

PERSONAL INFORMATION



PĂCURAR Claudia

- Nicolae Tonitza Street, No. 10, Cluj-Napoca, Cluj, 400506, Romania
- **L** +40-264-401468 **=** +40-742-047447
- Claudia.Pacurar@ethm.utcluj.ro
- http://users.utcluj.ro/~claudiar

Sex Female | Date of birth 08/09/1979 | Nationality Romanian

POSITION Professor

Department of Electrotechnics and Measurements Faculty of Electrical Engineering Director Alumni Department Pro-Rectorate University Management and the Relationship with the Socio-Economic Environment Technical University of Cluj-Napoca

WORK EXPERIENCE

01.10.2023 – present 01.10.2015 – 30.09.2023 01.10.2013 – 30.09.2015 01.10.2008 – 30.09.2013 01.10.2004 – 30.09.2008	Professor Associate Professor Lecturer Assistant Professor PhD Student Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Department of Electrotechnics and Measurements, Cluj-Napoca, 26-28 G. Bariţiu Street, <u>www.ethm.utcluj.ro</u> • Teaching and Research Activities Electrical Engineering Domain, University Education
EDUCATION AND TRAINING	
25.02.2022	Habilitated/Habilitation Degree
	 Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Cluj-Napoca, Romania Habilitation Thesis Title "From planar spiral inductors to wireless power transfer systems, antennas and filters"
01.10.2004 - 12.07.2012	Doctor/Ph.D. Degree Diploma
	 Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Cluj-Napoca, Romania PhD Thesis Title "Contribution to analysis, modeling and optimal design of the spiral inductors from micrometer integrated circuits"
01.10.2005 - 30.09.2006	Post University Studies Type Thorough Studies/Master's Degree, Computer Aided Design in Electrical Engineering
	 Technical University of Cluj-Napoca, Faculty of Electrical Engineering, Cluj-Napoca, Romania Dissertation Thesis Title "Inductance Calculation using Partial Equivalent Element Circuit Method"
01.10.1999 – 30.09.2004	Diplomat Engineer/Engineer Degree Diploma Technical University of Cluj-Napoca, Faculty of Electrotechnics, Cluj-Napoca, Romania
	 Bachelor Thesis Title "Analysis of the electromagnetic interferences in electric systems" Bachelor Thesis – ERASMUS, Federico II University, Naples, Italy (28.0231.05.2004)

PERSONAL SKILLS					
Mother tongue(s)	Romanian Language)			
Other language(s)	UNDERST	TANDING	SPEA	AKING	WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English Language	B2	B2	B2	B2	B2
	Languag	ge Certificate, No. 0095	8-19.11.2021, Technica	al University of Cluj-Napo	oca
French Language	B1I	B1	B1	B1	B1
		Language Certificate,	2004, Technical Univers	sity of Cluj-Napoca	
Italian Language	B2	B2	B2	B2	B2
		Attestato di Freque	nza / Pangea, Naples, I	Italy, April 2004	
German Language	B1	B1	B1	B1	B1
	L	anguage Certificate, N	o 365 – 28.08.2002, Br	itania, Cluj-Napoca.	
Organizational/managerial skills	 good communication skills gained through my experience as diploma/dissertation thesis supervisor good communication skills gained through the research stages at home and aboard; good communication skills gained through my experience as director or member in the research teams in national and international research projects; good communication skills gained through drafting and typing scientific papers, books, research reports, project, and contracts proposals, and so on. good organizational skills gained through manage the activities of teaching, learning and 				
	 good organizational good managerial sk good managerial sk good organizational researd good organizational committees; good organizational international confer 2013, 2015, 2017, 2 and BioMedical Eng 	I/managerial skills gained through t skills gained through t skills gained throug ch projects; I/managerial skills g ence (International 2019, 2021, 2023, I gineering, ICEMS-B	ained through the mather research stages at the coordinating at ained through my expained through my e Conference on Mod nternational Confere IOMED, 2022).	anagement of studies at home and aboard; and management of perience as member xperience as organiz lern Power Systems nce on Electromagne	visits; the national and in the acceptance er of national and MPS 2006, 2008, etic Fields, Signals
Job-related skills	 good knowledge of disciplines: Electromagnetic Field Theory; Electric Circuits Theory; Bases of Electrotechnics, Electrotechnics, Optimal Design of Electromagnetic Devices, Numerical Modeling of the Electromagnetic Field; good skills and competences on numerical modeling of electromagnetic field good skills on programming (design, implementation, testing and validation of two software package "CIBSOC-Spiral Inductors Inductance Computation and Layout Optimization" and "ABSIF-High Frequency Spiral Inductor Analysis"); good skills on optimization modules of the CIBSOC and ABSIF software packages); good technical skills and competences theoretical and practical in the electrical engineering domain (experimental measurements, experimental results analysis and interpretation; conception, preparation, and analysis of cases studies, drafting of research report, and so on); good teaching skills (design and implementation of my own teaching strategies and methods in accordance with the contents of their disciplines and types of activities; strategies and methods for evaluation, and so on). 				
Computer skills	Good command of M • Word; Excel; Power	, licrosoft Office™ too r; Point Acces.	ols:		



