

Listă publicațiilor Conf. Dr. Ing. Răzvan Eusebiu Crăciunescu

I. TEZA DE DOCTORAT (T)

T. OPTIMIZAREA SISTEMELOR DE COMUNICAȚII ÎN MEDII AFECTATE DE FADING, 2018

II. CĂRȚI PUBLICATE (C)

C1. Petrescu, T.; Halunga, S.; Fratu, O.; Marcu, I.; Voicu, C.; **Craciunescu, R.**; “*Analiza și Sinteza Circuitelor: Teorie și aplicații*”, Editura Politehnica Press, București 2015, ISBN 978-606-515-641-8

C2. **Craciunescu R.**, Boicescu L, Vladeanu C, “Advanced Design Techniques for Analog and Digital Communication Systems”, Editura MATRIX ROM, Bucuresti, 2023, (89 pagini) ISBN (print) 978-606-25-0813-5

III. ALTE MATERIALE PUBLICATE (I,D)

I1. **Răzvan Eusebiu Crăciunescu**, Valentin Adrian Niță, Radu Alexandru Badea, *Semnale și programare : de la teorie la aplicații folosind MATLAB/Octave*, îndrumar de laborator Editura Politehnica Press, București 2022, ISBN (print) 978-606-9608-00-5

I2. **Răzvan Eusebiu Crăciunescu**, *Programarea Modulelor IoT folosind MicroPython*, îndrumar de laborator Editura Politehnica Press, București 2022, ISBN (online) 978-606-9608-06-7

I3. Valentin Adrian Niță, **Răzvan Eusebiu Crăciunescu**, Radu Alexandru Badea, INTRODUCERE ÎN PRELUCRAREA SEMNALELOR FOLOSIND PYTHON, Editura Politehnica Timisoara, Timisoara, 2022, ISBN (print) 978-606-35-0481-5

I4. Valentin Adrian Niță, **Răzvan Eusebiu Crăciunescu**, Radu Alexandru Badea, Signal Processing using Programming Languages: A Comprehensive Handbook with Scilab, Simulink, Python, MATLAB, Octave, Editura MATRIX ROM, Bucuresti, 2023, (95 pagini) ISBN (print) 978-606-25-0805-0

D1. Mihovska, A., Pnevmatikakis, A., Kyriazakos, S., Tonchev, K., **Craciunescu, R.**, Poulkov, V., Akker, H., Hermens, H., “*Integration of Sensing Devices and the Cloud for Innovative e-Health Applications*” **book chapter** number XX, Wearable Technologies and Wireless Body Sensor Networks for Healthcare, Publisher Institution of Engineering and Technology, ISBN (print) 978-1-78561-217-6, WOS:000515064200013

D2. **Craciunescu R.**, Halunga S, Fratu O, “Enhanced Massive Machine Type Communications for 6G Era” **book chapter** number 5 from: "6G Enabling Technologies: New Dimensions to Wireless Communication" book, River Publishers 2023, ISBN (print) 9788770227742

IV. ARTICOLE / STUDII IN EXTENSO PUBLICATE (R,V)

Ris1. Fratu, O.; Vulpe, A.; **Craciunescu, R.**; Halunga, S., “*Small Cells in Cellular Networks: Challenges of Future HetNets*”, Wireless Personal Communications Journal, vol. 78, issue 3, pp. 1613-1627, Oct. 2014, ISSN: 0929-6212, DOI 10.1007/s11277-014-1906-9, WOS:000341434800003 (IF. 2.2, ISI, SCOPUS)

Ris2. **Craciunescu, R.**; Manea, O.; Halunga, S.; Fratu, O.; Vizireanu, D.N., “*Considerations on CDMA–OFDM System Performances in Different Channel Environments for Different Modulation and Coding Scenarios*”, Wireless Personal Communications Journal, vol. 78, issue 3, pp. 1667-1682, Oct. 2014, ISSN: 0929-6212, DOI 10.1007/s11277-014-1907-8, WOS:000341434800006 (IF. 2.2, ISI, SCOPUS)

Ris3. Kyriazakos, S.; Mihaylov, M.; Anggorojati, B; Mihovska, A; **Craciunescu, R.**; Fratu, O; Prasad, R., “*eWALL – An intelligent caring home environment offering personalized context-aware applications based on advanced sensing*”, Wireless Personal Communications Journal,

vol. 87, issue 3, pp 1093-1111, 2016, ISSN: 1572-834X, DOI 10.1007/s11277-015-2779-2, WOS:000372271400026 (IF. 2.2, ISI)

