Universitatea ”Aurel Vlaicu” din Arad

Facultatea Știinte Exacte

Departament Matematică-Informatică

**Prof. univ. dr. Dominic Bucerzan**

**LIST OF SCIENTIFIC WORKS**

1. **Doctoral thesis**

***“ Security of economic information in computer networks “***

Academia de Studii Economice București, anul 2005

Facultatea de Cibernetică, Statistică și Informatica Economică

Scientific Coordinator : Prof. Univ. Dr. Ion Gh. Roșca

**B. Published books**

1. **Books and chapters in books published by national publishing houses**
2. **Dominic Bucerzan**, Ana Vulpe “*Lecţii de Excel*“

Editura Albastră – Cluj Napoca, 2004, 400 pagini, ISBN 973-650-075-6

1. **Dominic Bucerzan**, Ana Vulpe “*Lecţii de Word*“

Editura Albastră – Cluj Napoca, 2002, 265 pagini, ISBN 973-650-089-6

1. **Dominic Bucerzan**, Ana Vulpe “*Lecţii de utilizare a calculatoarelor*“

Editura Albastră – Cluj Napoca, 2002, 278 pagini, ISBN 973-650-061-6

1. Ana Vulpe, **Dominic Bucerzan** “*Lecţii de FoxPro*“

Editura Albastră – Cluj Napoca, 2000, 282 pagini, ISBN 973-9215-57-2

**C. Full-length articles/studies published in international scientific magazines**

1. **Scientific articles published in specialized journals rated by ISI**
2. Bejan, C.A., Muntean, M., **Bucerzan, D**., Stoian, C.D. (2024).

 “*Considerations About the Regulatory Framework of Cryptocurrency*”.

 In: Ciurea, C., Pocatilu, P., Filip, F.G. (eds) Proceedings of 22nd International Conference on Informatics in Economy (IE 2023). Smart Innovation, Systems and Technologies, vol 367. Springer, Singapore. https://doi.org/10.1007/978-981-99-6529-8\_14

1. Crina Anina Bejan, **Dominic Bucerzan** & Mihaela Daciana Crăciun (2023)

*“Bitcoin price evolution versus energy consumption; trend analysis”,*

Applied Economics, 55:13, 1497-1511, DOI: [10.1080/00036846.2022.2097194](https://doi.org/10.1080/00036846.2022.2097194)

Factor de impact IF(2021)= 1.916, scor absolut de influență AIS (2021)= 0,429

1. Bejan, C.A., **Bucerzan, D**., Crăciun, M.D. (2023).

“*Perspectives of Cryptocurrency Price Prediction”*.

In: Ciurea, C., Pocatilu, P., Filip, F.G. (eds) Education, Research and Business Technologies. Smart Innovation, Systems and Technologies, vol 321. Springer, Singapore.

<https://doi.org/10.1007/978-981-19-6755-9_27>

1. Dăuş, L., Drăgoi, VF., Jianu, M., **Bucerzan, D**., Beiu, V. (2023). “*On the Roots of Certain Reliability Polynomials”* In: Dzitac, S., Dzitac, D., Filip, F.G., Kacprzyk, J., Manolescu, MJ., Oros, H. (eds) Intelligent Methods Systems and Applications in Computing, Communications and Control. ICCCC 2022. Print ISBN 978-3-031-16683-9 Advances in Intelligent Systems and Computing, vol 1435. Springer, Cham. <https://doi.org/10.1007/978-3-031-16684-6_34>
2. **Bucerzan, D.,** Bejan, C.A. (2021). “*Blockchain. Today Applicability and Implications”*.

In: Balas, V., Jain, L., Balas, M., Shahbazova, S. (eds) Soft Computing Applications. SOFA . Advances in Intelligent Systems and Computing, vol 1221. Springer, Cham. https://doi.org/10.1007/978-3-030-51992-6\_13

1. Drăgoi V., Cayrel PL, Colombier, B., **Bucerzan D**. , Hoara S. (2020)

“*Solving a Modified Syndrome Decoding Problem using Integer Programming*.”

