PERSONAL INFORMATION

Diana Maria BUCUR

WORK EXPERIENCE

2024 – present **Head of the Department of Hydraulics, Hydraulic Machinery and Environmental Engineering**
2023 – present **Professor, habil. since March 2022**
2016 – 2023 **Associate professor**
2009 – 2016 **Lecturer**
2006 – 2009 **Assistant professor**
2003-2006 **Research assistant**
Member in the Department Board (2012 – 2016, 2020 – present), **Member in the Faculty Board** (2020 – present), **Member of the UNSTPB Senat** (2024 – present)

National University of Science and Technology POLITEHNICA Bucharest,
(previously named University POLITEHNICA of Bucharest)
313 Splaiul Independentei, Bucharest, Romania
Energy Engineering Faculty
Department of Hydraulics, Hydraulic Machinery and Environmental Engineering
Teaching, educational, research and administrative activities

Research, scientific and academic activity:

- Publishing over 80 research and technical papers in journals and conferences (of which 35 ISI papers /12 journals and 26 BDI papers)
- Co-author of 1 International Invention WOS-Derwent Indexed
- Manager of 8 research projects (5 of them with industrial beneficiary)
- Member of the research team in more than 37 projects regarding evaluation of turbines and pumps operation parameters, Transitory flow in hydraulic systems, Small hydropower potential.
- Member in PhD thesis guiding committees
- Co-advisor for 2 PhD graduated student (2 in UPB, 1 in LTU)
- Advisor of 4 PhD students at UPB (presently)
- Coordinator of double PhD diploma program between UPB and Lulea University of Technology, Sweden
- Consulting supervisor MSc Thesis at Tarbiat Modares University,Tehran, Iran

Educational activity and experience:

- Coordinator of the Hydro-informatics and Water Engineering Master program, at Power Engineering Faculty, UPB.
- Preparation of ARACIS documents for evaluation of licence program Hydropower and master program - Hydro-informatics and Water Engineering, at Power Engineering Faculty, UPB
- Short-term expert within POSDRU/90/2.1./S/58108/ Project – Rehabilitation of the Practical Activity System from the Upper Technical Educational Program / TRIPOD (Restructurarea Sistemului de Practică Productivă a Studenţilor din

Învăţământul Tehnic Superior)

- Administration assistant within POSDRU/86/1.2/S/61830/ Project – Quality Improvement for Upper Engineering Education – Informational support for Fluids Engineering/ PiiF (Creşterea calităţii învăţământului superior de inginerie – Platforma Informatică pentru Ingineria Fluidelor)
- Erasmus and Erasmus+ students coordinator (Sweden, France)
- Coordinator of the practical internships for the students in Hydropower program (2007 – 2017)
- organization (including founding) of 16 technical visits for students: CHE Porţile de Fier (2005 - 2013), CHE Dobreşti, CHE Moroieni şi CHE Sinaia 0 (2006 - 2008), CHE Vidraru (2005, 2007, 2015), CHE Ipoteşti şi CHE Arceşti (2009).

Teaching activity: Turbomachinery hydrodynamics, Pumps and vents, Hydraulic turbines, Hydraulic machinery testing, Fluid mechanics, Hydraulic machineries, Technical drawing

- Coordination of diploma and master thesis (over 50)
- Member of the Diploma and Master evaluation committee
- Member of the Diploma and Master admission committee
- Coordination of extra-curricular research activities of students (over 40)

Technical activity:

- Head of Hydropower equipment laboratory
- Design/built/upgrade/operation of experimental laboratory and scale-up set-ups (teaching or research): Centrifugal pump operating as turbine, Two phase flow, Turgo Turbine, Measurement and monitoring system for hydrogenerator operation parameters.

Administrative activity:

- Rehabilitation of Research laboratories and working offices for staff and PhD students
- Open air exhibition with real bulb turbine blades
- Financing technical visits for students

March –August 2016 **Board Member**

SSH HIDROSERV SA, str. Constantin Nacu nr.3, Sector 2, București

Maintenance of the hydropower plants and other related manufacturing activities

Activities specific to the Company Board, according to the Constitutive Documents.

