

PERSONAL INFORMATION

Călin Vlădeanu



📍 1-3, Iuliu Maniu, ZIP 061071, Bucharest, Romania



✉ calin@comm.pub.ro



Sex Male | Date of birth _____ | Nationality Romanian

JOB APPLIED FOR
POSITION
PREFERRED JOB
STUDIES APPLIED FOR

WORK EXPERIENCE

01.10.2014 – present

Professor

"Politehnica" University of Bucharest, Romania, Faculty of Electronics, Telecommunications and Information Technology, Telecommunications Department

- lecture / applications in: Advanced Data Communications; Computer Networks

Business or sector Education

2008 – 2014

Associate Professor

"Politehnica" University of Bucharest, Romania, Faculty of Electronics, Telecommunications and Information Technology, Telecommunications Department

- lecture / applications in: Data Communications; Computer Networks

Business or sector Education

2004 – 2008

Lecturer

"Politehnica" University of Bucharest, Romania, Faculty of Electronics, Telecommunications and Information Technology, Telecommunications Department

- lecture / applications in: Data Communications; Data Transmissions
- applications in: Data Transmissions, Computer Networks

Business or sector Education

1998 – 2004

Teacher Assistant

"Politehnica" University of Bucharest, Romania, Faculty of Electronics, Telecommunications and Information Technology, Telecommunications Department

- applications in: Data Communications; Data Transmissions; Computer Networks

Business or sector Education

EDUCATION AND TRAINING

2014

Habilitation Thesis

"Politehnica" University of Bucharest, Romania, Faculty of Electronics and Telecommunications, Telecommunications Department

- Electronics and Telecommunications
Non-conventional Coding and Modulation Techniques for Data Transmissions

2010-2013

Post-Doctoral fellowship

grant POSDRU/89/1.5/S/62557, EXCEL, "Politehnica" University of Bucharest, Romania

- Cognitive Communications in the Context of the Future Internet
- *Applications of Non-linear Dynamical Systems for Numerical Transmissions over Wireless Channels*

- 1999-2006 **PhD**
 "Politehnica" University of Bucharest, Romania, Faculty of Electronics and Telecommunications, Telecommunications Department
 - Mobile Communications
 - *Contributions to DS-CDMA Mobile Communications Systems. Chaotic spreading sequences with better correlation properties than conventional sequences*
- 1998-1999 **Master of Science in Electrical Engineering (MSEE)**
 "Politehnica" University of Bucharest, Romania, Faculty of Electronics and Telecommunications, Telecommunications Department
 - Telecommunication Networks
 - *The Carrierless Amplitude-Phase Modulation Technique*
- 1993-1998 **Bachelor of Science, Electrical Engineering (BSEE)**
 "Politehnica" University of Bucharest, Romania, Faculty of Electronics and Telecommunications, Telecommunications Department
 - Transmission and Processing of Data and Voice Signals
 - *An Orthogonally Frequency Division Multiplexing Modulation Technique*

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	C2	B1	B1	B2	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user
 Common European Framework of Reference for Languages

Communication skills ▪ good communication skills gained through my experience as teacher and researcher

Organisational / managerial skills ▪ Management skills – Director of 3 CNCSIS/UEFISCDI grants (1TD + 1AT + 1TE); responsible for a team of up to 4 people
 ▪ Member of several international and national conferences organizing committees;

Job-related skills ▪ Design, Implementation, and Testing of Telecommunications systems using Matlab and C programming - implementing and testing signal processing algorithms for: channel coding, MIMO, OFDM, CDMA, etc.;
 ▪ participant to 12 national grants and 1 international grant - involved in activities for physical layer design and testing in several mobile communications systems;
 ▪ Member of several international and national conferences / journals technical committees (more than 50 reviews of research papers);

Computer skills ▪ preparation of research reports and dissemination - good command of Microsoft Office™ and Latex tools

Driving licence ▪ B category from 1996;

