

**LIST OF PUBLICATIONS**  
**PUBLICATIONS / RESEARCH PROJECTS / AWARDS**

**Marcu Ioana Manuela**  
**Department of Telecommunications**  
**Polytechnic University of Bucharest**

**BOOKS**

1. **I. Marcu**, O. Fratu " Mobile Communications. Applicative Aspects", Editura Politehnica Press, ISBN 978-606-9608-28-9, 129 pag, 2022 ([http://cr.uk.to/Mobile\\_Communications.pdf](http://cr.uk.to/Mobile_Communications.pdf) )
2. **I. Marcu**, "Noțiuni fundamentale de grafică computerizată și animație", Editura Politehnica Press, ISBN 978-606-9608-25-8, 147 pag, 2022 ([http://cr.uk.to/edi\\_final\\_marcu.pdf](http://cr.uk.to/edi_final_marcu.pdf) )
3. **I. Marcu**, I. Pirnog, A. Vulpe, L. Dogariu, A.-M. Drăgulescu, "Electronic measurements. Theory and applications", Editura Politehnica Press, ISBN 978-606-515-987-7, 166 pag, 2021
4. **I. Marcu**, C.Oprea, A. Martian, O. Fratu, I. Marghescu, "Comunicatii Mobile. Aspecte teoretice si experimentale", Editura Politehnica Press, ISBN 978-606-515-837-5, 109 pag, 2018
5. T. Petrescu, S. Halunga, O. Fratu, **I. Marcu**, C. Voicu, R. Craciunescu, "Analiza și sinteza circuitelor: teorie și aplicații", Editura Politehnica Press, ISBN 978-606-515-641-8, Bucuresti, 2015
6. I. Constantin, S. Halunga, **I. Marcu**, „Comunicații analogice și digitale – Culegere de probleme”, Editura Electronica 2000, București, 2010 (191 pag.), ISBN 978-973-7860-22-4
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8. S.V. Nicolaescu, I Marghescu, I. Bogdan, S Halunga, **I. Marcu** ș.a. „Accesul Wireless de Bandă Largă ”, vol I (387 pag), Editura Printech 2008, ISBN 978-606-521-080-6, 978-606-521-081-3
9. S.V. Nicolaescu, I Marghescu, I. Bogdan, S Halunga, I. Marcu ș.a. „Accesul Wireless de Bandă Largă ”, vol II (214 pag), Editura Printech 2008, ISBN 978-606-521-080-6, 978-606-521-081-3
10. I. Constantin, S. Halunga, **I. Marcu**, „Semnale și Sisteme - probleme”, Editura Electronica 2000, București, 2007 (149 pag.), ISBN 978-973-7860-07-1

**BOOK CHAPTER**

1. **Ioana Marcu**, Simona Halunga, Octavian Fratu, Dragos Vizireanu, „Multiuser systems implementations in fading environments”, Book title: Matlab / Book 5, InTech - Open Access Publisher, Tadeusz Michałowski (Ed.), ISBN: 978-953-307-708-6, 2011

**PAPERS (ISI conferences/journals)**

1. **I. Marcu (Bercă)**, S. Halunga, Octavian Fratu, Tatiana Mochi, “Software defined radio - Simulation for audio broadcasting applications”, TELSIS 2003, 6th International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services, October 1-3, Nis, Serbia and Montenegro, Vol.2, pp. 238-241 WOS: 000188740300050
2. **I. Marcu**, S. Halunga, O. Fratu, D. Vizireanu, „Fading effects on turbo-encoded data”, Conferința IEEE – TELSIS 2007, Nis, Serbia, 26-28 Sept 2007, pg. 525-528 WOS: 000251017900104
3. S. Halunga, **I. Marcu**, O. Fratu, A. Badescu, „Conventional and optimal multiuser performance increase by using turbo encoding”, 9th International Conference On Telecommunications In Modern Satellite, Cable And Broadcasting Services (TELSIS 2009), 7-9 Oct. 2009, Nis, Serbia, pp 414 – 417 WOS: 000289094600079
4. A. Bădescu, O. Fratu, S. Halunga, **I. Marcu**, „Consideration on radio propagation in cavities”, 9th International Conference On Telecommunications In Modern Satellite, Cable And Broadcasting Services (TELSIS 2009), 7-9 Oct. 2009, Nis, Serbia, pp 388 – 391 WOS: 000289094600074