International Journal of Computers Communications & Control, ISSN 1841-9836, E-ISSN

1841-9844, Vol. 15(5):, October 2020, Factor de impact IF=2,093

DOI: 10.15837 /ijccc.2020.5.3920, WOS:000569021200006

<http://univagora.ro/jour/index.php/ijccc/article/view/3920/1589>

1. Drăgoi V., Beiu V., **Bucerzan D**. (2019) “*Vulnerabilities of the McEliece Variants Based on Polar Codes”* In: Lanet JL., Toma C. (eds) Innovative Security Solutions for Information Technology and Communications. SECITC 2018. Lecture Notes in Computer Science, vol 11359. Springer, Cham, ISBN: 978-3-030-12941-5, <https://doi.org/10.1007/978-3-030-12942-2_29>, <https://link.springer.com/chapter/10.1007/978-3-030-12942-2_29>
2. **D. Bucerzan,** V.Dragoi, P.-L. Cayrel, T. Richmond, “*Improved Timing Attacks against the Secret Permutation in the McEliece PKC*“,

International Journal of Computers Communications & Control, ISSN 1841-9836,

E-ISSN 1841-9844, Vol. 12(1): pag. 7-25, February 2017, Factor de impact **IF=0,627**

[*http://univagora.ro/jour/index.php/ijccc/article/view/2780/1057*](http://univagora.ro/jour/index.php/ijccc/article/view/2780/1057)

1. **Dominic Bucerzan**, Vlad Dragoi, Tania Richmond. The simple roots problem. Proceedings of the Romanian Academy, Series A, 2017, Volume 18 (Special issue 2017, Cryptology Science), pp. 317-332, <https://acad.ro/sectii2002/proceedings/doc2017-4s/03artSupl.pdf>
2. **Bucerzan D**., Dragoi V., Kalachi H.T. (2017) Evolution of the McEliece Public Key Encryption Scheme. In: Farshim P., Simion E. (eds) Innovative Security Solutions for Information Technology and Communications. SecITC 2017. Lecture Notes in Computer Science, vol 10543. Springer, Cham,, ISBN: 978-3-319-69283-8, <https://doi.org/10.1007/978-3-319-69284-5_10>, <https://link.springer.com/chapter/10.1007/978-3-319-69284-5_10>
3. **D. Bucerzan,** C. Raţiu***,*** “ *Image Processing with Android Steganography*“

Soft Computing Application – [Advances in Intelligent Systems and Computing](http://www.springer.com/series/11156), **Springer International Publishing**, Proceedings of 6th International Workshop on Soft Computing Applications (SOFA 2014),Volume 1, eBook ISBN 978-3-319-18296-4, ISBN 978-3-319-27178-1, DOI 10.1007/978-3-319-27179-8, pag. 27-36, Publicata in 2015

[*http://www.springer.com/gp/book/9783319182957*](http://www.springer.com/gp/book/9783319182957)

1. **D. Bucerzan,** C. Raţiu *,* “ *Contributions to Steganographic Techniques on Mobile Devices*“

Innovative Security Solutions for Information Technology and Communications ,

**Springer International Publishing,** Volume 9522 of the series [Lecture Notes in Computer Science](http://link.springer.com/bookseries/558), pag. 242-252, eBook ISBN, 978-3-319-27179-8, ISBN 978-3-319-27178-1,

DOI 10.1007/978-3-319-27179, pag.242-253, Publicata in 2015

[*http://link.springer.com/chapter/10.1007/978-3-319-27179-8\_17*](http://link.springer.com/chapter/10.1007/978-3-319-27179-8_17)

1. C. Raţiu**, D. Bucerzan,** M.J. Manolescu,*“SmartSteg: A New Android Based Steganography Application“* E -ISSN 1841-9844, Vol. 8(5):p. 681-688, Publicata in 2013

WOS:000324844700004 , Factor de impact I**F=0.694**

1. M. Crăciun, C. Raţiu**, D. Bucerzan,** A. Manolescu *“Actuality of Bankruptcy Prediction Models Used in Decision Support System*”

International Journal of Computers Communication & Control, ISSN 1841-9836,

E-ISSN 1841-9844, Vol. 8(3), pag. 375-383, Publicata in 2013

*WOS:000319952400003*, Factor de impact **IF=0,694**

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<http://univagora.ro/jour/index.php/ijccc/article/view/464>

1. C. Raţiu**, D. Bucerzan,** M. Crăciun, “*Analysis of Bankruptcy Prediction Model in the Present Economic Situation*”

[Soft Computing Applications](http://link.springer.com/book/10.1007/978-3-642-33941-7), **Springer Berlin Heidelberg,** Proceedings of the 5th International Workshop Soft Computing Applications, On line ISBN 978-3-642-33941-7,

