



Europass Curriculum Vitae

Personal information

First name(s) / Surname(s) **George Cristian LĂZĂROIU**

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Nationality Romanian

Date of birth 26.12.1978


Gender Male

Desired employment / Occupational field

University POLITEHNICA of Bucharest
Associate Professor PhD Eng.
PhD Thesis Coordinator (Supervisor?) in Power System Domain

Work experience

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	The most important and biggest Technical University from Romania
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

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 The most important and biggest Technical University from Romania

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 The most important and biggest Technical University from Romania

Dates 1997-2002
 Title of qualification awarded Engineer (Series C no. 0012552, no. 252 from 23.10.2002. Average mark for the 5 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 The most important and biggest Technical University from Romania

Personal skills and competences



Mother tongue(s) **Romanian**


Other language(s)

Self-assessment
 European level (*)

English
Italian
German
French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
C1	C1	C1	C1	C1
C1	C1	C1	C1	C1
C1	C1	B1	B1	B1
B1	B1	A1	A1	A1

(*) [Common European Framework of Reference for Languages](http://www.cedefop.europa.eu)

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. Member of the Power Engineering Faculty Council. Member of the Bachelor and Master theses evaluation committees. I was the promoter of the Institutional Agreement between UPB and Politecnico di Milano , Italy (2004) Erasmus/Socrates Promoter for bilateral agreements Erasmus+ with University Sapienza di Roma, Italy and Politecnico di Milano, Italy. Member of the Organizing Committee of 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 organizing team of IEEE International Conference on Harmonics and Quality of Power (2004, 2006, 2008, 2010, 2012) ; Member of member of the Steering Committee of IEEE International Conference on Harmonics and Quality of Power . Poster session chairman 16th ICHQP (ICHQP 2014) and session chairman „Customer side disturbance mitigation initiatives” at 15th ICHQP (ICHQP 2012); I organized as Co-Chair the IEEE ICHQP 2014 at UPB, Romania
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 Scientific Committee of IEEE ICHQP at editions 13-16. 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.
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.
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. Manole ^{stud} , M. Roscia, D. Zaninelli, "Wind farms access to the Romanian transport system," in Proc. 2009 IEEE PSCE 2009, 2009, Seattle, USA, art. no. 4840164, ISBN: 9781424438112, ISI Proceedings; (ii) M. Brenna, G.C. Lazaroiu, R. Rotaru ^{stud} , E. Tironi, "Interconnection of Electrical Energy Storage Systems for Power Quality Improvement," in Proc. 2009 IEEE Bucharest PowerTech, 2009, București, România, art. no. 5281993, ISBN: 9781424422357, ISI Proceedings.
Driving licence	Category B
Obtained results in the scientific activity	Hirsch index >7 , sum of citations (without self citations) 116, average citations per year 7.29, citations per paper 1.89, I>5.5, P=6, C>6 33 articles in ISI Web of Science , impact factor of journal is above 1.5; 51 articles in Scopus Total number of citations in Scopus is 116 , with an average number of citations per article of 2.27 and a Hirsch index of 7. Total number of citations in Google Scholar is 259

