Europass Curriculum Vitae

Personal information

First name(s) / Surname(s)	**George Cristian LĂZĂROIU**
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E-mail	clazaroiu@yahoo.com
Nationality	Romanian
Date of birth	26.12.1978
Gender	Male

Desired employment / Occupational field

CNATDCU – Energy Engineering Committee

Work experience

Dates	***1.10.2015 - present***
Occupation or position held	PhD Habilitation in Energy Engineering
Main activities and responsibilities	PhD students supervisor
Name and address of employer	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems, Splaiul Independentei Street no. 313, 060042 Bucharest, Romania
Type of business or sector	Supervising own 4 PhD students in Energy Engineering with research topics covering power quality in electrical grids and micro-grids, electricity market, benefit optimization for power producers with renewable energy sources in interconnected and islanding operation grids. PhD Habilitation and PhD theses supervisor in Energy engineering acknowledged trough Minister Order no. 4718/11.08.2015.
Dates	***1.10.2014 - present***
Occupation or position held	Associate Professor
Main activities and responsibilities	Teaching and research activity
Name and address of employer	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems, Splaiul Independentei Street no. 313, 060042 Bucharest, Romania
Type of business or sector	Courses and seminars for the following disciplines: Power quality monitoring and control, Grundlagen der Energietechnik, Energy Use, Modeling and simulation of power engineering processes, Electricity markets, Economic applications of games theory. Seminars for the following disciplines: Energy processes optimization, Energy Use, Optimization techniques in Power Engineering, Project management. Supervision of student projects and projects based on grants achieved through competition. Research activity, Bachelor and Master projects supervision, Higher education.
Dates	***1.10.2008 – 1.10.2014***
Occupation or position held	Lecturer

Main activities and responsibilities	Teaching and research activity
Name and address of employer	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems, Splaiul Independentei Street no. 313, 060042 Bucharest, Romania
Type of business or sector	Courses and seminars for the following disciplines: Power quality monitoring and control, Grundlagen der Energietechnik, Energy Use, Modeling and simulation of power engineering processes, Electricity markets, Economic applications of games theory. Seminars for the following disciplines: Energy processes optimization, Energy Use, Optimization techniques in Power Engineering, Project management. Supervision of student projects and projects based on grants achieved through competition. Research activity, Bachelor and Master projects supervision, Higher education.
Dates	***26.02.2004 – 1.10.2008***
Occupation or position held	Teaching assistant PhD student/PhD
Main activities and responsibilities	Seminars activity, Laboratory activity, Research activity
Name and address of employer	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems, Splaiul Independentei Street no. 313, 060042 Bucharest, Romania
Type of business or sector	Applications and laboratory activities: Energy Use, Electrical Energy Use, Optimization techniques in Power Engineering, Numerical methods, Grundlagen der Energietechnik. Supervision of student projects and projects based on grants achieved through competition. Research activity, Bachelor and Master projects supervision, Higher education.
Dates	***01.10.2002 – 26.02.2004***
Occupation or position held	Assistant engineer PhD Student
Main activities and responsibilities	Applications, Laboratory applications, Bachelor thesis supervisor, Practice coordination, Research activity
Name and address of employer	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems, Splaiul Independentei Street no. 313, 060042 Bucharest, Romania
Type of business or sector	Applications and laboratory activities: Energy Use, Electrical Energy Use, Numerical methods, Higher education.

