Universitatea Tehnică din Cluj-Napoca
Facultatea de Electronică, Telecomunicații și Tehnologia Informației
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L I S T A
lucrărilor ştiinţifice în domeniul disciplinelor din postul didactic

A – Teza de doctorat

Doctorand: din 1.10.2021
Conducător ştiinţific: Prof.dr.ing. Virgil Dobrota
Domeniul: inginerie electronică, telecomunicații si tehnologii informationale
Universitatea Tehnica din Cluj-Napoca

B – Cărţi şi capitole în cărţi publicate

C – Lucrări indexate ISI/BDI publicate în ultimii 10 ani (2016-2026)

c1) Articole in reviste cotate ISI si in volumele unor manifestari indexate ISI Proceedings

1. A.Bulzan, **R. Botez**, and V. Dobrota, "Analysis of a Modified Hyperledger Fabric Blockchain Architecture for GDPR-Compliant Identity and Access Management", Information 2026, 17(6), 525; https://doi.org/10.3390/info17060525, https://www.mdpi.com/2078-2489/17/6/525, WOS:001802444800001 (Q2 Journal).
2. **R. Botez**, D. Zinca and V. Dobrota, "Redefining 6G Network Slicing: AI-Driven Solutions for Future Use Cases", Electronics 2025, 14(2), 368; https://doi.org/10.3390/electronics14020368, WOS:001405206600001 (Q2 Journal).
3. **R. Botez**, A.G. Pasca, A.T. Sferle, I.A. Ivanciu, and V. Dobrota, "Efficient Network Slicing with SDN and Heuristic Algorithm for Low Latency Services in 5G/B5G Networks", Sensors 2023, 23(13), 6053; https://doi.org/10.3390/s23136053 WOS:001030144200001 (Q2 Journal).
4. **R. Botez**, A.T. Sferle, I.A. Ivanciu and V. Dobrota, "Work-in-Progress: KubeUT: A Cloud-Agnostic Kubernetes Management Platform", *Proceedings of the 11th International Black Sea Conference on Communications and Networking BlackSeaCom 2023,* Istanbul, Turkiye, 2023, pp. 384-389, Electronic ISBN:979-8-3503-3782-2, Print on Demand (PoD), ISBN:979-8-3503-3783-9, doi: 10.1109/BlackSeaCom58138.2023.10299745, WOS:001836698600067.
5. A.F. Sicoe, **R. Botez**, I.A. Ivanciu and V. Dobrota, "Fully Automated Testbed of Cisco Virtual Routers in Cloud Based Environments", Proceedings of the 10th International Black Sea Conference on Communications and Networking BlackSeaCom 2022, Sofia, Bulgaria, June 6-9, 2022, pp. 49-53, ISBN978-1-6654-9749-7, ISSN 2375-8236, doi: 10.1109/BlackSeaCom54372.2022.9858288, WOS:000865848800009.
6. **R. Botez**, J. Costa-Requena, I.A. Ivanciu, V. Strautiu and V. Dobrota, "SDN-based Network Slicing Mechanism for a Scalable 4G/5G Core Network: A Kubernetes Approach", Sensors 2021, 21(11),

3773; https://doi.org/10.3390/s21113773, ISSN: 1424-8220, WOS:000660676800001 (**ISI Q1 Journal**).

