Zece dintre lucrările publicate

1. R., Bocu, C., Costache, **A Homomorphic Encryption-Based System for Securely Managing Personal Health Metrics Data**, *IBM Journal of Research and Development ISSN 0018-8646, Volume 62, Issue 1, 2018, pp. 1:1-1:10.* **[B(4 puncte) // AIS2018.pdf, pagina 147],** *https://ieeexplore.ieee.org/abstract/document/8269765]*

2. R., Bocu, D., Bocu, M., Iavich, **Objects Detection Using Sensors Data Fusion in Autonomous Driving Scenarios**, *Electronics* **2021**, *10, 2903. https://doi.org/10.3390/electronics10232903, 2021.* **[B(4 puncte) // IF2021.pdf, pagina 156, primele 20% din lista albă]** *[electronics-2021.pdf, https://www.mdpi.com/2079-9292/10/23/2903]*

3. D., Bocu, R., Bocu, **Remarks on Interface Oriented Software Systems Modelling**, *International Journal of Computers, Communications & Control ISSN 1841-9836, ISSN-L 1841-9836, Volume 8, Issue 5, October, 2013, pp. 662-672.* **[C(2 puncte) // Este jurnal Scopus, deci se poate încadra în categoria C]** *[ijccc_1.pdf, http://univagora.ro/jour/index.php/ijccc/article/view/6]*

4. R., Bocu, S. Tabirca, **The Flag-based Algorithm – A Novel Greedy Method that Optimizes Protein Communities Detection**, *International Journal of Computers, Communications & Control, 6(1), 2011, pp. 33-44,* ISSN: 1841 – 9836. **[C(2 puncte) // Este jurnal Scopus, deci se poate încadra în categoria C]** *[ijccc_2.pdf, http://univagora.ro/jour/index.php/ijccc/article/view/2198]*

5. R., Bocu, M. Iavich, S. Tabirca, **A Real-Time Intrusion Detection System for Software Defined 5G Networks**, Proceedings of the Conference „Advanced Information Networking and Applications", 2021. **[B(4 puncte) //** *http://portal.core.edu.au/conf-ranks/890/***] [** *https://link.springer.com/chapter/10.1007/978-3-030-75078-7_44]*

6. R., Bocu, A. Kerestely, A. Baicoianu, **A Research Study on Running Machine Learning Algorithms on Big Data with Spark**, Proceedings of The 14th International Conference on Knowledge Science, Engineering and Management (KSEM), 2021. **[B(4 puncte) //** *http://portal.core.edu.au/conf-ranks/1112/***] [** *https://link.springer.com/chapter/10.1007/978-3-030-82136-4_25]*

7. R., Bocu, M. Iavich, **Enhanced Autonomous Driving Through Improved 3D Objects Detection**, Proceedings of the Conference „Advanced Information Networking and Applications", 2022. **[B(4 puncte) //** *http://portal.core.edu.au/conf-ranks/890/]* *[https://link.springer.com/chapter/10.1007/978-3-030-99584-3_6]*

8. R., Bocu, D. Bocu, **Conceptual Foundations of Code Rationalization Through a Case Study in Haskell**, Proceedings of the Conference „Advanced Information Networking and Applications", 2022. **[B(4 puncte) //** *http://portal.core.edu.au/conf-ranks/890/]* *[https://link.springer.com/chapter/10.1007/978-3-030-99584-3_11]*

9. R., Bocu, M. Iavich, S. Gnatyuk, R. Odarchenko, S. Simonov, **The novel system of attacks detection in 5G**, Proceedings of the Conference „Advanced Information Networking and Applications", 2021. **[B(2 1.33 puncte)** // ***http://portal.core.edu.au/conf-ranks/890/*** *] [https://link.springer.com/chapter/10.1007/978-3-030-75075-6_47]*

10. R., Bocu, **A Secure Distributed e-Health System for the Management of Personal Health Metrics Data**, Proceedings of the Conference „Advanced Information Networking and Applications", 2020. **[B(4 puncte)** // ***http://portal.core.edu.au/conf-ranks/890/*** *] [https://link.springer.com/chapter/10.1007/978-3-030-44041-1_4]*

