecast procedure, *Proceedings of the 15th WSEAS International Conference on SYSTEMS - Recent Researches in System Science*, Corfu, Greece, July 14-16, **2011**, pp. 390-393. (Scopus, Google Scholar)
 145. Petkova N., **Mladenov V.**, Tsolov A., Nakov P., Bozukov G., Study and Analysis of Systems for Monitoring in Power Substations, *Proceedings of the 15th WSEAS International Conference on SYSTEMS - Recent Researches in System*

- Science*", Corfu, Greece, July 14-16, **2011**, ISBN 978-1-61804-023-7, pp. 402-404.
(Scopus, Google Scholar)
146. **Mladenov V.**, Karampelas P., Pavlatos C., Zirintsi, E., Solving Sudoku puzzles by using Hopfield neural networks, **2011** *International Conference on Applied and Computational Mathematics*, pp. 174-179 (Scopus, Google Scholar).
147. Tsenov G., **Mladenov V.**, Taralova I., Synchronization of Sigma Delta Modulators, *6th International Conference for Internet Technology and Secured Transactions, United Arab Emirates*, **2011**, pp. 319-322. (Scopus, Google Scholar).
148. **Mladenov V.**, A method for validation the limit cycles of high order Sigma-Delta modulators, *Proceedings of the Joint INDS'11 & ISTET'11*, **2011**, pp. 234-238, doi: 10.1109/INDS.2011.6024815. (Scopus, Google Scholar)
149. Tsenov G., **Mladenov V.**, Higher Order Sigma-Delta Modulator Loopfilter Paralel Form Representation in Z and S Domain, *Proceedings of the 3rd International Workshop on Nonlinear Dynamics and Synchjronization, INDS'11, 25 – 27 July, Klagenfurt, Austria*, **2011**, pp. 257-261. (Scopus, Google Scholar)
150. Filipova-Petrakieva S., Stoykov K., **Mladenov V.**, Analysis and comparison of the analitical and experimental methods modeling the electrostatic field, *Proceedings of the Joint INDS'11 & ISTET'11*, **2011**, pp. 1-6, doi: 10.1109/INDS.2011.6024810. (Scopus, Google Scholar)
151. Tsenov G., **Mladenov V.**, Speech Recognition Using Neural Networks, *Proceedings of the 10th IEEE Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2010, University of Belgrade, Serbia and Montenegro, 23-25 September*, **2010**, pp. 181-186. (Scopus, Google Scholar)
152. Popov G., Mastorakis N., **Mladenov V.** Calculation of the acceleration of parallel programs as a function of the number of threads, *International Conference on Computers – Proceedings*, **2010**, pp. 411-414. (Scopus, Google Scholar)
153. Mastorakis N., **Mladenov V.**, Swamy M., Improved Neural Network for Checking the Stability of Multidimensional Systems, *Proceedings of the 10th IEEE*

- Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2010*, University of Belgrade, Serbia and Montenegro, 23-25 September, **2010**, pp. 143-148. (Scopus, Google Scholar)
- 154.Kostadinov, D., Reiss, J.D. and Mladenov, V.M., 2010, March. Evaluation of Distance Based Amplitude panning for spatial audio. In *ICASSP 35th IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)* Dallas, Texas on 14-19 March 2010 (pp. 285-288). (Google Scholar)
- 155.Liang N., Hegt J., **Mladenov V.**, Image Objects Detection Based on Boosting Neural Network, *Proceedings of the 10th IEEE Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2010*, University of Belgrade, Serbia and Montenegro, 23-25 September, **2010**, pp. 207-211. (Scopus, Google Scholar)
- 156.Tzeneva R., Slavtchev Y., Mastorakis N., **Mladenov V.**, Bolted Busbar Connections with Longitudinal Slots, *Proceedings of the 14th WSEAS International Conference on CIRCUITS*, Corfu, Greece, July 22-24, **2010**, pp. 44-48. (Scopus, Google Scholar)
- 157.Karampelas P., Vita V., Pavlatos C., **Mladenov V.**, Ekonomou L., Design of Artificial Neural Network Models for the Prediction of the Hellenic Energy Consumption, *Proceedings of the 10th IEEE Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2010*, University of Belgrade, Serbia and Montenegro, 23-25 September, **2010**, pp. 41-44. (Scopus, Google Scholar)
- 158.Tsenov G., Nikolova A., **Mladenov V.**, Performance comparison of techniques for DNA sequence prediction using neural networks, *Proceedings of 4th IEEE INTERNATIONAL SYMPOSIUM ON COMMUNICATIONS CONTROL & Committees SIGNAL PROCESSING*", Limassol, Cyprus March 3-5, **2010**, SS. 3.6. (Scopus, Google Scholar)
- 159.**Mladenov V.**, A Method for Searching the Limit Cycles of High Order Sigma-Delta Modulators, *Proceedings of the 19th European Conference on Circuit Theory and*

- Design ECCTD 2009, Antalya, Turkey, August 23-27, 2009*, pp. 543-546. (Scopus, Google Scholar)
160. **Mladenov V.**, Prediction of Limit Cycles in nonlinear systems with ideal relay type nonlinearities by using Multiple-input Describing Functions, *Proceedings of the 13th WSEAS International Conference on SYSTEMS*, Rodos, Greece, July 22-24, **2009**, pp. 39-47. (Web of Science, Scopus, Google Scholar)
161. Tsenov G., **Mladenov V.**, Reiss J., Prediction of Limit Cycles in nonlinear systems with ideal relay type nonlinearities by using Multiple-input Describing Functions, *Proceedings of the 13th WSEAS International Conference on SYSTEMS*, Rodos, Greece, **2009**, pp. 48-52. (Google Scholar)
162. Tzeneva R., Slavtchev Y., Mastorakis N., **Mladenov V.**, New Design of Aluminum Bolted Busbar Connections, *Proceedings of the 13th WSEAS International Conference on CIRCUITS*, Rodos, Greece, **2009**, pp. 172-177. (Web of Science, Scopus, Google Scholar)
163. **Mladenov V.**, Zirintsis E., Pavlatos C., Vita V., Ekonomou L., Application of Neural Networks for On-Line Calculations, *Proceedings of the 9th WSEAS International Conference on Applied Computer Science (ACS '09)*, University of Genova, Genova, Italy, **2009**, pp. 272-280. (Web of Science, Scopus, Google Scholar)
164. Petrakieva S., **Mladenov V.**, Signal Competition Based Synthesis of Asynchronous High-Speed Digital Circuits, *Proceedings of the 15th International Symposium on Theoretical Electrical Engineering, ISTET'09*, 22 – 24 June, Lübeck, Germany, **2009**, pp. 182-185. (Scopus, Google Scholar)
165. Stoyadinova T., Buzov I., Filipova K., **Mladenov V.**, Ortlepp T., Development of VHDL-models for transient simulation of complex asynchronous RSFQ circuits, *Proc. 54. Internationales Wissenschaftliches Kolloquium der TU Ilmenau*, 07-10 Sept. **2009**, pp. 175-176. (Google Scholar)