Good command of programs dedicated to:

- numerical modeling of electromagnetic field: ANSYS-Maxwell 3D, Maxwell 2D;
- high frequency numerical modeling: ANSYS-HFSS, Sonnet; CST Studio Suite;
- parameter extraction: ANSYS-Q3D Extractor, Q2D Extractor;
- mathematical computation: Mathematica, MathCad;
- design/modeling/simulation: AutoCad, Solid Edge, Solid Works;
- image design: CorelDraw, Snaglt,
- programming: C#, RFFlow;

electric circuits simulation and modeling: PSpice, Multiphysics, Proteus, ANSYS-Simplorer.

Other skills

- numerical modeling of electromagnetic field;
- simulation and modeling mediums;
- numerical methods for electromagnetic field analysis;

Technical skills and competences in the research domains:

- programming mediums;
- analytical and numerical calculation methods for electric circuits characteristic parameters;
- analysis, simulation and modeling of electric circuits;
- optimal design of electromagnetic devices;
- electric and magnetic field measurements, EMC tests.
- Driving license AM; B1; B

ADDITIONAL INFORMATION

Publications

Books:

7 at 4 first author, 3 co-author:

- Păcurar Claudia, Calculul inductivității bobinelor spirală utilizând programul software CIBSOC, Editura U.T.Press, ISBN 978-606-737-556-5, 145 pages, 2022.
- Giurgiuman Adina N., Munteanu C., Ţopa V., Păcurar Claudia, Constantinescu Claudia, Modelarea numerică a câmpului electromagnetic. Îndrumător de laborator – Volumul 2, Editura U.T.Press, Cluj-Napoca, România, ISBN 978-606-737-195-6, 278 pages, 2021.
- Păcurar Claudia, Giurgiuman Nicoleta-Adina, Crețu Mihaela, Marian-Răzvan Gliga, Andreica Sergiu-Iulian, Bazele electrotehnicii, Îndrumător de laborator, Editura U.T.Press, Cluj-Napoca, România, ISBN 978-606-737-492-6, 156 pages, 2020.
- Răcăşan Adina N., Munteanu C., Ţopa V., Păcurar Claudia, Constantinescu Claudia, Modelarea numerică a câmpului electromagnetic. Indrumator de laborator – Volumul 1, Editura UTPRESS, Cluj-Napoca, România, ISBN 978-606-737-195-6, 228 pages, 2016
- Păcurar Claudia, Ţopa Vasile, Analiza, modelarea şi proiectarea optimală a bobinelor spirală din circuite integrate micrometrice, U.T. Press Publisher, Cluj-Napoca, Romania, ISBN 978-606-737-007-2, 246 pages, 2014.
- Răcăşan Adina, Munteanu Călin, Ţopa Vasile, Păcurar Claudia, Aplicații de modelare numerică în câmp electromagnetic, Polyethnic Timisoara Publisher, Timisoara, Romania, ISBN 978-606-554-601-1, 276 pages, 2013.
- Răcăşan Claudia, Ţopa Vasile, Răcăşan Adina, Munteanu Călin, Modelarea numerică a câmpului electromagnetic, Casa Cărţii de Ştiinţă Publisher, Cluj-Napoca, Romania, ISBN 978-973-133-170-6, 440 pages, 2007