- Ris4.** Martian, A.; Craciunescu, R.; Vulpe, A.; Suci, G; Fratu, O., “Access to RF White Spaces in Romania: Present and Future”, Wireless Personal Communications Journal, vol. 87, issue 3, pp 693-712, 2016, ISSN: 1572-834X, DOI 10.1007/s11277-015-2638-1, WOS:000372271400007 (IF. 2.2, ISI)
- Ris5.** Suci, G., Suci, V., Martian, A., Craciunescu, R., Vulpe, A., Marcu, I., Halunga, S., Fratu, O., “Big Data, Internet of Things and Cloud Convergence –An Architecture for Secure E-Health Applications”, Journal of Medical Systems, vol. 39, issue 11, pp. 1-9, ISSN 1573-689X, 2015, DOI 10.1007/s10916-015-0327-y, WOS:000363557500011 (IF. 2.311, Q1 - 2023, ISI, SCOPUS)
- Ris6.** Savu, V ; Fratu, O; Rusu, MI ; Savastru, D ; Tenciu, D; Vulpe, A; Craciunescu, R, „Determination of the electromagnetic wave propagation for the detection of the cherenkov radiation cone in salt environment”, University Politehnica of Bucharest Scientific Bulletin-SERIES A-Applied Mathematics and Physics, Volume: 80, Issue: 1, Pages: 251-260, 2018, ISSN 1223-7027, WOS:000427816900023 (IF. 1, ISI)
- Ris7.** Craciunescu, R.; “Non-audio–Video Gesture Recognition Systems”, Wireless Personal Communications Journal, vol. 110, issue 2, pp 815-827, ISSN: 1572-834X, Jan. 2020, ISSN: 0929-6212, DOI 10.1007/s11277-019-06757-5, WOS:000511874700016 (ISI, IF. 2,2)
- Ris8.** Alexa, L.; Maier, V.; Șerban, A.; Craciunescu, R., "Engineers Changing the World: Education for Sustainability in Romanian Technical Universities—An Empirical Web-Based Content Analysis." Sustainability Journal, vol. 12, no. 5: 1983, 2020, <https://doi.org/10.3390/su12051983>, WOS:000522470900284 (IF: 2.801, Q2 - 2020)
- Ris9.** Petre, A.-R.; Craciunescu, R.; Fratu, O. Design, Implementation and Simulation of a Fringing Field Capacitive Humidity Sensor. Sensors 2020, vol 20, issue 19, <https://doi.org/10.3390/s20195644> WOS:000586593500001 (IF 3.576, Q1 - 2020)
- Ris10.** Vulpe, A.; Crăciunescu, R.; Drăgulinescu, A.-M.; Kyriazakos, S.; Paikan, A.; Ziafati, P. Enabling Security Services in Socially Assistive Robot Scenarios for Healthcare Applications. Sensors 2021, 21, 6912. <https://doi.org/10.3390/s21206912> WOS:000716908400001 (IF 3.9, Q2 - 2023)
- Ris11.** Chiper, F.-L.; Martian, A.; Vlădeanu, C.; Marghescu, I.; Craciunescu, R.; Fratu, O. Drone Detection and Defense Systems: Survey and a Software-Defined Radio-Based Solution. Sensors 2022, 22, 1453. <https://doi.org/10.3390/s22041453> , WOS:000765140800001 (IF 3.9, Q2 - 2023)
- Rns1.** Vulpe, A.; Fratu, O.; Craciunescu, R.; Munteanu, A., ” Parameters that Influence the Transmission in DVB-T2”, Constanța Maritime University Annals, vol. 13, no. 18, pp. 215-222, Dec. 2012, ISSN: 1582-3601 (CNCSIS B+)
- Vis1.** Craciunescu, R.; Halunga, S.; Fratu, O., “Performances of LMS/NLMS algorithms for CDMA RAKE receivers”, 10th International Conference on Telecommunication in Modern Satellite Cable and Broadcasting Services (TELSIKS), Nis, Serbia, 5-8 Oct. 2011, vol.2, pp.451-454 (IEEEExplore, SCOPUS) DOI: [10.1109/TELSIKS.2011.6143241](https://doi.org/10.1109/TELSIKS.2011.6143241)
- Vis2.** Craciunescu, R.; Halunga, S.; Fratu, O., “Guard Interval effects on OFDM/BPSK transmissions over fading channels”, Proceedings of 20th Telecommunications Forum (TELFOR), Belgrade, Serbia, 20-22 Nov. 2012, pp. 471-474 , DOI: 10.1109/TELFOR.2012.6419249, WOS:000316626800116 (ISI, IEEEExplore, SCOPUS)
- Vis3.** Vulpe, A.; Fratu, O.; Craciunescu, R., “Performance evaluation of heterogeneous interworking using IEEE 802.21”, 20th Telecommunications Forum (TELFOR), Belgrade, Serbia, 20-22 Nov. 2012, pp. 498-501, DOI: [10.1109/TELFOR.2012.6419256](https://doi.org/10.1109/TELFOR.2012.6419256), WOS:000316626800123 (ISI, IEEEExplore, SCOPUS)