Education and training

Dates	***May 2010 – April 2013***
Title of qualification awarded	Post-doctoral studies **PostDOC**
Principal subjects/occupational skills covered	Title "PostDOC" within project Excel no. POSDRU/89/1.5/S/62557
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Power Engineering, Department of Power Systems
Level in national or international classification	ISCED 2011 level 8
Dates	***2003-2006***
Title of qualification awarded	PhD in Electrical Engineering
Principal subjects/occupational skills covered	PhD Diploma –**LODE distinction**- in Electrical Engineering no. 1075 from 12.10.2006 issued by Politecnico di Milano, Italy, atestation certificate Series I no. 0000304, no. 18122 from 12.04.2007 issued by the Education and Research Ministry
Name and type of organisation providing education and training	Politecnico di Milano, Milan, Italy
Level in national or international classification	The most important and biggest Technical University from Italy, ranked among the top universities in Europe and the top 200 in the world ISCED 2011, level 8
Dates	***2002-2009***
Title of qualification awarded	PhD in Power Engineering
Principal subjects/occupational skills covered	PhD Diploma Series G no. 0000182, no. 182 from 06.01.2010
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest

Level in national or international classification	ISCED 2011, level 8
Dates	***2002-2003***
Title of qualification awarded	Master of applied science (Series F no. 0001652, no. 552 from 15.09.2003) Average mark for the years of study: 10, The mark for the dissertation thesis: 9.95.
Principal subjects/occupational skills covered	Electromagnetic compatibility and power quality
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Power Engineering
Level in national or international classification	ISCED 2011, level 7
Dates	***1997-2002***
Title of qualification awarded	Engineer (Series C no. 0012552, no. 252 from 23.10.2002. Average mark for the5 years of study: 9,86. The mark for the licence project: 10.
Principal subjects/occupational skills covered	Energy engineer for design, planning, operation and research in the power systems area.
Name and type of organisation providing education and training	University POLITEHNICA of Bucharest, Faculty of Power Engineering
Level in national or international classification	ISCED 2011, level 7

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s)

Self-assessment *European level (*)*	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
Italian	C1	C1	C1	C1	C1
German	B2	B2	B2	B2	B2
French	B2	B2	B2	B2	B2

(*) Common European Framework of Reference for Languages

Social skills and competences

Team work determined by the research activities and student counselling, coordinating their activities during the undergraduate studies and bachelor and master thesis
Member of the organizing committees of ICHQP Conferences since 2004