Scientific papers:

52 ISI papers of which:

- 3 ISI books chapters:
 - Constantinescu C., Pacurar C., Giurgiuman A., Munteanu C., Andreica S., Gliga R. The Influence of Electromagnetic Waves Emitted by PIFA Antennas on the Human Head, Springer, vol 88. Book Chapter, pp. 77-91, ISSN 1680-0737, 1 January 2022.
 - Răcăşan Adina, Munteanu C., Țopa V., Răcăşan Claudia, Techniques to Reduce the Equivalent Parallel Capacitance for EMI Filters Integration, Mathematics in Industry, Springer, vol. 11, Book Chapter, pp. 295-300, ISBN 978-3-540-71979-3, ISSN 1612-3956, martie 2007.
- 7 scientific papers in ISI Journal:

148 at 36 first author, 112 co-author:

- Constantinescu, Claudia, Păcurar Claudia, Giurgiuman Adina, Munteanu Călin, Andreica Sergiu, and Gliga Marian, High Gain Improved Planar Yagi Uda Antenna for 2.4 GHz Applications and Its Influence on Human Tissues, *Applied Sciences Journal*, vol 13, no. 11: 6678, F.I. 2.838, 2023
- Păcurar Claudia, Ţopa V., Giurgiuman Adina, Munteanu C., Constantinescu Claudia, Gliga M., Andreica S., *High Frequency Analysis and Optimization of Planar Spiral Inductors used in Microelectronic Circuits*. Electronics Journal, vol 10, Iss 23, 2897, ISSN: 2079-9292, IF: 2.397, 23 November 2021.



- Răcăşan Adina, Munteanu C., Țopa V., Păcurar Claudia, Hebedean Claudia, Analysis and Improvement Techniques for the Transfer Function of a Planar Low-Pass Filter, Environmental Engineering and Management Journal, vol. 15, no. 12, pp. 2579-2586, ISSN 1582-9596, WOS:000393476600004, F.I. =1.096, December 2016
- Păcurar Claudia, Ţopa V., Munteanu C., Răcăşan Adina, Hebedean Claudia, Studies of Inductance Variation for Square Spiral Inductors using CIBSOC Software, Environmental Engineering and Management Journal, vol. 12, pp. 1161-1169, ISSN 1582-9596, F.I. =1.258, June 2013.
- Hebedean Claudia, Munteanu C., Răcăşan Adina, Păcurar Claudia, Application of Windings Shifting for the Optimization of Planar Structures, Environmental Engineering and Management Journal, vol. 12, pp. 1153-1159, ISSN 1582-9596, F.I.=1.258, 2013.
- Topa V., Purcar M., Munteanu C., Grindei Laura, Păcurar Claudia, Shape Optimization Approach based on the Extended Finite Element Method, The International Journal for Computation and Mathematics in Electrical and Electronic Engineering, COMPEL, 31, (2), pp. 477-497, ISSN 0332-1649, 2012.

42 scientific papers in ISI Proceedings:

- Păcurar Claudia, Țopa V., Giurgiuman Adina, Munteanu C., Constantinescu Claudia, Gliga M., Andreica S., Planar Spiral Inductors Parameter Extraction needed to design a Wireless Power Supply System, 2021 9th International Conference on Modern Power Systems (MPS), DOI 10.1109/MPS52805.2021.9492709, ISBN 978-1-6654-3383-9, 16-17 June 2021.
- Păcurar Claudia, Topa V., Giurgiuman A., Munteanu C., Constantinescu C., Gliga M., Andreica S., The Construction of a Wireless Power Supply System using Planar Spiral, 8th International Conference on Modern Power Systems, *MPS 2019*, Cluj-Napoca, Romania, ISBN: 978-1-7281-0750-9, DOI: 10.1109/MPS.2019.8759779, 21-23 May, 2019.
- Păcurar Claudia, Topa V., Giurgiuman A., Munteanu C., Constantinescu C., Andreica S., Gliga M., Modelling and Analysis of the Halbach Array Magnets, 2019 11th International Symposium on Advanced Topics in Electrical Engineering, *ATEE 2019*, Bucharest, Romania, 28-30 March 2019, ISBN: 978-147997514-3, DOI 10.1109/ATEE.2019.8724977, WOS:000475904500134, 2019.
- Păcurar Claudia, Țopa V., Răcăşan Adina, Munteanu C., Constantinescu Claudia, Pop F., Andreica S., Cislariu Mihaela, High Frequency Multilayer Spiral Inductors Modeling, *ICPR-AEM-QIEM 2016*, Cluj Napoca, România, pp. 110-116, ISBN 978-606-737-180-2, WOS: 000436122900019, ISBN: 978-606-737-180-2, 25-30 July 2016.

