

## Lista de lucrări – Dumitru Cristian-Dragoș

- a) **Teza de doctorat:** *Managementul unui sistem de producere și consum a energiei electrice din surse regenerabile*, 2011, conducator științific: prof. dr. ing. Mircea Chindriș, Universitatea Tehnică Cluj Napoca.
  
- b) **Cărți de specialitate**
  1. **Dumitru, C.D.**, Dragomir-Stanciu, D., *Termotehnică. Termodinamica*, Editura Universității "Petru Maior" din Tg. Mureș, România, 2015, 122 pag., ISBN 978-606-581-162-1, cod CNCIS 200;
  2. **Dumitru, C.D.**, *Surse regenerabile de energie*, Editura Universității "Petru Maior" din Tg. Mureș, România, 2013, 194 pag., ISBN 978-606-581-111-9, cod CNCIS 200;
  3. **Dumitru, C.D.**, *Surse regenerabile de energie. Aplicații*, Editura Universității "Petru Maior" din Tg. Mureș, România, 2013, 94 pag., ISBN 978-606-581-112-6, cod CNCIS 200
  
- c) **Capitole în volume colective**
  1. **Dumitru, CD.**, Gligor, A., Vlasa, I. (2023). *Intelligent Solar Photovoltaic Development Model for University Campus Buildings* (12 pag.), în: Moldovan, L., Gligor, A. (eds) The 16th International Conference Interdisciplinarity in Engineering. Inter-Eng 2022. Lecture Notes in Networks and Systems, vol 605. Springer, Cham. [https://doi.org/10.1007/978-3-031-22375-4\\_61](https://doi.org/10.1007/978-3-031-22375-4_61).
  2. Mărginean, L.I., Gligor, A., **Dumitru, CD.**, Moldovan, L. (2023). *New Methods of Tracking Compressed Air Leaks Used in the Production Processes of an Industrial Hall to Improve Energy Performance* (15 pag.), în: Moldovan, L., Gligor, A. (eds) The 16th International Conference Interdisciplinarity in Engineering. Inter-Eng 2022. Lecture Notes in Networks and Systems, vol 605. Springer, Cham. [https://doi.org/10.1007/978-3-031-22375-4\\_60](https://doi.org/10.1007/978-3-031-22375-4_60);
  3. Gligor, A., **Dumitru, CD.**, Vlasa, I. (2022). *Multicriterial Assessment of Power Losses in Electricity Distribution Grid Considering the Profile Consumers Analysis* (13 pag.), în: Moldovan, L., Gligor, A. (eds) The 15th International Conference Interdisciplinarity in Engineering. Inter-Eng 2021. Lecture Notes in Networks and Systems, vol 386. Springer, Cham. [https://doi.org/10.1007/978-3-030-93817-8\\_55](https://doi.org/10.1007/978-3-030-93817-8_55), WOS: 000773080200055;
  4. **Dumitru, C.**, Gligor, A., *Optimal Energy Production Planning in Power Systems with Wind Energy Sources* (Chapter 1), în Design Optimization of Wind Energy Conversion Systems with Applications, Edited b, Edited by: Karam Y. Maalawi,

ISBN 978-1-78984-407-8, Publisher: IntechOpen, DOI 10.5772/intechopen.82111, 2020 (22 pag.);

5. **Dumitru, C.D.**, *The Modeling and Simulation of a System based on Regenerable Sources of Energy for the Testing of Intelligent Energetic Management Solutions (Modelarea și simularea unui sistem bazat pe surse regenerabile de energie pentru testarea soluțiilor inteligente de management energetic)*, COMUNICARE ȘI MULTICULTURALITATE (Iulian Boldea, Cornel Sigmirean (Coordonatori)), Petru Maior University Press, Tg.Mureș, Romania, 2015, ISBN 978-606-581-134-8;
6. Bică D., **Dumitru C.**, Gligor, Adrian, Duka A.; *Isolated Hybrid Solar-Wind-Hydro Renewable Energy Systems* (Chapter 16), în *Renewable Energy*, Edited by T J Hammons, ISBN 978-953-7619-52-7, Publisher: InTech, 2009, DOI:10.5772/7366, pag. 297-316 (20 pag.);