- Vis4.** Suci, G.; Ularu, E.G.; Craciunescu, R., "[Public versus private cloud adoption—A case study based on open source cloud platforms](#)", 20th Telecommunications Forum (TELFOR), Belgrade, Serbia, 20-22 Nov. 2012, pp. 494-497, DOI: 10.1109/TELFOR.2012.6419255, WOS:000316626800122 (ISI, IEEEExplore, SCOPUS)
- Vis5.** Martian, A.; Craciunescu, R.; Vulpe, A.; Fratu, O.; Marghescu, I., "[Perspectives on dynamic spectrum access procedures in TV White Spaces](#)", 16th International Symposium on Wireless Personal Multimedia Communications (WPMC), Atlantic City, USA, 24-27 June 2013, pp. 1-5, WOS:000332186700090 (ISI, IEEEExplore, SCOPUS)
- Vis6.** Fratu, O.; Vulpe, A.; Halunga, S.; Craciunescu, R., "[Interference analysis for inter-band Carrier Aggregation in LTE-advanced](#)", 11th International Conference on Telecommunication in Modern Satellite, Cable and Broadcasting Services (TELSIKS), Nis, Serbia, 16-19 Oct. 2013, vol.01, pp. 199-208, DOI: 10.1109/TELSIKS.2013.6704919, WOS:000428940800037 (ISI, IEEEExplore, SCOPUS)
- Vis7.** Craciunescu, R.; Halunga, S.; Fratu, O.; Vizireanu, N., "[Multi User Orthogonal Frequency division Multiple Access \(MU-OFDMA\) performances in AWGN and fading channels](#)", 11th International Conference on Telecommunication in Modern Satellite, Cable and Broadcasting Services (TELSIKS), Nis, Serbia, 16-19 Oct. 2013, vol.01, pp. 229-232 DOI: 10.1109/TELSIKS.2013.6704924, WOS:000428940800042 (ISI, IEEEExplore, SCOPUS)
- Vis8.** Savu, V.; Craciunescu, R.; Fratu, O.; Marghescu, I., "[Cosmic radiation detector performances in salt mines](#)", 11th International Conference on Telecommunication in Modern Satellite, Cable and Broadcasting Services (TELSIKS), Nis, Serbia, 16-19 Oct. 2013, vol.02, pp. 631-634 DOI: [10.1109/TELSIKS.2013.6704457](#), WOS:000428940800123, (ISI, IEEEExplore, SCOPUS)
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- Vis10.** Martian, A.; Sandu, B.T.; Fratu, O.; Marghescu, I., Craciunescu, R., "[Spectrum Sensing based on Spectral Correlation for Cognitive Radio Systems](#)", Global Wireless Summit, Aalborg, Denmark, 11-14 May, 2014, pp. 1-4 DOI: [10.1109/VITAE.2014.6934448](#), WOS:000363907300053 (ISI, IEEEExplore, SCOPUS)
- Vis11.** Craciunescu, R.; Voicu, C.; Vulpe, A.; Halunga, S., "[Performance analysis of MC-CDMA system when image transmission is involved](#)", 10th International Conference on Communications (COMM), Bucharest, Romania, 29-31 May 2014, pp. 1-4 DOI: 10.1109/ICComm.2014.6866742, WOS:000345844600086 (ISI, IEEEExplore, SCOPUS) -
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- Vis13.** Fratu, O.; Halunga, S.; Craciunescu, R.; Vulpe, A., "[Instrumental IoT - from environmental monitoring to cosmic ray detection](#)", Telecommunications Forum Telfor (TELFOR), 2014 22nd, pp.17-22, 25-27 Nov. 2014 DOI: 10.1109/TELFOR.2014.7034348, WOS:000392912300005, (IEEEExplore, ISI)
- Vis14.** Bîndar, V.; Popescu, M.; Bărtușică, R.; Craciunescu, R.; Halunga, S., "[Security aspects of RFID communication systems](#)", Proc. SPIE 9258, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VII, February 21, 2015, Constanta, Romania; doi:

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Vis15. Craciunescu, R.; Halunga, S.; Fratu, O., „*Wireless ZigBee home automation system*”, *Proc. SPIE* 9258, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies VII, 925826, February 21, 2015, Constanta, Romania; WOS:000354179700078 **doi: 10.1117/12.2072262 (SPIE, ISI, SCOPUS)**