Lista completă

Jurnale

- R., Bocu, D., Bocu, M., Iavich, **Objects Detection Using Sensors Data Fusion in Autonomous Driving Scenarios**, *Electronics* **2021**, *10, 2903. https://doi.org/10.3390/electronics10232903, 2021.*

- M., Iavich, R., Bocu, T., Kuchukhidze, G., Iashvili, S., Gnatyuk, **Novel Quantum Random Number Generator with the Improved Certification Method**, *International Journal of Mathematical Sciences and Computing ISSN 2310-9025, Volume 7, Number 3, pp. 41-53, 2021.*

- D., Bocu, R., Bocu, **The ICS Paradigm in Knowledge and Modelling**, *Broad Research in Artificial Intelligence and Neuroscience ISSN 2067-3957, Volume 9, Issue 3, 2018, pp. 5-16.*

- R., Bocu, C., Costache, **A Homomorphic Encryption-Based System for Securely Managing Personal Health Metrics Data**, *IBM Journal of Research and Development ISSN 0018-8646, Volume 62, Issue 1, 2018, pp. 1:1-1:10.*

- R., Bocu, D., Bocu, **The Role of the Conceptual Invariants Regarding the Prevention of the Software Artefacts' Obsolescence**, *Broad Research in Artificial Intelligence and Neuroscience ISSN 2067-3957, Volume 7, Number 4, 2016, pp. 56-62.*

- D., Bocu, R., Bocu, **THE FUNDAMENTALS REGARDING THE USAGE OF THE CONCEPT OF INTERFACE FOR THE MODELING OF THE SOFTWARE ARTEFACTS**, *Broad Research in Artificial Intelligence and Neuroscience ISSN 2067-3957, Volume 7, Number 1, 2016, pp. 91-102.*

- D., Bocu, R., Bocu, **Remarks on Interface Oriented Software Systems Modelling**, *International Journal of Computers, Communications & Control ISSN 1841-9836, ISSN-L 1841-9836, Volume 8, Issue 5, October, 2013, pp. 662-672.*

- D., Bocu, R., Bocu, **Strongly Project-Oriented Learning Systems. Concepts and Fundamental Principles**, *Scientific Studies and Research, Series Mathematics and Informatics, volume 21, no. 1, 2011, pp. 51-60, ISSN: 2067-3566.*

- D., Bocu, R., Bocu, **Abstractization – A Fundamental Instrument for Describing and Modeling Software Systems**, *International Journal of u- and e-*

Service, Science and Technology, Vol. 4, No. 3, September, 2011, pp. 33-48, ISSN: 2005-4270.

- R., Bocu, S. Tabirca, **The Flag-based Algorithm – A Novel Greedy Method that Optimizes Protein Communities Detection**, *International Journal of Computers, Communications & Control, 6(1), 2011, pp. 33-44*, ISSN: 1841 – 9836.
- R., Bocu, S. Tabirca, **Proteomic Data Analysis Optimization Using a Parallel MPI C Approach**, *IEEE Computer Society / First International Conference on Biosciences, pp. 21-29*, 2010, ISBN: 978-0-7695-3968-3.
- R., Bocu, S. Tabirca, **Sparse networks-based speedup technique for proteins betweenness centrality computation**, *International journal of biological and life sciences 5:3, pp. 151-158*, ISSN: 2010-3824.
- R., Bocu, S., Tabirca, **Betweenness centrality computation – a new way for analyzing the biological systems**, *Systemics and Informatics World Network vol. 6 (2009), pp. 78-84*, 2009, ISSN: 2044-7272.
- D., Bocu, R., Bocu, **Preliminary remarks regarding the impact of the modeling languages towards the quality standards in the software industry**, *International Journal of U- and E- service, science and technology (IJUNESST) vol. 2, no. 2 (2009), pp. 1-11, 2009*, ISSN: 2005-4270.
- R., Bocu, S., Tabirca, **The Protein Data Analysis Method – A Two-Dimensions Procedure that Enhances Interactome Networks Study**, *International Journal of Computers Communications & Control (în evaluare), 2011*, ISSN: 1841-9836.
- R., Bocu, D. Bocu, **Optimization of the informational flow in a social network – a protein network-based approach**. *Studia Universitatis Babeş-Bolyai, Series Informatica, Year 2011/June/02, pp. 75-80*, ISSN (print): 1224-869x, ISSN (online): 2065-9601.
- R., Bocu, M., Prathaban, **State of the art of the interplanetary communications**, *Institut National de Télécommunications, France, 2006* (Lucrare invitată).