ISBN 978-3-642-33940-0,DOI 10.1007/978-3-642-33941-7\_55,pag. 625-635, n 2013

*WOS:000314077300055*

<http://link.springer.com/chapter/10.1007/978-3-642-33941-7_55>

1. C*.*Raţiu**, D. Bucerzan,** M. Crăciun, “*Contribution to Watermarking Techniques*”

[Soft Computing Applications](http://link.springer.com/book/10.1007/978-3-642-33941-7), **Springer Berlin Heidelberg,** Proceedings of the 5th International Workshop Soft Computing Applications, On line ISBN 978-3-642-33941-7, ISBN 978-3-642-33940-0, DOI 10.1007/978-3-642-33941-7\_37, pag. 403-410, 2013

*WOS:000314077300037*

[*http://link.springer.com/chapter/10.1007/978-3-642-33941-7\_37*](http://link.springer.com/chapter/10.1007/978-3-642-33941-7_37)

1. **D. Bucerzan,** M. Crăciun, V. Chiş, C. Raţiu, “Stream Ciphers Analysis Methods”, *International Journal of Computers Communications & Control*, ISSN 1841-9836,

E-ISSN 1841-9844, Vol. 5(4):pag. 483-489, 2010, **Factor de impact IF=0,65**

*WOS:000314077300055*

[*http://www.dzitac.ro/files/ioan/IJCCC\_contents\_2006\_2011.pdf*](http://www.dzitac.ro/files/ioan/IJCCC_contents_2006_2011.pdf)

1. **D. Bucerzan,***“A cryptographic algorithm based on a pseudorandom number generator*”**,** 10th International Symposium on Symbolic and Numeric Algorithms for Scientific Computing, Published by **IEEE Computer Society**,

ISBN: 978-0-7695-3523-4, DOI: 10.1109/SYNASC.2008.45, pag.453-456, 2009

*WOS:000274363300074*

[*http://doi.ieeecomputersociety.org/10.1109/SYNASC.2008.45*](http://doi.ieeecomputersociety.org/10.1109/SYNASC.2008.45)

1. **Scientific articles published in specialized journals rated CNCSIS category B+**

**and listed in BDI international databases**

1. C. Raţiu**, Dominic. Bucerzan***“Steganography and Cryptography on Mobile Platforms**“*

Constanta Maritime University Annals, Vol.20, 2013, ISSN 1582-3601

*Revista de categoria B+, indexata BDI*

1. **Dominic Bucerzan**, Crina Raţiu, *“Security Aspects in the e-banking System*”

Constanta Maritime University Annals, 2009, Vol.12, pp. 355-360, ISSN 1582-3601

*Revista de categoria B+, indexata BDI*

1. **Dominic Bucerzan**, Crina Ratiu, Ioan Dascal, *“Aspects of a Watermark Solution*”, Revista *Informatica Economică,* vol. 14, no. 4/2010, pag. 132-138, ISSN 1453-1305

*Revista de categoria B+, indexata BDI*

[*http://revistaie.ase.ro/author\_details.aspx?aid=5679*](http://revistaie.ase.ro/author_details.aspx?aid=5679)

1. Craciun Mihaela Daciana, **Dominic Bucerzan**, Ratiu Crina, *“Prediction Analysis of Bankrupty Risk using Bayesian Networks***”,**

Constanta Maritime University Annals, Vol.14, 2010, pag. 157-162, ISSN 1582-3601

*Revista de categoria B+, indexata BDI*

1. Ratiu Crina, **Dominic Bucerzan**, Craciun Mihaela Daciana, *“Statistical Model of the People Confidence in E-Business Services*”

Constanta Maritime University Annals, Vol.14. 2010, pag. 237-240, ISSN 1582-3601

*Revista de categoria B+, indexata BDI*

1. **Dominic Bucerzan**, Marius Gheorghita, „*HENKOS Encrytion System (HKS*)”,

Revista *Informatica Economică*  , vol.. 8, no. 3(31)/2004, pag. 138-144, ISSN 1453-1305

*Revista de categoria B+, indexata BDI*

[*http://revistaie.ase.ro/content/31/bucerzan.pdf*](http://revistaie.ase.ro/content/31/bucerzan.pdf)