Vis16. Suci, G.; Vulpe, A.; **Craciunescu, R.**; Butca, C; Suci, V., “*Big Data Fusion for eHealth and Ambient Assisted Living Cloud Applications*”, *IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)*, pp.102-106, 18-21 May 2015, Constanta, Romania, DOI: [10.1109/BlackSeaCom.2015.7185095](https://doi.org/10.1109/BlackSeaCom.2015.7185095), WOS:000380506900022 , (**ISI, IEEEExplore, SCOPUS**)

Vis17. Fratu, O.; Martian, A.; **Craciunescu, R.**; Vulpe, A.; Halunga, S.; Lazaridis, P.; Zaharis, Z.; Kasampalis, S., „*Comparative Study of Radio Mobile and ICS Telecom Propagation Prediction Models for DVB-T*”, *IEEE International Symposium on Broadband Multimedia Systems and Broadcasting (BMSB)*, pp.1-6, 17-19 June 2015 DOI: [10.1109/BMSB.2015.7177260](https://doi.org/10.1109/BMSB.2015.7177260), WOS:000369105500076, (**ISI, IEEEExplore, SCOPUS**) - Conferinta categoria 1 <https://jfp.csc.fi/en/web/haku/julkaisukanavahaku#!PublicationInformationView/id/72046>

Vis18. Barca, C.; Barca, D.C.; Mara, C.; Raducu, M.; Gavrioloaia, B; Vizireanu, R.; **Craciunescu, R.**; Halunga, S., “*Privacy profiling impact of android mobile applications*”, *2015 7th International Conference on Electronics, Computers and Artificial Intelligence (ECAI)*, , pp.C5-C10, 25-27 June 2015, Bucharest, Romania, DOI: [10.1109/ECAI.2015.7301140](https://doi.org/10.1109/ECAI.2015.7301140), WOS:000370971100005 , (**ISI, IEEEExplore, SCOPUS**)

Vis19. Barca, C.; Barca, D.C.; Mara, C.; Angheliescu, P.; Gavrioloaia, B; Vizireanu, R.; **Craciunescu, R.**; Fratu, O., “*IMPROVING STORAGE CAPACITY BY DISTRIBUTED EXACT DEPLICATION SYSTEMS*”, *2015 International Conference on Electronics, Computers and Artificial Intelligence (ECAI)*, , pp. C11-C16-6, 25-27 June 2015, Bucharest, Romania, DOI: [10.1109/ECAI.2015.7301141](https://doi.org/10.1109/ECAI.2015.7301141), WOS:000370971100006, (**ISI, IEEEExplore, SCOPUS**)

Vis20. Mitoi, M.; Vulpe, A.; **Craciunescu, R.**; Suci, G.; Fratu, O., “*Approaches for Environmental Monitoring Sensor Networks*”, *International Symposium on Signals, Circuits and Systems (ISSCS)*, pp.1-4, 9-10 July 2015, Iasi, Romania, DOI [10.1109/ISSCS.2015.7204013](https://doi.org/10.1109/ISSCS.2015.7204013), WOS:000380451600093 (**IEEEExplore, ISI, SCOPUS**)

Vis21. Mitoi, M.; **Craciunescu, R.**; Vulpe, A.; Fratu, O.; “*Sensor-Based Environmental Monitoring for Ambient Assisted Living*” In *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering “Future Access Enablers for Ubiquitous and Intelligent Infrastructures*”, vol. 159, pp. 76-82, Springer International Publishing, 2015 doi: http://dx.doi.org/10.1007/978-3-319-27072-2_10, WOS:000380529200010. (Springer, book chapter, SCOPUS)

