

## INFORMAȚII PERSONALE



## Florin-Marian Bîrleanu

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Sexul Masculin | Data nașterii 16 Aug 84 | Naționalitatea română

## EXPERIENȚA PROFESIONALĂ

2015–Prezent

**Șef de lucrări**

Universitatea din Pitești, Facultatea de Electronică, Comunicații și Calculatoare, Pitești (România)

2012–2015

**Asistent universitar**

Universitatea din Pitești, Facultatea de Electronică, Comunicații și Calculatoare, Pitești (România)

2010–2012

**Activități didactice**

Institut National Polytechnique de Grenoble, Ecole Nationale Supérieure de l'Energie, l'Eau et l'Environnement

- Lucrări de laborator legate de analiza și procesarea semnalelor și a imaginilor

2008–2009

**Activități didactice**

Universitatea din Pitești, Facultatea de Electronică, Comunicații și Calculatoare

- Lucrări de laborator legate de logică fuzzy, rețele neuronale și algoritmi genetici

2006–2006

**Colaborator**

SC Prodinf Software SRL, Pitești (România)

- Aplicații software

## EDUCAȚIE ȘI FORMARE

2009–2012

**Docteur**

Université de Grenoble, Grenoble (Franța)

- Signal, image, parole, télécoms

2008–2011

**Doctor**

Universitatea din Pitești, Pitești (România)

- Inginerie electronică și telecomunicații

2008–2010

**Master**

Universitatea din Pitești, Pitești (România)

- Sisteme inteligente pentru comunicații

2003–2008

**Inginer diplomat**

Universitatea din Pitești, Facultatea de Electronică, Comunicații și Calculatoare  
- Electronică

1999–2003 **Bacalaureat**  
Colegiul Național "Ion C. Brătianu", Pitești (România)  
- Matematică-informatică intensiv informatică

## COMPETENȚE PERSONALE

Limba(i) maternă(e) română

Limbile străine

	ÎNȚELEGERE		VORBIRE		SCRIERE
	Ascultare	Citire	Participare la conversație	Discurs oral	
engleză	C1	C1	B2	B2	B2
franceză	C1	C1	B2	B2	B2
spaniolă	B1	B1	A2	A2	A1

Niveluri: A1 și A2: Utilizator elementar - B1 și B2: Utilizator independent - C1 și C2: Utilizator experimentat  
Cadru european comun de referință pentru limbi străine

Competențe dobândite la locul de muncă

- dezvoltarea de aplicații software folosind limbaje de nivel înalt (C++, Java, C#)
- programarea microcontrolerelor folosind limbaje de nivel mediu (C) și limbaje de asamblare
- proiectarea de structuri hardware dedicate folosind limbaje de descriere hardware (VHDL)
- modelarea și simularea de sisteme folosind mediul de calcul numeric MATLAB

## INFORMAȚII SUPLIMENTARE

Lucrări și proiecte

2009:

[1] **Florin-Marian BIRLEANU**, Gheorghe SERBAN, Emil SOFRON - "An area-efficient FPGA-based implementation of RSA", in "Proceedings of the International Conference on ELECTRONICS, COMPUTERS and ARTIFICIAL INTELLIGENCE - ECAI'09" (July 3-5, 2009, Pitești, Romania), vol. 2/2009 ("Electronic Circuits & Equipments"), pp. 146-151, ISSN - 1843 - 2115

[2] **Florin-Marian BIRLEANU**, Emil SOFRON, Gheorghe SERBAN - "Using image processing techniques for noise reduction in recurrence plots", in "Proceedings of the International Conference on ELECTRONICS, COMPUTERS and ARTIFICIAL INTELLIGENCE - ECAI'09" (July 3-5, 2009, Pitești, Romania), vol. 4/2009 ("Software & AI"), pp. 77-82, ISSN - 1843 - 2115

[3] **Florin-Marian BIRLEANU**, Emil SOFRON - "Analysis of recurrence plot vs autocorrelation based frequency estimation methods", in "University of Pitești Scientific Bulletin. Series: Electronics and computers science", no. 9, vol. 2/2009, pp. 17-22, ISSN - 1453 - 1119

2010:

[4] **Florin-Marian BIRLEANU**, Emil SOFRON - "Improving recurrence-based fundamental frequency estimation by using image processing", in "University of Pitești Scientific Bulletin. Series: Electronics and computers science", no. 10, vol. 2/2010, pp. 13-16, ISSN - 1453 - 1119