Member of editorial board of journals ISI /international/national CNCSIS	I am member of IEEE ICHQP Steering Committee , Member of IEEE Voltage Flicker Task Force , co-author of standard IEEE 1453.1/ 2012; Team leader „Flicker Propagation and Definitions and References” within the elaboration of Standard IEEE 1453.2
Member of scientific societies national/international	Institute of Electrical and Electronics Engineers (IEEE); National Romanian Institute for the Study of Installation and Use of Energy Sources (IRE)
Reviewer for ISI Journals/International/National Conferences	IEEE Transactions on Power Delivery, IEEE Power Engineering Letters, IET Renewable Power Generation, IET Transmission and Distribution, Energy Journal, Energy Conversion and Management Journal, Renewable Energy Journal, Electric Power System Research Journal, Automation in Construction, Measurement Journal, International Journal of Electrical Power and Energy Systems, International Transactions on Electrical Energy Systems, International Journal of Energy and Environmental Engineering, IEEE PowerTech Conference (2009-2015), IEEE PES General Meeting Conference (2011-2015), UPB Scientific Bulletin-Series C.
Citations in ISI journals	ISI Citations: 94 , only Scopus citations:70 . SOLAR ENERGY ISSN: 0038-092X; JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY ISSN: 1941-7012; IEEE JOURNAL OF PHOTOVOLTAICS ISSN: 2156-3381, IEEE TRANSACTIONS ON SUSTAINABLE ENERGY ISSN: 1949-3029, APPLIED ENERGY ISSN: 0306-2619, RENEWABLE AND SUSTAINABLE ENERGY REVIEWS ISSN: 1364-0321, ELECTRIC POWER SYSTEMS RESEARCH ISSN: 0378-7796, IEEE TRANSACTIONS ON ELECTRICAL AND ELECTRONIC ENGINEERING ISSN:1931-4973, IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT ISSN: 0018-9456, MATHEMATICS AND COMPUTERS IN SIMULATION ISSN: 0378-4754, COMMUNICATIONS IN COMPUTER AND INFORMATION SCIENCE ISSN: 1865-0929, IEEE TRANSACTIONS ON POWER ELECTRONICS ISSN: 0885-8993, APPLIED THERMAL ENGINEERING ISSN: 1359-4311, ENERGIES ISSN: 1996-1073, INTERNATIONAL JOURNAL OF PHOTOENERGY ISSN: 1110-662X, ENVIRONMENTAL MODELLING & SOFTWARE ISSN: 1364-8152, SUSTAINABILITY ISSN: 2071-1050, IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS ISSN: 2167-6777, TRANSACTIONS ON ELECTRICAL AND ELECTRONIC MATERIALS ISSN: 1229-7607, JOURNAL OF ELECTROMAGNETIC ANALYSIS AND APPLICATIONS ISSN:1942-0730, etc.
Publications	I published 71 documents from which: books and book chapters (4 international, 1 national), ISI/ISI Proceedings articles 33, Scopus articles 19, 2 research projects achieved on national contract/grant and 1 international (Italy). 4 books/chapters as author 3 handouts, course material including electronic 2 problems compilations, laboratory guides 33 articles in ISI journals and ISI Proceedings Conferences 19 articles in journals and conferences indexed in other international data bases 2 grants/research project achieved through competition
Books and chapters of books - significant	<ol style="list-style-type: none"> 1. Lazarioiu G.C., Power Quality control in distributed systems, Editura AGIR, 2011, pp. 1-212, ISBN: 978-973-720-413-4; 2. Lazarioiu 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; 3. Golovanov N, Lazarioiu 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; 4. Golovanov N, Lazarioiu 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.



Articles in Web of Science Journals

1. Lazarioiu 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 = 4.159] (citat de 13)
2. Dolara A., Lazarioiu 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 = 4.159] (citat de 9)
3. Brenna M., Lazarioiu 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 = 1.657] (citat de 23)
4. Lazarioiu 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, acceptat spre publicare [IF = 3.590]
5. Golovanov N., Lazarioiu 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 = 1.602] (citat de 5)
6. Lazarioiu G.C.*, Porumb R., Roscia M., Experimental harmonic analysis and distortion factor proposal for wind generation, UPB Scientific Bulletin, Series C: Electrical Engineering, Volume 75, Issue 3, 2013, Pages 265-276, ISSN: 1454234X, BDI Scopus (citat de 1)
7. Faranda R., Guzzetti S., Lazarioiu 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 = 2.624] (citat de 12)
8. Brenna M., Dolara A., Foiadelli F., Lazarioiu 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 = 1.602] (citat de 6)
9. Lazarioiu 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.epr.2010.06.007, WOS:000282404500014, [IF = 1.595] (citat de 4)
10. Lazarioiu G.C.*, Bulac C., Popescu M.O., Golovanov N., Control and protection of a multiterminal low voltage dc system based on VSC, Scientific Bulletin Series C: Electrical Engineering, vol. 74, no. 1, 2012, pp. 173-180, ISSN: 1454-234X, BDI Scopus (citat de 3)

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 member 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. 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; converters 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 a 12 year experience in teaching and research.

Evaluator for International Research Fellowships Ministero dell'Istruzione, dell'Università e della Ricerca, Italia (Futuro in Ricerca, PRIN).

Prize "Constantin Budeanu Prize - Best Paper Award" for the article G.C. Lazarioiu, 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., Lazarioiu 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: 3 (PN-II-RU-PRECISI – 2012-0929, PN-II-RU-PRECISI-2012-1679, PN-II-RU-PRECISI – 2013-2436-1).

Oral presentations at international conferences. The large majority of the papers presented at high scientific level International Conferences were oral presentations. Besides the papers awarded, I would like to point out also:

• Bertola A., Lazarioiu 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)

• Brenna M., Lazarioiu G.C., Tironi E., High power quality and DG integrated low voltage dc distribution system, in Proc. (2006) IEEE Power and Energy Society General Meeting, June 18-22, 2006, Montreal, Canada, art. no. 1709440, ISBN: 1424404932; 9781424404933, DOI: 10.1109/PES.2006.1709440, WOS:000247080003153, ISI Proceedings (cited by 17)

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** (according to ARWU 2011 ranking, <http://arwu.org> position 401-500 worldwide and 14-19 in Australia), May 15-21, theme „Methods to measure and analyze voltage fluctuations”.

Annex

List of publications George Cristian Lazarioiu

12.01.2015