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- Vis25. Craciunescu,R.;** Mihovska,A.; Prasad,R.; Halunga,S.; "Use of Behavior and Influence Functions for Relay Selection in Cooperative Communications," 2015 IEEE Globecom Workshops (GC Wkshps), San Diego, CA, 2015, pp. 1-6. doi: 10.1109/GLOCOMW.2015.7414145, WOS:000380457400188 (**IEEEExplore, ISI**)
- Vis26.** Marcu, I.; Voicu, C.; **Craciunescu, R.**, Halunga, S., "LDPC Performances in Multi-Carrier Systems," 11th International Conference on Communications (COMM 2016), Bucharest, Romania, June 9-11, 2016, ISBN: 978-1-4673-8196-3, DOI: [10.1109/ICComm.2016.7528256](https://doi.org/10.1109/ICComm.2016.7528256), WOS:000383221900044 (**IEEEExplore, ISI**)
- Vis27.** Popescu, M.; Bindar, V.; **Craciunescu, R.**, Fratu, O., "Estimate of minimum attenuation level for a TEMPEST shielded enclosure," 11th International Conference on Communications (COMM 2016), Bucharest, Romania, June 9-11, 2016, ISBN: 978-1-4673-8196-3, DOI: [10.1109/ICComm.2016.7528278](https://doi.org/10.1109/ICComm.2016.7528278), WOS:000383221900104 (**IEEEExplore, ISI**)
- Vis28. Craciunescu, R.**, Halunga, S., Mihovska, A., "Analysis of Relay Selection Game in a Cooperative Communication Scenario" 3rd Future Access Enablers for Ubiquitous and Intelligent Infrastructures. FABULOUS 2017. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, pp 89-94, vol 241. Springer 12-14 Oct 2017, Bucharest, DOI: 10.1007/978-3-319-92213-3_14, WOS:000481658200013 (Springer, ISI)
- Vis29.** Stoicescu, A.F., **Craciunescu, R.**, Fratu, O., "SIGN LANGUAGE TRANSLATOR SYSTEM" 3rd Future Access Enablers for Ubiquitous and Intelligent Infrastructures. FABULOUS 2017. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, pp 83-88, vol 241. Springer, 12-14 Oct 2017, Bucharest, DOI: 10.1007/978-3-319-92213-3_13, WOS:000481658200013 (Springer, ISI)
- Vis30.** A. Vulpe, A. Paikan, R. Craciunescu, P. Ziafati, S. Kyriazakos, A. Hemmer, R. Badonnel. "IoT Security Approaches in Social Robots for Ambient Assisted Living Scenarios," 2019 22nd International Symposium on Wireless Personal Multimedia Communications (WPMC), Lisbon, Portugal, 2019, pp. 1-6, doi: 10.1109/WPMC48795.2019.9096127, WOS:000587757300038 - Conferinta categoria 1
<https://jfp.csc.fi/en/web/haku/julkaisukanavahaku#!PublicationInformationView/id/72591>
- Vis31.** F. Constantin, G. Suciu, S. Bosoc and **R. Craciunescu**, "Internet Controlled Car," 2020 13th International Conference on Communications (COMM), Bucharest, Romania, 2020, pp. 261-264, doi: 10.1109/COMM48946.2020.9141988, WOS:000612723900046 Conferinta categoria 1 <https://jfp.csc.fi/en/#!PublicationInformationView/id/57414>
- Vis32.** M. M. Anghelof, G. Suciu, **R. Craciunescu** and C. Marghescu, "Intelligent System for Precision Agriculture," 2020 13th International Conference on Communications (COMM), Bucharest, Romania, 2020, pp. 407-410, doi: 10.1109/COMM48946.2020.9141981, WOS:000612723900072
- Vis33.** G. Suciu, T. Usurelu and **R. Craciunescu**, "IOT and Automation Solutions for Cities and Industry of Tomorrow," 2020 13th International Conference on Communications (COMM),

Bucharest, Romania, 2020, pp. 403-406, doi: 10.1109/COMM48946.2020.9141966, WOS:000612723900071

- Vis34.** A. Serban, L. Alexa, V. Maier, **R. Craciunescu**, Shaping the Pathways to Entrepreneurship. Entrepreneurial Education in Romanian Technical Universities, Proceedings of the European Conference on Entrepreneurship and Innovation (ECIE 2021), pp 883-891, Vol 2, 16-17 Sept 2021, Lisboa, DOI: 10.34190/EIE.21.127, WOS:000758450600021
- Vis35.** A. Martian, F. -L. Chiper, **R. Craciunescu**, C. Vladeanu, O. Fratu and I. Marghescu, "RF Based UAV Detection and Defense Systems: Survey and a Novel Solution," *2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)*, 2021, pp. 1-4, doi: 10.1109/BlackSeaCom52164.2021.9527871, WOS:000892556200069
- Vis36.** A. Vulpe, I. Girla, **R. Craciunescu** and M. G. Berceanu, "Machine Learning based Software-Defined Networking Traffic Classification System," *2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)*, 2021, pp. 1-5, doi: 10.1109/BlackSeaCom52164.2021.9527861, WOS:000892556200070
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- Vis38.** **R. Craciunescu**, C. Patachia-Sultanoiu, O. Fratu and I. Bogdan, "Testing Scenarios for off-the-shelf 5G devices," *2021 IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)*, 2021, pp. 1-4, doi: 10.1109/BlackSeaCom52164.2021.9527769, . WOS:000892556200059
- Vis39.** A. Dumitrescu, R. Craciunescu and A. Vulpe, "Evaluation of Human Performance in Driving Scenarios," 2022 25th International Symposium on Wireless Personal Multimedia Communications (WPMC), Herning, Denmark, 2022, pp. 369-374, doi: 10.1109/WPMC55625.2022.10014973. WOS:000947852500054
- Vis40.** R. Mihai, R. Craciunescu, A. Martian, F. Y. Li, C. Patachia and M. -C. Vochin, "Open-Source Enabled Beyond 5G Private Mobile Networks: From Concept to Prototype," 2022 25th International Symposium on Wireless Personal Multimedia Communications (WPMC), Herning, Denmark, 2022, pp. 181-186, doi: 10.1109/WPMC55625.2022.10014829. WOS:000947852500017
- Vis41.** C. Florea, R. Craciunescu, F. Y. Li, A. Vulpe and M. -C. Vochin, "Enabling Pseudo-Orthogonal Preambles, Clustering, and MIMO in Massive IoT Networks," 2022 25th International Symposium on Wireless Personal Multimedia Communications (WPMC), Herning, Denmark, 2022, pp. 193-198, doi: 10.1109/WPMC55625.2022.10014858, WOS:000947852500019
- Vi1.** **Craciunescu, R.**; Halunga, S.; Fratu, O., "Multiuser IR-UWB System Performance", Proceedings of ICEST 2012, Veliko Tarnovo, Bulgaria, 28-30 June 2012, pp. 1-4, ISBN: 978-619-167-002-4
- Vi2.** Bucşă, I; **Craciunescu, R.**; Halunga, S.; Fratu, O., "Doppler Fading Effects on OFDM Transmissions", Proceedings of ICEST 2012, Veliko Tarnovo, Bulgaria, 28-30 June 2012, pp. 1-4, ISBN: 978-619-167-002-4
- Vi3.** Mihai, G.; Vulpe, A.; **Crăciunescu, R.**; Fratu, O., „LTE Interference Analysis in an Urban Area,” 11th International Conference on Electronics, Telecommunications and Applied

