



Curriculum vitae Europass

Informații personale

Nume / Prenume

Ravariu Cristian

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Naționalitate(-tăți)

romana

Data nașterii

Sex

barbatesc

Locul de muncă si ocupatia actuala

Profesor universitar la POLITEHNICA Bucuresti

Pozitie vizata pentru a fi ocupata

**Cercetător Științific gradul I_2 in proiectul "Towards Higher
Involvement of Knowledge Significantly Enhancing Nearer for
Sustainable Europe" ("THINKSENSE"), contractul nr. RUE
7.PI/I4/C9**

Experiența profesională

Perioada

2013 – prezent

Funcția sau postul ocupat

Profesor universitar dr. ing. si director a 2 proiecte de cercetare (PCE, PED)

Activități și responsabilități principale

Predare cursuri (Dispozitive Electronice, Biodispozitive si Nanoelectronica, Spice)
precum si conducerea ședințelor de lucrări practice de laborator
Cercetare științifică

Numele și adresa angajatorului

Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și
Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)

Tipul activității sau sectorul de activitate

Învățământ

Perioada

2005 –2013

Funcția sau postul ocupat

Conferentiar dr. ing.; director de proiecte de cercetare

Activități și responsabilități principale

Predare cursuri (Dispozitive Electronice, Biodispozitive si Nanoelectronica, Modele
Spice) precum si conducerea ședințelor de lucrări practice de laborator
Cercetare științifică

Numele și adresa angajatorului

Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și
Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)

Tipul activității sau sectorul de activitate

Învățământ

Perioada

2002 –2005

Funcția sau postul ocupat	Sef Lucrari dr. ing.; director proiecte
Activități și responsabilități principale	Predare cursuri (Modele Spice) precum si conducerea ședințelor de lucrări practice de laborator Cercetare științifică
Numele și adresa angajatorului	Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)
Tipul activității sau sectorul de activitate	Învățământ
Perioada	1999 – 2002
Funcția sau postul ocupat	Asistent titular
Activități și responsabilități principale	Conducerea ședințelor de lucrări practice de laborator Cercetare științifică
Numele și adresa angajatorului	Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)
Tipul activității sau sectorul de activitate	Învățământ
Perioada	1993 – 1999
Funcția sau postul ocupat	Cercetator stiintific, asistent cercetare
Activități și responsabilități principale	Cercetare științifică
Numele și adresa angajatorului	Institutul National de Cercetare-Dezvoltare pentru Microtehnologie Str. Erou Iancu Nicolae nr. 22A RO-030012 Bucuresti (România)
Tipul activității sau sectorul de activitate	Cercetare științifică

Educație și formare

Perioada	2010-2013
Calificarea / diploma obținută	Certificat de absolvire stagiul postdoctoral
Disciplinele principale studiate / competențe profesionale dobândite	Structuri SOI Generalizate si Biodispozitive
Numele și tipul instituției de învățământ / furnizorului de formare	Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)
Nivelul în clasificarea națională sau internațională	Studii postdoctorale
Perioada	1995-2001
Calificarea / diploma obținută	Diploma de DOCTOR INGINER
Disciplinele principale studiate / competențe profesionale dobândite	INGINERIE ELECTRONICA
Numele și tipul instituției de învățământ / furnizorului de formare	Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)
Nivelul în clasificarea națională sau internațională	Studii doctorale
Perioada	1988-1993
Calificarea / diploma obținută	Diploma de inginer
Disciplinele principale studiate / competențe profesionale dobândite	Specializarea Microelectronica
Numele și tipul instituției de învățământ / furnizorului de formare	Universitatea Politehnica București, Facultatea de Electronică Telecomunicații și Tehnologia Informației, Splaiul Independentei 313, 060042 Bucuresti (România)

