

## PERSONAL INFORMATION

Luminița BAROTE

 Politehnicii 1, Braşov, 500024, România.

 0711928609

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Date of birth  | Nationality Romanian

## WORK EXPERIENCE

25.11.2022 - present

**Vice-Dean for didactic activity and quality assessment**

Transilvania University of Brasov, Faculty of Electrical Engineering and Computer

01.02.2015 - present

**Associate Professor**

Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science, Department of Electrical Engineering and Applied Physics

Research centre: Advanced Electrical Systems

Teaching: Electrotechnics and Electrical Machines, Energy Storage Systems, Wind Turbines.

Research interest: Renewable energy sources and energy storage systems used in distributed generation applications.

01.10.2011 - 30.01.2015

**Academic Lecturer**

Teaching: Electrotechnics and Electrical Machines, Energy Storage Systems, Wind Turbines.

Research interest: Renewable energy sources.

Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science, Department of Electrical Engineering and Applied Physics,

Research centre: Advanced Electrical Systems

01.06.2010 - 30.09.2013

**Post-doctoral Researcher**

Research theme: Electrical Energy Storage used in a Smart Micro-grid, Scientific coordinator: Prof. dr. ing. Corneliu MARINESCU

Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science.

30.10.2009 - 30.05.2010 **PhD Diploma in Electrical Engineering**  
Research / academic activity  
Transilvania University of Brasov, Faculty of Electrical Engineering and  
Computer Science.  
Member of the POWERELMA research center  
Associate Teaching Staff

## EDUCATION AND TRAINING

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2005 –2009 **PhD Student**  
Research theme: Small power wind turbines and distributed generation systems,  
Scientific coordinator: Prof. dr. ing. Corneliu MARINESCU  
Transilvania University of Brasov, Faculty of Electrical Engineering and  
Computer Science.

2005-2007 **Master Diploma in Electrical Engineering**  
Project title: Modeling of a small wind turbine operating in autonomous mode,  
Scientific coordinator: Prof. dr. ing. Corneliu MARINESCU  
Transilvania University of Brasov, Faculty of Electrical Engineering and  
Computer Science.

2001-2003 **Graduation certificate for teaching staff training**  
Education pedagogy, Pedagogy, Teaching methodology of the Electrical  
engineering specialty, Communication skills, Psych pedagogical counseling,  
Pedagogical practice.

Transilvania University of Brasov / Teacher Training Department  
2000-2005 **Diploma engineer in Electrical Engineering**  
Project title: Design of the electrical installation for a small power wind plant,  
Scientific coordinators: Assoc. Prof. Andreas Vlissidis (Grecia) and Prof. dr. ing.  
Corneliu MARINESCU  
Transilvania University of Brasov, Faculty of Electrical Engineering and  
Computer Science.

## PERSONAL SKILLS AND COMPETENCES

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Mother tongue Romanian

Other language(s)

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2
Language certificate level B2				

Levels: A1/2: Elementary user - B1/2: Independent user - C1/2: Experienced user Common European Framework of Reference for Languages

- Social skills and competences**      Sociable, disciplined, honest, perseverant, accustomed to working in team, participation at international conferences with oral presentations.
- Computer skills**              Word, Excel, AutoCAD, Homer, Matlab, dSPACE®.
- Driving licence**              Category B

Scientific research activity (contracts), publications (books and articles), specialized courses, membership of scientific and professional societies, external research internships.

ANNEXES

• **Research contracts:**

Program/Project	Position	Period
PhD national competition project, CNCSIS-TD 144/2007: "Small power wind turbines and distributed generation systems"	Project manager	2007
National research contract CNCSIS type IDEI no. 134/2007: „Renewable Energy Sources and their Integration in Smart Hybrid Grids"	Member	2007-2010
National research contract type PARTENERSHIPS no. 110004/2007: "Intelligent distributed system for improving the efficiency of Hydroelectric plants" – MAREA".	Member	2007-2010
National research contract type PARTENERSHIPS no. 21062/2007: „Hybrid Hydro-Wind Energy Structure – HIDROEOL".	Member	2007-2010
National research contract type PARTENERSHIPS no. 22134/2008: „Informatic support system for the design, implementation and control of hybrid energy farms – E-FARM".	Member	2008-2011
International research contract type FP6 no. 038406: „Control of renewable integrated systems targeting advanced landmarks – CRISTAL".	Member	2007-2009
National research contract type POSDRU/89/1.5/S/59323: "Electric energy storage in a smart micro-grid".	Project manager	2010-2013

