

## Europass Curriculum Vitae



### Personal information

First name(s) / Surname(s) **Marghescu, Ion**

Address(es)

Telephone(s)

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E-mail **marion@comm.pub.ro**

Nationality **Romanian**

Gender **male**

### Work experience

Dates **1995 - Present**

Occupation or position held **Professor**

Main activities and responsibilities **Teaching and research activities in Mobile and personal Communications, Digital and analog Signal Processing, Radio communications Systems, Analog and Digital Communications, scientific adviser of licence or Master thesis, scientific advisor of PhD students General manager of the Communications and Signal Processing Research Center; director or team member of more national and European R&D projects**

Name and address of employer **University "Politehnica" of Bucharest, Electronics, Telecommunications and Information Technology, Faculty, Dept. of Telecommunications, 313, Independentei Blvd. Bucharest**

Type of business or sector **Education**

Dates **1991 - 1995**

Occupation or position held **Associate Professor**

Main activities and responsibilities **Teaching and research activities in Mobile and personal Communications, Digital and analog Signal Processing, Radio communications Systems, Analog and Digital Communications, scientific adviser of licence thesis, director or team member of more national and European R&D projects**

Name and address of employer **University "Politehnica" of Bucharest, Electronics, Telecommunications and Information Technology, Faculty, Dept. of Telecommunications, 313 Independentei Blvd., Bucharest 6**

Type of business or sector **Education**

Dates 1979 - 1990  
Occupation or position held Lecturer  
Main activities and responsibilities Teaching, applications and research activities in Mobile and personal Communications, Digital and Analog Signal Processing, Radio communications Systems, Analog and Digital Communications, scientific adviser of licence thesis, director or team member of more national R&D projects  
Name and address of employer University "Politehnica" of Bucharest, Electronics , Telecommunications and Information Technology, Faculty, Dept. of Telecommunications, 313, Independentei Blvd. Bucharest  
Type of business or sector Education

Dates 1968 - 1979  
Occupation or position held Assistant Professor  
Main activities and responsibilities Applications (lab activities ar seminars) in Signals, Circuits and Systems, Digital and analog Signal Processing, Antennas and Propagation.  
Name and address of employer University "Politehnica" of Bucharst, Electronics , Telecommunications and Information Technology, Faculty, Dept. of Telecommunications, 313, Independentei Blvd. Bucharest  
Type of business or sector Education

### Education and training

Dates 1970 - 1979  
Title of qualification awarded PhD degree in Radio Communications  
Principal subjects/occupational skills covered Radio Communications Systems and Equipment, Signal Processing in Radio Communications  
Name and type of organisation providing education and training The Polytechnic Institute of Bucharest,, Electronics and Telecommunications Faculty

Dates October 1962- July 1967  
Title of qualification awarded Engineer, Radiotechniques Specialization  
Principal subjects/occupational skills covered Mathematics, Physics, Mechanics, Electrotechniques Basics, Radiotechniques Basics, Television, Information Transmission Theory, Radio Receivers Equipment Radio transmitters, Antennas and Propagation etc.  
Name and type of organisation providing education and training The Polytechnic Institute of Bucharest,, Electronics and Telecommunications Faculty

Dates September 1958- July 1962  
Title of qualification awarded Bacalaureate  
Principal subjects/occupational skills covered High School,  
Name and type of organisation providing education and training High School Vănju Mare, Mehedinți

### Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment  
*European level (\*)*

**English**

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
good	Excellent	good	good	good

<b>French</b>		good		good		Average		good		Average
<b>German</b>		Average		Average		Average		Average		Average

(\*) [Common European Framework of Reference for Languages](#)

Social skills and competences A very good team worker;

Organisational skills and competences Managerial skills: Director of 5 projects supported by CNCSIS, a project supported by ANSTI, a project supported by MEC and World Bank, a project supported by Romanian Academy, a project in the PNII IDEI frame, a project in the PNII Partnership frame; team member in 6 European Projects; President of "Electronica 2000" foundation; General Manager of The Research Center for Communications and Signal Processing (3CPS); Referent for presentations of PhD degree thesis in Romania and abroad; Co-chair in more national and international Conferences; President of CT 267 Standardization Technical Committee;

Technical skills and competences Design and testing of communications systems and equipment at the physical layer;

Computer skills and competences Microsoft Office, MATLAB-Simulink, Simulating Media (OPNET)

Other skills and competences

Driving licence Diving Licence B Cat.