44 scientific papers in BDI of which 27 BDI Journal and 17 BDI Proceedings:

- Păcurar Claudia, Țopa V, Giurgiuman A, Munteanu C, Constantinescu C, Gliga M, Andreica S., The influence of the patch antennas emissions on the human head, IOP Conference Series: Materials Science and Engineering, ICEMS-BIOMED, 2022, pp. 1-14, DOI: 10.1088/1757-899X/1254/1/012018, 2022.
- Pacurar Claudia, Giurgiuman Adina, Constantinescu Claudia, Topa V., Munteanu C., Andreica S., Gliga M., High frequency analysis of the influence of yagi-uda antenna on the human head, 11th International Conference and Exposition on Electrical and Power Engineering, EPE 2020, laşi, Romania, DOI: 10.1109/EPE50722.2020.9305622, ISBN:978-1-7281-8126-4, 22-23 Oct. 2020
- Păcurar Claudia, Adina Răcăşan, Vasile Ţopa, Călin Munteanu, Claudia Constantinescu, Modeling, Simulation and Practical Realization of the Spiral Inductors Used in Wireless Power Systems, Analele Universitatii din Craiova, Seria Inginerie Electrica, Special Issue, 1842-4805, pp.1-7, 2018
- Păcurar Claudia, Ţopa V., Răcăşan Adina, Munteanu C., CIBSOC Program Spiral Inductor Inductance Calculation and Layout Optimization, Scientific Computing in Electrical Engineering, SCEE 2012, Zurich, Switzerland, September 11-14, 2012
- 52 scientific papers in other journal and proceedings:
 - Păcurar Claudia, Țopa Vasile Munteanu, Călin, Răcăşan Adina, Constantinescu Claudia, *The Optimal Design of the Gaped Coil for an Imposed Inductivity*, 18th International Symposium on Power Electronics *Ee 2015*, Novi Sad, Serbia, October 28th 30th, 2015, ISSN 2344-5637, ISSN-L 1841-3323, pp. 1-5, 2015
 - Păcurar Claudia, Ţopa V., Răcăşan Adina, Munteanu C., Hebedean Claudia, Printed Circuit Boards and Multi-Chip Modules High Frequency Inductance Computation, Electromagnetic Compatibility/Electromagnetic Field Research and Development in Romania, Romania, AGIR Press, pp. 77-80, ISBN 978-973-720-521-6, 2014
 - Păcurar Claudia, Ţopa V., Munteanu C., Răcăşan Adina, Hebedean Claudia, Spiral Inductor Analysis using CIBSOC Software Program, Acta Electrotehnica, Special Issue, Proceedings of the 5th International Conference on Modern Power Systems, *MPS 2013*, Cluj-Napoca, Romania, ISSN: 1841-3323, vol. 54, no. 5, pp. 351-356, 28-31 May 2013

