PERSONAL INFORMATION

Călin Vlădeanu

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

ADDITIONAL INFORMATION

Publications

Books

1. **C. Vlădeanu**, S. El Assad, *Nonlinear Digital Encoders for Data Communications*, Ed. **John Wiley & Sons**, 2014, ISBN 978-1-84821-649-5.
2. **C. Vlădeanu**, *Signal Detection in DS-CDMA Systems* (in Romanian), Ed. Printech, Bucharest, Romania, 2013.
3. **C. Vlădeanu**, *High Performances Chaotic Spreading Sequences for DS-CDMA Systems*, (in Romanian), Ed. Printech, Bucharest, Romania, 2008.
4. **C. Vlădeanu**, **I.** Bănică, S. Popescu, *Data Communications Systems and Networks* (in English), Ed. Printech, Bucharest, Romania, 2007.
5. **C. Vlădeanu**, *Spreading sequences for the DS-CDMA system*, (in Romanian), "ELECTRONICA 2000", Bucharest, Romania, 2003.

Journals (selected)

1. A. Martian, M.J.A. Al Sammarraie, **C. Vlădeanu**, D.C. Popescu, *Three-Event Energy Detection with Adaptive Threshold for Spectrum Sensing in Cognitive Radio Systems*, Sensors, 20(13):3614, DOI 10.3390/s20133614, 2020.
2. **C. Vlădeanu**, **I.** Bănică, B. O. Hogstad, M. Pätzold, C. E. D. Sterian, *Combining Super-Orthogonal Space-Frequency Trellis Coding, Constellation Shaping by Shell Mapping, and OFDM for High Data Rate Broadband Mobile Communications*, Transactions on Emerging Telecommunications Technologies (ETT), Wiley, 2014, ISSN 2161-3915, vol. 28, Issue 1, January 2017.
3. **C. Vlădeanu**, C. V. Năstase, A. Marţian, *Energy Detection Algorithm for Spectrum Sensing Using Three Consecutive Sensing Events*, IEEE Wireless Comm. Letters, DOI: 10.1109/LWC.2016.2543723, , vol. 5, pp. 284-287, June 2016, ISSN 2162-2337.
4. **C. Vlădeanu**, *Coding Gain Distance Exact Estimation for Space-Time Trellis Coded Modulation*, Circuits, Systems, and Signal Processing, Springer, Birkhäuser Boston, vol. 32, no. 2, pp. 919-929, Apr. 2013, ISSN 0278-081X.
5. **C. Vlădeanu**, S. El Assad, *Hybrid Maximum-Likelihood Detector for Trellis Coded Spatial Modulation*, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Ed. Academiei Romane, vol. 57, no. 4, pp. 383-393, Bucharest, Romania, 2012.
6. **C. Vlădeanu**, S. El Assad, I. Marghescu, A.F. Paun, J.-C. Carlach, and R. Quéré, *Recursive GF(2^N) Encoders Using Left-Circulate Function for Optimum TCM Schemes*, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Ed. Academiei Romane, vol. 55, no. 3, pp. 320-329, Bucharest, Romania, 2010.
7. **C. Vlădeanu**, S. El Assad, J.-C. Carlach, R. Quéré, and I. Marghescu, *Recursive GF(2^N) Encoders Using Left-Circulate Function for Optimum PSK-TCM Schemes*, Elsevier Signal Processing, vol. 90, no. 9, pp. 2708-2713, Sept., 2010 doi:10.1016/j.sigpro.2010.03.021.
8. **C. Vlădeanu**, S. El Assad, J.-C. Carlach, R. Quéré, *Improved Frey Chaotic Digital Encoder for Trellis-Coded Modulation*, IEEE Trans. Circuits and Systems – **II**, vol. 56, no. 6, pp. 509-513, June, 2009.
9. **C. Vlădeanu**, C. Paleologu, I. Marghescu, *Multilevel Chaos-Based Spreading Sequences for DS-CDMA System Performance Improvement*, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, 2008.
10. **C. Vlădeanu**, C. Paleologu, *Fast convergence adaptive MMSE receiver for asynchronous DS-CDMA systems*, Revue Roumaine des Sciences Techniques – Serie Electrotechnique et Energetique, Tome 52, no. 1, pp. 51-60, Jan.-Mar., 2007.