- 166.Mladenov, V., Tsenov, G., Ekonomou, L., Harkiolakis, N. and Karampelas, P., **2009**, January. Neural network control of an inverted pendulum on a cart. *In WSEAS International Conference. Proceedings. Mathematics and Computers in Science and Engineering (No. 9). World Scientific and Engineering Academy and Society.* (Web of Science, Google Scholar)
- 167.Tzeneva R., Slavtchev Y., Mastorakis N., **Mladenov V.**, Experimental Investigation of Contact Resistance of Slotted and Perforated Bolted Busbar Connections, *Proceedings of the 12th WSEAS International Conference on CIRCUITS*, Heraklion, Greece, July 22-24, **2008**, pp. 142-146. (Google Scholar)
- 168.Cristea P., **Mladenov V.**, Tuduce R., Tsenov G., Petrakieva S., Neural Networks for prediction of nucleotide sequences by using genomic signals, *9th WSEAS International Conference on NEURAL NETWORKS (NN'08)*, Sofia, Bulgaria, **2008**, pp. 107-112. (Web of Science, Scopus, Google Scholar)
- 169.**Mladenov V.**, Reiss, J., Tsenov, G., A comparison of theoretical, simulated, and experimental results concerning the stability of sigma delta modulators, **2008**, In *Audio Engineering Society Convention 124*. Audio Engineering Society. (Scopus, Google Scholar)
- 170.Cristea P., **Mladenov V.**, Tuduce R., Tsenov G., Petrakieva S., Prediction of nucleotide sequences by using genomic signals, **2008**, In *NN'08–9th WSEAS International Conference on Neural Networks* (pp. 107-112). (Web of Science, Google Scholar)
- 171.Mastorakis N., **Mladenov V.**, Swamy M., Neural Networks for Checking the Stability of Multidimensional Systems, *Proceedings of the 9th IEEE Symposium on Neural Network Applications in Electrical Engineering, NEUREL*, University of Belgrade, Serbia and Montenegro, 25-27 September, **2008**, pp. 89-94. (Web of Science, Scopus, Google Scholar)
- 172.Cristea P., **Mladenov V.**, Tsenov G., Tuduce R., Petrakieva S., Application of Neural Networks, PCA and Feature Extraction for Prediction of Nucleotide

- Sequences by Using Genomic Signals, *Proceedings of the 9th IEEE Symposium on Neural Network Applications in Electrical Engineering, NEUREL 2008*, University of Belgrade, Serbia and Montenegro, **2008**, pp. 83-88. (Web of Science, Scopus, Google Scholar)
173. **Mladenov V.**, Georgiev Z., Brandisky K., Ivanov K., Terzieva S., Tabahnev I., Petrakieva S., Petkova N., Tzenov G., Educational and Technical Issues in Teaching Resonance Phenomena in the Theory of Electrical Engineering, *Proceedings of the 5th WSEAS / IASME International Conference on ENGINEERING EDUCATION (EE'08)*, Heraklion, Greece, **2008**, pp. 469-475. (Web of Science, Google Scholar)
174. Petkova N., Nakov P., **Mladenov V.** Power transformer's state analysis at partial discharges availability, *Proceedings of the 4th International Scientific Symposium on Electric Power Engineering, ELEKTROENERGETIKA 2007*, Slovak Republic, ISBN: 978-1-63266-981-0, **2007**, pp. 318-320. (Web of Science, Scopus, Google Scholar)
175. Terzieva, S., Tsenov, G., Yakimov, P., **Mladenov, V.**, Design and implementation of First Order Sigma-Delta Modulator, *Proceedings of XLII Int. Scientific Conference on Information, Communication and Energy Systems and Technologies (ICEST 2007)*, **2007**, Ohrid, pp. 751-754. (Google Scholar)
176. Yordanova S., Petrova R., Tabakova B., **Mladenov V.**, MATLAB Real-Time Two-Level Fuzzy Control of Nonlinear Plant, *Proc. of the 11th WSEAS International Conference on SYSTEMS*, Agios Nikolaos, Crete Island, Greece, **2007**, pp. 183-188. (Google Scholar)
177. Zeghib A., Palis F., Shoylev N., **Mladenov V.**, Mastorakis N., Sampling frequency and pass-band frequency effects on Neuromuscular signals (EMG) recognition, *Proceedings of the 6th WSEAS International Conference on Signal Processing, Robotics and Automation, Corfu island, Greece, 2007*, pp. 107-114. (Google Scholar)

178. **Mladenov V.**, RSFQ DC to SFQ Converter with Reduced Josephson Current Density, *Proceedings of 11th WSEAS Conference on CIRCUITS*, Agios Nikolaos, Crete, Greece, **2007**, pp. 217-221. (Web of Science, Google Scholar)
179. Tzeneva R., Slavtchev Y., **Mladenov V.**, New Connection Design of High Power Bolted Busbar Connections, *Proceedings of the 11th WSEAS International Conference on CIRCUITS*, Agios Nikolaos, Crete, Greece, **2007**, pp. 227-232. (Web of Science, Google Scholar)
180. Radev N., Ivanov K., Stanchev K., Petrakieva S., Mastorakis N., **Mladenov V.**, Left-LUD SC ladder filter with compensation for finite amplifier gain and offset voltage, *Proc. in the 11th WSEAS Int. Conf. on CIRCUITS*, Agios Nikolaos, Crete, Greece, **2007**, pp. 156-160. (Web of Science, Google Scholar)
181. Dimov B., **Mladenov V.**, Ortlepp Th., Kuilekov M., Uhlmann H., Modeling of the Magnetic Coupling between Superconductive and Normal Conductive Microstructures by Varying Temperature, *Proceedings of the XIV International Symposium on Theoretical Electrical Engineering (ISTET'07)*, **2007**, Szczecin, Poland, PS1/10(p.31). (Google Scholar)
182. Savov V., Georgiev Zh., Todorov T., Karagineva I., **Mladenov V.**, Synthesis of Generalized Van der Pol Oscillator Systems, *Proc. of the 5th WSEAS Int. Conference on Non-linear Analysis, Non-linear Systems and Chaos (NOLASC'06)*, Bucharest, Romania, **2006**, pp. 149-152. (Google Scholar)
183. Tzeneva R., Slavtchev Y., **Mladenov V.**, Bolted Busbar Connections with Slotted Bolt Holes, *Proc. of 10th WSEAS International Conference on Circuist*, Vouliagmeni, Athens, Greece, **2006**, pp. 91-95. (Google Scholar)
184. Dimov B., **Mladenov V.**, Todorov V., Ortlepp Th., Uhlmann H., Design Aspects of Complex Asynchronous RSFQ Digital Circuits, *Proc. 51. Internationales Wissenschaftliches Kolloquium der TU Ilmenau*, **2006**, pp. 147-148. (Google Scholar)

