

**L I S T A**  
**lucrărilor științifice în domeniul disciplinelor din postul didactic**

**A. Teza de doctorat**

Studiul soluțiilor de eficientizare energetică a clădirilor, domeniul Inginerie energetică, Universitatea din Craiova, 2019.

**B. Suport didactic**

1. Buzatu G.C., Mașini hidraulice, suport de curs, seminar, laborator pentru programul de studii de licență Inginerie Sistemelor Electroenergetice, Craiova, ediție actualizată – format electronic, disponibil pe platforma Google Classroom.
2. Buzatu G.C., Mecanica fluidelor, suport de curs, seminar, laborator pentru programul de studii de licență Inginerie Sistemelor Electroenergetice, Craiova, ediție actualizată – format electronic, disponibil pe platforma Google Classroom.
3. Buzatu G.C., Sisteme electroenergetice, suport de seminar și laborator pentru programul de studii de licență Inginerie Sistemelor Electroenergetice, Craiova, ediție actualizată – format electronic, disponibil pe platforma Google Classroom.
4. Buzatu G.C., Rețele electrice II, suport de seminar, laborator și proiect pentru programul de studii de licență Inginerie Sistemelor Electroenergetice, Craiova, ediție actualizată – format electronic, disponibil pe platforma Google Classroom.
5. Buzatu G.C., Interacțiunea echipamente – rețea electrică, suport de curs și laborator pentru programul de studii de licență Inginerie Sistemelor Electroenergetice, Craiova, ediție actualizată – format electronic, disponibil pe platforma Google Classroom.

**C. Cărți și capitole în cărți**

**2021-2025**

1. Buzatu G. C., Bratu C., Rușinaru D., Mănescu L. G., Interacțiunea dintre echipamentele electrice și rețea, Editura Universitaria, Craiova, 2024, ISBN: 978-606-14-2046-9, nr. pag. 177.

**2016-2020**

2. -

**D. Lucrări indexate ISI/BDI**

**D1. Reviste**

**2021-2025**

1. Radu-Cristian Dinu, Felicia-Elena Stan-Ivan, **Gabriel-Cosmin Buzatu**, “Comparative analysis concerning the use of the thermal potential of combustion gases in industrial cogeneration systems”, Annals of the