Informatics (ETAI 2013), Ohrid, Macedonia, 26-28 Sept. 2013, pp.1-6, ISBN 978-9989-630-68-2

- Vi4.** Cojocaru, C.A.; Vulpe, A.; **Crăciunescu, R.**; Fratu, O., „*The Planning of a Large Scale Sensor Network using ICS-Telecom*,” 11th International Conference on Electronics, Telecommunications and Applied Informatics (ETAI 2013), Ohrid, Macedonia, 26-28 Sept. 2013, pp. 1-4, ISBN 978-9989-630-68-2
- Vi5.** **Craciunescu, R.**; Garliceanu, A.; Fratu, O., „*Study of a room temperature and light dynamic* „, 1st International Conference on Electrical, Electronic and Computing Engineering (IcETRAN), pp. 1-4, Vrnjačka Banja, Serbia, 2-5 June 2014, pp. 1-4
- Vi6.** Fratu, O.; Vulpe, A.; **Craciunescu, R.**; Halunga, S., „*Small cells in new generations of mobile access networks*“, 1st International Conference on Electrical, Electronic and Computing Engineering (IcETRAN), Vrnjačka Banja, Serbia, 2-5 June 2014, pp. 1-10
- Vi7.** V. Maier, L. Alexa, **R. Craciunescu**, „Online Education During the COVID19 Pandemic: Perceptions and Expectations of Romanian Students”, European Conference on e-Learning, October 2020, pp 317-323, DOI:10.34190/EEL.20.147 (Scopus)
- Vi8.** M.-G. Berceanu, C. Florea, R. Craciunescu "The performance of complex spreading codes within a Massive MIMO OFDM-based system with relays", Proc. SPIE 12493, Advanced Topics in Optoelectronics, Microelectronics, and Nanotechnologies XI, 124932X (2 March 2023); <https://doi.org/10.1117/12.2643286>
- Vi9.** T. Bărbuceanu, R. Craciunescu and E. Popovici, "Data Protection Device," 2023 15th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Bucharest, Romania, 2023, pp. 01-06, doi: 10.1109/ECAI58194.2023.10194205.

V. BREVETE DE INVENȚIE/INOVAȚII (B,A)

- B1.** Cerere de brevet: George Suciu, Gheorghe Suciu, Victor Suciu, Alexandru Stoica, Marius Enache, Octavian Fratu, Simona Viorica Halunga, Răzvan Eusebiu Crăciunescu, Răzvan, Alexandru Vulpe, *Communication center (comm-center)* , OSIM, numar: RO130954A2
- B2.** Cerere de brevet: Valeriu Savu, Octavian Fratu, Răzvan-Eusebiu Crăciunescu, Simona Viorica Halunga, Răzvan-Alexandru Vulpe, Carmen Voicu, *Hardware system for detecting neutrino-type cosmic radiation in salt* , OSIM, nr RO133011A2
- B3.** Cerere de brevet, Alexandru Martian, Razvan Craciunescu, Florin Chiper, Ion Marghescu, Calin Vladeanu, Octavian Fratu, George Popescu, Bogdan Gruia, Alexandru Tanasoiu, Sistem de detecție, localizare și bruiere a unei drone țintă de către altă dronă de apărare și de către o stație de sol, nr cerere: a 2022 00192 / 14.04.2022