185. **Mladenov V.**, Todorov V., Dimov B., Ortlepp Th., Uhlmann H., High-Level Design of Asynchronous RSFQ Digital Circuits, *Proc. 51. Internationales Wissenschaftliches Kolloquium der TU Ilmenau*, **2006**, pp. 149-150. (Google Scholar)
186. **Mladenov V.**, Todorov V., Dimov B., Ortlepp Th., Uhlmann H., Statistical Description and Optimization of the Time-Domain Parameters of Asynchronous RSFQ Digital Circuits, *Proc. 51. Internationales Wissenschaftliches Kolloquium der TU Ilmenau*, **2006**, pp. 145-146. (Google Scholar)
187. Yordanova S., Petrova R., **Mladenov V.**, Sugeno Predictive Neuro-Fuzzy Controller for Improving Dynamic Performance of Control Systems of Nonlinear Plants under Uncertainties, *Proc. of 10th WSEAS International Conference on Systems*, Vouliagmeni, Athens, Greece, **2006**, pp. 190-197. (Google Scholar)
188. **Mladenov V.**, Slavova A., On the Periodic Solutions in One Dimensional Cellular Nonlinear Networks Based on Josephson Junctions (JJ's), **2006**, *10th International Workshop on Cellular Neural Networks and Their Applications*, 2006, pp. 1-6, doi: 10.1109/CNNA.2006.341637. (Web of Science, Scopus, Google Scholar)
189. Rijlaarsdam D., and **Mladenov V.**, Synchronization of Chaotic Cellular Neural Networks based on Rössler Cells, *Proceedings of the 8th IEEE Seminar on Neural Network Applications in Electrical Engineering, NEUREL 2006*, University of Belgrade, Serbia and Montenegro, 2006, pp. 41-44. (Web of Science, Scopus, Google Scholar)
190. Tsenov G., Zeghib A., Palis F., Shoylev N., **Mladenov V.**, Neural Networks for Online Classification of Hand and Finger Movements Using Surface EMG signals, *8th Seminar on Neural Network Applications in Electrical Engineering*, **2006**, pp. 167-171, doi: 10.1109/NEUREL.2006.341203. (Web of Science, Scopus, Google Scholar)
191. Terzieva S., Vladov S., **Mladenov V.**, Course Project in Theoretical Foundations of Electrical Engineering - Clear and Easy with PSpice and MATLAB, *EUROCON*

- 2005 - *The International Conference on "Computer as a Tool"*, **2005**, pp. 764-767, doi: 10.1109/EURCON.2005.1630044. (Web of Science, Scopus, Google Scholar)
192. Dimov B., Todorov V., **Mladenov V.**, Uhlmann H., Improved Techniques for Long-Distance Signal Propagation within the Rapid Single-Flux Quantum Digital Circuits, *Proceedings of the 7th IEEE International Symposium on Signals, Circuits & Systems*, ISSCS'2005, **2005**, Iasi, Romania, pp. 733-736. (Web of Science, Scopus, Google Scholar)
193. **Mladenov V.**, Maratos N., Tsakoumis A., Tashev T., Mastorakis N., On Neural Networks for Solving Nonlinear Programming Problems, **2005**, *Technical University of Sofia*. (Google Scholar)
194. Petrakieva S., Tsenov G., **Mladenov V.**, Recent advances of adoptability of EEG signals for application aimed at improving the life of disabled people, *International Journal of neural networks and advanced applications*, Volume 3, ISSN: 2313-0563, **2006**, p.1-7 (Google Scholar)
195. Zeghibib A., Palis F., Tsenov G., Shoylev N., **Mladenov V.**, Fuzzy systems and neural networks methods to identify hand and finger movements using surface EMG signals, *Proc. of the 9th Int. Conference on Systems*, July 11-13, **2005**, Vouliagmeni, Athens, ISBN:960-8457-29-7, art. No. 23. (Google Scholar)
196. **Mladenov V.**, Discrete neural network for solving general quadratic programming problems, In *Proceedings of the 9th WSEAS International Conference on Systems* **2005**, pp. 1-5, ISBN:960-8457-29-7. (Google Scholar)
197. Popov G., Nakov O., **Mladenov V.**, Borovska P., Dokov I., Automated Information System for the Prevention of Crime and Terrorism on Local and Trans-border Level, *Proceedings of the 3rd International conference on Applied Informatics and Computing Theory (AICT 12), Latest Trends in Applied Informatics and Computing*, **2012**, ISBN: 978-1-61804-130-2, 2012, p.259-263. (Google Scholar)
198. Radev N., Mastorakis N., Ivanov K., **Mladenov V.**, Reduction of the Gain Errors in Multi – Input Nagaraj – 89 Very Large Time Constant Integrators, *WSEAS*

- Transactions on Electronics*, Issue 4, Volume 2, ISSN: 1109-9445, **2005**, pp. 135-138.
(Google Scholar)
- 199.Terzieva S., Vladov S., **Mladenov V.**, Course Project in Theoretical Foundations of Electrical Engineering – Clear and Easy with PSpice and MATLAB, *Proceedings of EUROCON 2005 – The International Conference on “Computer as a Tool”*, Belgrade, Serbia and Montenegro, **2005**, pp 764-767. (Google Scholar)
- 200.Trushev I., Tabahnev I., Toshev G., **Mladenov V.**, On the adaptive sliding mode control for dc/dc buck converters, accepted for publishing in *Proceedings of the XIII International Symposium on Theoretical Electrical Engineering*, **2005**, Lviv, Ukraine, pp. 401-404. (Google Scholar)
- 201.Ekonomou L., Christodoulou C.A., **Mladenov V.**, Short-term load forecasting method using artificial neural networks and wavelet analysis, *International Journal of Power Systems*, Volume 1, ISSN: 2367-8976, **2016**, p. 64-68. (Google Scholar)
- 202.Dimov B., Todorov V., **Mladenov V.**, Khabipov M., Balashov D., Hagedorn D., Buchholz F.-Im., Niemeyer J., Uhlmann H., An Improved Technique for Design of Josephson Transmission Lines, *Proc. X. International Supercondcutive Electronics Conference ISEC'05*, Noordwijkerhout, The Netherlands, **2005**, P-I.04. (Google Scholar)
- 203.Radev N., Mastorakis N., **Mladenov V.**, Minimization of operational amplifiers finite gain effects in switched-capacitor biquads, *Proceedings of 8th WSEAS International Multiconference on Circuits, Systems, Communications and Computers (CSCC2004)*, Athens, Greece, ISBN: 960-8052-99-8, paper 487-358; also in *WSEAS Trans. on Circuits and Systems*, Vol.3, Issue5, July **2004**, ISSN: 1109-2734, 2004, pp. 1130-1134. (Google Scholar)
- 204.Dimov B., Todorov V., **Mladenov V.**, Uhlmann H., Possible Conections of the Josephson Junctions within the RSFQ Logic Circuits, *Proceedings of 8th WSEAS International Multiconference on Circuits, Systems, Communications and Computers*

- (CSCC2004), Athens, Greece, **2004**, ISBN: 960-8052-99-8, paper 487-358; also in *WSEAS Trans. on Circuits and Systems*, Vol.3 Issue5, 2004, pp. 1398-1402. (Google Scholar)
205. **Mladenov V.**, On the recurrent neural networks for solving general quadratic programming problems, *IEEE Proceedings of the 7th Seminar on Neural Network Applications in Electrical Engineering, NEUREL 2004*, University of Belgrade, Serbia and Montenegro, 2004, pp. 5-9. (Google Scholar)
206. Kolev L., Petrakieva S., **Mladenov V.**, Interval criterion for stability analysis of discrete-time neural networks with partial state saturation nonlinearities, **2004** *Seventh Seminar on Neural Network Applications in Electrical Engineering - Proceedings*, NEUREL 2004, pp. 11-16. (Google Scholar)
207. **Mladenov V.**, Hegt, J, Roermund A., On Solitary and Periodic Waves in One-dimensional FitzHugh-Nagumo CNN's, In *8th IEEE International Workshop on Cellular Neural Networks and their Applications, CNNA 2004 Budapest, Hungary*, 2004, pp. 88-93. (Google Scholar)
208. Dimov B., Todorov V., **Mladenov V.**, Uhlmann H.,. The Josephson transmission line as an impedance matching circuit. *WSEAS Transactions on Circuits and Systems*, vol. 3, issue (5), **2004**, pp.1341-1346. (Google Scholar)
209. Kolev L., Petrakieva S., **Mladenov V.**, Interval criterion for stability analysis of discrete-time neural networks with partial state saturation nonlinearities, *7th Seminar on Neural Network Applications in Electrical Engineering*, **2004**. NEUREL 2004. 2004, pp. 11-16, doi: 10.1109/NEUREL.2004.1416520. (Google Scholar)
210. Dimov B., **Mladenov V.**, Uhlmann H., Asynchronous RSFQ Gates with Flexible Delays, In *Proc. 48. Internat. Wiss. Kolloquium, TU Ilmenau, Germany*, **2003**, pp. 387-388. (Google Scholar)
211. **Mladenov V.**, Hegt J. Roermund A., On the stability analysis of sigma-delta modulators, In *Proceedings of the 16th European Conference on Circuits Theory and Design, ECCTD'03: 2003 Cracow, Poland* (pp. 97-100). (Google Scholar)

