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Departament Matematică-Informatică  
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## L I S T A LUCRĂRILOR ȘTIINȚIFICE

### A. Teza de doctorat

***“Securitatea informației economice în rețele de calculatoare”***

Academia de Studii Economice București, anul 2005

Facultatea de Cibernetică, Statistică și Informatica Economică

Conducător științific : Prof. Univ. Dr. Ion Gh. Roșca

### B. Cărți publicate

#### a. Cărți și capitole în cărți publicate la edituri naționale

1. **Dominic Bucerzan**, Ana Vulpe *“Lecții de Excel”*  
Editura Albastră – Cluj Napoca, 2004, 400 pagini, ISBN 973-650-075-6
2. **Dominic Bucerzan**, Ana Vulpe *“Lecții de Word”*  
Editura Albastră – Cluj Napoca, 2002, 265 pagini, ISBN 973-650-089-6
3. **Dominic Bucerzan**, Ana Vulpe *“Lecții de utilizare a calculatoarelor”*  
Editura Albastră – Cluj Napoca, 2002, 278 pagini, ISBN 973-650-061-6
4. Ana Vulpe, **Dominic Bucerzan** *“Lecții de FoxPro”*  
Editura Albastră – Cluj Napoca, 2000, 282 pagini, ISBN 973-9215-57-2

### C. Articole/studii *in extenso* publicate în reviste din fluxul științific internațional

#### a. Articole științifice publicate în reviste de specialitate cotate ISI

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>

2. 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://doi.org/10.1007/978-3-030-12942-2_29), [https://link.springer.com/chapter/10.1007/978-3-030-12942-2\\_29](https://link.springer.com/chapter/10.1007/978-3-030-12942-2_29)

3. **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>
4. **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>
5. 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://doi.org/10.1007/978-3-319-69284-5_10), [https://link.springer.com/chapter/10.1007/978-3-319-69284-5\\_10](https://link.springer.com/chapter/10.1007/978-3-319-69284-5_10)
6. **D. Bucerzan**, C. Rațiu, “*Image Processing with Android Steganography*“ Soft Computing Application – Advances in Intelligent Systems and Computing, **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>
7. **D. Bucerzan**, C. Rațiu , “*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, 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)
8. C. Rațiu, **D. Bucerzan**, M.J. Manolescu, “*SmartSteg: A New Android Based Steganography Application*“ International Journal of Computers Communications & Control, ISSN 1841-9836, E-ISSN 1841-9844, Vol. 8(5):p. 681-688, Publicata in 2013  
WOS:000324844700004 , Factor de impact **IF=0.694**
9. M. Crăciun, C. Rațiu, **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**  
DOI: <http://dx.doi.org/10.15837/ijccc.2013.3.464>  
<http://univagora.ro/jour/index.php/ijccc/article/view/464>

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

Soft Computing Applications, **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, Publicata in 2013  
WOS:000314077300055

[http://link.springer.com/chapter/10.1007/978-3-642-33941-7\\_55](http://link.springer.com/chapter/10.1007/978-3-642-33941-7_55)

11. C. Rațiu, **D. Bucerzan**, M. Crăciun, “*Contribution to Watermarking Techniques*”

Soft Computing Applications, **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, Publicata in 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)

12. **D. Bucerzan**, M. Crăciun, V. Chiș, C. Rațiu, “*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)

13. **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>

## 2. Articole științifice publicate în reviste de specialitate cotate CNCSIS categoria B+ și cotate în baze de date internaționale BDI

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

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

Revista de categoria B+, indexata BDI

2. **Dominic Bucerzan**, Crina Rațiu, “*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

3. **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)

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

Constanta Maritime University Annals, Vol.14, 2010, pag. 157-162, ISSN 1582-3601  
*Revista de categoria B+, indexata BDI*

5. 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*

6. **Dominic Bucerzan**, Marius Gheorghita, „*HENKOS Encrytion System (HKS)*”,  
*Revista Informatica Economica* , 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>