**c. Publications in extenso, appearing in papers of the main international specialized conferences**

1. Bejan, Crina Anina, **Dominic Bucerzan**, and Mihaela Daciana Craciun. "Perspectives of Cryptocurrency Price Prediction." Education, Research and Business Technologies: Proceedings of 21st International Conference on Informatics in Economy (IE 2022). Vol. 321. Springer Nature, 2023. <https://link.springer.com/chapter/10.1007/978-981-19-6755-9_27>
2. Crina Anina Bejan, **Dominic Bucerzan**, ”Challenges of Securing Digital Information”,

Proceeding of the 17th International Conference on Informatics in Economy (ISSN: 2247 – 1480), Education, Research & Business Technologies, pag. 337-342, 2018

1. **Dominic Bucerzan**, Crina Anina Bejan, „Current Threats of Digital Information Technologies”,

Proceedings of The International Symposium Research and Education in Innovation Era Arad, 7th Edition, ISREIE 2018, Mathematics&Computer Science ISSN 2065 2569, pag. 6-11, 2018

1. Vlad Dragoi, Tania Richmond, **Dominic Bucerzan** and Axel Legay , „Survey on Cryptanalysis of Code-Based Cryptography : From Theoretical to Physical Attacks”, IEEE Internațional Conference on Computers Communications and Control, Baile Felix, Oradea, Romania, May 2018. http://dx.doi.org/10.1109/ICCCC.2018.8390461
2. Crina Anina Bejan, **Dominic Bucerzan**, „On Image Steganography Metrics for Mobile Platforms”, Proceedings of the 16th International Conference on INFORMATICS in ECONOMY (IE 2017), May 2017, pag 122-127, Education, Research & Business Technologies, Published by Bucharest University of Economic Studies Press, ISSN 2284-7472,
3. C. Raţiu, D. Bucerzan, *“Secure E-Business Solution for Mobile Platform“*

Proceedings of the 15th International Conference on INFORMATICS in ECONOMY (IE 2016) Education, Research & Business Technologies, Bucharest University of Economic Studies Press, Cluj-Napoca, Romania, pag.51-57, 2016, ISSN: 2284-7472, ISSN-L: 2247-1480

1. **Bucerzan D**.,Raţiu C**.**, “*Testing Methods for the Efficiency of Modern Steganography Solutions for Mobile Platforms*“, 2016 6th International Conference on Computers Communications and Control (ICCCC), Publisher IEEE, 10-14 Mai 2016, Oradea, România,

ISBN: 978-1-5090-1735-5, DOI: 10.1109/ICCCC.2016.7496734, <http://ieeexplore.ieee.org/abstract/document/7496734/>

1. **Bucerzan D**.,Raţiu C**.**, *“Reliable Metrics for Image LSB Steganography on Mobile Platforms“*, Proceedings of the 7th International Workshop on Soft Computing Applications SOFA 2016, 24-26 August, Arad, Romania, Advances in Intelligent Systems and Computing (ISSN: 2194-5357), Springer, 2016
2. Stoian C.D., **Bucerzan D.,** *“Information System Security in the Context of Administrative Cooperation through Internal Market Information System in Romania“*, Proceedings of the 7th International Workshop on Soft Computing Applications SOFA 2016, 24-26 August, Arad, Romania, Advances in Intelligent Systems and Computing (ISSN: 2194-5357), Springer, 2016
3. Iovanov V., Buzgau M., **Bucerzan D**., *“Containerizing Solution for a Highly Distributed Systems“*, Proceedings of the 7th International Workshop on Soft Computing Applications SOFA 2016, 24-26 August, Arad, Romania, Advances in Intelligent Systems and Computing (ISSN: 2194-5357), Springer, 2016
4. **Bucerzan D.,** Stoian C.D., *“Security of information sent through RNNEC“*,Proceedings of the International Symposium Research and Education in an Innovation ERA - 6rd Edition, Arad, decembrie 2016, pag. 112-116, ISSN 2065 2**4**69
5. **Bucerzan D.,** Dragoi V., *“Code-Based Cryptography as a Post Quantum Cryptography Alternative“*,Proceedings of the International Symposium Research and Education in an Innovation ERA - 6rd Edition, Arad, decembrie 2016, pag. 106-112, ISSN 2065 2**4**69
6. **D. Bucerzan,** C. Raţiu *,* „*Contributions to Steganographic Techniques on Mobile Devices*”

Innovative Security Solutions for Information Technology and Communications ,

8th International Conference, SECITC 2015, Bucharest, Romania, June 11-12, 2015. Revised Selected Papers, pag. 242-252, eBook ISBN 978-3-319-27179-8, ISBN 978-3-319-27178-1