- 212.Radev N., Ivanov K., **Mladenov V.**, A Comparison Study of Very Large Time Constant Switched-Capacitor Integrators, *Proceedings of 7th WSEAS International Multiconference on Circuits, Systems, Communications and Computers (CSCC 2003)*, Corfu, Greece, also in the post-conference book *Computational Methods in Circuits and Systems Applications*, WSEAS Press, Series of Reference Books, ISBN: 960-8052-88-2, **2003**, pp.237-243. (Google Scholar)
- 213.Avdjieva, R., Tsenov, G.T. and **Mladenov, V.M.**, **2013**. BRAINWAVE TYPE DETECTION IN MATLAB WITH EEG SIGNALS. *Challenges in Higher Education and Research in the 21st Century*. pp. 42-44. (Google Scholar)
- 214.Michanos S., Tsakoumis A., Fessas P., Vladov S., **Mladenov V.**, Short-Term Load Forecasting Using a Chaotic Time Series, *Proceedings of the IEEE International Symposium on Signals, Circuits & Systems*, **2003**, Iasi, Romania, pp. 437-440. (Scopus, Google Scholar)
- 215.Galarniotis A., Tsakoumis A., Fessas P., Vladov S., **Mladenov V.**, Using Elman and FIR neural networks for short term electric load forecasting, 2003. SCS 2003. *International Symposium on Signals, Circuits and Systems*, **2003**, pp. 433-436 vol. 2, doi: 10.1109/SCS.2003.1227082. (Google Scholar)
- 216.**Mladenov V.**, Modeling and Simulation of DC/DC Converters, *Proceedings of the XII International Symposium on Theoretical Electrical Engineering*, **2003**, Warsaw, Poland, pp. 57-60. (Google Scholar)
- 217.Galarniotis A., Tsakoumis A., Fessas P., Vladov S., **Mladenov V.**, Using Elman and FIR Neural Networks for Electric Load Forecasting, *Proceedings of the IEEE International Symposium on Signals, Circuits & Systems*, **2003**, Iasi, Romania, pp. 433-436. (Google Scholar)
- 218.**Mladenov V.**, Uhlmann F.H., Recurrent Neural Networks for Solving General Quadratic Programming Problems, *Proceedings of the 48. Internationales Wissenschaftliches Kolloquium*, 22.09-25.09, **2003**, TU-Ilmenau, Germany, pp. 377-378. (Google Scholar)

219. Tsakoumis A., Vladov S., and **Mladenov V.**, Electric load forecasting with multilayer perceptron and Elman neural network, *6th Seminar on Neural Network Applications in Electrical Engineering*, **2002**, pp. 87-90, doi: 10.1109/NEUREL.2002.1057974. (Google Scholar)
220. Tsakoumis A., Vladov S., **Mladenov V.**, Daily Load Forecasting Based on Previous Day Load, *Proceedings of the 6th Seminar on Neural Network Applications in Electrical Engineering, NEUREL 2002, University of Belgrade, Yugoslavia*, **2002**, pp. 83-86. (Google Scholar)
221. Doris K., **Mladenov V.**, Hegt H., Van Roermund A., Nonlinear dynamics and propagation in positive feedback comparators for A/D Converters, *Proceedings of the 2002 7th IEEE International Workshop on Cellular Neural Networks and Their Applications*, **2002**, pp. 415-421, doi: 10.1109/CNNA.2002.1035078. (Google Scholar)
222. Doris K., **Mladenov V.**, Hegt J., Roermund, A. Leenaerts, D., On the nonlinear dynamics propagation in positive feedback comparators for A/D converters, *Proceedings of the IEEE International Workshop on Cellular Neural Networks and their Applications, CNNA 2002, Frankfurt*, pp. 415-421. (Google Scholar)
223. **Mladenov V.**, Hegt H., van Roermund A., Stability Analysis of High Order Sigma-Delta Modulators, *Proceedings of the 15th European Conference on Circuit Theory and Design ECCTD 2001, Helsinki University of Technology, Finland*, **2001**, pp. I-313 – I-316. (Google Scholar)
224. **Mladenov V.**, Hegt H., van Roermund A., Terminal dynamics approach to cellular neural networks, *Proceedings of IEEE International Symposium on Circuits and Systems 2001 (ISCAS 2001)*, 2001, pp. 97 –100. (Scopus, Google Scholar)
225. **Mladenov V.**, Hegt J.A., Tolboom H., Feature Extraction Approach for Recognition of Handwritten Electrical Symbols, *Proceedings of the 5th International Multiconference on Circuits, Systems, Communications and Computers CSCC 2001, Rethymnon, CRETE, Greece*, pp. 7191-7195 also in the *Post-Conference Book Advances*

- in Scientific Computing, Computational Intelligence and Applications from the WSES PRESS Series of Reference Books and Textbooks*, **2001**, pp. 256-260. (Google Scholar)
226. **Mladenov V.**, Hegt H., van Roermund A., On the stability of high order Sigma-Delta modulators,. In *ICECS 2001. 8th IEEE International Conference on Electronics, Circuits and Systems (Cat. No. 01EX483)* Vol. 3, **2001**, pp. 1383-1386. (Google Scholar)
227. **Mladenov V.**, Hegt H., On waves and recovering in one-dimensional autonomous CNNs, *Proceedings of the 6th IEEE International Workshop on Cellular Neural Networks and Their Applications*, **2000**, CNNA 2000, Catania, Italy, 2000, pp. 21 -26. (Google Scholar)
228. **Mladenov V.**, Maratos N., Neural Networks for Solving Constrained Optimization Problems, *4th International Multiconference on Circuits, Systems, Computers and Communications CICC 2000, Athens, Greece*, pp. 1351-1359, also in the post conference book *Prob On Waves and Recovering in One-dimensional Autonomous CNN lems in Modern Applied Mathematics*, from the *WSES PRESS Series of Reference Books and Textbooks*, Athens, Greece, **2000**, pp. 244-252. (Google Scholar)
229. **Mladenov V.** Hegt J., Spatio-Temporal phenomena in two dimensional cellular neural networks based on first order cells,. In *Fourth International Multiconference on Ciruits, Systems, Computers and Communication E-MsM-20*, **2000**, (pp. 275-281). (Google Scholar)
230. **Mladenov V.**, Cellular neural networks based on terminal dynamics. In *Proceedings of the 5th Seminar on Neural Network Applications in Electrical Engineering. NEUREL 2000 (IEEE Cat. No. 00EX287)* p. 32. (Web of Science, Google Scholar)
231. **Kolev L.**, **Mladenov V.**, Worst-Case Tolerance Analysis of Non-Linear Circuits Using an Interval Method, *Proceedings of X International Symposium on Theoretical*