7. **R. Botez**, I.A. Ivanciu, C.M. Iurian, and V. Dobrota, "Quantum Implementation of the Modified Dijkstra's Routing Algorithm", Proceedings of the Romanian Academy - Series A, ISSN 1454-9069, Vol. 22, No. 41, January - March 2021, pp. 91-98, Romanian Academy Publishing House, WOS:000635594600011 **(ISI Q3 Journal).**
8. B. Kone, A.D. Kora, **R. Botez**, I.A. Ivanciu, and V. Dobrota, "Use Case of a Management and Orchestration for Network Functions Virtualization in a VoIP Testbed", Proceedings of the 9th International Black Sea Conference on Communications and Networking BlackSeaCom 2021, "Politehnica" University of Bucharest, Romania, May 24-28, 2021, pp.1-5, Electronic ISBN: 978-1-6654-0308-5, Print on Demand (PoD) ISBN: 978-1-6654-3098-2, ISSN: 2375-8236, DOI: 10.1109/BlackSeaCom52164.2021.9527877, WOS:000892556200045.
9. A. Cepuc, **R. Botez**, O. Craciun, I.A. Ivanciu, and V. Dobrota, "Implementation of a Continuous Integration and Deployment Pipeline for Containerized Applications in Amazon Web Services Using Jenkins, Ansible and Kubernetes", Proceedings of the 19th RoEduNet Conference: Networking in Education and Research, "Politehnica" University of Bucharest, Romania, December 11-12, 2020, pp.1-6, Electronic ISBN:978-0-7381-1265-7, Print on Demand (PoD) ISBN:978-0-7381-1266-4, Electronic ISSN: 2247-5443, Print on Demand (PoD) ISSN: 2068-1038, DOI: 10.1109/RoEduNet51892.2020.9324857, WOS:000654265900011.
10. M. Csoma, B. Kone, **R. Botez**, I.A. Ivanciu, A.D. Kora and V. Dobrota, "Management and Orchestration for Network Function Virtualization: An Open Source MANO Approach", Proceedings of the 19th RoEduNet Conference: Networking in Education and Research, "Politehnica" University of Bucharest, Romania, December 11-12, 2020, pp. 1-6, Electronic ISBN:978-0-7381-1265-7, Print on Demand (PoD) ISBN:978-0-7381-1266-4, Electronic ISSN: 2247-5443, Print on Demand (PoD) ISSN: 2068-1038, DOI: 10.1109/RoEduNet51892.2020.9324847, WOS:000654265900002.
11. **R. Botez**, V. Strautiu, I.A. Ivanciu, and V. Dobrota, "Containerized Application for IoT Devices: Comparison between balenaCloud and Amazon Web Services Approaches", Proceedings of the 14th International Symposium on Electronics and Telecommunications ISETC 2020, Timisoara, Romania, November 5-6, 2020, pp.1-4, Electronic ISBN:978-1-7281-9513-1, DOI: 10.1109/ISETC50328.2020.9301070, WOS:000612681000082.
12. **R. Botez**, C.M. Iurian, I.A. Ivanciu, and V. Dobrota, "Deploying a Dockerized Application with Kubernetes on Google Cloud Platform", 13th International Conference on Communications COMM 2020, Military Technical Academy "Ferdinand I", "Politehnica" University of Bucharest, "Electronica 2000" Foundation and IEEE Romania Section, Bucharest, Romania, June 18-20, 2020, pp. 471-476, Electronic ISBN: 978-1-7281-5611-8, USB ISBN: 978-1-7281-5610-1, Print on Demand(PoD) ISBN: 978-1-7281-5612-5, DOI: 10.1109/COMM48946.2020.9142014, WOS:000612723900084.

c2) Studii publicate la conferinţe indexate în baze de date internaţionale de referinţă în domeniul (DBLP, ACM, IEEE, SCOPUS)[1]

[1] indexate în:

1. D. Cuciureanu, **R. Botez** and V. Dobrota, "Intelligent Autoscaling of Virtual Machines based on Performance Metrics and Machine Learning", 2026 IEEE International Conference on Automation, Quality and Testing, Robotics (AQTR), Baile Felix, Romania, May 21-23, 2026, pp. 1-4, Electronic ISBN:979-8-3195-2970-1, USB ISBN:979-8-3195-2969-5, Print on Demand(PoD) ISBN:979-8-3195-2971-8, Electronic ISSN: 1844-7872, doi: 10.1109/AQTR70159.2026.11578013. **[SCOPUS], [IEEE].**
2. R. Cacu, A.M. Barbulet, **R. Botez**, R. Mihai and V. Dobrota, "Highly Available Distributed VPN Architecture in Cloud-Native Environments: 5G Edge Integration Through API-Driven Orchestration", *2026 IEEE Conference on Advanced Topics on Measurement and Simulation ATOMS,* Cluj-Napoca, May 13-15, 2026, pp. 153-156, Electronic ISBN:979-8-3315-6252-6, Print on Demand(PoD) ISBN:979-8-3315-6253-3, doi: 10.1109/ATOMS69836.2026.11583215. **[SCOPUS], [IEEE].**
3. A. Bulzan, **R. Botez**, and V. Dobrota, "Permissioned Blockchain-as-Service: Architecting Secure and Efficient Private Blockchain Networks", *Proceedings of the 16th International Symposium on Electronics and Telecommunications ISETC 2024,* Timisoara, Romania, November 7-8, 2024, pp. 1-4, Electronic ISBN:979-8-3503-9086-5, USB ISBN:979-8-3503-9085-8, Print on Demand (PoD) ISBN:979-8-3503-9087-2, Electronic ISSN: 2475-7861, Print on Demand (PoD) ISSN: 2475-787X, 10.1109/ISETC63109.2024.10797365. **[SCOPUS], [IEEE].**
4. **R. Botez**, A.G. Pasca and V. Dobrota, "Kubernetes-Based Network Functions Orchestration for 5G Core Networks with Open Source MANO", Proceedings of the 15th International Symposium on Electronics and Telecommunications ISETC 2022, Timisoara, Romania, November 10-11, 2022, pp. 1-4, Electronic ISBN: 978-1-6654-5150-5, USB ISBN:978-1-6654-5149-9, Print on Demand (PoD) ISBN: 978-1-6654-5151-2, Electronic ISSN: 2475-7861, Print on Demand (PoD) ISSN: 2475-787X, DOI: 10.1109/ISETC56213.2022.10010246. **[IEEE].**
5. C.M. Iurian, **R. Botez**, I.A. Ivanciu and V. Dobrota, "Video Streaming Evaluation Using Priority Queuing in P4 Programmable Networks", Proceedings of the 20th RoEduNet Conference: Networking in Education and Research ROEDUNET 2022, Sovata, Romania, September 15-16, 2022, pp. 1-5, Electronic ISBN: 978-1-6654-5528-2, Print on Demand (PoD) ISBN: 978-1-6654-5529-9, Electronic ISSN: 2247-5443, Print on Demand (PoD) ISSN: 2068-1038, DOI: 10.1109/RoEduNet57163.2022.9921096. **[SCOPUS], [IEEE].**
6. **R. Botez**, C.M. Petruti, I.A. Ivanciu and V. Dobrota, "Kubernetes-Based Load Balancer as a Service for Private Cloud Infrastructures", 14th International Conference on Communications COMM 2022, Military Technical Academy "Ferdinand I", "Politehnica" University of Bucharest, "Electronica 2000" Foundation and IEEE Romania Section, Bucharest, Romania, June 16-18, 2022, pp. 1-6, Electronic ISBN: 978-1-6654-9485-4, Print on Demand (PoD) ISBN:978-1-6654-9486-1, DOI:10.1109/COMM54429.2022.9817323. **[SCOPUS], [IEEE].**
7. I.A. Ivanciu, **R. Botez**, C.M. Iurian, A.V. Dumitrescu, T.M. Blaga and V. Dobrota, "An SD-WAN Approach for EUt+ Network", Proceedings of the 19th RoEduNet Conference: Networking in