5. S. Halunga, **I. Marcu**, O. Fratu, I Marghescu, "Orthogonality, amplitude and number of users effects on conventional multiuser detection using turbo decoding", EUROCON 2009, 18-23 May 2009, Sankt Petersburg, Rusia, pp. 2000-2004 WOS: 000272589500327
6. S. Halunga, **I. Marcu**, O. Fratu, D. Vizireanu, "Convolutional encoding effects on conventional multiuser decoding algorithm in imperfect decoding conditions", Wireless Vitae, 17-20 May, 2009, Aalborg, Denmark, pp 238 – 242 WOS:000276233900046
7. C. Vasile, **I. Marcu**, S. Halunga, D. N. Vizireanu, „MMSE Multiuser Detector Performances Improvement with Convolutional and Turbo coding”, 8th International Conference on Communications (COMM 2010), 10-12 June 2010, ISBN: 978-1-4244-6360-2, Bucharest, Romania WOS:000299870700124
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9. A. Bădescu, O. Fratu, A. Frugină, S. V. Halunga, **I. Marcu**, „Wireless sensor network for wildlife monitoring”, ENVIRONMENTAL ENGINEERING AND MANAGEMENT JOURNAL, Volume: 10 Issue: 11 Pages: 1625-1634, Published: NOV 2011, ISSN: 1582-9596 WOS:000298662900003 URL: <http://www.eemj.icpm.tuiasi.ro/issues/vol10/vol10no11.htm>
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11. E. Zainea, A. Martian, **I. Marcu**, O. Fratu, "Transition from Analog to Digital Broadcasting", în Proc. 10th International Symposium on Electronics and Telecommunications (ISETC12), Timisoara, November 2012, pp. 171-175, ISBN: 978-1-4673-1175-5 WOS:000318702700040
12. **I. M. Marcu**, S. V. Halunga, "LDPC vs turbocodes behavioral analysis in multiuser DS-CDMA systems", Proceedings of "International Symposium on Electronics and Telecommunications ETC 2014 Eleventh Edition", ISBN 978-1-4799-7265-4, pp. 135-139, Timișoara, November 14-15, 2014 WOS:000366633300032
13. **I. Marcu**, C. Voicu, S. V. Halunga, "Superimposed effects of signature sequences and LDPC technique in faded CDMA multiuser systems", Proceedings of ISSCS 2015, ISBN: 978-1-4673-7487-3, Iasi, Romania, 2015 WOS:000380451600037
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17. **I. Marcu**, C. Voicu, S. V. Halunga, "Combined-coding effects over multiple access transmissions", U.P.B. Sci. Bull., Series C, Vol. 78, Iss. 3, pp. 127-136, ISSN 2286-3540, 2016 WOS:000393326700012
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19. A.-M. C. Drăgulinescu, **I. Marcu**, S. Halunga, O. Fratu, "Sensors system design for discrimination between humans and animals", 8th International Conference on Advanced Topics in Optoelectronics, Microelectronics and Nanotechnologies (ATOM-N), Constanta, Romania, Aug. 2016 WOS:000391359600038
20. A. Vulpe, Ș. C. Arseni, **I. Marcu**, C. Voicu, O. Fratu, „Building a Unified Middleware Architecture for Security in IoT”, In WorldCIST 2017: Recent Advances in Information Systems and Technologies, vol 570, pp.105-114. Springer, Cham, DOI: 10.1007/978-3-319-56538-5\_11, Apr 2017 WOS: 000425541200011