- Electrical Engineering*, Magdeburg, Germany, Sept. 6-9, **1999**, pp. 621-623. (Google Scholar)
232. **Mladenov V.**, Leenaerts D., On the robustness of CNN's template parameters, 5th *Electronic Devices and Systems International Conference EDS'98*, Brno, Czech Republic, **1998**, pp. 283-286. (Google Scholar)
233. **Mladenov V.M.**, Uhlmann F.H., Michelsson O., Neural Solution of the Non-destructive Testing Inverse Problem, 43. *Internationalen Wissenschaftlichen Kolloquium (IWK'98)*, TU-Ilmenau, Ilmenau, Germany, **1998**, pp. 246-251. (Google Scholar)
234. Gadjeva E., **Mladenov V.**, Testability Analysis of Analog-Discrete Circuits Using General-Purpose Analysis Programs, 43. *Internationalen Wissenschaftlichen Kolloquium (IWK'98)*, TU-Ilmenau, Ilmenau, Germany, **1998**, pp. 174-179. (Google Scholar)
235. **Mladenov V.M.**, Leenaerts D., On monotone behavior and basin of attraction in Cellular Neural Networks, accepted to be published on the 6th *Biennial Conference on Electronics BEC'98*, Tallinn, Estonia, **1998**. (Google Scholar)
236. Kolev L., **Mladenov V.**, A linear programming implementation of a interval method for global non-linear DC analysis, 1998 *IEEE International Conference on Electronics, Circuits and Systems. Surfing the Waves of Science and Technology* (Cat. No.98EX196), **1998**, pp. 75-78 vol.1, doi: 10.1109/ICECS.1998.813274. (Google Scholar)
237. **Mladenov V.**, Leenaerts D., Estimation of the basin of attractions of stable equilibrium points in CNNs, In 1998 *Fifth IEEE International Workshop on Cellular Neural Networks and their Applications. Proceedings* (Cat. No. 98TH8359), **1998**, pp. 62-67. (Google Scholar)
238. **Mladenov V.**, Domine M, Leenaerts, On the robustness of CNN's template parameters, *conference; Proc. EDS'98, Brno, Czech Republic*, **1998**. (Google Scholar)

239. **Mladenov V.**, Proshkov P., Modelling and Simulation of Continuous Neural Networks for Constrained Optimization Problems, *2nd IMACS International Conference on: Circuits, Systems*, **1998**, pp. 386 – 393. (Google Scholar)
240. Radev N., Ivanov K., **Mladenov V.**, Switched-capacitor filter with reduced sensitivity to operational amplifier DC gain, *Proceedings of the 5th Electronic Devices and Systems Conference*, **1998**, pp. 223-226. (Google Scholar)
241. **Mladenov V.**, Leenaerts D., Uhlmann H., First Order Estimation of the Basin of Attraction of Stable Equilibrium Points in CNNs, *European Conference on Circuit Theory and Design (ECCTD'97)*, Budapest, Hungary, **1997**, pp. 684-689. (Google Scholar)
242. **Mladenov V.**, Uhlmann H., Thiele H., Neural Network Approach in Eddy-Current Non-destructive Testing, *42. Internationalen Wissenschaftlichen Kolloquium (IWK'97)*, TU-Ilmenau, Ilmenau, Germany, **1997**, pp. 184-188. (Google Scholar)
243. **Mladenov V.**, Uhlmann H., Interval Approach in Determining the Robustness of the Equilibrium Points in Cellular Neural Networks (CNN's), *Electronic Circuits and Systems Conference (ECS'97)*, Bratislava, Slovakia, **1997**, pp. 311-314. (Google Scholar)
244. **Mladenov V.**, Uhlmann H., Kirsanov S., Neural Network Approach in Eddy-Current Non-destructive Testing, *Electronic Circuits and Systems Conference (ECS'97)*, Bratislava, Slovakia, **1997**, pp. 289-292. (Google Scholar)
245. **Mladenov V.**, Kolev L., Interval methods for solving cellular neural networks (CNNs) equations, 1996, October In *IEEE Proceedings of Third International Conference on Electronics, Circuits, and Systems*, Vol. 1, **1996**, pp. 417-420. (Google Scholar)
246. Maratos N., **Mladenov V.**, Op Amp Noise in Dynamic Range Maximization of Integrated Active-RC Filters. *sat*, 1(2), p.2. also, in the Post-Conference Book *Advances in Systems Science: Measurement, Circuits and Control from the WSES*

- PRESS Series of Reference Books and Textbooks*, ISBN: 960-8052-39-4, **1996**, pp. 466-473. (Google Scholar)
247. **Mladenov V.**, Vladov S., A Method for Solving Nonlinear Resistive Circuits, *8th International Symposium on Theoretical Electrical Engineering*, Aristotle University of Thessaloniki, Greece, **1995**, pp. 242-245. (Google Scholar)
248. **Mladenov V.**, Some Properties of Nonlinear Resistive Circuits Solutions Curves, *Scientific Conference with International Participation, Theoretical Electroengineering and Electrical Measurement*, Kosice, Sept. **1994**, pp. 205-208. (Google Scholar)
249. **Mladenov V.**, An improved interval method for solving nonlinear systems of monotone functions, *Mathematical Modelling and Scientific Computing*, SM Markov, ed., *So a*, **1993**, pp. 23-26. (Google Scholar)

III. Статии, публикувани в рецензирани български издания (12)

250. **Mladenov V.**, Memristor - The Fourth Fundamental Element, *Engineering Sciences*, **2020**, issue 1, DOI 10.7546/EngSci.LVII.20.01.01, ISSN(e)2603-3542, <http://es.ims.bas.bg/indexx.htm>, <https://www.ijifactor.com/index.php>, pp. 5-23, (Indexed in Int. Journal Impact Factor) **IF 3.24**.
251. Tsenov G., Georgiev S., Andonov S., **Mladenov V.**, Electroencephalography for TV advertisement decomposition, *"E+E"*, vol. 55, 3-4, **2020**, ISSN 0861-4717, https://epluse.ceec.bg_pp, pp. 41 – 48. (Google Scholar)
252. **Младенов В.**, Въведение в RSFQ веригите, *сп. Електротехника и Електроника (E&E)*, ISSN 0861-4717, том. 44, кн. 9-10, **2009**, стр. 3-15.
253. **Mladenov V.**, Filipova-Petrakieva S., Filipova K., Signal Competition in Feedforward Asynchronous Ultra-High-Speed Digital Electric Circuits,

- Elektrotechnica & Elektronika (E&E)*, ISSN 0861-4717, vol. 43, book 9-10, **2008**, pp. 55-62.
254. Kocev Cv, Zeghibib A, Tsenov G, Antonov L, **Mladenov V.**, Palis F, Shoylev N., Visualization of an on-line classification and recognition algorithm of EMG signals, *Journal of the University of Chemical Technology and Metallurgy*, **2008**, pp. 154 – 158. (Google Scholar)
255. Наков П., Петкова Н., **Младенов В.**, Метод за откриване на частични разряди в силови трансформатори, *Енергетика*, № 3, **2007**, Април-Май, ISSN 0324-1521, стр. 26-30.
256. Ташев Т., **Младенов В.**, Интерполиране на основната крива на намагнитване с използване на кубични сплайни“, *Стандартизация, метрология, сертификация*, кн. 1, София, **1998**, стр. 21-25.
257. Иванов К., Божилов Г., **Младенов В.**, Представяне на несиметрична намотка на кафезен ротор посредством трифазен модел, *сп. Електротехника и електроника*, кн. 1-2, София, **1997**, стр. 12-15.
258. **Младенов В.**, Енергийно оптимални режими на зареждане на кондензатор, *сп. Електротехника и електроника*, кн. 9-10, София, **1996**, стр. 30-32.
259. **Младенов В.**, Владов С., Иванов К., Метод за анализ на нелинейни резисторни вериги, *сп. Електротехника и електроника*, кн. 1-2, София, **1996**, стр. 19-22.
260. Колев Л., **Младенов В.**, Приблизителен метод за решаване на права и обратна допускова задача в линейни електрически вериги при синусоидални режими, *Известия на ВМЕИ "Ленин"*, София, т. 44, кн. 7, **1989**, стр. 99-108.
261. Колев Л., Владов С., **Младенов В.**, Метод за приблизителен толерансен анализ и синтез на линейни електрически вериги при синусоидален режим, *Известия на ВМЕИ "Ленин"*, т.43, кн.7, София, **1988**, стр. 57-66.