Organisational skills and competences	Responsible and coordinator of research national projects with more partners, as well as international. **Chair of the CNATDCU Energy Engineering Committee for PhD thesis appeal** **Member** of the Power Engineering Faculty Council. **Member** of the Bachelor and Master theses evaluation committees. **Co-Chair of 2014 IEEE** International Conference on Harmonics and Quality of Power **ICHQP, at UPB, Romania** **General Co-Chair of 2019 Innovative Smart Grid Technologies Europe (ISGT Europe)** **Secretary of the Energy Committee of Romanian Academy** **Member of the Organizing Committee of 2019 Milan PowerTech, 2009 IEEE Bucharest Power Tech, 7th International Conference on Deregulated Electricity Market Issues in South-East Europe (Bucharest, Romania), International Workshop Solar Energy Tech 2010-2012 (Milano, Italy).** **Member of member of the Steering Committee of IEEE International Conference on Harmonics and Quality of Power**. **Member of organizing team of IEEE International Conference on Harmonics and Quality of Power (2004, 2006, 2008, 2010, 2012);** Erasmus/Socrates Promoter for bilateral agreements Erasmus+ with Universita Sapienza di Roma (Italia), Universita di Napoli (Italia), Politecnico di Milano (Italia), Aalto University (Finlanda), Ljubljana University (Slovenia)..
Technical skills and competences	Coordination and management of scientific research projects, being Director of more than 2 grants achieved through competition at national level, and of 1 from abroad, and at 8 grants as team member **Member of the PhD Committee** within the School of Electrical, Computer and Telecommunications Engineering, University of Wollongong, Australia for Ing. Mr. Biyanvillage Mirodh Devinda Perera with the thesis entitled "Contributions to the Understanding of Harmonics, Flicker and Voltage Unbalance Management in Future Electricity Distribution Networks", May 18 2014 **Member of the PhD Committee** within Department of Energy, Politecnico di Milano, nominated through the Rector decree no. 3957/2014. **Member of the PhD Committee** within Department of Engineering Sciences and Mathematics, Lulea University of Technology, 2015. **Member of the PhD Committee** within Department of Electrical Engineering, Aalto University, Finland, oct. 2015 **Member of the PhD Committee** within Department of Power Systems, University POLITEHNICA of Bucharest, 2016 **Member of the PhD Committee** within Department of Energy, Politecnico di Milano, nominated through the Rector decree no. 754/2017 **Member of the PhD Committee** within Department of Electrical Engineering, Aalto University, Finland, 2018 **Member of the PhD Committee** within Department of Engineering Sciences and Mathematics, Lulea University of Technology, 2019. **Member of the PhD Committee** within Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Unidad Guadalajara, 2019
Computer skills and competences	Computer skills for modelling and simulation and use of specialized software. A strong knowledge of Office instruments and software packages: Matlab&Simulink, DigSILENT PowerFactory, Psim; I developed the **webpage** for the Department of Power Systems, of 2009 PowerTech Conference and 16th ICHQP. Based on the paper presented at ICHQP 2004 • Bertola A., Lazaroiu G.C., Zaninelli D., Roscia M., A Matlab-Simulink Flickermeter Model for Power Quality Studies, in Proc. 11th International Conference on Harmonics and Quality of Power (ICHQP 2004), September 12 - 15, 2004, Lake Placid, USA, pp. 734-738, ISBN: 0780387465, DOI: 10.1109/ICHQP.2004.1409444, WOS:000226748000126, (cited by 17). **The developed model was implemented in the Matlab/Simulink Library of Examples: Flickermeter on a Distribution STATCOM (power_flickermeter).**
Artistic skills and competences	Theatre and opera