### 2016-2020

2. **Buzatu Cosmin Gabriel**, Stan-Ivan Felicia-Elena, Mircea Paul Mihai, Mircea Ion „Determination of attenuation index curve "Ri(f)" for homogeneous double locking elements”, a 22-a Conferință de Inginerie Energetică, C.I.E.-2016. “Energie curată și accesibilă”, 04 Iunie - 06 Iunie 2016, Oradea, Băile Felix, Volumul 7 / Nr. 4 / March 2016, ISSN: 2067-5534, JSE 2015, pag. 48- 52, [http://www.energy-cie.ro/archives/2016/nr\\_4/v7-n4-3.pdf](http://www.energy-cie.ro/archives/2016/nr_4/v7-n4-3.pdf)
3. Leonardo Geo Manescu; Denisa Rusinaru; Marian Ciontu; **Cosmin Buzatu**; Eugen Butoarca; Miron Alba, Study of the Reactive Power Side Effects for Tariff and Compensation Purpose at the Transmission Networks'Users, Annals of University of Craiova, Electrical Engineering Series, No. 40, 2016; ISSN 1842-4805, pp.25-32
4. Mihai Mircea; Denisa Rusinaru; Marian Ciontu; Leonardo Geo Manescu; Ion Mircea; **Gabriel Cosmin Buzatu**; Computer Assisted Training Tools Used to Increase Staff Performance, International Journal of Power Systems, vol. 2, IARAS Publ. 2017, pp. 150-155, ISSN: 2367-8933, [https://www.iaras.org/iaras/filedownloads/ijps/2017/010-0008\(2017\).pdf](https://www.iaras.org/iaras/filedownloads/ijps/2017/010-0008(2017).pdf)
5. D. Rusinaru; L.G. Manescu; **G. C. Buzatu**; M. Ciontu; I. R. Gherlan; M. I. Siminica; A. I. Cojoaca, Research Laboratory for Monitoring and Analysis of Power Quality in Power Distribution Grids, International Journal of Power Systems, vol. 2, IARAS Publ. 2017, pp. 47-52, ISSN: 2367-8976, [https://www.iaras.org/iaras/filedownloads/ijps/2017/010-0008\(2017\).pdf](https://www.iaras.org/iaras/filedownloads/ijps/2017/010-0008(2017).pdf)
6. Stan-Ivan F.E., **Buzatu G. C.**, Popescu D., „Buildings thermal modeling”, a 23-a Conferință de Inginerie Energetică, C.I.E.-2017, “Energie curată și accesibilă”, 09 Iunie - 11 Iunie 2017, Oradea, Băile Felix (BDI, B+), Journal of sustainable energy Vol. 8, no. 4, December, 2017 pag.146- 152.
7. MIRCEA. P. M., URSU.D., MARIN. I., MIRCEA. I., **BUZATU. G.C.** “Analysis of overvoltages occurring at grounding faults in a medium voltage network depending on the neutral treatment”, Journal Of Sustainable Energy, Vol. 8, No. 3, September, 2017, ISSN:2067-5534. <https://scholar.google.ro>, <https://www.ebscohost.com>
8. Mircea, I., Eduard, A., **Buzatu., G. C.**, Bratu, C., The influence of the deformant and non simetric procedure on the null conductor in the low voltage installations, Journal of Sustanaible Energy, nr. 1/2019, ISSN:2067-5534, Conferința de Inginerie Energetică, CIE 2018.
9. Claudiu Popirlan; Gabriel Stoian; Leonardo Geo Manescu; Denisa Rusinaru; Marian Ciontu; **Cosmin Buzatu**; Miron Alba, Adrian Cojoaca, Application development to convert heterogeneous information into PQDIF (Power Quality Data Interchange Format), published in International Journal of Computer Science and Information Technology (IJCSIT), vol.10, issue 8, 2018, ISSN:0975-3826 (print), 0975-4660 (on-line), DOI: 10.5121/ijcsit.2018.10401, <http://airconline.com/ijcsit/V10N4/10418ijcsit01.pdf>

### D2. Manifestări științifice

#### 2021-2025

10. **Buzatu, G. C.**, Mircea, P. M., Bratu, C., Ursu, D., Butoarca, E., Chera Gh., Possibilities to Improve Energy and Economic Efficiency for an Overhead Transformer Station and Related Network, Proceedings of International Conference on Applied and Theoretical Electricity (ICATE 2021), May 27-29, 2021, Craiova, Romania, (IEEE Conference Record #49685), <https://elth.ucv.ro/icate/icate20/>, DOI: 10.1109/ICATE49685.2021.9465012, ISSN: 2376-4163, ISBN 978-1-7281-8035-9.
11. Felicia-Elena Stan-Ivan, **Cosmin Gabriel Buzatu**, Adelaida Mihaela Duinea, „Numerical modeling of two dimensional conduction for different wall structures”, SIELMEN 2023, The 14th International Conference on Electromechanical and Energy Systems, Chișinău, Republica Moldova, 12-13 Octombrie 2023
12. Rusinaru, D., **Buzatu, G. C.**, Mircea, P. M., Manescu, L. G., Bratu, C., Alba, M., Application of Power Quality Monitoring for Disturbance and Fault Diagnosis in a Ski Lift Power Supply Installation, 2024 International Conference on Applied and Theoretical Electricity (ICATE), 24-26 October 2024, Craiova, Romania, DOI: 10.1109/ICATE62934.2024.10749372, Electronic ISBN:979-8-3503-8810-7, USB

ISBN:979-8-3503-8809-1, Print on Demand(PoD) ISBN:979-8-3503-8811-4, Electronic ISSN: 2688-0962, Print on Demand(PoD) ISSN: 2376-4163, IEEEExplore.