IV. Доклади в сборници на конференции, конгреси и симпозиуми у нас (14)

- 262.Kirilov S., Dichev S., Trushev I., **Mladenov V.**, Analysis of a LCM equivalent circuit of memristor and impulse voltage sources, **2012**, *Summer School Advanced aspects of Theoretical Electrical Engineering, Bulgaria, Sozopol'12*, ISSN: 1313-9487, p.1-6. (Google Scholar)
- 263.Sijakovic N., Kostic M., Bogatinova I., **Mladenov V.**, Software tool for short term congestion forecasting in transmission network, *Proceedings of of 8th Summer school "Advanced aspects of theoretical electrical engineering"*, Sozopol, Bulgaria, 19-22 September **2010**, Part II: Regular Papers, ISSN 1313-9487, pp. 84-89. (Google Scholar)
- 264.Stoyadinova T., Ortlepp T., Filipova K., **Mladenov V.**, Improved VHDL model of basic RSFQ cell – D Flip Flop, *Proceedings of the International PhD Seminar on Computational Electromagnetics and Optimization in Electrical Engineering, – CEMOEE 2010*, 10-13 September, Sofia, Bulgaria, pp. 158-161.
- 265.Petrakieva S., **Mladenov V.**, Signal competition approach for synthesis of asynchronous high-speed digital circuits, *Proceedings of of 8th Summer school "Advanced aspects of theoretical electrical engineering"*, Sozopol, Bulgaria, 19-22 September **2010**, Sozopol, Bulgaria, Part II: Regular Papers, ISSN 1313-9487, pp. 9-16. (Google Scholar)

266. Panayotov I., Stoiadinova T., Filipova K., **Mladenov V.**, Ortlepp T., Creating VHDL Descriptions of Asynchronous Dual-rail RSFQ Logic, *Proceedings of the 18th International Scientific and Applied Science Conference ELECTRONICS ET2009*, Sept. 14-17, Sozopol, Bulgaria, also in the ANNUAL JOURNAL OF ELECTRONICS, 2009, ISSN 1313-1842, **2009**, pp. 163-165. (Google Scholar)
267. Brandisky K., Ivanov K., **Mladenov V.**, Numerical and Experimental Investigation of Transients in Theoretical Electrical Engineering, *Proc. of the 7th Int. Conf. on Challenges in Higher Education & Research*, June 2-5, Sozopol, **2009**, Heron Press, Sofia, vol. 7, 2009, pp. 95-106. (Google Scholar)
268. Cristea P., **Mladenov V.**, Tsenov G., Tuduce R., Prediction of Mycobacterium Tuberculosis (rpoB) Nucleotide Sequences by Using Neural Networks, *Proceedings of the 3rd Annual Meeting of the Bulgarian Section of SIAM (BGSIAM'08)*, Dec. 22-23, Sofia, pp. 23-27, **2008**. (Google Scholar)
269. Tsenov G., Terzieva S., Yakimov P., **Mladenov V.**, Modeling and implementation of third order sigma-delta modulator, *Proc. of the 16th Int. Sci. And Applied Science Conference ELECTRONICS ET 2007*, ISBN 1313-1842, pp. 96-102, **2007**, Sozopol, Bulgaria, (Google Scholar)
270. **Mladenov V.**, Neural Networks for Solving Sudocu Problems, *Proceedings of the 2nd Annual Meeting of the Bulgarian Section of SIAM (BGSIAM'07)*, Dec. 20-21, **2007**, Sofia, pp. C41-C44. (Google Scholar)
271. Йорданова С., **Младенов В.**, Обучение по Размито управление и невронни мрежи, Сборник доклади на международна научна конференция "Автоматика и информатика'07", симпозиум "Компютърни методи за обучение по системи и управление", САИ, 3-6.10.2007г., т. II, стр. IV-35-IV-40. (Google Scholar)
272. Tabahnev I., Petkova N., Terzieva Sn., Vladov S., **Mladenov V.**, Modeling, Simulations and Implementation of the Chua's Circuit, *Proceedings of the 4th International Conference on Challenges in Higher Education and Research in the 21 Century*, Sozopol, Heron Press, Sofia, vol. 4, **2006**, pp. 277-279. (Google Scholar)

273. Trushev I., Tabahnev I., **Mladenov V.**, Pspice Models of Sliding Mode Controller of DC/DC Converters, *Proceedings of the XII International Scientific and Applied Science Conference ELECTRONICS 2003*, **2003**, Sozopol, Bulgaria, book 3, pp 99-104. (Google Scholar)
274. Христов М., **Младенов В.**, Бакалски И., Интегрална реализация на клетъчна невронна мрежа чрез CADENCE, *Proceedings of the 7th International Conference ELECTRONICS'98*, book 3, Sept. 23-25, Sozopol, Bulgaria, **1998**, ISBN 954-438-245-3, pp. 9-14.7. (Google Scholar)
275. Колев Л., **Младенов В.**, Приблизителен интервален метод за оптимален толерансен синтез на постояннотокови линейни електрически вериги, *XIV Национална младежка школа (НМШ) с международно участие "Приложение на математиката в техниката"*, Варна, **1988**, стр. 150-153.

V. Глави от книги и монографии, издадени в чужбина (13)

276. Nakov O., **Mladenov V.**, Mihaylova E., Nakov P., **2021**, Analysis and Evaluation of Distance Schooling and Learning with Respect to ICT Usage During COVID-19 Period in Bulgaria., In: Rocha Á., Adeli H., Dzemyda G., Moreira F., Ramalho Correia A.M. (eds), vol. 1367. *Springer, Cham*. https://doi.org/10.1007/978-3-030-72660-7_19. (Scopus, Google Scholar) **SJR 0.215**
277. Vita V., Zafiroopoulos E., Gonos I., **Mladenov V.**, Chobanov V. Power System Studies in the Clean Energy Era: From Capacity to Flexibility Adequacy Through Research and Innovation. In: Németh B., Ekonomou L. (eds) Flexitranstore. ISH **2019**. Lecture Notes in Electrical Engineering, vol. 610. *Springer, Cham*. https://doi.org/10.1007/978-3-030-37818-9_7 (Web of Science, Scopus, Google Scholar), **SJR 0.134, CiteScore 0.5**.