Other skills and competences	Coordination of the researcher teams, undergraduate students, master students Team work due to research activities and students counselling, through coordination of their activities during bachelor, diploma and dissertation theses. With students I published articles indexed in ISI Web of Science, offering them research models and support for publication. Some examples marked with "stud" for student co-author: (i) N. Golovanov, G.C. Lazaroiu, M.A. Manolestud, M. Roscia, D. Zaninelli, "Wind farms access to the Romanian transport system," în Proc. 2009 IEEE/PES Power Systems Conference and Exposition (PSCE 2009), 15 -18 Martie, 2009, Seattle, USA, art. no. 4840164, ISBN: 9781424438112, **WOS:000271244500266**; (ii) M. Brenna, G.C. Lazaroiu, R. Rotarustud, E. Tironi, "Interconnection of Electrical Energy Storage Systems for Power Quality Improvement," în Proc. 2009 IEEE Bucharest PowerTech, 28 Iunie – 2 Iulie, 2009, Bucureşti, România, art. no. 5281993, ISBN: 9781424422357, **WOS:000276834601201** (iii) Sima, Catalina Alexandra; Lazaroiu, George Cristian; Dumbrava, Virgil, Transmission Expansion Planning Optimization for Improving RES Integration on Electricity Market, 2017 10TH INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING (ATEE), Bucharest, ROMANIA, MAR 23-25, 2017, pp. 855-859**, WOS:00040339940016** (iv) Catalina Alexandra Sima, GC Lazaroiu, V Dumbrava, Tîrşu M: A Hybrid System Implementation for Residential Cluster. 11th International Conference on Electromechanical and Power Systems SIELMEN 2017, 12-13 Octombrie 2017, Chisinau, Moldova; Paper 389; Pg 275-280; **WOS:000426906000054** (v) C A Sima, G C Lazaroiu, V Dumbrava, M Roscia, D Zaninelli, Ph DUQUENNE : Stochastic Programming Approach for TEP Optimization Considering RES Integration in Electricity Market. Proceedings of 2017 International Conference on ENERGY and ENVIRONMENT (CIEM 2017), Bucharest, Romania, 19-20 October 2017; paper 93, pg. 485-489; **WOS:000427610300103**
Driving licence	Category B
Obtained results in the scientific activity	2 international books as co-editor 11 books/chapters 3 student monographies 2 exercises books ***Hirsch index WOS 12*, sum of citations (without self-citations) 660, average citations per item 7.62, 96 publications in ISI Web of Science, *journal impact factor > 1.5*** ***Hirsch index Scopus 16*, sum of citations 1113, 117 publications in Scopus, *journal impact factor > 1.5*** **Co-author of Standard IEEE 1453-2015- „IEEE Recommended Practice for the Analysis of Fluctuating Installations on Power Systems"** and team leader of "Flicker " within the IEEE Flicker Task Force Co-autor of chapter **Microgrids** and co-author of "POWER QUALITY AND EMC ISSUES WITH FUTURE ELECTRICITY NETWORKS" **CIGRE/CIRED JWG C4.24, Brochure 719/March 2018,** ISBN : 978-2-85873-421-4
Member of editorial board of journals ISI /international/national CNCSIS	1. Journal of Energy Engineering, American Society of Civil Engineers (ASCE), "Challenging energy issues in transition economies; the case of Romania", guested edited by Professors Viorel Badescu (lead), Ion Visa, Adrian Ciocanea, and George Cristian Lazaroiu, ISSN (print): 0733-9402 https://ascelibrary.org/page/jleed9/challenging_energy_transition_economies 2. Associate Editor journal ISI International Journal of Energy and Environmental Engineering, ISSN: 2008-9163 3. Executive editor, Energy section, journal ISI UPB Scientific Bulletin, Series C, ISSN (print): 2286-3540 4. Journal of Advanced Transportation (JAT) "New Trends on Modelling and Simulation of Electric Mobility for Public and Private Transportation Systems, , guested edited by Michela Longo, Stefano Bracco, George Cristian Lazaroiu, Alicia Triviño, WILEY-HINDAWI, ISSN: 0197-6729, Factor de impact = 1.102 https://www.hindawi.com/journals/jat/si/384764/cfp/ 5. Energies, Smart Building, Smart Cities, Home Automation and IoT (Editors: George Cristian Lazaroiu, Mariacristina Roscia) 6. Editorial-Board member of journal Smart Cities (ISSN 2624-6511)