ADDITIONAL INFORMATION

Publications

- | | |
|---------------------|--|
| Books | <ol style="list-style-type: none"> 1. C. Vlădeanu, S. El Assad, <i>Nonlinear Digital Encoders for Data Communications</i>, Ed. John Wiley & Sons, 2014, ISBN 978-1-84821-649-5. 2. C. Vlădeanu, <i>Signal Detection in DS-CDMA Systems</i> (in Romanian), Ed. Printech, Bucharest, Romania, 2013. 3. C. Vlădeanu, <i>High Performances Chaotic Spreading Sequences for DS-CDMA Systems</i>, (in Romanian), Ed. Printech, Bucharest, Romania, 2008. 4. C. Vlădeanu, I. Bănică, S. Popescu, <i>Data Communications Systems and Networks</i> (in English), Ed. Printech, Bucharest, Romania, 2007. 5. C. Vlădeanu, <i>Spreading sequences for the DS-CDMA system</i>, (in Romanian), "ELECTRONICA 2000", Bucharest, Romania, 2003. |
| Journals (selected) | <ol style="list-style-type: none"> 1. C. Vlădeanu, C. V. Năstase, A. Marțian, <i>Energy Detection Algorithm for Spectrum Sensing Using Three Consecutive Sensing Events</i>, IEEE Wireless Comm. Letters, DOI: 10.1109/LWC.2016.2543723, , vol. 5, pp. 284-287, June 2016, ISSN 2162-2337. 2. C. Vlădeanu, I. Bănică, B. O. Hogstad, M. Pätzold, C. E. D. Sterian, <i>Combining Super-Orthogonal Space-Frequency Trellis Coding, Constellation Shaping by Shell Mapping, and OFDM for High Data Rate Broadband Mobile Communications</i>, Transactions on Emerging Telecommunications Technologies (ETT), Wiley, 2014, ISSN 2161-3915, vol. 28, Issue 1, January 2017. 3. C. Vlădeanu, <i>Coding Gain Distance Exact Estimation for Space-Time Trellis Coded Modulation</i>, Circuits, Systems, and Signal Processing, Springer, Birkhäuser Boston, vol. 32, no. 2, pp. 919-929, Apr. 2013, ISSN 0278-081X. 4. C. Vlădeanu, S. El Assad, <i>Hybrid Maximum-Likelihood Detector for Trellis Coded Spatial Modulation</i>, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Ed. Academiei Romane, vol. 57, no. 4, pp. 383-393, Bucharest, Romania, 2012. 5. C. Vlădeanu, S. El Assad, I. Marghescu, A.F. Paun, J.-C. Carlach, and R. Quéré, <i>Recursive GF(2^N) Encoders Using Left-Circulate Function for Optimum TCM Schemes</i>, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Ed. Academiei Romane, vol. 55, no. 3, pp. 320-329, Bucharest, Romania, 2010. 6. C. Vlădeanu, S. El Assad, J.-C. Carlach, R. Quéré, and I. Marghescu, <i>Recursive GF(2^N) Encoders Using Left-Circulate Function for Optimum PSK-TCM Schemes</i>, Elsevier Signal Processing, vol. 90, no. 9, pp. 2708-2713, Sept., 2010 doi:10.1016/j.sigpro.2010.03.021. 7. C. Vlădeanu, S. El Assad, J.-C. Carlach, R. Quéré, <i>Improved Frey Chaotic Digital Encoder for Trellis-Coded Modulation</i>, IEEE Trans. Circuits and Systems – II, vol. 56, no. 6, pp. 509-513, June, 2009. 8. C. Vlădeanu, C. Paleologu, I. Marghescu, <i>Multilevel Chaos-Based Spreading Sequences for DS-CDMA System Performance Improvement</i>, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, 2008. 9. C. Vlădeanu, C. Paleologu, <i>Fast convergence adaptive MMSE receiver for asynchronous DS-CDMA systems</i>, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Tome 52, no. 1, pp. 51-60, Jan.-Mar., 2007. |
| Projects | <ol style="list-style-type: none"> 1. <i>New Convolutional Coding Schemes with Reduced Complexity Operating over Higher Order Galois Fields for Channel Error Correction</i>, grant UEFISCSU type RU-TE, 2010-2013, manager C. Vlădeanu. 2. <i>New Turbo Multi-User Detection receivers for CDMA systems</i>, 2007-2008, grant CNCSIS AT, manager C. Vlădeanu. 3. <i>Performance Analysis of DS-CDMA Mobile Communications Systems</i>, grant CNCSIS Type Td, 2004-2005, CNCSIS Code 471, phase 1 (<i>Spreading sequences for the DS-CDMA system - 2004</i>) and phase 2 (<i>BER performances analysis for the DS-CDMA system using chaotic sequences - 2005</i>), manager C. Vlădeanu. 4. <i>Cognitive Radio Technology and RF Spectrum Efficient Utilization</i>, UEFISCSU Grant, PN-II-PCE-Idei, 2007-2011, manager I. Marghescu. 5. <i>New Adaptive Receivers for CDMA Communications Systems</i>, Grant type CEEX-ET, MEC-UEFISCSU, 2006-2008, manager C. Paleologu. 6. <i>A new family of least squares adaptive algorithms suitable for finite precision implementation</i>, 2004, AT type contract, CNCSIS, manager C. Paleologu. 7. <i>Multimedia Communications Systems</i>, phase IV (2002): <i>Fast adaptive algorithms for channel equalization and interference cancellation in multimedia communications systems</i>, Orizont 2000, UPB-ITC-ANSTI, nr.540 /2000, Manager Adelaida Mateescu. 8. <i>Multimedia Communications Systems</i>, phase III (2001): <i>A study of access systems in multimedia communications systems: new solutions</i>, Orizont 2000, UPB-ITC-ANSTI, nr.540 /2000, Manager Adelaida Mateescu. 9. <i>Access interfaces of the telecommunications network to the global communications network</i>, UPB-ANSTI, nr.836 /A6, 2000, Manager Adelaida Mateescu. |