278. **Mladenov V.**, Tsenov G, Nonlinear Programming Approach for Design of High Performance Sigma-Delta Modulators, **2018**, In: Kyamakya K., Mathis W., Stoop R., Chedjou J., Li Z. (eds) Recent Advances in Nonlinear Dynamics and Synchronization. Studies in Systems, Decision and Control, vol 109. *Springer, Cham.*, DOI https://doi.org/10.1007/978-3-319-58996-1_12, (Scopus) pp 271-283. (Scopus, Google Scholar) **SJR 0.102, CiteScore 1.1**
279. Tonchev K., Tsenov G., **Mladenov V.**, Manolova A., Poulkov V. (2018) Personalized and Intelligent Sleep Lifestyle Reasoner with Web Application for Improving Quality of Sleep Part of AAL Architecture, In: Oliver N., Serino S., Matic A., Cipresso P., Filipovic N., Gavrilovska L. (eds) Pervasive Computing Paradigms for Mental Health. FABULOUS 2016, MindCare 2016, IIOT 2015. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 207. *Springer, Cham.* https://doi.org/10.1007/978-3-319-74935-8_15, (Scopus, Google Scholar) **SJR 0.142, CiteScore 0.7.**
280. Pereira V., Tavares F., Mihaylova P., **Mladenov V.**, Georgieva P., "Factor Analysis for Finding Invariant Neural Descriptors of Human Emotions", *Complexity*, vol. **2018**, Article ID 6740846, 8 pages, 2018. <https://doi.org/10.1155/2018/6740846> (Scopus, Web of Science, Google Scholar), **IF 2.462, SJR 0.447, CiteScore 3.3.**
281. Petkova N., Nakov P., **Mladenov V.** (2016) Real Time Monitoring of Incipient Faults in Power Transformer. In: Karampelas P., Ekonomou L. (eds), Electricity Distribution. Energy Systems. *Springer, Berlin, Heidelberg.* https://doi.org/10.1007/978-3-662-49434-9_9, (Scopus, Google Scholar) **SJR 0.452, CiteScore 4.2**
282. Tsenov G., **Mladenov V.** A Design Procedure for Stable High Order, High Performance Sigma-Delta Modulator Loopfilters, In: Mladenov V., Ivanov P. (eds) *Nonlinear Dynamics of Electronic Systems. NDES 2014. Communications in*

- Computer and Information Science*, vol 438. Springer, Cham. https://doi.org/10.1007/978-3-319-08672-9_15, (Scopus, Google Scholar) **SJR 0.160, CiteScore 0.8**.
283. Ekonomou L., Christodoulou C., **Mladenov V.** Estimation of the Electric Field across Medium Voltage Surge Arresters Using Artificial Neural Networks, In: Mladenov V., Jayne C., Iliadis L. (eds) *Engineering Applications of Neural Networks. EANN 2014. Communications in Computer and Information Science*, vol. 459. Springer, Cham. https://doi.org/10.1007/978-3-319-11071-4_22, (Scopus, Google Scholar) **SJR 0.160, CiteScore 0.8**
284. Tsekouras G., Kanellos F., Mastorakis N., **Mladenov V.**, Optimal Operation of Electric Power Production System without Transmission Losses Using Artificial Neural Networks Based on Augmented Lagrange Multiplier Method, In: Mladenov V., Koprinkova-Hristova P., Palm G., Villa A.E.P., Appollini B., Kasabov N. (eds) *Artificial Neural Networks and Machine Learning. ICANN 2013. Lecture Notes in Computer Science*, vol 8131. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-40728-4_73, (Scopus, Web of Science, Google Scholar), **IF 0.402, SJR 0.249, CiteScore 1.8**
285. **Mladenov V.** Stability Analysis and Limit Cycles of High Order Sigma-Delta Modulators. (2013) In: Kyamakya K., Halang W., Mathis W., Chedjou J., Li Z. (eds) *Selected Topics in Nonlinear Dynamics and Theoretical Electrical Engineering. Studies in Computational Intelligence*, vol 483. Springer, Berlin, Heidelberg. https://doi.org/10.1007/978-3-642-37781-5_19, (Scopus, Google Scholar) **SJR 0.185, CiteScore 1.5**
286. Popov G., **Mladenov V.** (2009) Modeling Diversity in Recovery Computer Systems. In: Mastorakis N., Mladenov V., Kontargyri V. (eds), *Lecture Notes in Electrical Engineering*, vol 27. Springer, Boston, MA. https://doi.org/10.1007/978-0-387-84814-3_22, (Scopus, Google Scholar) **SJR 0.134, CiteScore 0.5**

287. **Mladenov V.**, Introduction to Cellular Neural Networks, Chapter 1. In: Slavova, Angela., Mladenov, V., Cellular Neural Networks: Theory & Applications, *Nova Science Publishers, Inc.* ISBN 9781594540400, Nov **2004**. (Google Scholar)
288. **Mladenov V.**, Spatio-Temporal Phenomena in Two-dimensional Cellular Nonlinear Networks, Chapter 5, In: Slavova, Angela., Mladenov, V., Cellular Neural Networks: Theory & Applications, *Nova Science Publishers, Inc.* ISBN 9781594540400, Nov **2004**. (Google Scholar)

VI. Книги и монографии, издадени в чужбина (1)

289. **Mladenov V.**, Advanced Memristor Modeling - Memristor Circuits and Networks, *MDPI Basel, Switzerland*, ISBN 978-3-03897-104-7 (Hbk), pp. 172, **2019**, <https://doi.org/10.3390/books978-3-03897-103-0>. (Google Scholar)

VII. Книги и колективни монографии (10)

290. Reljin I., Obradović Z., Popović M., **Mladenov V.**, New Methods for Analyzing Complex Biomedical Systems and Signals, *Hindawi, Complexity*, **2018**, Volume 2018, Article ID 6405121, 3 pages, Scopus, <https://doi.org/10.1155/2018/6405121>. (Scopus, Web of Science, Google Scholar) **SJR 0.531, IF 2.474, CiteScore 3.3**.
291. **Mladenov V.**, Slavova A., Sgurev V., Hadjiski M., Boshnakov K. (Eds.), Advances in Neural Networks and Applications - ANNA '18, *VDE VERLAG GMBH*, ISBN 978-3-8007-4756-6© **2018** Berlin, Offenbach, Bismarckstraße 33, 10625 Berlin, Germany www.vde-verlag.de. (Scopus, Google Scholar)

- 292.Koprinkova-Hristova P., **Mladenov V.**, Kasabov N. (Eds.), Artificial Neural Networks: Methods and Applications in Bio-/Neuroinformatics, **2015**, *Springer Series* , ISBN978-3-319-09902-6. (Scopus, Google Scholar)
- 293.**Mladenov V.**, Ivanov P. (eds) Nonlinear Dynamics of Electronic Systems. NDES **2014**. Communications in Computer and Information Science, vol 438. *Springer, Cham*. https://doi.org/10.1007/978-3-319-08672-9_15, (Scopus, Google Scholar) **SJR 0.160, CiteScore 0.8**.
- 294.**Mladenov V.**, Jayne C., Iliadis L. (eds) Engineering Applications of Neural Networks. EANN **2014**. Communications in Computer and Information Science, vol. 459. *Springer, Cham*. DOI 10.1007/978-3-319-11071-4 (Scopus, Google Scholar) **SJR 0.160, CiteScore 0.8**
- 295.Mastorakis N., **Mladenov V.**, Computational Problems in Engineering (Lecture Notes in Electrical Engineering, Book 307), Jun 4, **2014.**, ISSN 1876-1100, ISBN 978-3-319-03966-4, DOI 10.1007/978-3-319-03967-1, *Springer Cham Heidelberg New York Dordrecht London*. (Google Scholar)
- 296.**Mladenov V.**, Koprinkova-Hristova P., Palm G., Villa A.E.P., Appollini B., Kasabov N. (eds) Artificial Neural Networks and Machine Learning. ICANN **2013**. Lecture Notes in Computer Science, vol 8131. *Springer, Berlin, Heidelberg*. https://doi.org/10.1007/978-3-642-40728-4_73, (Web of Science, Scopus, Google Scholar) **IF 0.402, SJR 0.249, CiteScore 1.8**
- 297.Mastorakis N., **Mladenov V.**, Kontargyri V. (eds) Lecture Notes in Electrical Engineering, vol 27. *Springer, Boston, MA*, **2009**. <https://doi.org/10.1007/978-0-387-85437-3>, (Scopus, Google Scholar) **SJR 0.134, CiteScore 0.5**
- 298.Mastorakis N., **Mladenov V.**, Kontargyri V. (eds) Lecture Notes in Electrical Engineering, vol 28. *Springer, Boston, MA*, **2009**. https://doi.org/10.1007/978-0-387-84814-3_22, (Scopus, Google Scholar) **SJR 0.134, CiteScore 0.5**.
- 299.Slavova, A., **Mladenov, V.**, Cellular Neural Networks: Theory & Applications, *Nova Science Publishers*, Nov **2004**, Inc. ISBN 9781594540400. (Google Scholar)