Member of scientific societies national/international	SM IEEE- Senior Member Institute of Electrical and Electronics Engineers (IEEE); Member IEEE-Power&Energy Society, IEEE-Industrial Applications Society, IEEE-Industrial electronics Society, IEEE-Standards Association Member IEEE Std 1453 Working Group Member IEEE Smart Cities, IEEE Smart Grids National Romanian Institute for the Study of Installation and Use of Energy Sources (IRE) Member CIGRE C4-24 Member CIGRE-CNR Member AGIR Member Energy Committee of Romanian Academy
Reviewer for ISI Journals/International/National Conferences	IEEE Transactions on Smart Grids (IF=4.252), IEEE Transactions on Industrial Electronics (IF=6.498), IEEE Transactions on Power Delivery (IF=1.733), IEEE Transactions on Industry Applications (IF=1.756), IEEE Power Engineering Letters, IET Renewable Power Generation (IF=1.904), IET Transmission and Distribution (IF=1.353), Energy Journal (IF=4.844), Energy Conversion and Management Journal (IF=4.38), Energy and Buildings (IF=2.884), Renewable Energy Journal (IF=3.476), Electric Power System Research Journal (1.749), Applied Thermal Engineering Journal (IF=2.739), Journal of Cleaner Production (IF=3.844), Energy Policy Journal (IF=2.575), Automation in Construction (IF=1.812), Sustainable Energy Technologies and Assessment, Measurement Journal (IF=1.484), International Journal of Electrical Power and Energy Systems, International Transactions on Electrical Energy Systems, Cities Journal (IF=1.728), Journal of Energy Storage, International Journal of Energy and Environmental Engineering, IEEE PowerTech Conference (2009-2015), IEEE PES General Meeting Conference (2011-2016), Transmission&Distribution Conference (2010-2016), UPB Scientific Bulletin-Series C.
Publications	**ResearcherID: A-8153-2012 (http://www.researcherid.com/rid/A-8153-2012)** **ORCID: http://orcid.org/0000-0002-6749-5891** Patent request: Lazaroiu, G. C. ;Dumbrava, V. ;Dragulinescu, M. ;Serban, S. LOW DIRECT-VOLTAGE INSTALLATION SUPPLIED FROM RENEWABLE SOURCES FOR ECONOMICALLY CHARGING THE BATTERIES OF ELECTRIC MOTOR VEHICLES. Patent Number: RO131425-A0; Accession Number: DIIDW:2016615944 F. Cârlea, V.Vaida, N. Golovanov, A. Sandulescu, V. Musatescu, C. Ciutacu, L. Chivu, A. Patruti, I. Iancu, G.C. Lazaroiu, S.C. Cobianu, *Securitatea si eficienta energetica. Indicatori strategici si scenarii de evolutie a sectorului energetic (surse primare si derivate de energie, producerea, transportul si utilizarea energiei sub toate formele de valorificare), care sa contribuie la dezvoltarea României pana la nivelul mediu al evolutiei economice si sociale a UE*. În: Strategia de dezvoltare a României în următorii 20 de ani, vol. 3, Partea 2, Editura Academiei Române, ISBN: 978-973-27-2737-9, pg. 139-200, Bucuresti, 2016