[5] Alexandru SERBANESCU, **Florin-Marian BIRLEANU** - "New approaches in nonlinear dynamics analysis of complex systems and processes", pp. 67-94, chapter 3 in "Complex Behaviour of the Distributed Generation System. Intelligent Management of the Renewable Energy Resources for assuring the DG System Power Quality and a Sustainable Development" (Editor: Nicu BIZON), ISBN - 978 - 606 - 560 - 128 - 4, Publishing House of University of Pitești, Pitești, Romania, 2010

[6] **Florin-Marian BIRLEANU**, Cornelia IOANA, Alexandru SERBANESCU, Gheorghe SERBAN, Emil SOFRON - "Estimation of thermo-hydrodynamic parameters in energy production systems using non-stationary signal processing", in Proceedings of the "Forty-Fourth Asilomar Conference on Signals, Systems and Computers" (November 7-10, 2010, Monterey, CA, USA), pp. 1353-1356, ISBN: 978-1-4244-9720-1, ISSN: 1058-6393

- [7] **Florin-Marian BIRLEANU**, Alexandru SERBANESCU - "Recurrence plot analysis - Emerging tool for non-stationary signal processing", presentation in 3rd edition of "Advanced Works on Transient Signal Characterization" workshop during the "8th International Conference on Communications (COMM2010)" (June 10-12, 2010, Bucharest, Romania)
- [8] **Florin-Marian BIRLEANU** (membru), Cornel IOANA (director) - "Modelisation de la propagation des ultrasons dans un ecoulement turbulent", Rapport de recherche, 14 juin 2010. *Contract: 8610-BXE-4300173932. Beneficiar: Electricite de France (Franta). Durata: septembre 2009 – iunie 2010.* 2011:
- [9] **Florin-Marian BIRLEANU**, Cornel IOANA, Alexandru SERBANESCU, Jocelyn CHANUSSOT - "A time-distributed phase space histogram for detecting transient signals", in Proceedings of the "IEEE International Conference on Acoustics, Speech and Signal Processing" (ICASSP 2011, May 22-27, Prague, Czech Republic), pp. 3844-3847, ISBN: 978-1-4577-0537-3
- [10] **Florin-Marian BIRLEANU**, Cornel IOANA, Cedric GERVAISE, Jocelyn CHANUSSOT, Alexandru SERBANESCU, Gheorghe SERBAN - "On the Recurrence Plot Analysis method behaviour under scaling transform", in Proceedings of the "2011 IEEE Statistical Signal Processing Workshop (SSP)" (SSP 2011, June 28-30, Nice, France), pp. 793-796, ISBN: 978-1-4577-0568-7
- [11] Ion CANDEL, **Florin-Marian BIRLEANU**, Cornel IOANA, Gheorghe SERBAN, Emil SOFRON - "Partial discharge detection in high voltage cables using advanced signal processing techniques", in Proceedings of "IC ECAI 2011" (30 June - 2 July, Pitesti, Romania), vol. 4, no. 6/2011, pp. 23-28, ISSN: 1843-2115
- [12] Adrian LUCA, **Florin-Marian BIRLEANU**, Guy D'URSO, Sylvain BLAIRON, Emil SOFRON - "Structure strain monitoring using distributed fiber optic sensors", in Proceedings of "IC ECAI 2011" (30 June - 2 July, Pitesti, Romania), vol. 4, no. 6/2011, pp. 29-34, ISSN: 1843-2115
- [13] **Florin-Marian BIRLEANU**, Cornel IOANA, Cedric GERVAISE, Alexandru SERBANESCU, Jocelyn CHANUSSOT - "Caracterisation des signaux transitoires par l'analyse des recurrences de phase", in "23eme Colloque GRETSI" (September 5-8, 2011, Bordeaux, France)
- [14] **Florin-Marian BIRLEANU**, Cornel IOANA, Cedric GERVAISE, Yvan SIMARD - "Recurrence plot analysis (RPA): a new tool for click detection and clustering clicks into trains", presentation in "Fifth International Workshop on Detection, Classification, Localization, and Density Estimation of Marine Mammals using Passive Acoustics" (August 21-25, 2011), Timberline Lodge, Mount Hood, Oregon, USA
- [15] Alexandru SERBANESCU, Octavian STANASILA, **Florin-Marian BIRLEANU** - "Analiza neliniara a seriilor de timp: aplicatii in prelucrarea semnalelor", ISBN: 978-973-640-206-7, Editura Academiei Tehnice Militare, Bucuresti, Romania, 2011.
- 2012:
- [16] **Florin-Marian BIRLEANU**, Ion CANDEL, Cornel IOANA, Cedric GERVAISE, Alexandru SERBANESCU, Gheorghe SERBAN - "A Vector Approach to Transient Signal Processing", in Proceedings of "The 11th International Conference on Information Science, Signal Processing and their Applications" (July 2-5, 2012, Montreal, Quebec, Canada), pp. 1174-1179
- [17] Alexandru SERBANESCU, **Florin-Marian BIRLEANU** - "New approaches in nonlinear dynamics analysis of complex systems and processes", chapter 3 in "Advances in Energy Research: Distributed Generations Systems Integrating Renewable Energy Resources" (Editor: Nicu BIZON), Series: Energy Science, Engineering and Technology, ISBN: 978-1-61209-991-0, NOVA Publishers, Hauppauge, NY, USA, 2012.
- 2013:
- [18] **Florin-Marian BIRLEANU** - "Recurrence-Based Signal Processing: Applications in Ultrasonic Measurements", ISBN: 978-3659337031, 168 pages, LAP LAMBERT Academic Publishing AG & Co. KG, Germany (February 17, 2013)
- [19] Alexandru SERBANESCU, **Florin-Marian BIRLEANU**, Angela DIGULESCU - "Overview of our recent results in signal analysis using recurrence plots", in Proceedings of the "International Conference on ELECTRONICS, COMPUTERS and ARTIFICIAL INTELLIGENCE (ECAI-2013)" (June 27 - June 29, 2013), vol. 5, no. 4/2013, pp. 7-12, ISSN - 1843 - 2115.
- [20] Cornel IOANA, Alexandru SERBANESCU, Angela DIGULESCU, **Florin-Marian BIRLEANU**, Ion CANDEL - "Recent advances in non-stationary signal processing using recurrence plots", presentation in "Fifth International Symposium on Recurrence Plots", August 14-16, 2013, Chicago, USA
- 2014:
- [21] Cornel IOANA, Angela DIGULESCU, Alexandru SERBANESCU, Ion CANDEL, **Florin-Marian**