#### d) Articole publicate in extenso

##### (1) Articole în reviste cotate ISI, cu factor de impact

1. **Dumitru C-D.**, Gligor A., Vlasa I., Simo A., Dzitac S., *Energy Contour Forecasting Optimization with Smart Metering in Distribution Power Networks*. *Sensors*. 2023; 23(3):1490, <https://doi.org/10.3390/s23031490>, EISSN 1424-8220, WOS:000930442300001, Q1, FI: 3.847.
2. Vlasa, I.; Gligor, A.; **Dumitru, C.-D.**; Iantovics, L. B., *Smart Metering Systems Optimization for Non-Technical Losses Reduction and Consumption Recording Operation Improvement in Electricity Sector*, *SENSORS*, 20(10), 2020, eISSN: 1424-8220, art. no. 2947, DOI:10.3390/s20102947, WOS:000539323700201, Q1, FI: 3.576;
3. Genge, B., Haller, P., **Dumitru, C.D.**, Enăchescu, C., *Designing Optimal and Resilient Intrusion Detection Architectures for Smart Grids*, in *IEEE Transactions on Smart Grids*, Vol. 8, Issue 5, 2017, pp. 2440-2451, ISSN: 1949-3053, DOI: 10.1109/TSG.2017.2665654, WOS:000408221000039, FI: 6.645;

##### (2) Articole în reviste cotate ISI fără factor de impact

1. Gligor, A., Vlasa, I., **Dumitru, C.-D.**, Saimac, E., Munteanu, C., *New Approach using Optimization Method in Forecasting of the Own Technical Consumption in Distribution Power Grids*, *Proceedings of 9th International Conference on Modern Power Systems (MPS 2021)*, 2021, ISBN: 978-1-6654-3381-5, DOI:10.1109/MPS52805.2021.9492541, WOS:000941563300011;
2. Gligor, A., Vlasa, I., **Dumitru, C.-D.**, Moldovan, C. E., Damian, C., *Power Demand Forecast for Optimization of the Distribution Costs*, 13th International Conference

- Interdisciplinarity in Engineering (INTER-ENG 2019), 46, 2020, ISSN: 2351-9789, pp. 384-390, DOI:10.1016/j.promfg.2020.03.056, WOS:000582466200055;
3. **Dumitru, C.-D.**, Gligor, A., *Wind Energy Forecasting: A Comparative Study Between a Stochastic Model (ARIMA) and a Model Based on Neural Network (FFANN)*, 12th International Conference Interdisciplinarity In Engineering (INTER-ENG 2018), 32, 2019, ISSN: 2351-9789, pp. 410-417, DOI:10.1016/j.promfg.2019.02.234, WOS:000471295800059;
  4. Vlasa, I., Gligor, A., **Dumitru, C.-D.**, Turc, A.-M., *Integrated Remote Reading Solution of Smart Metering Devices*, 2019 International Conference on Electromechanical and Energy Systems (SIELMEN), 2019, ISBN: 978-1-7281-4011-7, art. no. 155, WOS:000630287500117;
  5. Vlasa, I., Gligor, A., **Dumitru, C.-D.**, Moldovan, C.-E., *Real-time Power Supply Service Monitoring in Industrial Electric Power Distribution Grid*, 2019 International Conference on Electromechanical and Energy Systems (SIELMEN), 2019, ISBN: 978-1-7281-4011-7, art. no. 128, WOS:000630287500084;
  6. Vlasa, I., Gligor, A., **Dumitru, C.-D.**, Balan, D., *Optimization of a Power Line Communications Network for Smart Metering System*, Proceedings of 2019 8th International Conference on Modern Power Systems (MPS), 2019, ISBN: 978-1-7281-0750-9, pp.1-6, DOI: 10.1109/MPS.2019.8759675, WOS:000612401900026;
  7. Gligor, A., **Dumitru, C.-D.**, Grif H. S., *Artificial intelligence solution for managing a photovoltaic energy production unit*, Procedia Manufacturing 22, 2018, ISSN 2351-9789, pp. 626-633, DOI: 10.1016/j.promfg.2018.03.091, WOS:000456199200089;
  8. **Dumitru, C.-D.**, Gligor, A., *An approach to photovoltaic based power supply designing of a Transylvanian rural community*, Procedia Manufacturing 22, 2018, ISSN 2351-9789, pp. 826-832, DOI: 10.1016/j.promfg.2018.03.117, WOS:000456199200115.
  9. **Dumitru C.-D.**, Gligor, A., *Daily Average Wind Energy Forecasting using Artificial Neural Networks*, Procedia Engineering 181(2017): 829-836, DOI: 10.1016/j.proeng.2017.02.474, WOS:000404612700116;
  10. Pasc P.C., **Dumitru C.D.**, *Energy-efficient Street Lighting Using a Mitsubishi Alpha 2 PLC Based*, in Procedia Engineering, No. 181, 2017, pp. 824-828, ISSN 1877-7058; DOI: 10.1016/j.proeng.2017.02.473, WOS:000404612700115;
  11. Gligor, A., **Dumitru C.-D.**, Ronay, K., Muntean, R., *Microcontroller Based Prototype for Reactive Power Compensation in Local Distribution Networks*, Procedia Engineering 181(2017): 746-753, DOI: 10.1016/j.proeng.2017.02.461, WOS:000404612700104;
  12. Turc, T., Gligor, A., **Dumitru, C.-D.**, *Web-based Wireless Sensor System for SCADA Environment*, Procedia Engineering 181(2017): 546-551, DOI: 10.1016/j.proeng.2017.02.432, WOS:000404612700077;
  13. Pasc P.C., **Dumitru C.D.**, *SCADA System for Solar MPPT Controller Monitoring*, in Procedia Technology, No. 22, 2016, pp. 803-807, ISSN 2212-0173; DOI: 10.1016/j.protcy.2016.01.052, WOS:000383949300112;