1. **Dominic Bucerzan**, Crina Raţiu*, „Secret Communication using Cryptography and Steganography”*

Proceedings of the International Symposium Research and Education in an Innovation ERA - 5rd Edition, Arad, **Noiembrie 2014**, pag, 14-20, ISSN 2065 2569 [*http://www.rxiv.org/pdf/1412.0034v1.pdf*](http://www.rxiv.org/pdf/1412.0034v1.pdf)

1. **D. Bucerzan,** C. Raţiu***,*** „*Image Processing with Android Steganography”*

presented at „6*th International Workshop on Soft Computing Applications*”, SOFA 2014,

Organized by **IEEE Romania,** 24-26 iulie, Timisoara, Romania, published by Springer,

[Advances in Intelligent Systems and Computing](http://www.springer.com/series/11156),[Springer, Advances in Intelligent and Soft Computing, Soft Computing Applications, ISSN: 2194-5357](http://www.springer.com/series/4240), e-ISSN 2194-5365

[*http://www.springer.com/gp/book/9783319182957*](http://www.springer.com/gp/book/9783319182957)

1. **D. Bucerzan**, C. Raţiu, „ *Binding Android Steganography by Windows Steganography* ” 5th International Conference on Computers, Communication & Control (ICCCC 2014), May 6-10, 2014, Oradea- Baile Felix, ISSN 1844-4334, 4(2014)
2. C. Raţiu**, D. Bucerzan,** M. Crăciun, „*Analysis of Bankruptcy Prediction Model in the Present Economic Situation*”

presented at „*5th International Workshop on Soft Computing Applications*”, SOFA 2012, Organized by **IEEE Computational Intelligence Society**,  August 2012, Szeged, Hungary, published by[Springer, Advances in Intelligent and Soft Computing[, Soft Computing Applications, ISSN: 2194-5357](http://www.springer.com/series/4240), e-ISSN 2194-5365](http://www.springer.com/series/4240)

<http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=21025>

1. C. Raţiu**, D. Bucerzan,** M. Crăciun, „*Contribution to Watermarking Techniques*”

presented at „*5th International Workshop on Soft Computing Applications*”, SOFA 2012, Organized by **IEEE Computational Intelligence Society**, August 2012, Szeged, Hungary, published by[Springer, Advances in Intelligent and Soft Computing, Soft Computing Applications, ISSN: 2194-5357](http://www.springer.com/series/4240), e-ISSN 2194-5365

<http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=21025>

1. Mihaela Crăciun, **Dominic Bucerzan**, Crina Raţiu, Violeta Chiş, *„Statistical Methods and Concepts of Probability Used in Bayesian Networks”*

Proceedings of the International Symposium Research and Education in an Innovation ERA - 4rd Edition, Arad, Noiembrie 2012, pag. 47-57, ISSN 2065 2569

1. **Dominic Bucerzan**, Crina Raţiu, Mihaela Crăciun, *„Digital Steganography, Completing the Security of Digital Data”*

Proceedings of the International Symposium Research and Education in an Innovation ERA - 4rd Edition, Arad, **Noiembrie 2012,** pag, 58-66, ISSN 2065 2569

1. M. Crăciun, C. Raţiu**, D. Bucerzan,** A. Manolescu, „*On the Applicability of the Anghel and Altman Bankruptcy Prediction Models in the Actual Crisis Conditions*”

International Conference on Computers, Communication & Control (ICCCC 2012), Workshop on Intelligent Decision Support Systems for Crisis Management, May 2012, Oradea, Romania, vol. 3(2012), ISSN 1844-4334

1. Crina Raţiu, **Dominic Bucerzan**, “Attacks on the Watermark Techniques”

2nd Symposium on Business Informatics in Central and Eastern Europe 2011,

Osterreichische Computer Gesellschaft, , pag. 235-245, ISBN 978-3-85403-280-9

1. Mihaela Crăciun, **Dominic Bucerzan**, Crina Raţiu, „*The Analysis of Continuous Variables in Model of Bankruptcy Risk using Bayesian Networks*”,

*Proceeding of the Second International Conference “Modelling and Development of Intelligent Systems*”, September 29-Octomber 2, 2011 Sibiu, Romania, Lucian Blaga University Press, Sibiu, 2011, pag. 36-44, ISSN 2067-3965

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Arad, 15.05.2024 *Prof. univ. dr*. *Dominic Bucerzan*