**Additional information** Romania Academy Traian Vuia Prize; Agir Prize for the GSM book; More than 120 papers published in Technical Journals or in Proceedings of International Conferences (indexed in International Data Bases: ISI, Scopus, IEEE Explore, etc.) and more than 20 books and manuals.

**Annexes** A List of Recently Published Papers and Books; A list of R&D projects.

## Selected list of publications and R&D projects

### A. SELECTED BOOKS

1. I. Marghescu, N. St. Nicolaescu: *Rețele de radiocomunicații*, UPB, 1995
2. I. Constantin, I. Marghescu: *Transmisiuni analogice și digitale*, Ed. Tehnică București 1995.
3. I. Marghescu, N. St. Nicolaescu, N. Coțanis: *Comunicații mobile terestre*, Ed. Tehnică, 1997.
4. I. Marghescu, D. Zamfirescu, I. Dragu, Z. Vâlsan, *Sisteme de Radiocomunicații*, culegere de probleme, UPB, 1997.
5. I. Marghescu, N. N. Coțanis, St. Nicolaescu,: *Comunicații mobile terestre*, ediția II revăzută, Ed. Tehnică, 1999.
6. Ad. Mateescu, I. Marghescu și alții: *Sisteme și rețele GSM*, Editura Tehnică, 1999.
7. S.V.Nicolaescu (coordonator), I. Marghescu și alții, *Accesul wireless de bandă largă*, vol. I și II, Editura Printech, București, 2008, ISBN 978-606-521-080-6, 978-606-521-081-3.
8. S.V. Nicolaescu, I. Marghescu, I. Bogdan, I. Dragu și alții, *Securitatea în rețelele Wi-Fi*, Editura Agir, 2008, ISBN 978-973-720-199-7.

### B. PAPERS PUBLISHED IN TECHNICAL JOURNALS OR IN PROCEEDINGS OF INTERNATIONAL CONFERENCES (last 5 years)

1. A. Păun, C. Vlădeanu, I. Marghescu, S. El Assad, J.-C. Carlach și R. Quéré, "New Recursive Convolutional GF(2N) Encoders for Parallel Turbo-TCM Schemes," IEEE 6th Advanced Int. Conf. on Telecomm. - AICT 2010, Barcelona, Spania, mai 9-15, 2010, pag. 182-186.
2. C. Vlădeanu, S. El Assad, J.-C. Carlach, R. Quéré și I. Marghescu, "Recursive GF(2N) Encoders Using Left-Circulate Function for Optimum PSK-TCM Schemes," Elsevier Signal Processing, vol. 90, nr. 9, pag. 2708-2713, sept. 2010 doi:10.1016/j.sigpro.2010.03.021.
3. A.F. Păun, C. Vlădeanu, I. Marghescu, S. El Assad și A. Marțian, "On the QAM Parallel Turbo-TCM Schemes using Recursive Convolutional GF(2N) Encoders," 18th European Signal Proc. Conf. - EUSIPCO 2010, Aalborg, Danemarca, 2010, aug. 23-27.
4. A. Marțian, I. Marcu, I. Marghescu, "Spectrum Occupancy in an Urban Environment: A Cognitive Radio Approach" Proc. 6th Advanced International Conference on Telecommunications (AICT 2010), Barcelona, mai 2010, pp 25-29.
5. A. Marțian, C. Vlădeanu, I. Marcu, I. Marghescu, "Spectrum Sensing for Cognitive Radio: Evaluation of Occupancy in an Urban Environment," International Journal of Advances in Telecommunications, 2010.
6. A. Marțian, A. Achim, O. Fratu, I. Marghescu, "Analysis of Frequency Spectrum Usage from a Cognitive Radio Perspective," 3rd International Workshop on Cognitive Radio and Advanced Spectrum Management, ISABEL Roma 2010, COGART workshop;
7. Elena Simona Lohan, Alexandru Rusu-Csanadra, Ion Marghescu, Hybrid Acquisition of CBOC Galileo Signals under Multiple Correct-window Hypothesis, Proceedings of Spacomm, Budapest, 27-22 April 2011;
8. Elena Simona Lohan, Alexandru Rusu-Casandra, Oana Cramariuc, Ion Marghescu, Bogdan Cramariuc: End-User Attitudes towards Location-Based Services and Future Mobile Wireless Devices: The Students' Perspective. Information 2(3): 426-454 (2011)
9. Crăciun Florin, Marghescu Ion, Fratu Octavian RAKE receiver performances for PAMTH-UWB systems, TELFOR, Belgrad, 2011 pp. 289-293