14. **Dumitru, C.-D.**, Gligor, A., Enăchescu, C.; *Solar Photovoltaic Energy Production Forecast Using Neural Networks*; Procedia Technology 22 (2016): 808-815, DOI: 10.1016/j.protcy.2016.01.053, WOS:000383949300113;
15. Ronay K., **Dumitru C.D.**, *Technical and Economical Analysis of a Solar Power System Supplying a Residential Consumer*, Procedia Technology 22 (2016): 829-835, ISSN 2212-0173; DOI: 10.1016/j.protcy.2016.01.056, WOS:000383949300116;
16. Ronay K., **Dumitru C.D.**, *An Approach to Intelligent Road Lighting System with Renewable Energy Based Power Supply*, Procedia Technology 22 (2016): 836-839, ISSN 2212-0173; DOI: 10.1016/j.protcy.2016.01.057, WOS:000383949300117;
17. Pasc P.C., **Dumitru C.D.**, *Software Solution Design for Photovoltaic Solar Applications*, in Procedia Technology, No.19, 2015, pp. 695-702, ISSN 2212-0173; DOI: 10.1016/j.protcy.2015.02.098, WOS:000358732500097;
18. Ronay K., **Dumitru C.D.**, *Hydroponic Greenhouse Energy Supply Based on Renewable Energy Sources*, in Procedia Technology, No.19, 2015, pp. 703-707, ISSN 2212-0173; DOI: 10.1016/j.protcy.2015.02.099, WOS:000358732500098;
19. Ronay K., **Dumitru C.D.**, *The Monitoring and Control Processes of a Renewable Energy Management System*, in Procedia Technology, No.19, 2015, p. 689-694, ISSN 2212-0173, DOI: 10.1016/j.protcy.2015.02.097, WOS:000358732500096;
20. **Dumitru C.-D.**, Gligor, A.; *A Management Application for the Small Distributed Generation Systems of Electric Power Based on Renewable Energy*, Procedia Economics and Finance, vol. 15, 2014, pp. 1428-1437, ISSN 2212-5671; DOI: 10.1016/S2212-5671(14)00608-X, WOS:000357094000185;
21. Ronay, K., **Dumitru, C. D.**, *Management of a Power System based on Renewable Energy*, Procedia Technology, ISSN: 2212-0173; Volume: 12, Pages: 693-697, ISSN 2212-0173; DOI: 10.1016/j.protcy.2013.12.551, WOS:000335391100103;
22. **Dumitru, C.-D.**; Gligor, A.; *Designing of a renewable energy training programme for engineering education*; Procedia Technology, ISSN: 2212-0173; Volume: 12, Pages: 753-758, 2014; DOI: 10.1016/j.protcy.2013.12.559, WOS:000335391100111;
23. **Dumitru, C.-D.**; Gligor, A.; *SCADA based software for renewable energy management system*, Conference: International Conference on Emerging Markets, Queries in Finance and Business Location: Petru Maior Univ Tirgu-Mures, Targu Mures, ROMANIA Date: OCT 24-27, 2012, Procedia Economics and Finance, Volume 3, 2012, ISSN 2212-5671, Pages 262–267, DOI: 10.1016/S2212-5671(12)00150-5, WOS:000315040100038;

Promovarea anterioară:

1. Gligor, A., Turc, T., **Dumitru, C.D.**, Morar, Al., *Development of an extensible description language for virtual instrumentation*, 2010 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR, 2010 - Proceedings, 1 - 6, ISBN: 978-142446725-9, DOI: 10.1109/AQTR.2010.5520755, WOS:000419281500197;