- **Books:**

1. C. Marinescu, M. Georgescu, L. Clotea, C.P. Ion, I. Serban, **L. Barote**, D.M. Valcan, *Surse regenerabile de energie. Abordări actuale*, Editura Universității Transilvania din Brașov, ISBN 978-973-59-8430-4, 2009.
2. C. Marinescu, I. Serban, L. Clotea, D. Marinescu, C.P. Ion, M. Georgescu, **L. Barote**, A. Forcos, *Rețele hibride cu surse regenerabile de energie. Evoluții moderne*, Editura Universității Transilvania din Brașov, ISBN 978-973-59-8949-1, 2011.
3. L.E. Aciu, D. S. Bidian, **L. Barote**, *Bazele Electrotehnicii: Teoria Circuitelor Electrice*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0277-4, 2013.
4. **L. Barote**, *Electrotehnică și mașini electrice*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0423-5, 2014.
5. **L. Barote**, *Stocarea energiei electrice în sisteme distribuite de energie*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0616-1, 2015.
6. L.E. Aciu, G. Pana, **L. Barote**, *Electrotehnica și Electronica aplicată. Partea a 2-a*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0658-1, 2015.
7. L.E. Aciu, **L. Barote**, M. Fratu, D. S. Bidian, *Electrotehnica și Electronica Aplicată. Partea a 3-a*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-0833-2, 2016.
8. L.E. Aciu, **L. Barote**, D. S. Bidian, *Teoria circuitelor electrice. Culegere de probleme. Vol. 1*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-1172-1, 2019.
9. L.E. Aciu, **L. Barote**, D. S. Bidian, *Teoria circuitelor electrice. Culegere de probleme. Vol. 2*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-1305-3, 2020.
10. L.E. Aciu, D. S. Bidian, **L. Barote**, *Ecuatiile fizicii matematice - Suport de curs și aplicații*, Editura Universității Transilvania din Brașov, ISBN 978-606-19-1670-2, 2023.

- **Awards:**

- Rewarding research results, by the national research agency UEFISCDI, 2012, 2014;
- Prize for excellent research activity, within the *Transilvania* University awards, 2013;

- **Publications:**

- **Journal papers (indexed ISI):**

1. **L. Barote**, C. Marinescu, I. Serban, *Energy Storage for a Stand-Alone Wind Energy Conversion System*, Rev. Roum. Sci. Techn. – Électrotechn. Et Énerg., vol. 55, no. 3, pp. 235–242, Bucharest, 2010.

2. **L. Barote**, C. Marinescu, *Modeling and Operational Testing of an Isolated Variable Speed PMSG Wind Turbine with Battery Energy Storage*, Advances in Electrical and Computer Engineering, vol. 12, no. 2, pp. 81–88, Suceava, 2012.
3. **L. Barote**, C. Marinescu, M. N. Cirstea, *Control Structure for Single Phase Stand Alone Wind Based Energy Sources*, IEEE Transaction on Industrial Electronics, vol. 60, no. 2, pp. 764-772, 2013.
4. **L. Barote**, C. Marinescu, *Software Method for Harmonic Content Evaluation of Grid Connected Converters from Distributed Power Generation Systems*, Journal of Energy, vol. 66, pp. 401-412, 2014.
5. **L. Barote**, C. Marinescu, *Current-Controller Effectiveness for Grid-Connected Converters: Comparative Case Studies*, Journal of energy engineering, vol. 144, no. 1, 2018.
6. D. Munteanu, I. Serban, **L. Barote**, C. Marinescu, *Dynamic performance analysis of a photovoltaic power plant with integrated storage for microgrids dynamic support*, Journal of energy engineering, vol. 144, no. 1, 2018.

➤ **Papers presented at international conferences (indexed ISI):**

1. **L. Barote**, C. Marinescu, *Control of Variable Speed PMSG Wind Stand-Alone System*, Proceedings of the 10<sup>th</sup> International Conference on Optimization of Electrical and Electronic Equipments, OPTIM'06, Vol. II – Power electronics, Electrical Machines & Drives, ISBN 973-635-704-X, 978-973-635-704-6, 18-19 May, Brasov, Romania, 2006, pp. 243-248.
2. **L. Barote**, R. Weissbach, R. Teodorescu, C. Marinescu, M. Cirstea, *Stand-Alone Wind System with Vanadium Redox Battery Energy Storage*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM'08, ISSN 1842-0133, ISBN, 22-24 May, Brasov, Romania, 2008, pp. 407 – 412.
3. **L. Barote**, C. Marinescu, *A new control method for VRB SOC estimation in stand-alone wind energy systems*, Proceedings of the IEEE International Conference on Clean Electrical Power - Renewable Energy Resources Impact, 9-11 June 2009, Capri, Italia, ISBN: 978-1-4244-2543-3, pp. 253 – 257.
4. **L. Barote**, C. Marinescu, M. Georgescu, *VRB Modelling for Storage in Stand-Alone Wind Energy Systems*, Proceedings of the IEEE International Conference – PowerTech 2009, 28 June - 2 July 2009, Bucharest, Romania, IEEE Catalog Number: CFP09815-CDR, ISBN: 978-1-4244-2235-7.
5. **L. Barote**, M. Georgescu, C. Marinescu, *Smart Storage Solution for Wind Systems*, Proceedings of the IEEE International Conference – PowerTech 2009, 28 June - 2 July 2009, Bucharest, Romania, IEEE Catalog Number: CFP09815-CDR, ISBN: 978-1-4244-2235-7.
6. **L. Barote**, C. Marinescu, *Storage Analysis for Stand-Alone Wind Energy Applications*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM 2010, ISSN 1842-0133, ISBN 978-973-131-080-0, 20-22 May, Brasov, Romania, 2010, pp. 1180-1185.