VIII. Учебници и учебни пособия (23)

300. **Младенов, В. М.**, Николова-Ячева, И. И., Червенков, А. Г., Филипова-Петракиева, С. К., Ценов, Г. Ц., Петкова, Н. С., Чобанов, В. Й., Трушев, И. М., Кирилов, С. М., **2022**, Ръководство за решаване на задачи по електротехника с LTspice, *Технически Университет - София*, ISBN 978-619-167-493-0, стр. 140.
301. Mladenov, V., Vladov, S., Petrakieva, S., "Electrical Engineering", *KING Publishing House, Sofia*, 2020, pp. 1-200, ISBN 978-954-9518-00-9.
302. **Младенов В.**, Владов С., Теоретична електротехника, Второ допълнено и преработено издание, стр. 362, ISBN 978-954-9518-89-4, *ИК КИНГ*, **2021**.
303. Брандиски К., Георгиев Ж., Иванов К., Кирилов С., **Младенов В.**, Петкова Н., Петракиева С., Табахнев И., Терзиева С., Трушев И., Ценов Г., Червенков А., Ячева И., Ръководство за лабораторни упражнения по теоретична електротехника – част втора, *София, КИНГ*, **2018**, ISBN 978-954-598-94-8.
304. **Младенов В.**, Владов, С., Теоретична електротехника, *София, КИНГ*, ISBN 978-954-9518-89-4, **2017**.
305. Брандиски К., Георгиев Ж., Иванов К., Кирилов С., **Младенов В.**, Петкова Н., Петракиева С., Табахнев И., Терзиева С., Трушев И., Ценов Г., Червенков А., Ячева И., Ръководство за лабораторни упражнения по теоретична електротехника – част първа, *София, КИНГ*, ISBN 978-954-9518-92-4, **2017**.
306. **Mladenov V.**, Vladov S., Electrical engineering, *Sofia, KING*, **2014**, ISBN 978-954-9518-78-8.
307. Petrakieva S., **Mladenov V.**, Manual for Solving Problems of Theory of Electrical Engineering, *Sofia*, **2014**, *Avangard Prima Publishing House*, ISBN 978-619-160-365-7.
308. **Mladenov V.**, Vladov S., Theory of electrical engineering, *Sofia*, **2013**, *KING*, ISBN 978-954-9518-74-0.

- 309.Брандиски К., **Младенов В.**, Петракиева С., Ръководство за решаване на задачи по теоретична електротехника с PSpice (ORCAD 16.3), **2012**, *София, КИИГ*, 2012, ISBN 978-954-9518-72-6.
- 310.Петракиева С., **Младенов В.**, Решени примери по дискретни структури, *София, Авангард прима*, **2019**, ISBN 978-619-239-263-5.
- 311.Йорданова Сн., **Младенов В.**, Ценов Г., Цекова Р., Ръководство за лабораторни упражнения по размито управление и невронни мрежи, *София, ТУ*, **2008**, ISBN 978-954-438-720-4.
- 312.Брандиски К., Георгиев Ж., **Младенов В.**, Станчева Р., Теоретична електротехника : Ч. II, *София*, **2008**, *КИИГ*, ISBN 954-9518-29-9 - второ издание.
- 313.**Младенов В.**, Йорданова С., Размито управление и невронни мрежи, *София*, **2006**, *ТУ*, ISBN 978-954-438-595-8.
- 314.Брандиски К., Георгиев Ж., **Младенов В.**, Станчева Р., Теоретична електротехника – част първа, *София*, **2004**, *КИИГ*, ISBN 954-9518-28-0 – второ издание.
- 315.Брандиски К., Георгиев Ж., **Младенов В.**, Станчева Р., 2004, Теоретична електротехника – част втора, *София*, *КИИГ*, **2004**, ISBN 954-9518-29-9.
- 316.Брандиски К., Георгиев Ж., **Младенов В.**, Владов С., Иванов К., Петракиева С., Радев Н., Станчев К., Станчева Р., Стойков К., Табахнев Ив., Терзиева Сн., Ръководство за лабораторни упражнения по теоретична електротехника., *София*, *КИИГ*, **2004.**, ISBN 954-9518-24-8.
- 317.Брандиски К., Владов С., Георгиев Ж., Иванов К., **Младенов В.**, Петракиева С., Радев Н., Станчев К., Станчева Р., Стойков К., Табахнев Ив., Терзиева Сн., Тошев Г., Ячева И., Бодурова М., Ръководство за семинарни упражнения по теоретична електротехника, - част първа, *София*, *КИИГ*, **2004**, ISBN 954-9518-26-4.
- 318.Брандиски К., Владов С., Георгиев Ж., Иванов К., **Младенов В.**, Петракиева С., Радев Н., Станчев К., Станчева Р., Стойков К., Табахнев Ив., Терзиева Сн.,

- Тошев Г., Ячева И., Бодурова М., Ръководство за семинарни упражнения по теоретична електротехника – част втора., *София, КИИГ, 2004*, ISBN 954-9518-27-2.
- 319.Брандиски К., Георгиев Ж., **Младенов В.**, Станчева Р., Учебник по теоретична електротехника - част първа, *София, 2004, ИК КИИГ*, ISBN 954-9518-28-0.
- 320.Брандиски К., **Младенов В.**, Станчев К., Ръководство за решаване на задачи по теоретична електротехника с ORCAD Pspice, *София, КИИГ, 2002* , ISBN 954-649-520-4.
- 321.Брандиски К., **Младенов В.**, Вълчев Д., Решаване на задачи по електротехника с MATLAB., *София, ТУ, 2000*, ISBN 954-438-294-1.
- 322.Petrakieva, S., Mladenov, V., “Problems with solutions on discrete structures”, Sofia, 2012, First Edition, Publishing House “Avangard Prima”, ISBN 978-954-323-947-7, pp. 82.

IX. Дисертации (2)

- 323.**Младенов В.**, Усъвършенствано Моделиране на Мемристори, Дисертационен труд за присъждане на НС - Доктор на науките, **2019**, ТУ-София.
- 324.**Младенов В.**, Върху някои проблеми на глобалния анализ на нелинейни вериги, Дисертационен труд за присъждане на НС – Кандидат на техническите науки, **1993**, ТУ-София.