10. Alexandru Rusu-Casandra, Elena-Simona Lohan, Ion Marghescu, "Impact of Narrowband Interference on Unambiguous Acquisition Approaches in Galileo", Conference Proceedings of the 1st International Conference on Localization and GNSS 2011 ICL-GNSS, ISBN: 978-1-4577-0187-0, Tampere, Finland, Iunie 2011
11. Elena-Simona Lohan, Oana Cramariuc, Alexandru Rusu-Casandra, Ion Marghescu, Bogdan Cramariuc, "User Requirements in the Context of Future Location Based Services as Seen From a Survey Among Romanian Students", Conference Proceedings of the 1st International Conference on Localization and GNSS 2011 ICL-GNSS, ISBN: 978-1-4577-0187-0, Tampere, Finland, Iunie 2011
12. G. Marghescu, I. Marghescu, *ICT-Based Assessment in Romanian Engineering Education*, 14th International Conference Evaluation in the Balkan Countries, Alexandra Pejatovic (editor), Belgrade 2011, Education and Pedagogy in Balkan Countries, ISBN 978-86-82019-66-4, Publisher: University of Belgrad, pp. 477-481.
13. A. Rusu-Casandra, E. S. Lohan, G. Seco-Granados, I. Marghescu, "Investigation of Narrowband Interference Filtering Algorithms for Galileo CBOC Signals", the 3rd European Conference of Communications, Paris, France, Dec. 2012.
14. G. Marghescu, I. Marghescu, *Réflexion sur la raison écologique d'une citoyenneté de la Terre*, XXXIV Congrès ASPLF, Louvain-La-Neuve, Bruxelles, 21-25 août 2012
15. G. Marghescu, I. Marghescu, *The New Institutional Model of the 21st Century University: Academic Capitalism*, 15th International Conference BASOPED Educational Reform in the 21st Century in Balkan Countries, 28-30 June 2012, Bucharest.
16. A. Iordache, I. Marghescu, *LTE downlink performance*, 10th International Symposium on Electronics and Telecommunications (ISETC), 2012. page(s): 159 – 162.
17. A. Iordache, I. Marghescu, *LTE network time synchronization*, 10th International Symposium on Electronics and Telecommunications (ISETC), 2012, Page(s): 179 – 182.
18. V. Savu, I. Marghescu et al: *Antenna design for electromagnetic waves propagation studies through the salt ore*, "U.P.B. Sci. Bull., Series C, Vol. 75, Iss. 2, 2013, ISSN 2286 – 3540.
19. Alexandru Martian, Calin Vladeanu, Octavian Fratu, Ion Marghescu, Safwan El Assad, *Spectral Occupancy Measurements in Rural and Urban Environments: Analysis and Comparison*, AICT, 2013, Rome.
20. Alexandru Martian; Alexandru Vulpe, Razvan Craciunescu, Octavian Fratu, Ion Marghescu *Perspectives on Dynamic Spectrum Access Procedures in TV White Spaces*, GWS, New Jersey, USA, 2013.
21. C. Tamas, M. Pantazica, C. Grecu, I. Marghescu, *Integrated Circuits Characterization Platform (ICCP)*, Alba Iulia ISSE 2013;
22. C. Tamas, M. Pantazica , C. Marghescu , I. Marghescu, *Controller for Reducing the EMI in Gas Gauge and Battery Management Units*, Alba Iulia, ISSE 2013;
23. Valeriu Savu, Razvan Craciunescu, Octavian Fratu, Simona Halunga, Ion Marghescu; *Cosmic Radiation Detector Performances in Salt Mines; 11<sup>th</sup> International Conference on Telecommunications in Modern Satellite, Cable and Broadcasting Services, Telsiks 2013, Serbia, Nis, October 16-19, 2013, Volume 02, pages. 631-634, ISBN 978-1-4799-0899-8.*
24. [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) Book Series: International Symposium on Wireless Personal Multimedia Communications, 2013
25. Ammar Ali SAHRAB, Ion MARGHESCU, *MIMO-OFDM: Maximum Diversity Using Maximum Likelihood Detector*, The 10th International Conference IEEE Communications Bucharest, 2014, pp: . 437-441;