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

1. 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

2. **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

3. Survey on Cryptanalysis of Code-Based Cryptography : From Theoretical to Physical Attacks,  
Vlad Dragoi, Tania Richmond, **Dominic Bucerzan** and Axel Legay, IEEE Internațional  
Conference on Computers Communications and Control, Baile Felix, Oradea, Romania, May  
2018. <http://dx.doi.org/10.1109/ICCCC.2018.8390461>

4. 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,

5. C. Rațiu, 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

6. **Bucerzan D.**, Rațiu 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/>

7. **Bucerzan D.**, Rațiu 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

8. 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
9. 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
10. **Bucerzan D.**, Stoian C.D., “*Security of information sent through RNNEC*“, Proceedings of the International Symposium Research and Education in an Innovation ERA - 6<sup>th</sup> Edition, Arad, decembrie 2016, pag. 112-116, ISSN 2065 2469
11. **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 - 6<sup>th</sup> Edition, Arad, decembrie 2016, pag. 106-112, ISSN 2065 2469
12. **D. Bucerzan**, C. Rațiu , „*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
13. **Dominic Bucerzan**, Crina Rațiu, „*Secret Communication using Cryptography and Steganography*” Proceedings of the International Symposium Research and Education in an Innovation ERA - 5<sup>th</sup> Edition, Arad, **Noiembrie 2014**, pag, 14-20, ISSN 2065 2569 <http://www.rxiv.org/pdf/1412.0034v1.pdf>
14. **D. Bucerzan**, C. Rațiu, „*Image Processing with Android Steganography*” presented at „6<sup>th</sup> 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, Springer, Advances in Intelligent and Soft Computing, Soft Computing Applications, ISSN: 2194-5357, e-ISSN 2194-5365 <http://www.springer.com/gp/book/9783319182957>
15. **D. Bucerzan**, C. Rațiu, „ *Binding Android Steganography by Windows Steganography* ” 5<sup>th</sup> International Conference on Computers, Communication & Control (ICCCC 2014), May 6-10, 2014, Oradea- Baile Felix, ISSN 1844-4334, 4(2014)
16. C. Rațiu, **D. Bucerzan**, M. Crăciun, „*Analysis of Bankruptcy Prediction Model in the Present Economic Situation*” presented at „5<sup>th</sup> 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, e-ISSN 2194-5365

[http://www.ieee.org/conferences\\_events/conferences/conferencedetails/index.html?Conf\\_ID=21025](http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=21025)

**17. C. Rațiu, D. Bucerzan, M. Crăciun**, „*Contribution to Watermarking Techniques*” presented at „*5<sup>th</sup> 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, e-ISSN 2194-5365

[http://www.ieee.org/conferences\\_events/conferences/conferencedetails/index.html?Conf\\_ID=21025](http://www.ieee.org/conferences_events/conferences/conferencedetails/index.html?Conf_ID=21025)

**18. Mihaela Crăciun, Dominic Bucerzan, Crina Rațiu, Violeta Chiș**, „*Statistical Methods and Concepts of Probability Used in Bayesian Networks*”

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

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

Proceedings of the International Symposium Research and Education in an Innovation ERA - 4<sup>th</sup> Edition, Arad, **Noiembrie 2012**, pag. 58-66, ISSN 2065 2569

**20. M. Crăciun, C. Rațiu, 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

**21. Crina Rațiu, Dominic Bucerzan**, “Attacks on the Watermark Techniques”

2<sup>nd</sup> Symposium on Business Informatics in Central and Eastern Europe 2011, Osterreichische Computer Gesellschaft, , pag. 235-245, ISBN 978-3-85403-280-9

**22. Mihaela Crăciun, Dominic Bucerzan, Crina Rațiu**, „*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-October 2, 2011 Sibiu, Romania, Lucian Blaga University Press, Sibiu, 2011, pag. 36-44, ISSN 2067-3965

<http://conferences.ulbsibiu.ro/mdis/2011/papers/pg36.pdf>