Citations: • 127 of which 65 ISI and 62 BDI



PROJECTS
GRANTS
RESEARCH CONTRACTS

- 28 (as director or member in the research team):
- 4 International Projects:
- Member of the research team on the bilateral research project with Italy, New-advanced Analysis Techniques and Software Tools for Optimization of MEMS Devices, position 32 on Protocol of XIV Session of Romanian-Italian Mist Committed, Partner Federico II University Naples (Italy), 2006-2008
- Member of the research team on the bilateral research project Romanian Flemish. Development of New-advanced 3D Analysis Techniques and Tools for Optimization of Electromagnetic and Electrochemical Devices, DESIGN, BWS04/03, Partner VUB University Brussels (Belgium), 2005-2007
- Member of the research team on the NATO project, in the Collaborative Linkage Grants CLG, project no. CBP.EAP.CLG. 982075, Advanced Analysis Techniques & Tools for Optimization of Micro/Nano Electro-Magnetic Systems MEMS/NEMS, Partners: Gent University (Belgium), Federico II University Naples (Italy), Aristotle University, Thessalonica (Gracie) and UIB University (Spain), 2005-2007
- *Member of the research team* on the project H2020-ECSEL-2017-1-IA-TWO STAGE, Nr. 122386, POC-A1-A1.1.3-H/ 2019, "Integrated Development 4.0, iDev4.0", 2018-2021.
- 9 National Grants/ Research Projects/Contracts:
- Project Leader/Director of the research project PN-II-RU-TE-2014-4-0199, Nr. 183/1.10.2015, Optimal Design of Multilayer Spiral Inductors for development of High Frequency Wireless Power Transfer Systems used in Electrical and Biomedical Applications, 2015-2017;
- Project Leader/Director of research grant CNCSIS, type TD, Theme no 6, CNCSIS Code 324, Development of New Methodologies to Evaluate Self and Mutual Inductances from Micro and Nanometer Circuits, 2005-2008;
- Member of the research team on CEEX project I 03/06.10.2005, nr. 9, Methodologies and Tool for Nano-electronic Design Automat-nEDA, 2005-2008;
- Member of the research team on the CNCSIS research grant, type A, Theme 15, CNCSIS Code 1282, New Methodologies and Tools for Optimal Design of the devices topology and shape 3D MEMS, 2006-2009
- Member of the research team on CNCSIS grant, type A18, CNCSIS Code 986, Algorithms for Structural Optimal Design for Parasitic Inductance Suppression from nanometer electronic circuits, 2005-2008
- Member of the research team on CNCSIS grant, type A10, CNCSIS Code 1279, Electromagnetic Field Influence on the Stability in Functionality and Performances of Combustion Installations, 2006-2008
- Member of the research team on CEEX project X2C36/2006, Electromagnetic Field Influence on Ecosystems, 2006-2008
- Member of the research team on CNCSIS research contract, IDEI, no ID_2538, Development of a Modeling Mathematical Algorithm of the Electrode Deformable Surfaces in the Electrochemical Process, 2008-2011
- Member of the research team on the research project PN II CEMIVA, code PN II– PT–PCCA– 2013–4–1019, Coupled Electromagnetic Interfaces and Vibration Analysis for Safe Automotive Electrical Actuators, 2014-2016
- 12 Research Contracts with Industry
- *Member of the research team* on FDEE Electrica Distributie TN Contract, Contract no. 19166 /2012, The Pilot Study of the Electromagnetic Field Distribution inside the Transforming Power Stations using their 3D Modeling, 2012-2014;
- Member of the research team on FDEE Electrica Distributie TN Contract, Contract no. 19167 /2012, The Study of Magnetic Field Exposure in the residential areas from Cluj-Napoca City, 2012-2014;
- Member of the research team on the Contract with SIEMENS Energy SRL, The Electric and Magnetic Field Measurements in 220 kV and 110 kV Power Station Mintia, 2013;
- Member of the research team on the Contract with SC Automatic Systems SRL Craiova, Contract no. 637 /2014, The Study of Electric Field Values inside the 220 kV Power Station from Ungheni, 2014;
- Member of the research team on the Contract with SC Energobit SA Cluj, Electric and Magnetic Field Measurements in the 220 / 110 kV Power Station from Câmpia Turzii, Cluj, 2017;
- *Member of the research team* on the Contract with SC CEPROM SA Satu-Mare nr. 86/2017, Research works Electromagnetic Compatibility Tests (EMC), 2017-2018;
- 1 postdoctoral program, entitled "Modeling, Simulation and Optimal Design of spiral inductors from radio frequency integrated circuits" of the project "Partnership for Excellence Inter Engineering
 PARTING" Contract Code: HRD/159/1.5/S/137516, Beneficiary: Technical University Cluj-Napoca, period: 01.05.2014 – 10.31.2015 (18 months)