Volume ale conferințelor
- D. Bocu, R., Bocu, **Conceptual Foundations of Code Rationalization Through a Case Study in Haskell**, Proceedings of the Conference „Advanced Information Networking and Applications", 2022.
- R., Bocu, M. Iavich, A. Gagnidze, **Real Time Self-developing Cybersecurity Function for 5G**, Proceedings of the Conference „Advanced Information Networking and Applications", 2022.
- R., Bocu, M. Iavich, **Enhanced Autonomous Driving Through Improved 3D Objects Detection**, Proceedings of the Conference „Advanced Information Networking and Applications", 2022.
- R., Bocu, M. Iavich, S. Tabirca, **A Real-Time Intrusion Detection System for Software Defined 5G Networks**, Proceedings of the Conference „Advanced Information Networking and Applications", 2021.
- R., Bocu, M. Iavich, G. Iashvili, R. Odarchenko, S. Gnatyuk, **Intrusion Detection System for 5G with a Focus on DOS/DDOS Attacks**, Proceedings of the 11th

IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS), 2021.

- R., Bocu, M. Iavich, G. Iashvili, R. Odarchenko, **A Post-Quantum Secure e-Health System for the Data Management**, Proceedings of the IEEE 4th International Conference on Advanced Information and Communication Technologies (AICT), 2021.
- R., Bocu, A. Kerestely, A. Baicoianu, **A Research Study on Running Machine Learning Algorithms on Big Data with Spark**, Proceedings of The 14th International Conference on Knowledge Science, Engineering and Management (KSEM), 2021.
- R., Bocu, M. Iavich, A. Gagnidze, G. Iashvili, S. Simonov, **Novel intrusion detection system for 5G**, Proceedings of the Conference „IVUS", 2021.
- R., Bocu, M. Iavich, S. Gnatyuk, R. Odarchenko, S. Simonov, **The novel system of attacks detection in 5G**, Proceedings of the Conference „Advanced Information Networking and Applications", 2021.
- R., Bocu, M. Iavich, S. Gnatyuk, D. Ospanova, Y. Sotnichenko, **Secure e-Health System for the Integrated Management of Personal Health Data Collected by IoT Devices**, Proceedings of the International Conference „Cybersecurity Providing in Information and Telecommunication Systems", Kiev, 2021.
- R., Bocu, **A Secure Distributed e-Health System for the Management of Personal Health Metrics Data**, Proceedings of the Conference „Advanced Information Networking and Applications", 2020.
- R., Bocu, **A Constructive Review Regarding the Significance of 5G Networks for the Internet of Things**, Proceedings of the Conference „Advanced Information Networking and Applications", 2020.
- M. Iavich, R., Bocu, G. Iashvili, **Post-Quantum Digital Signature Scheme for Personal Data Security in Communication Network Systems**, Proceedings of the International Conference of Artificial Intelligence, Medical Engineering, Education, Moscow, 2020.
- M. Iavich, R., Bocu, S. Gnatyuk, G. Iashvili, **Novel Method of Hardware Security Problems Identification**, Proceedings of the International Conference „Problems of Infocommunications. Science and Technology", Kharkiv, 2020.
- M. Iavich, R., Bocu, A. Arakelian, G. Iashvili, **Post-quantum Digital Signatures with Attenuated Pulse Generator**, Proceedings of the International Conference on Information Technology, Kaunas, 2020.
- C., Costache, O., Machidon, A., Mladin, F., Sandu, R., Bocu, **Software-Defined Networking of Linux Containers**, *IEEE Computer Society RoEduNet Conference*, 2014.
- R., Bocu, S., Tabirca, **Protein Communities Detection Optimization Through an Improved Parallel Newman-Girvan Algorithm**, *IEEE Computer Society Computational Systems Bioinformatics Conference, INSPEC Accession Number 11510542, pp. 380-385, 2010*, ISSN 2068-1038, Print ISBN: 978-1-4244-7335-9.
- R., Bocu, S., Tabirca, **Community detection-based analysis of the human interactome network**, *Proceedings of the International Conference on Bioinformatics and Biomedicine, pp. 153-158, 2009*, ISSN: 2010-3778.