Nivelul în clasificarea națională sau internațională	Studii universitare																																																		
Perioada	intre 2003-2013																																																		
Calificarea / diploma obținută	Stagii de specializare in strainatate																																																		
Disciplinele principale studiate / competențe profesionale dobândite	Bio-nano-electronica, Celule-B, Biosenzori, Tranzistoare cu filme organice																																																		
Numele și tipul instituției de învățământ / furnizorului de formare	Laboratory of Analysis and Architecture of Systems LAAS-CNRS, Toulouse (Franța) – 2012-2013, European Science Foundation ESF, S F Guixols (Spania) 2011, SINANO Italia 2006, EPFL Swiss 2003.																																																		
Nivelul în clasificarea națională sau internațională	Specializari																																																		
Aptitudini și competențe personale																																																			
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(*) Nivelul Cadrului European Comun de Referință Pentru Limbi Străine																																																			
Competențe și abilități sociale	Spirit de echipă, sociabil, bune aptitudini de comunicare																																																		
Competențe și aptitudini organizatorice	- Coordonarea unor studenti in pregatirea examenelor de diploma sau disertatie. - Membru in colectivul de catedra/departament intre anii 2001-2012. - Membru in consiliul Facultatii de Electronica Telecomunicatii si Tehnologia Informatiei din 2012-prezent.																																																		
Competențe și aptitudini tehnice	Bune abilitati de conducere a unei echipe de cercetare multi-parteneriale, dobandita in urma a 2 Proiecte PNII, in functia de director de Proiect.																																																		
Competențe și aptitudini de utilizare a calculatorului	Spice, Silvaco, Atlas, Athena, Windows																																																		
Permis(e) de conducere	-																																																		

Informații suplimentare

1. Premiul Academiei Române din 15 Dec 2011, în Aula Academiei Române, la ceremonia de decernare a premiilor Academiei Române pentru rezultate din anul 2009: XIV. În domeniul științei și tehnologiei informației - Premiul Tudor Tănăsescu pentru Lucrarea : Biodispozitive electronice: de la nanostructuri la aplicații medicale - autor: **Cristian Ravariu**.

2. Premieri de tip "Best Paper Award" la conferințe internaționale pentru lucrările:

2.1. **C. Ravariu**, F. Ravariu, A. Rusu, D. Dobrescu, L. Dobrescu, I. Chiran. Exacts solutions of the Poisson's equations in pseudo-MOS/SOI transistors, IEEE Int. Conf. Proceedings, Sinaia, Romania, CAS, p.249-252, 2002.

2.2. **C. Ravariu**. A NOI – nanotransistor, IEEE, Int. Conf. Proceedings, CAS'2005, Romania, Sinaia, pp.65-68.

2.3. Alexandru Rusu, Nicolae Goleescu, **Cristian Ravariu**. Manufacturing and tests of a mobile ECG platform, IEEE International Conference of Semiconductors CAS 2008, Sinaia, Romania, pp. 433-436.

2.4. L. Dobrescu, M. Petrov, D. Dobrescu, **C. Ravariu**. Threshold voltage extraction methods for MOS transistors, 23rd IEEE International Semiconductor Conference (CAS 2000), Location: Sinaia, Romania, Oct. 10-14. 2000, pp. 371-374.

2.5. **C. Ravariu**, A. Bondarciuc, V. Bondarciuc, S. Carniciu, M. Petrutescu, S. Simion. Millimeter waves generator and its effect onto the lymphocytes, 7th International Workshop of Electromagnetic Compatibility CEM, 2-4 Sept., 2010, Odorheiu-Secuiesc, Romania, p. 19-20, Premiul "Best poster" la CEM2010

3. Premieri Naționale a Rezultatelor Cercetării de tip articole în Jurnale ISI, de către UEFISCDI:

3.1. **C. Ravariu**, F. Ravariu, A test two-terminals biodevice with lipophylic and hidrophylic hormone solutions, ISI Journal of Optoelectronics and Advanced Materials JOAM, vol.9, nr. 8, 2007, pp. 2589-2592 cod premiere PN-II-RU-PRECISI – 2007-1.

3.2. **C. Ravariu** and F. Babarada, Modeling and simulation of special shaped SOI materials for the nanodevices implementation, Journal of Nanomaterials - Hindawi, vol. 2011, Article ID 792759, 11 pages, July 2011 cu cod premiere PN-II-RU-PRECISI-2012-6-1177.