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22. A.-M. C. Dragulinescu, A. Dragulinescu, **I. Marcu**, S. Halunga, O. Fratu, “SmartGreeting: A new smart home system which enables context-aware services”, In: Fratu O., Militaru N., Halunga S. (eds) Future Access Enablers for Ubiquitous and Intelligent Infrastructures. FABULOUS 2017. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 241. Springer, Cham WOS: 000481658200023
23. **I. Marcu**, C. Voicu, A.M.D. Drăgulinescu, O. Fratu, G. Suciu, C. Bălăceanu, M.M Andronache, “Overview of IoT basic platforms for precision agriculture”, FABULOUS 2019: Future Access Enablers for Ubiquitous and Intelligent Infrastructures, Publisher: Springer, ISBN: 978-3-030-23975-6, pp 124-137, March 2019 WOS: 000552334400013
24. M. Vochin, A. Vulpe, **I. Marcu**, G. Suciu, "Low-power intelligent displaying system with indoor mobile location capability", FABULOUS 2019: Future Access Enablers for Ubiquitous and Intelligent Infrastructures, Publisher: Springer, ISBN: 978-3-030-23975-6, pp 146-153, March 2019 WOS: 000552334400015
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28. A.-E. Marcu, G. Suciu, E. Olteanu, D. Miu, A. Drosu, **I. Marcu**, “IoT System for Forest Monitoring”, 42nd International Conference on Telecommunications and Signal Processing (TSP), ISBN: 978-1-7281-1864-2, pp. 629-632, Budapest, Hungary, July 2019, WOS: 000493442800138
29. C. Bălăceanu, **I. Marcu**, G. Suciu, C. Dantas, P. Mayer, “ Developing a Smart Toilet System for ageing people and persons with disabilities”, ECBS 2019, ISBN:978-1-4503-7636-5, WOS: 000525376600016, Romania, Sept 2019
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33. I. Pirnog, **I. Marcu**, C. Oprea, “Automated Segmentation of Pigmented Skin Lesions Images for Smartphone Applications”, 2019 International Semiconductor Conference (CAS 2019), Electronic ISBN: 978-1-7281-1888-8, pp.107-110, Sinaia, Romania, Oct. 2019 WOS: 000514295300021
34. **I. Marcu**, G. Suciu, C. Bălăceanu, A.-M. Drăgulinescu, M. A. Dobrea, “IoT Solution for Plant Monitoring in Smart Agriculture”, 2019 IEEE 25th International Symposium for Design and Technology in Electronic Packaging (SIITME), Electronic ISBN: 978-1-7281-3330-0, Cluj-Napoca, Romania, Oct. 2019 WOS: 000564733700038
35. **I. Marcu**, G. Suciu, C. Bălăceanu, A. Vulpe, A.M. Dragulinescu, „Arrowhead Technology for Digitalization and Automation Solution: Smart Cities and Smart Agriculture”, SENSORS, Volume: 20, Issue: 5, Article Number: 1464, DOI: 10.3390/s20051464, WOS: 000525271500226, Published: MAR 2020 (Q1)
36. **I. Marcu**, I. Pirnog, C. Voicu, A.-M.-C. Drăgulinescu, “Delta-Sigma Modulation for noise cancellation in 5G-compliant network”, WIRELESS PERSONAL COMMUNICATIONS, DOI: 10.1007/s11277-020-07327-w, ISSN: 0929-6212, WOS: 000526247100009, APR 2020 (ISI Q4)

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41. **I. Marcu**, A.-M. C. Drăgulescu, C. Oprea, G. Suci, C. Bălăceanu, "Predictive analysis and wine-grapes disease risk assessment based on atmospheric parameters and precision agriculture platform", Sustainability 2022, 14(18), 11487; <https://doi.org/10.3390/su141811487>, WOS: 000856715900001, Sept 2022
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### **PAPERS (BDI and other databases conferences/journals)**