EDUCATION AND TRAINING

May 2014 – December 2015 **Post-doctoral training**

University POLITEHNICA of Bucharest, 313 Splaiul Independentei, Bucharest, Romania

Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department

Transient flow modelling, Genetic algorithm implementation, Fluid mechanics, Numerical methods

October 2004 – July 2011 **PhD Diploma**

ISCED 2011 level 8

University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department

Fluid mechanics, Hydraulics, Numerical methods, Hydropower plants and pumping stations

October 2003 – July 2004

Master Diploma

ISCED 2011 level 7

Technical Hydraulics and Hydropower

University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department

October1998 – October 2003

Engineer Licence

ISCED 2011 level 6

University POLITEHNICA of Bucharest / Power Engineering Faculty / Hydraulics, Hydraulic Machinery and Environmental Department

Power engineering domain, Hydropower plants

September 1994 – June 1998

Bachelor

ISCED 2011 level 3

Assistant programmer, Informatics program

„Tudor Vladimirescu" High school, Bucharest

PERSONAL SKILLS

Mother tongue(s): Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B1	B2	B1	A2
Spanish	B2	A2	B1	A1	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Communication skills

- good communication skills gained through my experience from my teaching activity.

Organisational / managerial skills

- currently responsible for a team of 5 people, as head of the lab
- administrative and finance leader of the projects
- scientific events and workshop organizer
- preparation and coordination of industrial practical stages and technical visits for students
- team work spirit, voluntary

Job-related skills

- understanding and solving technical issues related to operation of hydropower equipment and machinery, both in laboratory and in site set-ups.
- activities within research projects involving in site measurements and evaluation of hydraulic machineries efficiency
- knowledge mainly related to fluid mechanics, hydraulic turbines, pumps and vents, hydraulic machinery testing and transient flows
- good command of quality control processes.

Digital skills

Operation system: WINDOWS
Programming: Turbo Pascal, Basic, C++
Usual pc packages: MS-Office, Adobe Photoshop, AutoCAD, CorelDraw
Scientific packages: MATLAB, Ansys CFD, LabVIEW

Driving licence

Driving licence category B (1998)

ADDITIONAL INFORMATION

Teaching lectures at Lulea University of Technology, Sweden, 2014-2016 (LLP-Erasmus)
Specialization:
Research for PhD thesis at Universite LAVAL din Quebec, Canada, 2008
Research for Master thesis at Universite de Liege, Belgia, 2004 (Erasmus)
Member of scientific committee:
Romanian hydropower conference, Dorin PAVEL (2012-2018)
XIV World Renewable Energy Congress (2015)
CIEM (2017, 2019)
Reviewer at Transactions of the Institute of Fluid-Flow Machinery, Polish Academy of Sciences, EENVIRO (2016, 2018)
Member of national standardization committees ASRO 109, 133, 201
Member of AQUA NOSTRA professional association
Member of AIEE professional association

ANNEXES

Detailed list of papers on https://www.researchgate.net/profile/Diana_Bucur
Other information available on request

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

A. Teza de doctorat

Bucur D.M., *Contribuţii privind curgerea bifazică în conductele centralelor hidroelectrice şi ale staţiilor de pompare*, domeniul fundamental Ştiinţe Inginereşti - domeniul Inginerie Energetică, Universitatea POLITEHNICA din Bucureşti, Facultatea de Energetică, Catedra de Hidraulică, Maşini Hidraulice şi Ingineria Mediului,, data susţinerii publice a tezei de doctorat 18 iulie 2011, Diplomă de Doctor emisă de Universitatea

POLITEHNICA din București (în baza Ordinului Ministrului Educației, Cercetării și Inovării nr. 6468 din 07.12.2011) cu nr. 563 din 09.01.2012.

B. Cărţi si capitole în cărţi publicate în ultimii 10 ani

1. **Bucur D.M.**, Dunca G., *Evaluarea performanțelor reale de funcționare ale mașinilor și sistemelor hidraulice în amenajări hidroenergetice*, Editura Printech, cod CNCSIS 54, ISBN 978-606- 23-1472-9, 120 pag, 2023

C. Lucrări indexate ISI/BDI publicate în ultimii 10 ani

1. Iovănel, R.G.; Dehkharqani, A.S.; Bucur, D.M.; Cervantes, M.J. Numerical Simulation and Experimental Validation of a Kaplan Prototype Turbine Operating on a Cam Curve. Energies 2022, 15, 4121, Pg. 1-24, doi.org/10.3390/en15114121, COTATA ISI (IF 3.252/2021) WOS:000808761500001