7. M. Georgescu, **L. Barote**, C. Marinescu, L. Clotea, *Smart Electrical Energy Storage System for Small Power Wind Turbines*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM 2010, ISSN 1842-0133, ISBN 978-973-131-080-0, 20-22 May, Brasov, Romania, 2010, pp. 1192-1197.
8. **L. Barote**, C. Marinescu, *PMSG Wind Turbine System for Residential Applications*, Proceedings of the IEEE International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM 2010, ISBN 978-1-4244-7919-1, 14-16 June, Pisa, Italy, **2010**, pp. 772 – 777.
9. **L. Barote**, C. Marinescu, *Current control of single-phase inverter for wind turbine applications*, Proceedings of the IEEE International Conference – Advanced Topics in Electrical Engineering – ATEE, Bucuresti, ISSN: 2068-7966, 12-14 Mai **2011**, pp. 205-208.
10. **L. Barote**, C. Marinescu, *Renewable Hybrid System with Battery Storage for Safe Loads Supply*, Proceedings of the IEEE International Conference – PowerTech 2011, 19 – 23 June 2011, Trondheim, Norway, pp. 1-5.
11. **L. Barote**, C. Marinescu, R. Teodorescu, *Current controller considering harmonics compensation for grid connected converter in DPGS applications*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM 2012, 24-26 May, Brasov, Romania, 2012, pp. 899-905.
12. **L. Barote**, C. Marinescu, *Reactive power influence on power quality for grid connected converter in GPGS application*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM 2014, Brasov, Romania, 2014.
13. D. Munteanu, C. Marinescu, I. Serban, **L. Barote**, *Control of PV Inverter with Energy Storage Capacity to Improve Microgrid Dynamic Response*, IEEE ICATE 2016, Craiova, 2016.
14. C. Marinescu, **L. Barote**, D. Munteanu: *PV-Battery System with Enhanced Control for Microgrid Integration*, IEEE ICATE 2016, Craiova, 2016.
15. C. Marinescu, **L. Barote**, *Toward a Practical Solution for Residential RES Based EV Charging System*, Proceedings of the IEEE International Conference on Optimization of Electrical and Electronic Equipments, OPTIM 2017, Brasov, Romania, 2017.
16. **L. Barote**, C. Marinescu, *Li-Ion energy storage capacity estimation in residential applications with EV*, 8th International Conference on Renewable Energy Research and Applications, ICRERA 2019,, pp. 326-330.
17. **L. Barote**, C. Marinescu, *Reserved memory for Li-ion battery SOC estimation method in applications with EV*, 2021 International Aegean Conference on Electrical Machines and Power Electronics, ACEMP 2021 and 2021 International Conference on Optimization of Electrical and Electronic Equipment, OPTIM 2021, pp. 22-27.

➤ **Papers published in international conference volumes**

1. **L. Barote**, C. Ion, Maria Antonoaie, C. Marinescu, *Energy Storage for Stand-Alone Wind Systems*, Proceedings of the 3rd International Conference on Interdisciplinarity in Education ICIE'07, ISBN 978-960-89028-4-8, ISSN 1790-661x, March 15-17, Athens, Greece, 2007.
2. **L. Barote**, I. Serban, *Performance Comparison of a LAB – VRB – PEMFC for a wind stand-alone system*, Proceedings of the 6th International Conference on Electromechanical and Power Systems – SIELMEN'07, ISSN 1842-4805, October 4-6, Chişinău, Rep. Moldova, 2007, pp. 328-333.
3. **L. Barote**, C. Marinescu, *Li-Ion Modeling for Storage in Stand-Alone Wind Energy Systems*, 7th International Conference on Electromechanical and Power Systems – SIELMEN'09, October 8-9, Iaşi – Chişinău, Rep. Moldova, 2009.
4. **L. Barote**, C. Marinescu, *Energy Storage Systems Operating in Autonomous Microgrid*, Smart-Grid, 21 – 23 Septembrie 2010, Sibiu, Romania.
5. **L. Barote**, C. Marinescu, *Autonomous micro-grid based on RES*, 8th International Conference on Electromechanical and Power Systems – SIELMEN 2011, 13-15 October, Chişinău, Rep. Moldova, 2011, pp. 202-207.
6. **L. Barote**, C. Marinescu, *PI current controller for grid connected VSI in DPGS applications*, 9<sup>th</sup> World Energy System Conference – WESC 2012, 28-30 June 2012, Suceava, Romania, pp. 31 – 39.
7. C. Marinescu, **L. Barote**, *VRB MODEL VALIDATION IN RES APPLICATIONS*, European Workshop on Renewable Energy Systems (EWRES), 2013, 20-22 SEPTEMBER 2013.
8. **L. Barote**, C. Marinescu, *Establishing an Optimal Residential RES PV Source by Modelling*, 10th International Conference and Exposition on Electrical and Power Engineering (EPE 2018), Iasi, Romania, 2018.