(2) Afilierii asociații / Recunoașteri internaționale:

1. Membru al Societății IEEE cu nr. 90382147, din 2007 – prezent.

2. Chairman pe secțiunea unui Chapter IEEE: Romanian Chapter IEEE Solid-State Circuits Society, SSC237, din Nov. 2011 - 2019.

3. Chairman pe secțiunea Chapter-ului IEEE: Electron Device Society, ED15, din 2014 - prezent.

Informații suplimentare

Articole totale publicate pana in 2026: peste 250 articole.

Hirsh Index = 16.

i10-index = 35.

- publicatii relevante, brevete.

Anexe

PAPERS IN ISI - THOMSON JOURNALS

2025

57. Ravariu C.; Manea, E.; Părvulescu, C.; Dima, G. Nanoporous Layer Integration for the Fabrication of ISFET and Related Transistor-Based Biosensors. *Chemosensors* **2025**, vol. 13, nr. 9, 316, pp. 1-28. <https://doi.org/10.3390/chemosensors13080316>. WOS:001557315500001, ISSN: 2227-9040, Q2-yellow zone. available at: <https://www.mdpi.com/2227-9040/13/8/316#B13-chemosensors-13-00316>
56. Mihai Popescu, Cristian Ravariu, Zoltan Hasci, First and Second Order Digital Circuits with Neuronal Models under Pulses Train Stimulus, *Romanian Journal Of Information Science And Technology ROMJIST*, Vol. 28, Nr 2, 2025, pp. 223–232, ISSN 1453-8245 , WOS:001538680900010, Q1/Q2, doi: 10.59277/ROMJIST.2025.2.09. available at: <https://www.romjist.ro/contents-98.html>

2024

55. Popescu, M.; Ravariu, C. Simulation of Spinal Cord Reflexes. *Appl. Sci.* **2024**, vol. 14, issue 1, art number 310, 8 pag. <https://doi.org/10.3390/app14010310>. Q2-MDPI, IF=2.5, eISSN 2076-3417, WOS:001139292500001. Contributie=1/2=0.5
54. Salavarin, GC; Placinta, VM and Ravariu, C., Proposal of an External Remote Sensing Circuitry for Switching-Mode Power Supplies, *ELECTRONICS*, 13(15), article number 2994, Aug 2024, DOI 10.3390/electronics13152994, Q2-MDPI, ISSN 2079-9292, WOS:001286885600001, IF=2.6. Contributie=1/3=0.3
53. Baneş, V.; Ravariu, C.; Srinivasulu, A. New Functionality for Moodle E-Learning Platform: Files Communication by Chat Window. *Appl. Sci.* **2024**, 14, 8569. Q1/Q2, <https://doi.org/10.3390/app14188569>. WOS:001323921200001 MDPI Contributie=1/2=0.5