2. Bunea, F.; Ciocan, G.D.; Bucur, D.M.; Dunca, G.; Nedelcu, A. Hydraulic Turbine Performance Assessment with Implementation of an Innovative Aeration System. Water 2021, 13, 2459, Pg. 1-16, doi.org/10.3390/w13182459, COTATA ISI, (IF 3.530/2021) WOS:000701547400001

3. Georgescu A.M., Georgescu S.C., Dunca G., Bucur DM, Aldea A. Energy production assessment in a complex hydropower development, Journal of Hydroinformatics, Vol.22 , Iss.4 , Pg.725- 737, July 2020, ISSN 1464-7141, doi: 10.2166/hydro.2019.237, COTATA ISI (IF 3.058/2021) WOS:000555429500006

4. Iovanel R. G., Dunca G, Bucur D. M., Cervantes M. J., Numerical Simulation of the Flow in a Kaplan Turbine Model during Transient Operation from the Best Efficiency Point to Part Load, Energies, Vol. 13, Iss.12, Pg. 1-20, Art. No. 3129, June 2020, e-ISSN 1996-1073, Pg. 1-20, doi:10.3390/en13123129 COTATA ISI (IF 3.252/2021) WOS:000550096700001

5. Iovanel, RG, Bucur, DM, Cervantes, MJ, Study on the Accuracy of RANS Modelling of the Turbulent Flow Developed in a Kaplan Turbine Operated at BEP. Part 1-Velocity Field, Journal of Applied Fluid Mechanics, Vol. 12, Iss. 5, Pg. 1449-1461, September 2019, doi: 10.29252/JAFM.12.05.29705, ISSN 1735-3572, 10.29252/jafm.12.05.29704, COTATA ISI (IF 1.152/2021) WOS:000482650000009

6. Maddahian, R, Cervantes, MJ, Bucur, DM, Numerical investigation of entrapped air pockets on pressure surges and flow structure in a pipe, Journal of Hydraulic Research, Vol. 58, Iss. 2, Pg. 218- 230, Febr. 2020 (Early acess Apr. 2019/ IF 2.974/2018 – Q1), doi:10.1080/00221686.2019.1579112, COTATA ISI (IF 2.116/2021) WOS:000470385600001

7. Draghici, S., Petrescu, H.A., Jiga, G., Hadar,A., Tudose, V., Bucur, D.-M., Tudose, D.-I., A different approach for obtaining the shear moduli of a composite material, Revista de Chimie 70(12), 2019, pp. 4470-4476, ISSN 0034-7752, doi: 10.37358/RC.19.12.7778, INDEXATA SCOPUS

8. Bucur D.M., Roman R., Iovanel R.G., 85 Years of Continuous Operation of a HPP. Part 2 – Unsteady Operation Regimes, UPB Scientific Bulletin, Series D: Mechanical Engineering, Vol. 79, Iss.3, 2017, pp. 153-160, ISSN 1454-2358, INDEXATA SCOPUS

9. Bucur, DM, Dunca, G, Cervantes, MJ, Maximum Pressure Evaluation during Expulsion of Entrapped Air from Pressurized Pipelines, Journal of Applied Fluid Mechanics, Vol. 10, Iss. 1, Pg. 11- 20, Part 1, Published: JAN 2017, ISSN 1735-3572, doi: 10.18869/acadpub.jafm.73.238.26313, COTATA ISI (IF 1.152/2021) WOS:000392357300002

10. Bunea, F, Ciocan, GD, Nedelcu, A, Bucur, DM, Dunca, G, Chihaia, R, Experimental Setup For The Study Of New Aeration Devices In Hydraulic Turbines, Environmental Engineering and Management Journal, Vol. 16, Iss. 5, Pg. 1033-1040, May 2017, ISSN 1582-9596, doi: 10.30638/eemj.2017.105, WOS:000409069600001 (IF 0.858/2021) COTATA ISI

11. Georgescu, SC, Georgescu, AM, Madularea, RA, Bucur, DM, Dunca, G, Efficient Chlorination Schedule For A Water Distribution Network With Multiple Pumping Stations, Environmental Engineering and