➤ **Articles published in Romanian journals recognized by CNCSIS – category B/B+ or articles published in the volumes of national conferences**

1. **L. Barote**, I. Şerban, C. Ion, C. Marinescu, M. Georgescu, *Two Generators Micro-Grid Based on RES*, 8th International Conference on Applied and Theoretical Electricity, ICATE 2006, Annals of the University of Craiova, Electrical Engineering, Nr. 30, ISSN 1842-4805, Băile Herculane, Romania, October 26-28, 2006, pp. 250-254 - CNCSIS – Categoria B..
2. **L. Barote**, L. Clotea, *MPPT Control of a Variable-Speed Wind Turbine*, Bulletin of the Transilvania University of Brasov – Vol.13(48), Series A1, ISSN 123-9631, Brasov, Romania 2006, pp. 195-201 – CNCSIS – Categoria B.
3. I. Negrea, **L. Barote**, *Life Cycle Cost Method Calculation for a Small Hybrid System Pv-Wind*, Annals of the Oradea University, Fascicle of Management and Technological Engineering, Vol. VI(XVI), ISSN 1583-0691, May 31 - June 1, Baile Felix, Oradea, Romania, 2007, pp. 2276-2281 – CNCSIS – Categoria B +.

4. **L. Barote**, I. Negrea, *Wind energy probability estimation using Weibull distribution function*, Annals of the Oradea University, Fascicle of Management and Technological Engineering, Vol. VII(XVII), ISSN 1583-0691, May 29 – May 30, Baile Felix, Oradea, Romania, 2008, pp. 1896-1905 – CNCSIS – Categoria B +.
5. **L. Barote**, C. Marinescu, I. Serban, *Stand-Alone Wind Energy System Using a Lead Acid Battery for Energy Storage*, Simpozionul na ional de electrotehnică teoretică - SNET'09, 27 Noiembrie 2009, București, Romania, ISSN 2067 – 4147, pp. 115-120.
6. M. Georgescu, **L. Barote**, *Control System for Small Power Wind Turbines*, Annals of the University of Craiova, Electrical Engineering series, no. 34, 2010, vol. II, ISSN 1842-4805, pp. 89-94, 7-8 Octombrie 2010 – CNCSIS – Categoria B.

• **Specialized courses:**

1. **Power Electronics for Renewable Energy Systems (PERES) – in theory and practice**, Institute of Energy Technology, Aalborg, Denmark, 21 – 23.11.2007, Prof. Remus Teodorescu, Prof. Marco Liserre, Prof. Pedro Rodriguez.
2. **Dispersed Generation of Electricity** – Institute of Energy Technology, Aalborg, Denmark, 14 – 16.04.2008, Prof. Birgitte Bak-Jensen, Prof. Florin Iov.
3. **Control of Microgrids** – Institute of Energy Technology, Aalborg, Denmark, 16.05.2008, Prof. Josep M. Guerrero.
4. **Introduction to Wind Power (Generation and Integration)**, Institute of Energy Technology, Aalborg, Denmark, 10 – 12.06.2008, Prof. Zhe Chen.

• **External research internships:**

Institution	Period	Mobility type
Technical University of Heraklion, Crete, Greece Technological Research Center	23.02.2005 – 22.05.2005	<b>Leonardo da Vinci</b> Diploma project title: <i>Electrical installation design for a small wind turbine</i>
Aalborg University of Denmark Institute of Energy Technology	01.11.2007 – 30.11.2007	<b>CNCSIS Type IDEI</b> Research raport
Aalborg University of Denmark Institute of Energy Technology	01.12.2007 – 30.07.2008	<b>Erasmus – Socrates</b> Doctoral research project: <i>Small Wind Generation with Storage</i>
Aalborg University of Denmark Institute of Energy Technology	01.06.2011 – 30.09.2011	<b>POSDRU/89/1.5/S/59323</b> Postdoctoral research project: <i>ELECTRICAL ENERGY STORAGE IN A SMART MICRO-GRID</i>

Braşov, 18.01.2024