**BIRLEANU** - "Recent Advances in Non-stationary Signal Processing Based on the Concept of Recurrence Plot Analysis", chapter in "Translational Recurrences. From Mathematical Theory to Real-World Applications" (Editors: Norbert Marwan, Michael Riley, Alessandro Giuliani, Charles L. Webber, Jr.), ISBN: 978-3-319-09530-1 (Print) 978-3-319-09531-8 (Online), series "Springer Proceedings in Mathematics & Statistics", vol. 103, pp. 75-93, Springer, 2014

[22] **Florin-Marian BÎRLEANU** - "A Method for Translating Pseudocode to HDL via Finite Automata", in "University of Pitesti Scientific Bulletin, Series: Electronics and Computers Science", vol. 14, no.1, pp. 11-18, pISSN: 2344 – 2158, eISSN: 2344 – 2166, 2014

[23] **Florin-Marian BÎRLEANU** (director) - "Recognition and classification of surfaces and structures. Evaluation and creation of specific algorithms in order to be integrated into industrial image processing systems", 3 rapoarte de cercetare. *Contract: 5/21.01.2014 (DPR); 4/24.01.2014 (UPIT). Beneficiar: S.C. DPR Draexlmaier Procese de Productie Romania S.R.L. (Romania). Valoare: 20744 euro. Durata: februarie 2014 – decembrie 2014.*

2015:

[24] **Florin-Marian BÎRLEANU**, Cosmin-Ionut Maciucă, Bogdan-Adrian Enache - A Didactic Implementation of a Minimalist Compiler, in " Journal of Electrical Engineering, Electronics, Control and Computer Science" vol. 1, no. 1, September 2015, pp. 27-32, ISSN: 2457-7812, ISSN-L: 2457-7812

[25] Bogdan-Adrian Enache, Luminita-Mirela Constantinescu, **Florin-Marian BÎRLEANU** - "State-of-charge estimation of a LiFePO4 battery using an adaptive observer", in "University of Pitesti Scientific Bulletin. Series: Electronics and Computers Science", vol. 15, no. 2/2015, pp. 19-24, pISSN: 2344-2158, eISSN: 2344-2166

2016:

[26] **Florin-Marian BÎRLEANU** - "Limbaje formale, automate si compilatoare. Teorie si aplicatii", ISBN 978-606-560-480-3, Editura Universitatii din Pitesti, 2016, 210 pagini