Management Journal, Vol. 16, Iss. 5, Pg. 1071-1079, May 2017, ISSN 1582-9596, doi: 10.30638/eemj.2017.110, COTATA ISI (IF 0.858/2021) WOS:000409069600006
12. Pitorac L.I., Bucur D.M., Dunca G., Cervantes M.J., Modeling transient mltiphase flow in pipeline, UPB Scientific Bulletin, Series D: Mechanical Engineering,, Vol. 78, Iss. 2, pp. 179-188, 2016, ISSN 1454-2358, INDEXATA SCOPUS
13. Iovănel R.G., Dunca G., Bucur D.M., Panaitescu V.N., Cervantes M.J., Numerical simulation of the flow through a Kaplan draft tube, UPB Scientific Bulletin, Series D: Mechanical Engineering,, Vol. 78, Iss. 4, 2016, pp. 215-224, ISSN 1454-2358, INDEXATA SCOPUS
14. Roman R., Dunca G., Bucur D.M., Cervantes M.J., Panaitescu V.N. Added properties effect in hydraulic turbines, UPB Scientific Bulletin, Series D: Mechanical Engineering,, Vol. 78, Iss. 4, pp. 225- 236, 2016, ISSN 1454-2358, INDEXATA SCOPUS
15. Bucur D.M., Dunca G., Georgescu S.C., Georgescu A.M., Water flow around a flapping foil: preliminary study on the numerical sensitivity, UPB Scientific Bulletin, Series D: Mechanical Engineering, Vol. 78, Iss. 4, pp. 175-182, 2016, ISSN 1454-2358, INDEXATA SCOPUS
16. Dunca, G, Iovanel, RG, Bucur, DM, Cervantes, MJ, On the Use of the Water Hammer Equations with Time Dependent Friction during a Valve Closure, for Discharge Estimation, Journal of Applied Fluid Mechanics, Vol. 9, Iss. 5, Pg. 2427-2434, Part: 2, SEP 2016, ISSN 1735-3572, doi: 10.18869/acadpub.jafm.68.236.25332, COTATA ISI (IF 1.152/2021) WOS:000383414000007
17. Dunca G., Bucur D.M., Crevantes M.J., Popa R. Discharge evaluation from pressure measurements by a genetic algorithm based method, Flow Measurement and Instrumentation, Vol. 45, Pg. 49–55, OCT 2015, (IF 1.04/2014 – Q2), ISSN 0955-5986, e-ISSN 1873-6998 doi:10.1016/j.flowmeasinst.2015.04.005, COTATA ISI (IF 2.42/2021) WOS:000362604900006
18. Digulescu A., Petrut T., Candel I., Ioana C., Bunea F., Dunca G., Bucur D.M., Serbanescu A., Rotational vortex rope detection using recurrence plot analysis, MTA Review, Vol. XXV, No. 1, pp. 5- 16, Mar. 2015, ISSN 1843-3391 (cod cncsis 842) - INDEXATA Ulrich's Periodicals Directory, INDEXATA EBSCO
19. Roman R., Iovanel R.G, Grecu I.S., Dunca G., Bucur D.M., Experimental evaluation of roughness coefficient of a HPP headrace channel, UPB Scientific Bulletin, Series D: Mechanical Engineering,, Vol.77, Iss.3, pp.233-240, 2015, ISSN 1454-2358, INDEXATA SCOPUS
20. Bucur DM, Dunca G., Căinoiu C., Isbasoiu EC., Experimental investigation over in site operational characteristics of a hydrogenerator, UPB Scientific Bulletin, Series D: Mechanical Engineering, Vol. 77, Iss.1, 205-212, 2015, ISSN 1454-2358, INDEXATA SCOPUS
21. Bucur D.M.;Dunca G.;Bunea F.;Chihaia R.A.;Grecu I.S.;Mitruţ R., Experimental investigation of small axial hydro-kinetic turbines, IOP Conference Series: Earth and Environmental ScienceOpen AccessVolume 1079, Issue 12022 Article number 01202031st IAHR Symposium on Hydraulic Machinery and Systems, IAHR 2022Trondheim26 June 2022through 1 July 2022, Code 183412, 1079 (2022) 012020, IOP Publishing, doi:10.1088/1755-1315/1079/1/012020, INDEXATA SCOPUS
22. Grecu I.S.;Dunca G.,Bucur D.M.;Cervantes M.J., URANS numerical simulations of pulsating flows considering streamwise pressure gradient on asymmetric diffuser, IOP Conference Series: Earth and Environmental ScienceOpen AccessVolume 1079, Issue 12022 Article number 01208731st IAHR Symposium on Hydraulic Machinery and Systems, IAHR 2022Trondheim26 June 2022through 1 July 2022Code 183412, 1079 (2022) 012087, IOP Publishing, doi:10.1088/1755-1315/1079/1/012087, INDEXATA SCOPUS
23. Mitruţ R.;Bucur D.M.;Dunca G.;Cervantes M.J., Global linear stability analysis of the flow inside a conical draft tube, IOP Conference Series: Earth and Environmental ScienceOpen AccessVolume 1079, Issue 12022 Article number 01204931st IAHR Symposium on Hydraulic Machinery and Systems, IAHR 2022Trondheim26 June 2022through 1 July 2022Code 183412, 1079 (2022) 012049, IOP Publishing, doi:10.1088/1755-1315/1079/1/012049, INDEXATA SCOPUS