- R., Bocu, Yin Jie Chen, S., Tabirca, M., Tangney, **Framework for Visualisation of Cancer Tumours**, *SpringerLink / Proceedings of the Asia-Pacific Bioinformatics International Conference, pp. 1750-1760, 2009*, DOI: 10.1007/978-3-642-02466-5.

- R., Bocu, **Interactome networks analysis through betweenness centrality computation**, *Cambridge University Press / Proceedings of the Network Biology Conference, Cambridge, United Kingdom, pp. 10-17, 2008.*

- R., Bocu, S., Tabirca, **Fister-Panetta upper bound – a computational approach**, *IEEE Computer Society / Proceedings of the International Conference on Biocomputation, Bioinformatics and Biomedical Technologies, pp. 17-22, 2008*, ISBN: 978-0-7695-3191-5.

- *R., Bocu, **Data management optimization using a two-dimensions paradigm***, Proceedings of the Eurographics Ireland 2007 Conference, University College Dublin, pp. 9-17, 2007.

- R., Bocu, Yin Jie Chen, S., Tabirca, **Synthetic imaging for 3D bacterial representation**, *Proceedings of the Eurographics Ireland 2007 Conference, University College Dublin, pp. 41-45, 2007.*

- R., Bocu, **IP Pooling-Based Email Systems Reputation Assurance**, *Proceedings of The RoEduNet 2011 International Conference, pp. 98-103, 2011*, ISSN: 2247-5443 / IEEE eISSN: 2068-1038 / Print ISBN: 978-1-4577-1233-3.

- R., Bocu, D., Bocu, **Optimizing Protein Importance Assessment through a Dijkstra-based Sequential Optimization Technique**, *Proceedings of the International Conference on Recent Researches in Neural Networks, Fuzzy Systems, Evolutionary Computing & Automation, pp. 207-212, 2011*, ISBN: 978-960-474-292-9.

- R., Bocu, **FaxFactory – An Optimization of the Dutch National Data System**, *Technical University of Delft, the Netherlands (Raport de cercetare şi, în acelaşi timp, teza de licenţă în Informatică / Research Report and, also, my BSc Thesis), 2005.*

- D., Bocu, R., Bocu, **The dissolution of the informational barriers in the academic management**, *Proceedings of the 6th Biannual International Economic Symposium, May 20-21, 2006, Braşov, Romania.*

Teza de doctorat

- R., Bocu, Efficient Algorithms for Interactome Networks. Cork University Press, Cork, Irlanda, 2010.

Cărţi

- D., Bocu, R., Bocu, **Incursiuni speculative in si dincolo de Ingineria Softului**. ISBN 978-606-250-661-2, Editura Matrix ROM, Bucuresti, 2021.

- D., Bocu, <u>R., Bocu</u>, **Provocari si metode de abordare in managementul proiectelor IT**. ISBN 978-973-650-299-6, Editura Albastră, Cluj-Napoca, 2013.
- D., Bocu, <u>R., Bocu</u>, **Modelarea obiect orientată cu UML. Fundamentele modelării cu UML. Inițiere în șabloane de proiectare utilizând sintaxa UML**. ISBN 973-650-194-9, Editura Albastră, Cluj-Napoca, 2006.
- D., Bocu, <u>R., Bocu</u>, **The Role of the WEB Technologies in Connection to the Communication's Streamlining and Diversification Between the Actors of a Learning System**. *Chapter published in the book "Social Media in Higher Education: Teaching in Web 2.0"*, DOI: 10.4018/978-1-4666-2970-7.ch011, 2013.
- <u>R., Bocu</u>, D., Bocu, **Computer Science Lessons for the Secondary School Pupils**. Transilvania University Press, 2012.

Alte publicații

- <u>R., Bocu</u>, **Criminalitatea informatică – o abordare sociologică**, *Universitatea Transilvania din Brașov, Facultatea de Drept și Sociologie* (lucrare de licență în Sociologie / BSc Thesis in Sociology), 2007.
- <u>R., Bocu</u>, **Data mining spațial – o nouă perspectivă cu privire la procesarea bazelor de date mari**, *Universitatea Transilvania din Brașov, Facultatea de Matematica si Informatica* (lucrare de dizertație în domeniul Informatică / MSc Thesis in Computer Science), 2006.