Books and chapters of books - significant

1. Lazaroiu G.C., Power Quality control in distributed systems, Editura AGIR, 2011, pp. 1-212, Lazaroiu G.C., Controlul calității energiei electrice în sisteme distribuite, Ed. Agir, ISBN: 978-973-720-413-4, 212 pg., Bucuresti, 2011, BDI: Worldcat
2. Badescu V., Lazaroiu G.C., Barelli L., POWER ENGINEERING-Advances and Challenges Part A: Thermal, Hydro and Nuclear Energy, CRC Press Taylor & Francis Group, ISBN: 978 -1-138-70585-2, 440 pg., Boca Raton, FL, USA, 2018
3. Badescu V., Lazaroiu G.C., Barelli L., POWER ENGINEERING-Advances and Challenges Part B Electrical Power, CRC Press Taylor & Francis Group, ISBN: 978-1-138-31987-5, 430 pg., Boca Raton, FL, USA, 2018
4. N. Golovanov, H. Albert, St. Gheorghe, N. Mogoreanu, G.C. Lazaroiu, Surse regenerabile de energie în sistemul electroenergetic, Ed. Agir, ISBN: 978-973-720-603-9, 356pg., Bucuresti, 2015
5. Virgil Musatescu, Nicolae Golovanov, Virgil Dumbrava, George Cristian Lazaroiu, Marius Aurelian Nicolae, Bazele tehnice si economice ale pietelor de energie electrica, Ed. Agir, 346pg, ISBN: 978-973-720-774-6, 2019
6. Dumbrava V., Miclescu T., Lazaroiu G.C. : Power Distribution Networks Planning Optimization in Smart Cities. In: Karakitsiou A., Migdalas A., Rassia S., Pardalos P. (eds) City Networks. Springer Optimization and Its Applications, vol 128. Springer, Cham; Pages 213-226; DOI 10.1007/978-3-319-65338-9 ; Print ISBN 978-3-319-65336-5 ; Springer International Publishing AG 2017
7. Lazaroiu G.C., Leva S., Energy Storage - Technologies and Applications - Low Voltage DC System with Storage and Distributed Generation Interfaced Systems, Ahmed Zobaa (Editor), capitolul 9, InTech, ISBN: 978-953-51-0951-8, pp. 219 - 238, 2013;
8. Golovanov N, Lazaroiu G.C., Roscia M., Zaninelli D., Power Quality Issues - Monitoring Power Quality in Small Scale Renewable Energy Sources Supplying Distribution Systems, Ahmed Zobaa (Editor), capitolul 4, InTech, ISBN: 978-953-51-1068-2, pp. 93 - 104, 2013;
9. Golovanov N, Lazaroiu G.C., Roscia M., Zaninelli D. Power Quality - Power Quality Impact of High Capacity End-Users, Andreas Eberhard (Editor), capitolul 4, InTech, ISBN: 978-953-307-180-0, pp. 67 - 76, 2011.
10. Brenna M., Dumbrava V., Foiadelli F., Lazaroiu G.C., Longo M., Sima C.A., Case studies from selected contries-Romania and Italy. In: A.F. Zobaa, P. F. Ribeiro, S.H. Eldeen Abdel Aleem and S. N. Afifi (eds.) Energy Storage at Different Voltage Levels: Technology, integration, and market aspects. IET, Pages 199-217, ISBN: 978-1-78561-349-4, 2018, BDI: Worldcat