26. Valentin STANCIU, Alexandru MARTIAN, Cezar SOCOTEANU, Ion MARGHESCU, *Data Collection for Spectrum Sensing Algorithms based on USRP* The 10th International Conference IEEE Communications Bucharest, 2014, pp: 403-407;
27. Sahrab, Ammar Ali; Marghescu, Ion; MIMO-OFDM: Maximum diversity using maximum likelihood detector, 10th International Conference on Communications (COMM), 2014
28. Martian, Alexandru; Sandu, Bogdan Tudor; Fratu, Octavian; Marghescu, Ion; Craciunescu, Razvan; Spectrum sensing based on spectral correlation for cognitive radio systems, 4th International Conference on Wireless Communications, Vehicular Technology, Information Theory and Aerospace & Electronic Systems (VITAE), 2014
29. Nastase, Cosmina-Valentina; Martian, Alexandru; Vladeanu, Calin; Marghescu, Ion; An accurate average energy detection algorithm for spectrum sensing in cognitive radio systems, IEEE 11th International Symposium on Electronics and Telecommunications (ISETC), 2014.
30. Paun, M; Tamas, R; Marghescu, I; A Software Radio approach for Electric Arc locating, IEEE 13th International Conference on Engineering of Modern Electric Systems (EMES), 2015.
31. **M. Păun**, R. Tamaș, I. Marghescu, *A Software-Defined Radio Approach for Direction Finding*, **U.P.B. Scientific Bulletin C Series**, U.P.B. Sci. Bull., Series C, Vol. 77, Iss. 4, pp. 235-244, 2015 ISSN 2286-3540
32. **M. Păun**, R. Tamaș, I. Marghescu, *Angle-of-Arrival Estimation in Multipath Environments Using Sliding Antenna Arrays*, **Progress in Electromagnetics Research Letters (JPIER-L)**, Vol. 54, pp. 101-105, Jul. 2015.
33. **M. Păun**, R. Tamaș, I. Marghescu, *Configurable Radio for Electric Arc Locating*, **Constanta Maritime University Annals**, Vol. 23, pp. 119-124, Aug. 2015.
34. **M. Păun**, I. Candel, R. Tamaș, C. Ioana, I. Marghescu, *A Software-Defined Radio Approach for Locating Electric Arcs*, **IEEE International Conference on Microwaves, Communications, Antennas and Electronic Systems (COMCAS)**, Nov. 2015, Tel-Aviv (Israel).
35. **M. Păun**, R. Tamaș, I. Marghescu, *A Software Radio Approach for Locating Unintentional Ozone-Generating Sources*, in Proc. of **IEEE International Black Sea Conference on Communications and Networking (BlackSeaCom)**, May 2015, Constanta (Romania).
36. AA Sahrab, I Marghescu, Enhanced IRC-SIC algorithm with beamforming for MU-MIMO systems. 2015 International Symposium on Signals, Circuits and Systems (ISSCS),, pp. 1-4., 2015,
37. M Oproiu, A Vulpe, I Marghescu, Analysis and Measurements of Wi-Fi Offloading Solutions, chapter in the Book **Future Access Enablers for Ubiquitous and Intelligent Infrastructures**, Volume 159 of the series Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering , Springer international Publishing House, pp 127-134
38. Cosmina-Valentina Năstase, Octavian Fratu, Alexandru Martian, Ion Marghescu, chapter in book **Future Access Enablers for Ubiquitous and Intelligent Infrastructures**, Volume 159 of the series Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering Springer International Publishing, pp. 142-148, 2015
39. Oproiu, Madalina; Vulpe, Alexandru; Marghescu, Ion; Effects of enabling carrier aggregation in a mobile operator network , 23rd Telecommunications Forum Telfor (TELFOR), Beograd, 2015 , pp. 91-94