1. Cristina-Claudia Oprea, Ana-Maria Claudia Drăgulescu, **Ioana-Manuela Marcu**, Ionuț Pirnog, "Evaluating Critical Disease Occurrence in Grapevine Leaves using CNN: Use-Case in Eastern Europe", 2023 17th International Conference on Engineering of Modern Electric Systems (EMES), Electronic ISBN:979-8-3503-1063-4, DOI: 10.1109/EMES58375.2023.10171678, Oradea, Romania, Iunie 2023
2. George Craioveanu, **Ioana M. Marcu**, Terolaviu F. Popescu, "Integrative Therapeutic Music-Based Application For Alzheimer's Disease", 2023 17th International Conference on Engineering of Modern Electric Systems (EMES), Electronic ISBN:979-8-3503-1063-4, DOI: 10.1109/EMES58375.2023.10171678, Oradea, Romania, Iunie 2023
3. R. Roșcăneanu, R. Streche, F. Osiac, C. Bălăceanu, G. Suci, A. Drăgulescu, **I. Marcu**, "Detection of Vineyards Diseases using Internet of Things Technology and Machine Learning Algorithms", International Conference "Air and Water Components of the Environments", pp. 128-139, Cluj-Napoca, Romania, DOI: 10.24193/AWC2022\_13, 2022
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7. C. Bălăceanu, G. Suci, **I. Marcu**, "Libelium-based IoT Monitoring Solution for Precision Agriculture", Journal of E – Technology, open access journal, Volume: 10, Issue: 1, Feb. 2019 DOI:10.6025/jet/2019/10/1/1-9
8. **I. Marcu**, I. Pirnog, "SCL-Based Analysis for 4G-Compliant System in Indoor Pedestrian Environments" in Advances in Intelligent Systems and Computing book series (AISC, volume 747), Editors: Á. Rocha, H. Adeli, L. P. Reis, S. Costanzo, pp. 108-118, ISBN: 9783319777009, Springer, 2018 DOI [https://doi.org/10.1007/978-3-319-77700-9\\_11](https://doi.org/10.1007/978-3-319-77700-9_11)
9. **I. Marcu**, C. Voicu, S. V. Halunga, R. Preda, „LDPC encoding performances for fading suppression in MIMO-CDMA wireless networks”, ICST Trans. Mobile Communications Applications, DOI:10.4108/eai.10-7-2018.155052, 2018



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11. A.-M. C. Drăgulinescu, **I. Marcu**, S. Halunga, O. Fratu, “Persons Counting and Monitoring System based on Passive Infrared Sensors and Ultrasonic Sensors (PIRUS)”, 2nd EAI International Conference on Future Access Enablers of Ubiquitous and Intelligent Infrastructures (FABULOUS 2016), pervasive Computing Paradigms for Mental Health. FABULOUS 2016, MindCare 2016, IIOT 2015. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 207. Springer, Cham, October 24–25, 2016, Belgrade, Serbia
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14. A. Bădescu, **I. Marcu**, T. Petrescu, S. Halunga, O. Fratu, „Facilities of Digital Modulation Techniques and Conversion Schemes in Underground Multiuser Systems”, International Conference on Computer as a Tool (EUROCON 2011), April 27-29, 2011, ISBN: 978-1-4244-7486-8, IST Congress Center, Lisabona, Portugalia
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32. **I. Marcu (Bercă)**, S. Halunga, O. Fratu, “Turbo coding Performances in small signal to noise radio”, Proceeding of 40-th International Scientific Conference on Information, Communication and Energy Systems and Technologies, ICEST 2005, Nis, Serbia and Muntenegro, June 29 –July 1, 2005, pp. 3-6, ISBN 86-85195-26-8
33. S. Obreja, O. Fratu, S. Halunga, **I. Marcu (Bercă)**, “Interactive Broadcasting: Solution for a DVB-T / WCDMA hybrid wireless access”, Proceeding of 40-th International Scientific Conference on Information, Communication and Energy Systems and Technologies, ICEST 2005, pp. 403-406, ISBN 86-85195-26-8, Serbia and Muntenegro, June 29 –July 1, 2005
34. **I. Marcu (Bercă)**, S. Halunga, O. Fratu, "Interleaver design effects on turbocodes performances", Communications 2004 Proceedings, Bucharest 3-5 Iunie, Romania, Bucharest, Romania.pp. 541-544
35. S. Halunga, O. Fratu, D. Păun, **I. Marcu (Bercă)**, “Turbo codes Bit Error Rate Performances with Different Correlator Structures”, ELECTRONICS ET'2003, the 12th International Scientific and Applied Science Conference, September 24-26, 2003, Sozopol Bulgaria, Book3. pp. 43-48