Articles in Web of Science Journals

1. Lazaroiu G.C.*, Roscia M., Definition methodology for the smart cities model, Energy, vol. 47, no. 1, 2012, pp. 326-332, ISSN: 0360-5442, DOI: 10.1016/j.energy.2012.09.028, WOS:000313854100035, [IF 5.537] (**172 citari ISI**), ***Q1***
2. Dolara A., Lazaroiu G.C.*, Leva S., Manzolini G. Experimental investigation of partial shading scenarios on PV (photovoltaic) modules, Energy, vol. 55, 2013, pp. 466-475, ISSN: 0378 -7796, DOI: 10.1016/j.energy.2013.04.009, WOS:000321228400047, [IF 5.537] (**96 citari ISI**), ***Q1***
3. Lazaroiu G.C.*, Longo M., Roscia M., Pagano M., Comparative analysis of fixed and sun tracking low power PV systems considering energy consumption, Energy Conversion and Management, vol. 92, 2015, pp. 143-148, ISSN: 0196-8904, DOI: 10.1016/j.enconman.2014.12.046, WOS:000349724800014 [IF = 7.181] (**57 citari ISI**), ***Q1***
4. Golovanov N., Lazaroiu G.C.*, Roscia M., Zaninelli D., Power quality assessment in small scale renewable energy sources supplying distribution systems, Energies, vol. 6, no. 2, 2013, pp. 634-645, DOI: 10.3390/en6020634, WOS:000315395400005, [IF = 2.7] (**39 citari ISI**), ***Q3***
5. Dolara A., Lazaroiu G.C., Leva S., Manzolini G., Votta L., Snail Trails and Cell Micro-Cracks impact on PV module maximum power and energy production, IEEE Journal of Photovoltaics, vol. 6, no. 5, 2016, pp. 1269 - 1277, ISSN: 2156-3381, DOI: 10.1109/JPHOTOV.2016.2576682, WOS:000388963600027, [IF = 3.3985], (**28 citari ISI**), ***Q1***
6. Brenna M., Lazaroiu G.C.*, Superti Furga G., Tironi E., Bidirectional front end converter for DG with disturbance insensitivity and islanding detection capability, IEEE Transactions on Power Delivery, vol. 23, no. 2, Aprilie 2008, pp. 907-914, ISSN: 0885-8977, DOI: 10.1109/TPWRD.2007.915997, WOS:000254851700048, [IF 4.415] (**25 citari ISI**), ***Q1***
7. Faranda R., Guzzetti S., Lazaroiu G.C.*, Leva S., Refrigerating liquid prototype for LED's thermal management, Applied Thermal Engineering, vol. 48, 2012, pp. 155-163, DOI:10.1016/j.applthermaleng.2012.05.018, WOS:000309026500018, [IF = 4.026] (**23 citari ISI**), ***Q1***
8. Brenna M., Dolara A., Foiadelli F., Lazaroiu G.C.*, Leva S., Transient analysis of large scale PV systems with floating DC section, Energies, vol. 5, no. 10, 2012, pp. 3736-3752, ISSN: 1996-1073, DOI: 10.3390/en5103736, WOS:000310563000002, [IF = 2.7] (**21 citari ISI**), ***Q3***
9. Lazaroiu G.C.*, Zaninelli D., A control system for dc arc furnaces for power quality improvements, Electric Power Systems Research, vol. 80, no. 12, 2010, pp. 1498-1505, ISSN: 0378-7796, DOI:10.1016/j.epsr.2010.06.007, WOS:000282404500014, [IF 3.02] (**10 citari ISI**), ***Q2***
10. Colombo L., Dolara A.,Guzzetti S., Lazaroiu G.C., Leva S., Lucchini A. Thermal and luminous investigations of a pcLED based refrigerating liquid prototype, Applied Thermal Engineering, vol. 70, issue 1, 5 september 2014, pp. 884-891, ISSN: 1359-4311, WOS:000341464400094, [IF = 4.02] (**6 citari ISI**), ***Q1***
11. Vargas U., Lazaroiu G.C., Tironi E., Ramirez A., Harmonic modeling and simulation of a stand-alone photovoltaic-battery-supercapacitor hybrid system, International Journal of Electrical Power & Energy Systems, vol. 105, Feb. 2019, pp. 70-78, ISSN: 0142-0615, DOI: 10.1016/j.ijepes.2018.08.004, WOS:000449447200007, [Factor de Impact = 4.418], ***Q1***
12. Vargas U., Ramirez A., Lazaroiu G.C., Experimental validation of a hybrid TD/FEHD model of a wind turbine generator for harmonic transient analysis, Electric Power System Research, vol. 163, Oct. 2018, pp. 49-58, ISSN: 0378-7796, DOI: 10.1016/j.epsr.2018.05.025, WOS:000442705800006, [Factor de Impact = 3.022], ***Q2***
13. Vargas U., Ramirez A., Lazaroiu G.C., Flexible extended harmonic domain approach for transient state analysis of switched systems, Electric Power System Research, vol. 155, Feb. 2018, pp. 40-47, ISSN: 0378-7796, DOI: 10.1016/j.epsr.2017.09.030, WOS:000419410300004, [Factor de Impact = 3.022], ***Q2***