13. Ruşinaru D., Mircea P. M., **Buzatu C.G.**, Mănescu L.G., Bratu C., Integration of Electric Vehicles Charging Infrastructure with Renewable Energy Sources in Urban Environments: Modeling and Optimization Perspectives, 2024 IEEE International Conference on Electrical Systems for Aircraft, Railway, Ship Propulsion and Road Vehicles and International Transportation Electrification Conference, ESARS-ITEC 2024. DOI: 10.1109/ESARS-ITEC60450.2024.10819773, Electronic ISBN:979-8-3503-7390-5, Print on Demand(PoD) ISBN:979-8-3503-7391-2, IEEEExplore.
14. Stan-Ivan Felicia-Elena, Duinea Mihaela-Adelaida, Dinu Radu-Cristian, **Buzatu Gabriel-Cosmin**, Bratu Cristian, Mircea Paul-Mihai, „Analizing the impact of cooling systems on the performance of fotovoltaic panels”, 2025, International Conference on Electromechanical and Energy Systems, SIELMEN 2025, 16-17 october 2025, 10.1109/SIELMEN67352.2025.11260791
15. Denisa Rusinaru; Cosmin Toma; Mihaita Linca; **Cosmin Buzatu**; Leonardo Geo Manescu; Mihăiță- Daniel Constatinescu, „Hosting Capacity Assessment for PV Units Integration in the Power Distribution Grids”, 2025, International Conference on Electromechanical and Energy Systems, SIELMEN 2025, 16-17 october 2025, 10.1109/SIELMEN67352.2025.11260726

### 2016-2020

16. Leonardo Geo Manescu; Denisa Rusinaru; Marian Ciontu; **Cosmin Buzatu**; Radu Dinu; Paul Stroica, Congestion Management using Dispatch or Phase Shifting Transformers, 2016 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, Accession Number: WOS:000390767500023, ISBN:978-1-4673-8562-6, ISSN: 2376-4163, DOI: 10.1109/ICATE.2016.7754623, <https://ieeexplore.ieee.org/document/7754623>
17. Leonardo-Geo Manescu, Denisa Rusinaru, Marian Ciontu, **Cosmin Buzatu**, Radu Dinu, Eugen Butoarca, Miron Alba, Assessment of reactive power related to users of transmission network, 2016 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, Accession Number: WOS:000390767500022, ISBN:978-1-4673-8562-6, ISSN: 2376-4163, DOI: 10.1109/ICATE.2016.7754622, <https://ieeexplore.ieee.org/document/7754622>
18. **Buzatu G. C.**, Stan-Ivan F. E., Mircea P. M., Manescu L. G., „Thermal transmittance determination for different components of buildings”, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Transilvania University of Brasov, Faculty of Electrical Engineering and Computer Science, Editura IEEE, ISBN 978-1-5090-4489-4, <http://ieeexplore.ieee.org/documents/7974975/>
19. Denisa Rusinaru; Leonardo Geo Manescu; Marian Ciontu; Paul Mihai Mircea; **Gabriel Cosmin Buzatu**; Gabriel Stoian; Claudiu Popirlan; Titela Vilceanu; Andrei Negoita; Miron Alba, Powering knowledge transfer at INCESA - BRIDGE projects, 2017 International Conference on Optimization of Electrical and Electronic Equipment (OPTIM) & 2017 Intl Aegean Conference on Electrical Machines and Power Electronics (ACEMP), Brasov, Romania, Accession Number: WOS:000426909600029, ISBN: 978-1-5090-4489-4, DOI: 10.1109/OPTIM.2017.7974969
20. Leonardo Geo Manescu; Denisa Rusinaru; Claudiu Popirlan; Gabriel Stoian; Marian Ciontu; **Gabriel Cosmin Buzatu**; Miron Alba, Complex Software System for Data Management and Analysis of Power Distribution Grids, 2017 Fourth International Conference on Mathematics and Computers in Sciences and in Industry (MCSI), Corfu, Greece, Accession Number: WOS:000452189900009, ISBN: 978-1-5386-2820-1, DOI: 10.1109/MCSI.2017.18
21. BUTOARCA,E., URSU,D., MIRCEA, P.M., MARIN,I., CIURESCU TRIBIAN,M., **BUZATU,G.C.**, „Issues of Selective Detection and Elimination of Earth Faults in MV Networks with the Neutral Treated by Petersen Coil”, International Conference on Optimization of Electrical and Electronic Equipment - Optim 2017, 25-27 Mai 2017, Cheile Gradistei – Brasov, Pag 140-145, ISBN 978-1-5090-4488-7/17/\$31.00 ©2017 IEEE. <http://ieeexplore.ieee.org>, <http://apps.webofknowledge.com>, Accession Number: WOS:000426909600021, ISBN:978-1-5090-4489-4
22. **BUZATU,G.C.**, STAN IVAN,F.E., MIRCEA,P.M., MANESCU,L.G., „Thermal transmittance determination for different components of buildings”, International Conference on Optimization of Electrical and Electronic Equipment - OPTIM 2017, 25-27 Mai 2017, Cheile Gradistei – Brasov, Pag 227-