Education and Research ROEDUNET 2021, “Alexandru Ioan Cuza” University of Iasi, Romania, November 4-6, 2021, pp.1-6, Electronic ISBN:978-1-6654-1351-0, Print on Demand (PoD) ISBN:978-1-6654-1352-7, Electronic ISSN: 2247-5443, Print on Demand (PoD) ISSN: 2068-1038, DOI:10.1109/RoEduNet54112.2021.9638308. **[SCOPUS], [IEEE].**

D – Lucrări publicate în ultimii 10 ani în reviste şi volume de conferinţe cu referenţi (neindexate) (2016-2026)

Reviste

1. C.V. Dolcescu, **R. Botez**, D. Zinca and V. Dobrota, “Decision Trees-Based Algorithm for Intelligent Allocation of Processes in Cloud”, *ACTA TECHNICA NAPOCENSIS, Electronics and Telecommunications*, ISSN 1221-6542, Vol.65, No.1, 2025, pp.11-19.
2. **R. Botez**, G. Lazar, I.A. Ivanciu, V. Dobrota, “Leveraging SDN/ SD-WAN in Virtual and IoT Deployments through Automation”, ACTA TECHNICA NAPOCENSIS, Electronics and Telecommunications, ISSN 1221-6542, Vol.62, No.2, 2022, pp.1-6.

E – Brevete obţinute pentru întreaga activitate

F – Contracte de cercetare (2016-2026)

1. M. Purcar (coordinator), V.Dobrota (activity responsible), D.Zinca, I.A. Ivanciu, **R. Botez**, G.M. Oltean, A.C. Bulzan, G. Lazar (members), SENTHICOM “SENse, THInk and COMmunicate", IPCEI - ME/CT “Important Project of Common European Interest - Microelectronics and Communication Technologies, Indirect Partner with NXP Semiconductors Bucharest, 2026-2028
2. V.Dobrota, I.A.Ivanciu, **R.Botez** (members), FRIEND-NOW "FutuRe telecommunication InfrastructurEs aND Next-generatiOn netWorks Education Program", Project ID 101128194, 2023-2025.
3. D. Gorgan (project coordinator), C. Iakkel, C. Petruti, **R. Botez** etc. (members), CLOUDUT "Cloud Cercetare UTCN", Contract No. 235/21.04.2020, POC, MySMIS ID:124493, http://cloudut.utcluj.ro/en/, 2020-2022.
4. V.Dobrota (project responsible), D.Zinca, I.Ivanciu, C.Campeanu, C.M.Iurian, **R. Botez** (members), Subsidiary Contract 10/29.01.19 „Optimizing and securing cloud services to integrate electric vehicles into smart cities”, part of ID P_40_333 ”URBIVEL - Advanced Technologies for Intelligent Urban Electric Vehicles” (coordinator C.Martis), 2019-2020

Data: 1.11.2026 **Semnătura:**