Conferences (selected)

1. M. J. Ahmad Al Sammarraie, A. Martian and **C. Vlădeanu**, "Adaptive IED Spectrum Sensing Algorithm for Different Duty Cycle Values," 2018 International Conference on Communications (COMM), Bucharest, Romania, 2018, pp. 51-54. doi: 10.1109/ICComm.2018.8430110
2. C. Năstase, A. Marțian, **C. Vlădeanu** and I. Marghescu, "Spectrum Sensing Based on Energy Detection Algorithms Using GNU Radio and USRP for Cognitive Radio," 2018 International Conference on Communications (COMM), Bucharest, Romania, 2018, pp. 381-384. doi: 10.1109/ICComm.2018.8430143
3. A. Marțian and **C. Vlădeanu**, "On the Compromise between Delay and Performance of the Three-Event Energy Detection Algorithm in Cognitive Radio Systems," 12th IEEE International Symposium on Electronics and Telecommunications (ISETC), Timisoara, ROMANIA, OCT 27-28, 2016, pp. 111-115, ISBN:978-1-5090-3748-3.
4. E. I. Dobre, **C. Vlădeanu**, and A. Marțian, "USRP-based Experimental Platform for Energy Detection in Cognitive Radio Systems," IEEE 11th International Conference on Communications (COMM), Bucharest, ROMANIA, JUN 09-11, 2016, pp. 185-188, ISBN: 978-1-4673-8197-0.
5. C. V. Năstase, A. Marțian, **C. Vlădeanu**, I. Marghescu, *An Accurate Average Energy Detection Algorithm for Spectrum Sensing in Cognitive Radio Systems*, IEEE 11th International Symposium on Electronics and Telecommunications - ISETC 2014, Timisoara, Romania, Nov. 14-15, 2014.
6. **C. Vlădeanu**, *Spatial Modulation with Joint Antenna Index and Symbol Index Turbo Trellis Coding*, IEEE 11th Int. Symp. on Signals, Circuits and Systems - ISSCS 2013, p. 1-4, Iași, Romania, 11 - 12 July, 2013.
7. **C. Vlădeanu**, *Turbo Trellis-Coded Spatial Modulation*, IEEE Global Communications Conference - GLOBECOM 2012, pp. 4240-4245, Anaheim, CA, USA, Dec. 3-7, 2012.
8. **C. Vlădeanu**, A. Marțian, A.F. Paun, S. El Assad, *A New ML Detector for Trellis-Coded Spatial Modulation Using Hard and Soft Estimates*, IEEE 10th International Symposium on Electronics and Telecommunications - ISETC 2012, pp. 143-146, Timisoara, Romania, Nov. 15-16, 2012.
9. **C. Vlădeanu**, R. Lucaciu, A. Mihăescu, *Optical Spatial Modulation for Indoor Wireless Communications in Presence of Inter-Symbol Interference*, IEEE 10th International Symposium on Electronics and Telecommunications - ISETC 2012, pp. 183-186, Timisoara, Romania, Nov. 15-16, 2012.
10. **C. Vlădeanu**, A. Marțian, S. El Assad, *EXIT Charts Analysis for Turbo-TCM Schemes Using Non-Binary RSC Encoders*, IEEE 8th Advanced Int. Conf. on Telecomm. AICT 2012, pp. 150-155, Stuttgart, Germany, May 27-June 1, 2012.
11. **C. Vlădeanu**, S. El Assad, *Punctured 8-PSK Turbo-TCM Transmissions Using Recursive Systematic Convolutional $GF(2^N)$ Encoders*, 19th European Signal Proc. Conf. - EUSIPCO 2011, pp. 111-115, Barcelona, Spain, Aug. 29-Sept. 2, 2011.
12. **C. Vlădeanu**, S. El Assad, *Designing Optimum 2D-TCM Schemes Using New Systematic Convolutional Encoders over $GF(2^N)$* , IEEE 10th Int. Symp. on Signals, Circuits and Systems - ISSCS 2011, pp. 479-483, Iași, Romania, 30 June - 1 July, 2011.
13. **C. Vlădeanu**, S. El Assad, *Optimum QAM-TCM Schemes Using Left-Circulate Function over $GF(2^N)$* , IEEE 7th Advanced Int. Conf. on Telecomm. AICT 2011, pp. 112-116, St. Maarten, Dutch Antile, Mar. 20-25, 2011.