232, ISBN 978-1-5090-4488-7/17/\$31.00 ©2017 IEEE, <http://apps.webofknowledge.com>, Accession Number: WOS:000426909600035, ISBN:978-1-5090-4489-4.

23. MIRCEA, PM., **BUZATU,GC.**, MIRCEA, I., MARIN, I., URSU, D., BOCAI, FA., „Overvoltages evaluation in electrical networks with isolated neutral - analytical calculation and experimental tests” ,2017 EUROPEAN CONFERENCE ON ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (EECS 2017), Bern, SWITZERLAND, 17-19 November 2017, <http://apps.webofknowledge.com>, Accession Number: WOS:000455867600069, ISBN:978-1-5386-2085-4
24. Denisa Rusinaru; Claudiu Popirlan; Gabriel Stoian; **Cosmin Buzatu**; Andrei Negoita; Leonardo Geo Manescu; Adrian Cojoaca; Mihai Mircea, Extended Capabilities of the Power Quality Management System of the Power Distribution Grid for Data Exchange, 22nd International Conference on Circuits, Systems, Communications and Computers (CSCC 2018), Majorca, Spain, MATEC Web Conf. Volume 210, article no. 2018, ISSN: 2261236X, <https://doi.org/10.1051/mateconf/201821002045>
25. Paul Mihai Mircea; Marian Ciontu; Ion Mircea; **Cosmin Buzatu**; Denisa Rusinaru; Doru Ursu; Ion Marin; Eugen Butoarca, Analyzing the Efficiency of Neutral Treatment with Resistor and Shunt Circuit Breaker in a MV Distribution Substation, 2018 International Conference on Control, Artificial Intelligence, Robotics & Optimization (ICCAIRO), Prague, Czech Republic, ISBN: 978-1-5386-9576-0, DOI: 10.1109/ICCAIRO.2018.00044, <https://ieeexplore.ieee.org/document/8698430>
26. Claudiu Ionut Popirlan; Gabriel Stoian; Leonardo Geo Manescu; Denisa Rusinaru; Marian Ciontu; **Gabriel Cosmin Buzatu**; Miron Alba; Adrian Cojoaca, A Web-Based Solution for Power Quality Data Management, 10th International Conference on Networks & Communications (NeCoM 2018), Copenhagen, Denmark, 2018 (published in AIRCC Publishing Corporation , Conference Proceedings vol. 8, no. 09, 2018). DOI: 10.5121/csit.2018.80907
27. **Buzatu, C, G.**, Dinu, R, C., Bratu, C., Ivan F., E., Using the Visual Basic Program for Modeling the Heat Transfer Through Glazed Building Elements, International Conference on Applied and Theoretical Electricity (ICATE), October 4-6, 2018, Craiova, România, DOI: 10.1109/ICATE.2018.8551393, ISSN: 2376-4163, ISI Web of Science.
28. Paul Mihai Mircea, Marian Ciontu, Ion Marin, Ion Mircea, Denisa Rusinaru, **Gabriel Cosmin Buzatu**, Florinel Popescu, The influence of neutral treatment system type on the efficiency / performance of the MV networks, 2018 International Conference on Applied and Theoretical Electricity (ICATE), Craiova, Romania, ISBN: 978-1-5386-3806-4, DOI: 10.1109/ICATE.2018.8551452, <https://ieeexplore.ieee.org/document/8551452>
29. Mircea, P.M., Marin, I., Mircea, I., Rusinaru, D., Ursu, D., **Buzatu, G. C.**, Ciontu, M., Bratu, C., Impact analysis of changing the neutral treatment solution in an MV electrical station on the system performance, MATEC Web of Conferences Volume 210, 5 October 2018, Article number 0205422nd International Conference on Circuits, Systems, Communications and Computers, CSCC 2018; Majorca; Spain; 14 July 2018 through 17 July 2018; Code 140904, DOI: 10.1051/mateconf/201821002054, ISSN: 2261-236X, ISI Web of Science.
30. Rusinaru, D.; Manescu, LG; Ciontu, M.; **Buzatu, C.**; Alba, M.; Cojoaca, A, Estimation of the Maximum Permissible Injections of the Distributed Generation in the LV Networks based on Power Quality Considerations, MATHEMATICAL METHODS AND COMPUTATIONAL TECHNIQUES IN SCIENCE AND ENGINEERING II, Book Series: AIP Conference Proceedings, Volume: 1982, Article Number: 020003-1, DOI: 10.1063/1.5045409, Published: 2018, Document Type:Proceedings Paper, Accession Number: WOS:000447848800003, ISBN:978-0-7354-1698-7,ISSN: 0094-243X,