2. Turc, T., Gligor, A., **Dumitru, C.**, Morar, A.; *Development of extensible virtual instruments for SCADA applications*, 2010 IEEE International Conference on Automation, Quality and Testing, Robotics, AQTR 2010 - Proceedings, 1 - 5, ISBN: 978-142446725-9, DOI: 10.1109/AQTR.2010.5520767, WOS:000419281500209, <http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=5520767>;
3. Bică, D., **Dumitru, C.D.**, *Photovoltaic laboratory for study of renewable solar energy*, in Proceedings of Universities Power Engineering Conference UPEC 2008, 1-4 sept. 2008, Padova, Italy, pp.1-5, DOI:10.1109/UPEC.2008.4651577; WOS:000263146900148;

### (3) Articole în reviste indexate BDI

1. **Dumitru, C.-D.**, Gligor, A., Vlasa, I. *Reliability estimation for smart metering units in a Energy Distribution Branch with prosumers*, 2022 International Conference and Exposition on Electrical And Power Engineering (EPE), Iasi, Romania, 2022, pp. 677-682, doi: 10.1109/EPE56121.2022.9959754;
2. Gorea, C. Bică, D., **Dumitru, C.-D.**, Vlasa, I., Porumb, R., Chiorean, D.-L., *Electricity losses optimization in distribution networks from the perspective of integration on large scale of renewable energy resources*, 2022 International Conference and Exposition on Electrical and Power Engineering (EPE), Iasi, Romania, 2022, pp. 692-697, doi: 10.1109/EPE56121.2022.9959086;
3. Gligor, A., Cofta, P., Marciniak, T., **Dumitru, C.** (2020). *Challenges for the Large-Scale Integration of Distributed Renewable Energy Resources in the Next Generation Virtual Power Plants*, Multidisciplinary Digital Publishing Institute Proceedings, 63(1), 20, DOI: 10.3390/proceedings2020063020.
4. Ronay, K., Bică, D., **Dumitru, C.D.**, *Energy Monitoring and Load Control. Application for an Off-Grid PV System*, Scientific Bulletin of the „Petru Maior” University of Tîrgu Mureş, Vol. 11 (XXVIII) no. 2, 2014, pp. 30-33, ISSN 1841-9267;
5. **Dumitru, C.**, Gligor, A., *Optimal Design of a Photovoltaic Rural Road Lighting System*, in The 6th edition of the Interdisciplinarity in Engineering International Conference “Petru Maior” University of Tîrgu Mureş, Romania, 2012, pp. 266-271, ISSN 2285-0945;
6. **Dumitru, C.D.**, Gligor, A., Turc, T., *Scada Application for Solar Energy Conversion Efficiency Used in Water Heating Application*, in The 6th edition of the Interdisciplinarity in Engineering International Conference “Petru Maior” University of Tîrgu Mureş, Romania, 2012, pp. 288-292, ISSN 2285-0945;
7. Ronay, K., **Dumitru, C.**, Gligor, A., *Management of a Power System Based on Renewable Energy*, Scientific Bulletin of the „Petru Maior” University of Tîrgu Mureş, Vol. 9 (XXVI) no. 1, 2012, pp. 38-42, ISSN 1841-9267;

Promovarea anterioară:

1. **Dumitru, C.D.**, Duka, A. V., *Analysis of a Hybrid Renewable Energy System on the Mures Valley Using Homer*, The 5th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, Romania, 2011, pp. 112-116, ISSN 2285-0945;
2. Gligor, A., **Dumitru, C.D.**, *Agents-Based Distributed Processes Control Systems*, în The 5th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, Romania, 2011, pp. 121-125, ISSN 2285-0945;
3. **Dumitru, C.D.**, Gligor, A., Grif, H. Ş., *Regensim – Matlab Toolbox for Renewable Energy Sources Modeling and Simulation*, The 5th Edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, Romania, 2011, pp. 117-120, ISSN 2285-0945;
4. **Dumitru, C.D.**, Gligor, A., *Modeling and Simulation of Renewable Hybrid Power System Using Matlab/Simulink Environment*, în: Scientific Bulletin of the „Petru Maior” University of Târgu Mureş, Vol. 7 (XXIV), no. 2, pp. 5-9, România, 2010, ISSN: 1841-9267;
5. **Dumitru, C.D.**, Gligor, A., Morar, A., *Virtual Laboratory for Study of Renewable Solar Energy*, in Acta Electrotehnica, vol. 50, no.4, 2009, Cluj Napoca, Romania, pp. 266-270, ISSN 1841-3323;
6. **Dumitru, C.D.**, Gligor, A., *Modeling of Renewable Hybrid Energy Sources*, in Scientific Bulletin of the Petru Maior University of Tirgu Mures, Vol. 6, 2009, Romania, pp. 98-102, ISSN 1841-9267;
7. Gligor, A., **Dumitru, C.D.**, Grif, H.Ş., *Power Quality Disturbance and Power Flow Analysis in a Hybrid Renewable Energy System Using Matlab*, in The 4th edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, Romania, 2009, pp. 52-56, ISSN 2285-0945;
8. **Dumitru C.D.**, Gligor, Adrian, Morar A., *Renewable Energy Laboratory for Lighting Systems*, Proc. of 5th International Conference ILUMINAT, Cluj-Napoca, 2009, pp. 1-6;
9. Gligor, A., **Dumitru, C.-D.**, Turc T., *Monitoring and Control by Virtual Tools of an Educational Renewable Energy System*, Scientific Bulletin of the Petru Maior University of Tîrgu Mures Vol. 6 (XXIII), 2009, ISSN 1841-9267, pp. 60-64;
10. Grif, H.Ş., Gligor, A., **Dumitru, C.**, *Neural Daylight Control System with Online Inverse Process Modeling*, in The 4th edition of the Interdisciplinarity in Engineering International Conference "Petru Maior" University of Tîrgu Mureş, Romania, 2009, pp. 124-128, ISSN 2285-0945;
11. **Dumitru, C.D.**, Gligor, A., *Software Development for Analysis of Solar-Wind Hybrid Systems Supplying Local Distribution Networks*, Acta Electrotehnica, Special Issue: Proceedings of the 2nd International Conference on Modern Power Systems MPS 2008, 12-14 nov. 2008, Cluj Napoca, Romania, pp. 220-223, ISSN 1841-3323;
12. **Dumitru, C.D.**, Gligor, A., *Power Quality Analysis of a System Based on Renewable Energy Supplying a Local Distribution Network*, Acta Electrotehnica, Special Issue:

- Proceedings of the 2nd International Conference on Modern Power Systems MPS 2008, 12-14 nov. 2008, Cluj Napoca, Romania, pp. 224-226, ISSN 1841-3323;
13. **Dumitru, C.D.**, Gligor, A., *The Identification of Renewable Energy Resources in Mureș County*, Scientific Bulletin of the Petru Maior University of Tîrgu Mures, No. 4, 2008, Romania, pp. 57-63, ISSN 1841-9267;
  14. **Dumitru, C.D.**, *The Development of Local DC and AC Distribution Networks Supplied with Energy Provided by Renewable Resources*, în: Conferința de Inginerie Energetică CIE 2007, 7-8 iunie 2007, Oradea, România, pp. 259-262, ISSN 1224-1261;
  15. **Dumitru, C.D.**, Duka A.-V., *Operation, Control and Management Principles for Renewable Energy Systems*, in IFAC Workshop ICPS'07, Convergence of Information Technologies and Control Methods with Power Plants and Power Systems, pp. 295-299, Cluj-Napoca, România, 2007, ISBN 978-973-713-180-5;
  16. **Dumitru, C. D.**, *Management of a System Based on Renewable Resources for Electric Power Supply of an Administrative Building*, în Acta Electrotehnica, Volume 47, Number 4, 2006, pp. 101-106, Cluj-Napoca, România, ISSN 1841-3323;

**e) Articole publicate în rezumat**

1. **Dumitru, C.-D.**, Gligor, A., *Intelligent management system for university campuses buildings with optimal integration of solutions based on renewable energy sources for electricity demands*, Scientific Session of University Academic Staff, George Emil Palade University of Medicine, Pharmacy, Science and Technology of Targu Mures, 5-9 dec. 2022, Book of Abstracts 5/2022, ISSN 2734 – 8199.

**f) Alte lucrări și contribuții științifice**

1. **Dumitru C. D.**, Gligor, A., Enăchescu, C., *Trends in Management of Renewable Energy Sources Based on Artificial Intelligence Techniques*, Proceedings of the 2nd CommScie International Conference “Challenges for Sciences and Society in Digital Era”, pp. 114-118, December 2015, Iași, România.

Promovarea anterioară:

1. **Dumitru, C. D.**, Duka, A.V., *Remote Monitoring of Renewable Energy Systems Using Datasockets*, Conferința Națională și Expoziția de Energetică CNEE 2007, 7-9 noiembrie 2007, Sinaia, România.