Director of national/international grant UPB responsible

I participated at more than 10 research contracts obtained through competitions with international and international reviewers, and I was Director/responsible at 2 national grants and 1 international, and research team meber of more than 8.

Director/responsible:

1. SECURITY INCREASE IN THE POWER SUPPLY FROM SUSTAINABLE ENERGY SOURCES THROUGH A DC DISTRIBUTION SYSTEM – SEDCC, Contract no. 22-133, CNMP 2008, 2008-2011, project manager, consortium : UPB, CIPE-CA, ICSI Rm. Vâlcea, BEIA Consult
2. REDOX BATTERY WITH QUICK LOADING CAPACITY AS A MAJOR ENERGY SOURCE FOR ELECTRIC VEHICLES, PN-II-PT-PCCA-2013-4-2066, amount 67985 Euro, period 2014-2015, project responsible
3. UEFISCDI PN III-Cooperare Europeană şi Internaţională, Subprogramul 3.1. Bilateral/multilateral, Proiect de mobilităţi Romania Moldova "Soluţii de Extindere a cotei de integrare a Surselor de Energie Regenerabilă CONectate la reţeaua electrica (ESERCON)", 2016-2018, Parteneri: UPB si Academia Tehnica a Moldovei

	4. Energy generation from renewable sources: cost / benefit analysis taking into account the interaction between electric power control and pollutant emissions (in Italian: LA GENERAZIONE DI ENERGIA ELETTRICA DA FONTI RINNOVABILI: ANALISI COSTI/BENEFICI CON PARTICOLARE RIGUARDO ALLE INTERAZIONI TRA LA REGOLAZIONE DELLA POTENZA ELETTRICA E LE EMISSIONI IN AMBIENTE DI GAS CLIMALTERANTI), Contract 57/AG-16.10.2006, POLIMI-LEAP, Piacenza, Italy. (project manager)
Significant developments	I developed and equipped with furniture a laboratory for power quality monitoring. Based on the project where I participated, I developed a microgrid at dc voltage with management system, having a series of equipments like: dc voltage micro-system (comprising photovoltaic module, wind turbine, PEM fuel cell; data acquisition; convertors dc/dc and dc/ac; Advanced power quality analyzers; Computer systems.
Areas of scientific interest	Modeling and simulation of energy processes and installations for supporting the existing grid infrastructure by adding resilience to system infrastructure, compensating local variations of power produced by renewable sources, providing ancillary services (like voltage/reactive power control), and voltage support in the power system areas; responding to end-users demands through back-up services for critical infrastructures, controlling power quality and reliability at local level, and promoting the participation of prosumers through demand management and involvement of local communities in energy supply; supporting the grid modernization and interoperability of multiple interconnections of technologies and smart grids; enhancing the interconnection of renewable resources and distributed generation, reducing the greenhouse gas emissions, peak load congestions and power losses by placing the local generator near the point of consumption
Supplementary information	I have more than 17 years experience in teaching and research. Evaluator for **International Research Fellowships Ministero dell'Istruzione, dell'Università e della Ricerca, Italia (Futuro in Ricerca, PRIN).** **Evaluator HORIZON 2020** **Best Paper Award**: Catalina Alexandra Sima, George Cristian Lazaroiu, Virgil Dumbrava, Mihai Tirsu, Victor Galbura, INTEGRATION OF RENEWABLE ENERGY SOURCES ON ELECTRICITY MARKET USING TEP OPTIMIZATION, 6th International Conference on Thermal Equipment, Renewable Energy and Rural Development, 2017, pp. 265-270, ISSN: 2457-3302 **Certificate of Appreciation IEEE PES "In grateful appreciation your dedicated service as an exceptional reviewer for the IEEE Transactions on Power Delivery"** **Certificate of Appreciation Elsevier "Renewable Energy"** **Prize "Constantin Budeanu Prize - Best Paper Award"** for the article G.C. Lazaroiu, A proposed method for fitting control system in dc arc furnace installations, in Proc. 12th Internat. Conf. on Harmonics and Quality of Power (ICHQP 2006), Oct. 1-5, 2006, Cascais, Portugal. **Prize Best Poster Award** for the article Longo M., Roscia M., Lazaroiu G.C., Pagano M., Analysis of Sustainable and Competitive Energy System, in Proc. Internat. Conf. on Renewable Energy Research and Applications (ICRERA), Oct.19-22, 2014, Milwaukee (USA). **National Prizes for the Research Results** by UEFISCDI: 4 (PN-II-RU-PRECISI – 2012-**0929**, PN-II-RU-PRECISI-2012-**1679**, PN-II-RU-PRECISI – 2013-**2436-1,** PN-II-RU-PRECISI**-2015-9-8084**). **Invited speaker at prestige universities**: ***- Politecnico di Milano, Italy*** (according to ARWU 2011 ranking, http:/arwu.org position 201-300 worldwide and 5-8 in Italy), September 29 - October 5, 2014, theme „Smart Cities"; ***- University of Wollongong*** (ARWU 2011, http:/arwu.org position 401-500 worldwide and 14-19 in Australia), May 15-21, "Voltage fluctuations measurement and analysis".

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