2023

52. Lakshmi, P.V.; Musala, S.; Srinivasulu, A.; Ravariu, C. Design of a 0.4 V, 8.43 ENOB, 5.29 nW, 2 kS/s SAR ADC for Implantable Devices. *Electronics* **2023**, 12, 4691. <https://doi.org/10.3390/electronics12224691>. Q2-MDPI WOS:001121087500001. Contributie=1/1=1
51. Topor Alexandru, Ulieru Dumitru, Ravariu Cristian, Babarada Florin, Development of a new one-eyeimplant by 3d bioprinting technique, *Rev. Roum. Sci. Techn.–Électrotechn. et Énerg.* Vol.68, 2, pp. 247–250, 2023, <https://doi.org/10.59277/RRST-EE.2023.68.2.22>. WOS: 001026628400022.
50. Bhargav Appasani, Avireni Srinivasulu, Cristian Ravariu A high Q terahertz metamaterial absorber using concentric elliptical ring resonators for harmful gas sensing applications, *Apr. 2023 Defence Technology*, 2023/4/1, vol. 22, pp. 69-73. ISSN 2214-9147, Q2-Elsevier, <https://doi.org/10.1016/j.dt.2022.06.016>, WOS:000973275700001. Contributie=1/1=1
49. Ravariu C. From Enzymatic Dopamine Biosensors to OECT Biosensors of Dopamine. *Biosensors* **2023**, 13(8), 806, pp. 1-21. <https://doi.org/10.3390/bios13080806>. WOS:001055749000001, Q1-MDPI Contributie=1
48. Baneş, V.; Ravariu, C.; Appasani, B.; Srinivasulu, A. A Novel Two-Factor Authentication Scheme for Increased Security in Accessing the Moodle E-Learning Platform. *Appl. Sci.* **2023**, 13, 9675. Q2-MDPI <https://doi.org/10.3390/app13179675>. WOS:001062658500001. Contributie=1/2=0.5
47. Musala Sarada, Srinivasulu Avireni, Appasani Bhargav, Ravariu Cristian, Low Power High Speed FINEFET Based Differential Adder Circuits With Proposed Carry/Carrybar Structures, *University Politehnica of Bucharest Scientific Bulletin Series C-Electrical Engineering and Computer Science*, Volume 85, Issue 3, pp.335-353, 2023, sept indexare, ISSN 2286-3540, eISSN 2286-3559, WOS:001052259100026.

2022

46. Hamza, M.N.; Abdulkarim, Y.I.; Saeed, S.R.; Altıntaş, O.; Mahmud, R.H.; Appasani, B.; Ravariu C. Low-Cost Antenna-Array-Based Metamaterials for Non-Invasive Early-Stage Breast Tumor Detection in the Human Body. *Biosensors* **2022**, 12, 828. <https://doi.org/10.3390/bios12100828>. Q1-MDPI WOS:000872357600001
45. C. Ravariu, Current Status of Field-Effect Transistors for Biosensing Applications, *Biosensors*, **2022**, 12(12), 1081; <https://doi.org/10.3390/bios12121081>. WOS:000902384400001 indexat wos din 2023-01. Q1-MDPI Contributie=1
44. Topor Alexandru, Voicu Rodica Cristina, Ulieru Dumitru, Ravariu Cristian, Babarada Florin, Image processing algorithms for characterization of MEMS type micro-tweezers aperture, *Optoelectronics and Advanced Materials - Rapid Communications*, 16, 11-12, November-December, pp.505-508 (2022). ISSN 1842-6573. WOS: 000897978500004.
43. Sagnik Banerjee, Purba Dutta, Jha Amitkumar Vidyakant, Avireni Srinivasulu, Cristian Ravariu, A triple band highly sensitive refractive index sensor using terahertz metama her, [Progress In Electromagnetics Research](https://doi.org/10.3390/progress12010001)

[M](#), January 2022, 107:13-23, DOI: 10.2528/PIERM21100701. ISSN: 1937-8726. [WOS:000748526100002](#).

Ris. 42. **Ravariu C.**; Srinivasulu, A.; Mihaiescu, D.E.; Musala, S. Generalized Analytical Model for Enzymatic BioFET Transistors. **Biosensors**, 2022, 12, 474, [Q1-MDP](#), <https://doi.org/10.3390/bios12070474>. [WOS:000834427400001](#)
[Contributie=1/2=0.5](#)

Ris. 40. Sarada Musala, P. Vijaya Lakshmi, K. Kumar Lokesh, Avireni Srinivasulu and **Cristian Ravariu**, Implementation of Semi-Static and Differential Null Convention Logic Gates Using CNTFET Technology, Romanian Journal of Information Science and Technology, (ISI-Scopus), Volume 25, Number 1, [Q1/Q2](#), 2022, 47–57. [WOS:000775912300004](#).

2021

Ris. 39. Harshit Gupta, Pritam Kumar, Shubham Saurabh, Sunil Kumar Mishra, Bhargav Appasani, Avadh Pati, **Cristian Ravariu**, Avireni Srinivasulu, Category Boosting Machine Learning Algorithm For Breast Cancer Prediction, Rev. Roum. Sci. Techn.– Électrotechn. et Énerg. Vol. 66, 3, pp. 201–206, 2021. IF=0.45, [WOS:000733632300010](#).