## RESEARCH PROJECTS

### Project manager / manager won by competition:

1. **I. Marcu** (project director), O. Fratu, et al, “Platforma Next Generation Internet bazată pe 5G și UAV-uri pentru agricultura de precizie (NGI-UAV-AGRO)”, contract 461PED/2020, cod proiect: PN-III-P2-2.1-PED-2019-1945 din cadrul competiției ” Programul 2 - Creșterea competitivității economiei românești prin cercetare, dezvoltare și inovare, Subprogramul 2.1. Competitivitate prin cercetare, dezvoltare și inovare - ”Proiect experimental demonstrativ (PED 2019)” (UEFISCDI), proiect period: november 2020- october 2022
2. **I. Marcu** (project responsible), O. Fratu, S. Halunga, et al “Sistem de telemetrie pentru agricultura inteligentă (SmartAgro)”, contract subsidiar nr. 8592 / 08.05.2018 din cadrul proiectului ”Ecosistem de cercetare, inovare și dezvoltare de produse și servicii TIC pentru o societate conectată la Internet of Things – NETIO” cod MySmis 105976, Programul Operațional Competitivitate 2014-2020, Axa prioritară 1: Cercetare, dezvoltare tehnologică și inovare (CDI) în sprijinul competitivității economice și dezvoltării afacerilor, Domeniul major de intervenție: Parteneriate pentru transfer de cunoștințe, contract nr. 53/05.09.2016, durata proiect: iulie 2018- august 2020

**3. I. Marcu** (project manager), C. Voicu, A.M.C. Drăgulescu “ Modulația  $\Sigma\Delta$  în sistemele 5G (Mod $\Sigma$ s)”, contract sept 2017, grant intern UPB (2017-2018)

**Member of the research teams within the following national / international projects:**

**1.** A.M.C. Drăgulescu, et al, “Viticultura inteligentă bazată pe tehnici IoT – premisă de gestionare a schimbărilor climatice”, Planul sectorial pentru cercetare – dezvoltare al Ministerului Agriculturii și Dezvoltării Rurale pe anii 2023-2026, Agricultură și Dezvoltare Rurală – ADER 2026, contract ADER 6.3.13/27.0.2023, 2023-2026.

**2.** A. Bădescu, I. Marcu, et al, "Radiowave propagation in heterogeneous media: implications on the electronics of Cosmic Neutrino Detectors", proiectul nr PN3-P3-529/2017 –UEFISCDI, partener unic UPB, desfășurat prin centrul de cercetare UPB; domeniu PE7, 24 luni

**3.** A. Bădescu, I. Marcu, et al, "Dezvoltarea de aplicatii de securitate pe baza tehnologiilor experimentale complexe utilizate in studiul radiatiei cosmice (DEXTER)", contract nr 19 PCCDI/2018, UEFISCDI, desfasurat prin centrul de cercetare UPB; domeniu "Spatiu si securitate"; 2020-2022

**4.** A. Vulpe, I. Marcu et al, "Platformă de test pentru Studiul Securității în IoT (PaSS-IoT)" nr. 96/2016, grant GEX, 2016-2017

**5.** O. Fratu, ... I. Marcu, ..., „Sistem informatic integrat pentru managementul activităților (SIIMA)”, Planul Național de Cercetare - Dezvoltare și Inovare pentru perioada 2015 - 2020 (PNCDI III - Soluții), nr. contract 8SOL/2018, (coordonator ICI, participanți: UNAp. UPB, SC Safetech Innovations SRL, GREENSOFT SRL), 2018-2021

**6.** O. Fratu, ... I. Marcu, ..., „Platforma de sisteme inteligente multiagent pentru monitorizarea calității apei pe sectorul românesc al Dunării și Deltei Dunării (MultiMonD2)”, contract numărul 33PCCDI / 2018 din cadrul Programului Programul 1 - Dezvoltarea sistemului național de cercetare-dezvoltare, Tip proiect: Proiecte Complexe realizate în consorții CDI (coordonator INFLPR , parteneri: AFA, CCSACBRNE, UPB, RA-IMSAR), 2018-2020

**7.** O. Fratu, ... I. Marcu, ..., „Platforma Software integrata pentru analiza malware a terminalelor mobile (ToR-SIM)”, contract nr. 5SOL/2017, Planul Național de Cercetare - Dezvoltare și Inovare pentru perioada 2015 - 2020 (PNCDI III - Soluții) (coordonator UPB, participanți BEIA, UNAp, SC Safetech Innovations SRL), 2017-2020