[27] **Florin-Marian BÎRLEANU**, Bogdan-Adrian Enache, Magdalena Alexandru - "First Steps towards Designing a Compact Language for the Description of Logic Circuits", in Proceedings of "2016 International Conference on COMMUNICATIONS (COMM 2016)", June 9-11, 2016, Bucharest, Romania, pp. 357-360, ISBN 978-1-4673-8196-3

[28] Bogdan-Adrian Enache, **Florin-Marian BÎRLEANU**, Marin Radut - "Modeling a PV panel using the manufacturer data and a hybrid adaptive method", in Proceedings of "The 8th International Conference on ELECTRONICS, COMPUTERS and ARTIFICIAL INTELLIGENCE (ECAI 2016)", June 30 - July 2, Ploiesti, Romania, vol. 8, no. 2

[29] Georgiana-Mihaela Nitu, **Florin-Marian BÎRLEANU** - "FASharpSim: A Software Simulator for Deterministic and Nondeterministic Finite Automata", in Journal of Electrical Engineering, Electronics, Control and Computer Science, vol. 2, no. 2, June 2016, pp. 13-20, ISSN: 2457-7812, ISSN-L: 2457-78122016

[30] Mihai-Ionut Vilcu, **Florin-Marian BÎRLEANU** - "Design and implementation of a translator for converting a minimalist language to VHDL", in "University of Pitesti Scientific Bulletin. Series: Electronics and Computers Science", vol. 16, no. 2/2016, pp. 18-25, pISSN: 2344-2158, eISSN: 2344-2166

[31] **Florin-Marian BÎRLEANU** (membru) - **Erasmus+ EU Project No: 2015-1-TR01-KA203-021342, "INNOVATIVE EUROPEAN STUDIES ON RENEWABLE ENERGY SYSTEMS (IESRES)"**, Starting Date: 01 September 2015, Duration: 3 years, Responsabil UPIT: Robert Cristian BELOIU. Participat la activitatile: June 26 - July 2, 2016, Pitesti, Romania; October 16-22, 2016, Perugia, Italy

[32] **Florin-Marian BÎRLEANU** (membru) - **ERA-NET Smart Grids Plus - H2020, "Cost-Efficient Data Collection for Smart Grid and Revenue Assurance"**, CERA-SG (77594), 01/04/2016 - 31/03/2019 (valoare UPIT=valoare UPIT=461835 lei/102630 euro)

[33] **Florin-Marian BÎRLEANU** (membru) - **PN-III-P2-2.1-PTE-2016-0215, "System for acquisition, monitoring, analysis and recognition of vibrations for critical infrastructure protection"**, SmartVibes, 2016-2017. Director: Vasile-Gabriel IANA, Responsabil UPIT: Mihai OPROESCU.

2017:

[34] **Florin-Marian BÎRLEANU**, Vasile-Gabriel IANA, Mihai OPROESCU, Silviu IONITA - "Feature extraction for distance-based classification of signal sources", in the "9th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), 2017", 29 June - 1 July 2017, Targoviste, Romania, pp. 1-4, DOI: 10.1109/ECAI.2017.8166433

[35] Mihai OPROESCU, Nicu BIZON, Gabriel IANA, **Florin-Marian BÎRLEANU**, Ioan LITA - "Optimize of the long-term supply for a detection, vibration monitoring and recognition of the critical infrastructure protection system", in the "2017 International Conference on Applied Electronics (AE)",

5-6 Sept. 2017, Pilsen, Czech Republic, pp. 1-6, DOI: 10.23919/AE.2017.8053603

2018:

[36] **Florin-Marian BÎRLEANU** - "Abecedar de programare: De la zero barat la bun de programat", ISBN: 978-973-0-26328-2 (Editie online/PDF, februarie 2018), Pitesti, 360 pagini

[37] George RADUCU, **Florin-Marian BÎRLEANU** - "Some aspects regarding the construction of a pushdown automata software editor and simulator", University of Pitesti Scientific Bulletin. Series: Electronics and Computers Science, vol. 18, no. 1/2018, pp. 1-4, pISSN: 2344 – 2158, eISSN: 2344 – 2166

[38] **Florin-Marian BÎRLEANU** - "CHDL1: Implementing a simplified version of the CompactHDL hardware description language", Journal of Electrical Engineering, Electronics, Control and Computer Science (JEECCS), Volume 4, Issue 14, pp. 17-22, December 2018