Ris. 38. **Ravariu C.**, Parvulescu CC, Manea E, Tucureanu V. Optimized Technologies for Cointegration of MOS Transistor and Glucose Oxidase Enzyme on a Si-Wafer. **Biosensors**. 2021; vol. 11, no. 12, pp. 497. <https://doi.org/10.3390/bios11120497>. [Q1-MDP](#) [WOS:000736253100001](#). [Contributie=1/4=0.25](#)

Ris.37. **Cristian Ravariu**, Dan E. Mihaiescu, Alina Morosan, Avireni Srinivasulu, Electrical characterization of a pseudo-MOS transistor with organic thin film produced by nanotechnologies, Romanian Journal of Information Science and Technology, vol. 24, no. 1, pp. 28-36, 2021, IF=0.75. [WOS:000636230100002](#).

Ris.36. **Cristian Ravariu**, Elena Manea, Adrian Dinescu, Catalin Parvulescu, Raluca Gavrilă, Bhargav Appasani, Avireni Srinivasulu Munizer Purica, Investigations of the Fabricated Nothing On Insulator Nanotransistor as Metal-Air-Metal variant - NOI-MAM, Romanian Journal of Information Science and Technology ROMJIST, Vol 24, n.r. 2, pp. 244–254, 2021. <https://www.romjist.ro/content.html>, [WOS:000668010700009](#).

2020

Ris.35. Amitkumar V. Jha, Abu Nasar Ghazali, Bhargav Appasani, **Cristian Ravariu**, Avireni Srinivasulu, Reliability Analysis Of Smart Grid Networks Incorporating Hardware Failures And Packet Loss, Revue Roumaine Des Sciences Techniques - Série Électrotechnique et Énergétique journal, Vol. 65, no. 3-4, pp. 245-252, 2020, ISSN: 0035-4066. IF=0.76. [Q4](#), [WOS:000608261900015](#).

Ris.34. **Cristian Ravariu**, Avireni Srinivasulu, Dan E. Mihaiescu, Elena Manea, Cătălin Parvulescu, Can metals replace semiconductors in a Nothing On Insulator nanotransistor?, Proceedings of the Romanian Academy Series A, vol. 21, no.3, pp. 255-261, 2020. IF=1.3, [WOS:000576257000008](#). ISSN : 1454-9069. [Q3-zone](#). Aug-Sept 2020.

Ris.33. **Cristian Ravariu**, Dan Mihaiescu, Alina Morosan, Bogdan Stefan Vasile, Bogdan Purcareanu, Sulpho-Salicylic Acid Grafted to Ferrite Nanoparticles for n-Type Organic Semiconductors, Nanomaterials, vol. 10, no.9, 1787 pp.1-10, Sept. 2020, IF=4.3, ISSN 2079-4991, [doi:10.3390/nano10091787](https://doi.org/10.3390/nano10091787), [Q2-zone](#), [WOS:000581280600001](#), [PubMed](#)
[Contributie=1/5=0.2](#)

Ris.32. **Cristian Ravariu**, Dan E. Mihaiescu, Alina Morosan, Vlad Placinta, New steps for advancing the Nothing On Insulator Triode 3nm gap and preliminary expanded technology, Romanian Journal of Information Science and Technology, Vol. 23, Number 2, pp. 127–139, 2020, (ISI Journal, ISSN 1453-8245, [Q1/Q2](#)), IF=2
[WOS:000532321500002](#).