**8.** O. Fratu (coord) “Sisteme de detecție pentru radiația cosmică folosind noi tehnologii (DETCOS)”, contract nr.1282-104/01.10.2008, proiect de cercetare PNCDI II de tip parteneriat, 2008-2011

**9.** O. Fratu (Director de proiect și coord. UPB), S. Halunga, I. Marghescu, E. Popovici, I.Marcu, etc. "Evolutia, modalitatile de implementare si de tranzitie pentru radiodifuziunea digitala DVB in conditiile de utilizare eficienta a spectrului de frecvente", proiect nr. 106/08.08.2011, proiect de cercetare PNCDI II de tip parteneriat "Termeni de referinta", beneficiar MCSI (coordonator UPB, participant ICI) (2011-2013)

**10.** S Halunga (coord, UPB). D Vizireanu, I Marcu, “Contributii la dezvoltarea algoritmilor de prelucrare si codare a semnalelor video in sistemele wireless multiutilizator prin optimizarea parametrilor de calitate psihoperceptuala”, contract de cercetare UPB-CNCSIS, cod CNCSIS 1695/2009, 2009-2011

**11.** I. Marghescu, O. Fratu, C. Vlădeanu, I. Marcu ș.a. „Tehnologia Radio Cognitiv și utilizarea eficientă a spectrului RF”, Contract UEFISCSU, PN-II-PCE-Ideii, 2007-2011

**12.** O. Fratu (project director, coord. UPB), S. Halunga, S. Ciochina, I. Marghescu, I. Constantin, I.Marcu, etc. "Sistem de acces wireless hibrid cu adresare unica (SAWHAU)", proiect no. 12-126/01.10.2008, proiect de cercetare PNCDI II de tip parteneriat (coordonator: UPB, participantii: ICI, Beia Consult International SRL, Agentia Spatiala Româna, Universitatea Pitesti) (2008-2011).

**13.** S Halunga (coord, științific UPB), O Fratu (coord. administrativ), S Ciochină, I Marghescu, Ș Obreja, M Udrea, I Marcu: SIUM „Sistem integrat pentru utilizatorul mobil”, Contract de cercetare de excelență, nr 80/03.10.2005 (coordonator general: ICI, director coordonator mat. Emil Stănescu, 3 participanți: UPB, ASE, UPIT), subcontract UPB-ICI nr 832/10.10.2005 (2005-2008)

14. 2004-2007: S. Halunga, (coord) I. Bercă, O Fratu. ș.a. "Tehnici optimale și cvasioptimale de diseminarea rezuoare și prelucrare a datelor pentru sistemele de generația a 3a și a 4a" contract de cercetare tip A UPB – ANSTI, nr 1389/2004, tema 33.

15. O. Fratu (coord. UPB), S. Halunga, S. Ciochină, I. Marghescu, I. Constantin, ș.a. "Sistem informatic pentru analiza in timp real a factorilor de risc pentru mediu si sanatate publica (TERRA-RO)", contract nr. 11-054 / 18.09.2007, proiect de cercetare PNCDI II de tip parteneriat (coordonator: Beia Consult International SRL, participanți: UPB, ICPE-CA, Agenția Spațială Română, CEPROCIM, OMG, GTZ) (2007-2010).

16. O. Fratu (coord. UPB), S. Halunga, S. Ciochină, I. Marghescu, I. Constantin, I. Marcu ș.a. "Aplicatii si servicii noi de navigatie si localizare satelitara bazate pe tehnologia WiMAX - LOCOMAX", contract nr. 81-026/14.09.2007, proiect de cercetare PNCDI II de tip parteneriat (coordonator: Agenția Spațială Română, participanți: UPB, Beia Consult International SRL, UTI, AccessNet) (2007-2010).