14. **C. Vlădeanu**, A.F. Paun, R. Lucaciu, S. El Assad, *Parallel Turbo-TCM Schemes using Recursive Convolutional $GF(2^N)$ Encoders over Frequency Non-Selective Fading Channel*, IEEE 9th International Symposium on Electronics and Telecommunications - ISETC 2010, pp. 285-288, Timisoara, Romania, Nov. 11-12, 2010.
15. A.F. Paun, **C. Vlădeanu**, I. Marghescu, S. El Assad, A. Martian, *On the QAM Parallel Turbo-TCM Schemes using Recursive Convolutional $GF(2^N)$ Encoders*, 18th European Signal Proc. Conf. - EUSIPCO 2010, pp. 1414-1418, Aalborg, North Denmark, Aug. 23-27, 2010.
16. H. Noura, S. El Assad, **C. Vlădeanu**, *Design of a Fast and Robust Chaos-Based Crypto-System for Image Encryption*, IEEE 8th International Conf. On Communications - COMM 2010, pp. 423-426, Bucharest, Romania, June 10-12, 2010.
17. A.F. Paun, **C. Vlădeanu**, I. Marghescu, S. El Assad, J.-C. Carlach, R. Quéré, *New Recursive Convolutional $GF(2^N)$ Encoders for Parallel Turbo-TCM Schemes*, IEEE 6th Advanced Int. Conf. on Telecomm. AICT 2010, pp. 182-186, Barcelona, Spain, May 9-15, 2010.
18. **C. Vlădeanu**, S. El Assad, J.-C. Carlach, R. Quéré, I. Marghescu, *Optimum $GF(2^N)$ Encoders Using Left-Circulate Function for PSK-TCM Schemes*, Proc. 17th European Signal Proc. Conf. - EUSIPCO 2009, pp. 1171-1175, Glasgow, Scotland, Aug. 24-28, 2009 (awarded "outstanding paper" – ranked among first 5% evaluation scores).
19. **C. Vlădeanu**, S. El Assad, J.-C. Carlach, R. Quéré, I. Marghescu, *Optimum PAM-TCM Schemes Using Left-Circulate Function over $GF(2^N)$* , IEEE 9th Int. Symp. on Signals, Circuits and Systems - ISSCS 2009, pp. 267-270, Iași, Romania, July 9-10, 2009.
20. **C. Vlădeanu**, S. El Assad, J.-C. Carlach, R. Quéré, C. Paleologu, *Chaotic Digital Encoding for 2D Trellis-Coded Modulation*, IEEE 5th Advanced Int. Conf. on Telecomm. AICT 2009, pp. 152-157, Venice, Italy, May 24-28, 2009.
21. **C. Vlădeanu**, A. F. Păun, S. El Assad, and D. Garagata, *Cross-correlation matrix exact estimation for the asynchronous passband DS-CDMA system*, Proc. of IEEE International Conference IEEE - COMM 2008, pp. 257-260, Bucharest, Romania, June 5-7, 2008.
22. **C. Vlădeanu**, C. Paleologu, *Optimum multilevel chaotic sequences for asynchronous DS-CDMA systems over Rician selective fading channel*, EUSIPCO 2007, pp. 474-478, Poznan, Polonia, Sept. 3-9, 2007.
23. C. Paleologu, **C. Vlădeanu**, Ioan Bacalu, *Gradient Adaptive Lattice Algorithm for MMSE Receivers in DS-CDMA Systems*, Proc. of IEEE ICSNC 2007, pp. 27-32, Cap Esterel, France, Aug. 25-31, 2007.
24. A. F. Paun, S. Ciochina, **C. Vlădeanu**, *Low complexity Turbo-Equalization and Iterative Channel Estimation for TDMA Packet Systems*, Proc. of IEEE ISSCS'07, vol. 1, pag. 465-468, Iași, Romania, July 12-13, 2007.
25. C. Paleologu, **C. Vlădeanu**, *On the Behavior of LMS Adaptive Algorithm in MMSE Receivers for DS-CDMA Systems*, Proc. of IEEE ICCGI 2007, Guadeloupe, 2007 (IEEE Computer Society) - ICCGI 2007 Paper Award.

- Memberships
- IEEE member since 2007;
- References
- Prof. Bănică Ion, Telecommunications Dept., UPB, Bucharest, Romania (email: banica@comm.pub.ro)
 - Assoc. Prof. Safwan El Assad, IETR UMR CNRS 6164; Image team - site of Nantes, France, (email: safwan.lassad@univ-nantes.fr)