Ris.31. **Cristian Ravariu**, Cătălin Parvulescu, Elena Manea, Adrian Dinescu, Raluca Gavrilă, Munizer Purica, Vijay Arora, "Manufacturing of a Nothing On Insulator Nano-Structure with two Cr/Au Nanowires Separated by 18 nm Air Gap," Nanotechnology IOP, vol. 31, no. 27, pp.1-9, 2020, [Q1-Red zone/2020](#), IF=3.39, (Phys. Appl), ISSN: 0957-4484, <https://dx.doi.org/10.1088/1361-6528/ab7c45>, [WOS:000531248700001](#). DOI: 10.1088/1361-6528/ab7c45 .
[Contributie=1/6=0.16](#)

Ris.30. **Cristian Ravariu**, Daniela Istrati, Dan Mihaiescu, Alina Morosan, Bogdan Purcareanu, Rodica Cristescu, Roxana Trusca, Bogdan Vasile, Solution for green organic thin film transistors: Fe₃O₄ nano-core with PABA external shell as p-type film, Journal of Materials Science - Materials in Electronics, vol.31, no.4, pp. 3063-3073, 2020. Springer, ISSN: 0957-4522, [Yellow zone \(Q2\)](#) / 2020, IF=2, DOI: 10.1007/s10854-019-02851-3, [WOS:000514597300034](#)
<https://doi.org/10.1007/s10854-019-02851-3> [Contributie=1/8=0.125](#)

Ris.29. **Cristian Ravariu**, Dan E. Mihaiescu, Alina Morosan, Laura Georgeta Alecu, Daniela Istrati, Gated resistors with copper phthalocyanine films, Journal of Optoelectronics and Advanced Materials, vol. 22, no. 3-4, pp. 171-175, Apr. 2020, (ISI Journal, ISSN 1454 - 4164, IF=0.58/2019, [Q4](#)), [WOS:000545315500012](#).

2019

Ris.28. V.M. Placinta, L.N. Cojocariu and **C. Ravariu**, Proton-induced radiation effects in the I/O blocks of an SRAM-based FPGA, Journal of Instrumentation, vol 14, no. 10, pp. T10001-9, 2019. (IOP Journal, ISSN 1748-0221, [Q3](#)) IF=1.38. <https://doi.org/10.1088/1748-0221/14/10/T10001>, WOS:000501798500001, DOI: 10.1088/1748-0221/14/10/T10001.

Ris.2. C. Ravariu, E. Manea, C. Parvulescu, F. Babarada, A. Popescu, D.E. Mihaiescu, D. Istrati, Technological aspects and simulation results for the Nothing On Insulator device developed into a planar technology, Romanian Journal of Information Science and Technology ROMJIST, vol.22, no. 1, pp. 57-68, Jan-Apr. 2019, (ISI Journal, ISSN 1453-8245, Q4), IF=0.5, **WOS:000469865900005**.

Ris.26. Vlad-Mihai Placinta, Florin Babarada, Cristian Ravariu, Laura Georgeta Alecu, Digital controlled electronic load for testing the reliability of power supplies, Revue Roumaine des Sciences Techniques - Série Électrotechnique et Énergétique, vol. 64, no. 2, 2019, pp. 131-136, (ISI Journal, ISSN: 0035-4066), IF=0.76, **WOS:000479328200006**.

Ris.25. Cristian Ravariu, Elena Manea, Catalin Parvulescu, Dan Mihaiescu, Design of the technological flow to produce a planar variant of the Nothing On Insulator device and its tunneling conduction, Journal Nano Research, vol. 60, pp. 33-41, Nov. 2019, (ISI Journal, ISSN print 1662-5250, ISSN web 1661-9897, group www.scientific.net, Q4), <https://doi.org/10.4028/www.scientific.net/JNanoR.60.33>, **WOS:000499328900003**.

DOI: 10.4028/www.scientific.net/JNanoR.60.33

2018

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Brevete obținute în întreaga activitate

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3. Brevet OSIM: A00526 / 11-07-2018, la OSIM, Solicitant UPB, inventatori **C. Ravariu**, F. Babarada, E. Manea, C. Parvulescu, titlul: Procedeu de fabricatie a dispozitivului versatil semiconductor planar pentru testarea tunelarii izolatorilor ultra-subtiri. Brevet acordat de OSIM prin Decizia nr. 4.4.81 din 30.07.2024 inregistrata cu nr. 40572 / 30.08.2024

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