#### E. Lucrări publicate în reviste și volume de conferințe cu referenți (neindexate)

##### 2021-2025

1. -

##### 2016-2020

2. -

#### F. Brevete obținute în întreaga activitate

## **G. Participare la proiecte de cercetare**

### **G1. Granturi / proiecte câștigate prin competiție națională/internațională**

#### **2021-2025**

1. Proiect POCU cod 686692395 „, Universitatea din Craiova – noi orizonturi in era digitala”, membru colectiv, expert cursuri digitalizare, cercetător

#### **2016-2020**

2. Proiect Brige, 70BG/01.10.2016 Soluții inteligente de tratare a neutrilor în stațiile electrice 110kV/MT pentru creșterea eficienței energetice, securității personalului și siguranței în alimentarea utilizatorilor – SITNSE-EESS, 2016-2018, membru colectiv.
3. Proiect Brige, 75BG/01.10.2016 Sistem inteligent de monitorizare și management al calității energiei electrice la interfața dintre rețeaua electrică de distribuție și utilizatorii ei, 2016-2018, membru colectiv.

### **G2. Contracte de cercetare / consultanță (valoare echivalentă de minim 2.000 Euro)**

#### **2021-2025**

4. Contract nr. 60.1.DJ/214281.0-0/16.12.2021 (UCV 21C/14.12.2021), Beneficiar Distribuție Energie Oltenia, Membru colectiv.
5. Contract nr. TMK Hydroenergy Power 01/04.01.2022 (UCV 22C/20.12.2021), Beneficiar TMK Hydroenergy Power, Membru colectiv.
6. Contract nr. 05/26.01.2022 (UCV 2C/25.01.2022), Beneficiar MW Team Invest SRL, Membru colectiv.
7. Contract nr. 04/27.01.2022 (UCV 3C/25.01.2022), Beneficiar Ovidiu Development S.A, Membru colectiv.
8. Contract nr. 04/26.01.2022 (UCV 4C/25.01.2022) Beneficiar Tomis Team S.A., Membru colectiv.
9. Contract nr. 21/15.03.2022 (UCV 8C/24.03.2022), Beneficiar Compania de Apă Oltenia S.A., Membru colectiv.
10. Contract nr. 60.1.DJ/225271.0-0/06.12.2022 (UCV 21C/28.11.2022), Beneficiar Distribuție Energie Oltenia, Membru colectiv.
11. Contract nr. 22/10.03.2023 (UCV 4C/15.03.2023), Beneficiar Compania de Apă Oltenia S.A., Membru colectiv.
12. Contract nr. 2925/08.09.2023, (UCV 13C/20.09.2023), Beneficiar Popeci Utilaj Greu, Membru colectiv.