VI. CONTRACTE ȘI RAPOARTE ȘTIINȚIFICE (P,F)

- Pi1.** „A Massive MIMO Enabled IoT Platform with Networking Slicing for Beyond 5G IoV/V2X and Maritime Services”, Fonduri Norvegiene 2014-2021, nr. 42/2021, RO-NO-2019-0499 (2021-2024) (responsabil partener BEAM Innovation SRL)
- Pi2.** Hybrid automated machine integrating concurrent manufacturing processes, increasing the production volume of functional on-demand using high multi-material deposition rates (KRAKEN), Proiect de tip H2020 project no. 72359 (2016-2019) (responsabil partener World Professional Services)
- Pi3.** Smart and Networking Underwater Robots in Cooperation Meshes (SWAMRs), Proiect de tip ECSEL/H2020 no 662107 (2015-2018) (responsabil partener World Professional Services)

- Pi4.** EELISA UNlocking Full innOvation capacity buiLDing and entrepreneurship, Proiect de tip EIT Cross-KIC Strategic Outreach, nr 020224503 , director proiect Dana Gheorghe
- Pi5.** Research Collaboration and Mobility for Beyond 5G Future Wireless Networks, Proiect de tip Horizon 2020 RISE Nr 872857. (cercetator) director proiect Octavian Fratu
- Pi6.** MObility and Training fOR beyond 5G Ecosystems , Proiect de tip Horizon 2020 Marie Skłodowska-Curie Nr 861219. (cercetator) director proiect Simona Halunga
- Pi7.** eWall for Active Long Living (eWALL), Proiect de tip FP7, contract nr. 610658 (2013-2016) (membru echipa proiect)
- Pi8.** Packages integrating different solutions based on ICT to support active, healthy and independent living of older adults, Proiect de tip AAL- 2017-4- 045; UEFISCDI 54/2018 (2018-2021) (membru echipa proiect)
- Pi9.** Virtual Open Incubator (VOICE)” Proiect de tip FP7 contract nr. 621137 (2014-2017) (membru echipa proiect)
- Pn1.** Climate-Neutral Governance, proiectul component nr 1 in cadrul National Competence Centre and solutions for the development of Climate Neutral and Smart Cities” (NetZeRoCities), finantat de Uniunea Europeana – NextGenerationEU si de Guvernul Romaniei, prin PNRR, contract nr. 760007 / 30.12.2022 cu MCID, 2023-2026 (responsabil partener UPB)
- Pn2.** "Proiect de cercetare-dezvoltare pentru dispozitive 5G si LoRa", Contractului de Cercetare Stiintifica (cu terti) la CONTRACTUL cu TERTI, Nr. 23513/07.10.2022, Nr UPB CAMP 22.24, incheiat intre Universitatea Politehnica din Bucuresti – Institutul de Cercetare CAMPUS, Laboratorul 5G in calitate de executant / prestator si S.C. ORANGE ROMANIA S.A. in calitate de beneficiar (finantator). (2022) (director proiect)
- Pn3.** “Realizarea și finanțarea proiectului de măsurare, testare, validare și documentare aferente unor tehnologii, dispozitive si aplicatii”, Contractului de Cercetare Stiintifica nr. 20153/22.02.2021, numar intern UPB: CAMP 21.03, incheiat intre Universitatea Politehnica din Bucuresti – Institutul de Cercetare CAMPUS, Laboratorul 5G in calitate de executant / prestator si S.C. ORANGE ROMANIA S.A. in calitate de beneficiar. (2021-2022) (director de proiect)
- Pn4.** Crearea de coduri de imprastiere complexe cu corelatie mica, Proiect AOSR, 2022-2023, director de proiect Madalina Berceanu (membru echipa proiect)
- Pn5.** “Sistem de apărare împotriva dronelor bazat pe platforme radio definite prin software (DroneEnd)", Contract nr. PN-III-P2-2.1-PED-2019-1951, Proiect UEFISCDI de tip “Proiect Experimental Demonstrativ” (2020-2022) (membru echipa proiect)
- Pn6.** Sistem informatic integrat pentru managementul activităților (SIIMA), Contract nr. 8Sol/2018, Proiect UEFISCDI de tip Soluții(2018-2021) (membru echipa proiect)
- Pn7.** Platforma de sisteme inteligente multiagent pentru monitorizarea calitatii apei pe sectorul romanesc al Dunarii si Deltei Dunarii (MultiMonD2), Contract nr. 33PCCDI/2018, Proiect UEFISCDI de tip complex de CDI (2018-2020), (membru echipa proiect)
- Pn8.** Sistem OFDM bazat pe FFT cu argument neîntreg (FractOFDM), Contract nr. 213PED/2017, Proiect UEFISCDI de tip “Proiect Experimental Demonstrativ” (2017-2018) (membru echipa proiect)
- Pn9.** Platformă software integrată pentru analiza malware a terminalelor mobile (ToR-SIM), Contract nr. 5Sol/2017, Proiect UEFISCDI de tip Soluții (2017-2020) (membru echipa proiect)
- Pn10.** “SISTEM de TELEMETRIE pentru AGRICULTURA INTELIGENTĂ (SmartAgro)", contract subsidiar nr. 8592 / 08.05.20 proiectului Ecosistem de cercetare, inovare și dezvoltare