Projects

1. *New Convolutional Coding Schemes with Reduced Complexity Operating over Higher Order Galois Fields for Channel Error Correction*, grant UEFISCSU type RU-TE, 2010-2013, manager C. Vladeanu.
2. *New Turbo Multi-User Detection receivers for CDMA systems*, 2007-2008, grant CNCSIS AT, manager C. Vladeanu.
3. *Performance Analysis of DS-CDMA Mobile Communications Systems*, grant CNCSIS Type Td, 2004-2005, CNCSIS Code 471, phase 1 (*Spreading sequences for the DS-CDMA system* - 2004) and phase 2 (*BER performances analysis for the DS-CDMA system using chaotic sequences* - 2005) , manager C. Vladeanu.
4. *Cognitive Radio Technology and RF Spectrum Efficient Utilization*, UEFISCSU Grant, PN-II-PCE-Idei, 2007-2011, manager I. Marghescu.
5. *New Adaptive Receivers for CDMA Communications Systems*, Grant type CEEX-ET, MEC-UEFISCSU, 2006-2008, manager C. Paleologu.
6. *A new family of least squares adaptive algorithms suitable for finite precision implementation*, 2004, AT type contract, CNCSIS, manager C. Paleologu.
7. *Multimedia Communications Systems,* phase IV (2002): *Fast adaptive algorithms for channel equalization and interference cancellation in multimedia communications systems,* Orizont 2000, UPB-ITC-ANSTI, nr.540 /2000, Manager Adelaida Mateescu.
8. *Multimedia Communications Systems,* phase III (2001): *A study of access systems in multimedia communications systems: new solutions,* Orizont 2000, UPB-ITC-ANSTI, nr.540 /2000, Manager Adelaida Mateescu.
9. *Access interfaces of the telecommunications network to the global communications network,* UPB-ANSTI, nr.836 /A6, 2000, Manager Adelaida Mateescu.

Conferences (selected)

1. O. -M. Ungureanu, **C. Vlădeanu** and R. Kooij, "Collaborative Cloud - Edge: A Declarative API orchestration model for the NextGen 5G Core," 2021 IEEE International Conference on Service-Oriented System Engineering (SOSE), 2021, pp. 124-133, doi: 10.1109/SOSE52839.2021.00019.
2. 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.
3. **C. Vlădeanu**, O. M. K. Al-Dulaimi and A. Marţian, "A Modified Double-Threshold Spectrum Sensing Algorithm Based on Adaptive-Threshold Mean Energy Detection," 2021 International Symposium on Signals, Circuits and Systems (ISSCS), 2021, pp. 1-4, doi: 10.1109/ISSCS52333.2021.9497419.
4. A. Martian, **C. Vlădeanu** and I. Marghescu, "Novel Software Defined Radio Testbed for Spectrum Occupancy Measurements," 2020 International Symposium on Electronics and Telecommunications (ISETC), Timisoara, NOV 05-06, 2020, Pages: 383-386, doi: 10.1109/ISETC50328.2020.9301075, WOS:000612681000092.
5. O. M. Khodayer Al-Dulaimi, M. Jalal Ahmad Al Sammarraie, **C. Vlădeanu**, A. Marţian and D. C. Popescu, "Cooperative Spectrum Sensing for Three Secondary Users with Sequential Relaying for Cognitive Radio," 2020 13th International Conference on Communications (COMM), Bucharest, Romania, 2020, pp. 221-226, doi: 10.1109/COMM48946.2020.9141968, WOS:000612723900040.
6. **C. Vlădeanu**, M. J. A. A. Sammarraie and A. Marţian, "Amplify-and-Forward Cooperative Spectrum Sensing Using Three Secondary Users for Cognitive Radio," 2019 International Symposium on Signals, Circuits and Systems (ISSCS), Iasi, Romania, 2019, pp. 1-4. doi: 10.1109/ISSCS.2019.8801814.
7. 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
8. C. Năstase, A. Marţian, **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
9. A. Marţian 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.
10. E. I. Dobre, **C. Vlădeanu**, and A. Marţian, "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.
11. C. V. Năstase, A. Marţian, **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.
12. **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, Iaşi, Romania, 11 - 12 July, 2013.
13. **C. Vlădeanu**, *Turbo Trellis-Coded Spatial Modulation*, IEEE Global Communications Conference - GLOBECOM 2012, pp. 4240-4245, Anaheim, CA, USA, Dec. 3-7, 2012.
14. **C. Vlădeanu**, A. Marţian, 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.
15. **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.
16. **C. Vlădeanu**, A. Marţian, 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.
17. **C. Vladeanu**, 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, Barcelone, Spain, Aug. 29-Sept. 2, 2011.
18. **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, Iaşi, Romania, 30 June - 1 July, 2011.
19. **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.

Memberships

- IEEE member;

References