13. Contract nr. 889/28.04.2023 (UCV 7C/26.04.2023), Beneficiar Uzina Mecanica Sadu S.A., Membru colectiv.
14. Contract nr. RO40/112/26.08.2023 (UCV 14C/25.09.2023), Beneficiar CEZ ROMANIA S.A, Membru colectiv.
15. Contract 17C/04.12.2023, Beneficiar Distributie Energie Oltenia SA, Membru colectiv.
16. Contract Nr. 2161/27.02.2024 (UCV 5C/21.02.2024), Beneficiar Vimetco SA, Membru colectiv.
17. Contract 6C/29.02.2024, Beneficiar Compania de Apa Oltenia SA, Membru colectiv.
18. Contract nr. 19051/3110.2018, Act adițional prelungire nr. 5/28.10.2022, Act adițional 8/07.06.2024, Beneficiar Pirelli Tyers Romania SRL, Membru colectiv.
19. Contract nr. 8270/04.10.2024, (UCV 14C/10.10.2024), Beneficiar Artego S.A, Membru colectiv.
20. Contract nr. 60.1.DJ.246354.0-0/17.12.2024 (UCV 16C/13.12.2024), Beneficiar Distribuție Energie Oltenia S.A, Membru colectiv.
21. Contract nr. 4C/07.04.2025 (Nr. 25/01.04.2025), Beneficiar Compania de Apă Oltenia S.A., Membru colectiv.
22. Contract nr. 227/27.05.2025, (UCV 6C/02.06.2025), Beneficiar ICMET Craiova, Membru colectiv.

#### **2016-2020**

23. Contract nr. DA 16034/29.01.2016 (UCV 2C/07.03.2016). Beneficiar S.C. Oltchim S.A., Membru colectiv
24. Contract nr. 60.1.DJ.37331/25.10.2016, Beneficiar CEZ Distribuție Romania, Membru colectiv,
25. Contract nr. 1455/24.07.2017 (UCV 14C/31.07.2017). Beneficiar Vimetco S.A., Membru colectiv.
26. Contract nr. 60.1.DJ.4717/01.11.2017 (UCV I 1169/30.10.2017). Beneficiar Distribuție Energie Oltenia, Membru colectiv.
27. Contract nr. 3939/27.07.2018 (UCV I345/23.07.2018) Beneficiar Ciech Govora, Membru colectiv
28. Contract nr. 60.1.DJ.10655/13.11.2018 (UCV I499/09.11.2018, Beneficiar Distribuție Energie Oltenia, Membru colectiv.
29. Contract nr. MEA5/21/28.01.2019 (UCV 3C/29.01.2019), Beneficiar Chimcomplex SA Borzești Sucursala Râmniucu Vâlcea, Membru colectiv.
30. Contract nr. 29C/29.11.2019 (DEO 60.1DJ 16575/28.11.2019), Beneficiar Distribuție Energie Oltenia, , Membru colectiv
31. Contract nr. 11C/14.12.2020 (DEO 60.1.DJ/205503.0-0/16.12.2020), Beneficiar Distribuție Energie Oltenia, Membru colectiv.

**Data:**  
01.10.2025

**Semnătura:**