de produse și servicii TIC pentru o societate conectată la Internet of Things –NETIO” cod MySmis 105976, contract nr. 53/05.09.2016., Contract nr. 53/05.09.2016, Proiect POC de tip “Transfer de cunoștințe” (2016-2017) (membru echipa proiect)

Pn11. Investigation of the Cosmic Radiation in the Universe using advanced techniques (CORONA). Contract nr. 194/2012, Proiect UEFISCDI de tip Parteneriate(2012-2016) (membru echipa proiect)

Pn12. Scalable Radio Transceiver for Instrumental Wireless Sensor Networks (SaRaT-IWSN). Contract nr. 20/2012, Proiect UEFISCDI de tip Parteneriate (2012-2016) (membru echipa proiect)

Pn13. “Evoluția, modalitățile de implementare și de tranziție pentru radiodifuziunea digitală DVB în condițiile de utilizare eficientă a spectrului de frecvențe”, contract nr.106/08.08.2011, proiect de cercetare din planul sectorial 2011-2014 al MCSI, programul Comunicații (2011-2013) (membru echipa proiect)

VII. COMUNICĂRI ȘTIINȚIFICE NEPUBLICATE (E)

E1.Craciunescu, R. , “*Challenges in IoT systems*”, Technologies and Solutions for Smart Cities, Politechnica University of Bucharest workshop, 24 May 2018.

E2.Fratu, O.; Halunga, S.; Marcu,I.; Martian, A.; Vulpe, A.; Craciunescu, R.; “*Study And Simulation Of a Wireless Sensor Network (WSN) Communications System*” AugerNEXT workshop, Karlsruhe, Germany, 30 Jan. 2013

E3.Fratu, O.; Vulpe, A.; Craciunescu, R.; Halunga, S., „*Small Cells in Cellular Networks – Challenges of Future HetNets*”, invited presentation, 1st annual CTIF-SEE Workshop, Sofia, Bulgaria, 16 September 2013

E4.Fratu, O.; Halunga, S.; Craciunescu, R.; “*Update Comms systems: Study And Simulation Of Communications protocols*”, AugerNEXT workshop, Malargue, Argentina, 11 Nov. 2013

E5.Fratu, O.; Craciunescu, R.; Pena, C.; Halunga, S., “*Sensor-based improved ADL for persons affected by COPD*”, 1st eWall project workshop Global Wireless Summit (GWS), Aalborg, Denmark, 13 May 2014

E6.Martian, A.; Craciunescu, R.; Sandu, B.T.; Fratu, O., „*UHF Broadcasting in Romania*”, 3rd IEEE BTS GOLD Workshop : Broadcasting in the IP Era, Brasov, Romania, 19-20 May 2014

E7.A. Martian, R. Craciunescu, A. Vulpe, O. Fratu, “*Access to RF White Spaces in Romania: Present and Future*”, ICT - the connecting path of Danube and Balkan regions to the entire Europe, 2nd CTIF-SEE workshop, 11-12 September 2014, Bucharest, Romania.

E8.Fratu, O.; Halunga, S.; Vulpe, A.; Crăciunescu, R., “*Flying IoT platform*”, 2nd CTIF-SEE workshop, Bucharest, Romania, 11 September 2014

E9.Fratu, O; Vulpe, A.; Crăciunescu, R.; Halunga, S., „*Smart Integrated Mobile IoT Networked Platforms*”, 3rd CTIF-SEE workshop, Budva, Montenegro, 29-30 September 2015

E10. Fratu, O; Vulpe, A.; Dragomir, R.; Crăciunescu, R.; Halunga, S., „*Vehicular Visible Light Communications 5G Backhaul System*”, 3rd CTIF-SEE workshop, Budva, Montenegro, 29-30 September 2015

E11. Fratu, O., Craciunescu, R., Savu, V., Halunga, S., , “*From neutrino detectors to IoT nuclear reactor detection systems in salt mines*”, 4th CTIF-SEE workshop, Skopie 12-13 Septembrie 2016