17. O Fratu (coord UPB), S. Halunga, I. Marcu ș.a. , «NEM-RO (Platforma tehnologica integrata, in domeniul networked and electronic media, sustenabila pe termen lung si racordata la platforma tehnologica europeana NEM) în cadrul programului de cercetare de excelență (CEEEX) al MEDC, Modul III, cod MEC 12433

18. I Marghescu, S Halunga, O Fratu, I Marcu „PICABAL – Platformă Integrată de Comunicații cu Acces Flexibil, de Bandă Largă II (Integrated Communication Platform with flexible access) research contract, CeeX, Responsabil: Prof. I. Marghescu, 2007-2009

19. O. Fratu (coord.), S. Halunga, I. Bercă ș.a. "Aplicarea tehnologiei software radio în dezvoltarea interfețelor de comunicație digitale mobile de bandă largă și foarte largă", contract de cercetare tip A UPB – CNCSIS, nr 40528/05.11.2003, tema 29, cod CNCSIS 9 (2003)

20. Ramjee Prasad (Aalborg University), Vladimir Poulkov (TECHNICAL UNIVERSITY OF SOFIA), Liljana Gavrilovska (Ss. CYRIL AND METHODIUS UNIVERSITY IN SKOPJE), O. Fratu (director UPB), etc., " eWall for Active Long Living" (eWALL), Proiect European de tip integrat FP7, no. 610658, 2013-2016 (<https://cordis.europa.eu/project/id/610658>)

21. S. Halunga (coord. UPB), O.Fratu (responsabil științific UPB), I. Marcu, ș.a. „REDICT—Regional Economic Development by ICT/New media clusters”, proiect FP7 tip CSA nr. 206480, acceptat în cadrul apelului FP7-REGIONS-2007-1, (coord. City of Amsterdam, 17 parteneri din Olanda, Germania, Franța, România, Irlanda și Danemarca) (2008-2009).

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23. S. Ciochină (director), ș.a. "ATHENA - Digital Switchover: Developing Infrastructures for Broadband Access", contract de cercetare tip STREP (FP6), nr FP6-507312 (2004-2006).

24. S. Ciochină (director), ș.a. "Enthroned - End-to-End QoS through Integrated Management of Content, Networks and Terminals", contract de cercetare tip IP (FP6), nr FP6-507637 (2003-2007).

## **AWARDS**

1. Award for research results, UEFISCDI competiție PRECISI2020, Dec. 2020: **I. Marcu**, G. Suciu, C. Bălăceanu, A. Vulpe, A.M. Dragulinescu, "Arrowhead Technology for Digitalization and Automation Solution: Smart Cities and Smart Agriculture", *Sensors* **2020**, 20(5), 1464 (PN-III-P1-1.1-PRECISI-2020-40781)

2. Award for research results, UEFISCDI, Dec. 2015: G. Suciu, V. Suciu, A. Martian, R. Craciunescu, A. Vulpe, **I. Marcu**, S. Halunga, O. Fratu, "Big Data, Internet of Things and Cloud Convergence – An Architecture for Secure E-Health Applications", *Journal of Medical Systems*, Springer Publisher, Online ISSN1573-689X, September **2015**

3. Award for the Contribution to the Industrial Research Excellence for the paper entitled "An End-to-End LoRaWAN-based IoT Platform with Built-in Network Coverage Testing Capability" (authors: A.-M. Drăgulinescu, **I. Marcu**, C. Zamfirescu) in The 25th International Symposium on Wireless Personal Multimedia Communications, in Herning, Denmark, organised by the Department of Business Development and Technology of Aarhus University (Aarhus BSS - Aarhus University), OCT 2022



**PATENT**

**1. I.-M. Marcu**, O. Fratu, S. V. Halunga,; A.-R. Vulpe, C. Florea, A. Marțian, A.M.C. Drăgulescu, G. Suciu, C. M. Bălăceanu, A. Drosu, R.-N. Chevereșan, D. Miu, „Telemetry system for intelligent agriculture addressed to farmers and agricultural producers, has component set for monitoring, warning and supporting decisions in cloud, which provides for visualization and analysis of data, notifications or recommendations resulting from data analysis”, Derwent Primary Accession Number 2022-495358, Patent Number RO135499-A2, Main IPC G16Y-010/05, Patent Assignees: UNIV POLITEHNICA DIN BUCURESTI (UYPO-Non-standard), BEIA CONSULT INT SRL(BEIA-Non-standard), Indexed 2022-04-24