	3 Educational/Institutional Projects
	 Leader of work package WP5 in the aliance/consortium European University of Technology, EUT+, Finance Contract no 101004088, EAC-A02-2019 / EAC-A02-2019-1, 2022-2023;
	 Coordinator of competences forming programs – Cluj on the project Transforming the university ecosystem through digital transition to a sustainable european future - eUT4ALL, project code: e- PNRR 1277457265, 2022-2025;
	 Leader of work package WP1, on the project Transilvania Digital Innovation Hub, TDIH DIGITAL- 2021-EDIH-01, co-financed in the Program Digital Europa, Grant Agreement 101083508, 2022- 2025.
Conferences	• 57 National and International Conferences: ICATE 2004; PSC 2005, 2017; ANCME 2005; EPE 2006, 2008, 2010, 2012, 2014, 2016, 2018, 2020, 2022; MPS 2006, 2008, 2010, 2011, 2013, 2015, 2017, 2019, 2021, 2023; SCEE 2006, 2012; EPNC 2006; SNET 2007, 2010; SIELMEN 2007, 2009, 2013, 2015, 2017, 2019; EuroCon 2007, 2013; EUROEM 2008; CEFC 2008; ISEF 2009; CNEE 2009; CNEI 2009; ICATE 2010, 2014; UPEC 2012, OPTIM 2012, 2014; WESC 2012; EMC Europe 2014, ICPR-AEM-QIEM 2014, 2016, ICHQP 2014; ATEE 2015, 2019; Ee 2015; MediTech 2020, 2022; ICEMS-BIOMED 2022, ICMECE 2022.
Research Stages	 03-17.04.2006 VUB University (Vrije Universiteit Brussel), Belgium
	20.11-19.12.2006 European Doctoral School of Electrical Engineering and Computational Science, Politehnica University of Bucharest, Romania
Chapielizations and qualification	08-23.03.2007 Gent University, Belgium
Specializations and qualification	 26.01-26.02.2007 Course AutoCAD – Certificate of competence AutoCAD 2007, No. 2330467, Autodesk Authorized Training Center, UTCM-CJ, Cluj, Romania
	 10.03-15.03.2007 Course ANSYS – Certificate of Attendance, No. 389/15.03.2007, Technical University of Cluj-Napoca, Sheffield University U.K. and ANSYS, Inc. Romanian Channel Partner, INAS S.A. Craiova, Romania
	 20-21.11.2018 Course CST Studio Suite – EMC/EMI Training – Certificate of Participation, Romanian Partner CAELYNX Europe, Craiova, Romania
	9-11.03.2020, Course ANSYS-HFSS, Icepak, Slwave- Certificate of Attendance, Timisoara, Romania
	 2-5.11.2023, Succes in Entrepreneurship Ecosystem Development Program – Certificate of Participation, Babson College, and Romanian - American Foundation, Cluj, Romania
Scientific Society Member	 AGIR, ACER; IEEE Member; IEEE Young Professional Member, IEEE Antennas and Propagation Society Membership, IEEE Electron Devices Society Membership, IEEE Industrial Electronics Society Membership, IEEE Women in Engineering Member, IEEE Circuits and Systems Society Member, Literati Network; NUMELEC Research Center
Reviewer Board Member	 Member of Journal Reviewer Board, Sensors Journal
	https://www.mdpi.com/journal/sensors/submission_reviewers
Journal Topics Board Member	 Member of Journal Topics Board, Electronics Journal
	https://www.mdpi.com/journal/electronics/topic_editors
Scientific International Committee Member	 International Conference IEEE Modern Power Systems, MPS-<u>http://et.utcluj.ro/mps/committees.html</u> International Conference on Electromagnetic Fields, Signals and BioMedical Engineering, ICEMS-BIOMED-<u>https://icems-biomed.emcsb.ro/commitees/scientific-committee</u>
Rosalind Member	 LONDON Journals Press, Membership ID #NH78358, https://journalspress.com/my-profile/
Reviewer	 ISI Journals: Sensors, Energies, Applied Sciences, Symmetry, Electronic Materials, Mathematics, Electronics, Algorithms, Machines, COMPEL: The International Journal for Computation and Mathematics in Electrical and Electronic Engineering

• International Conferences: MPS, EUROCON, EPE, OPTIM-ACEMP, ICEMS-BIOMED.

15.01.2024 Cluj-Napoca Prof.Dr.-Habil.Eng.Ec. Claudia PĂCURAR