24. Mitruţ R.;Bucur D.M.;Dunca G.;Cervantes M.J., Numerical Simulation of Vortex Breakdown with Code Saturne" 2021 10th International Conference on ENERGY and ENVIRONMENT (CIEM), Bucharest, Romania, 2021, pp. 1-5, doi: 10.1109/CIEM52821.2021.9614834, INDEXATA SCOPUS
25. Grecu I. S., Dunca G., Bucur D. M., Cervantes M. J., Wall-Model for Turbulent Flows Under an Adverse Pressure Gradient - Asymmetric Diffuser, 2021 10th International Conference on ENERGY and ENVIRONMENT (CIEM), Bucharest, Romania, 2021, pp. 1-5, doi: 10.1109/CIEM52821.2021.9614830, INDEXATA SCOPUS
26. Bucur D. M., Grecu I. S., Mitruţ R., Drăgoi C., Stroilescu A. -I., Dunca G., Design and Numerical Investigation of a Small Axial Hydrokinetic Turbine, 2021 10th International Conference on ENERGY and ENVIRONMENT (CIEM), Bucharest, Romania, 2021, pp. 1-5, doi: 10.1109/CIEM52821.2021.9614895, INDEXATA SCOPUS
27. Maddahian R., Shaygan F., Bucur D. M., Developing a 1D-3D model to investigate the effect of entrapped air on pressure surge during the rapid filling of a pipe, 30th IAHR Symposium on Hydraulic Machinery and Systems (IAHR 2020) 21-26 March 2021, Lausanne, Switzerland, IOP Conference Series: Earth and Environmental Science, Vol. 774, pp. 1-11, Art. 012069, doi:10.1088/1755- 1315/774/1/012069, INDEXATA SCOPUS
28. Mitruţ R., Bucur D. M., Dunca G., Cervantes M. J., Linear Global Stability Analysis of a Laminar Flow Around a Circular Body, 2021 12th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2021, pp. 1-7, doi: 10.1109/ATEE52255.2021.9425105, INDEXATA SCOPUS/ISI WOS:000676164800036
29. Primejdie, L-G, Achim, A.V., Bucur, D.M., Dunca G., Georgescu, S.C., Rural water distribution system with groundwater supply and water tower: Numerical modelling in EPANET 2.2, The 7th Conference of the Sustainable Solutions for Energy and Environment, IOP Conf. Series: Earth and Environmental Science 664 (2021) 012040, doi:10.1088/1755-1315/664/1/012040, INDEXATA SCOPUS
30. Ciuc, P.-O, Madularea, R.A., Georgescu, A.-M., Georgescu, S.-C., Dunca, G., Bucur, D.M., Cavitation influence on the operation of a pumping station rig with variable speed pumps, Proceedings of 9th International Conference on Energy and Environment (CIEM), OCT 17-18, 2019, Art. 8937656, Pg.
239-243, ISBN 978-1-7281-1532-0, doi: 10.1109/CIEM46456.2019.8937656, INDEXATA ISI WOS:000630902700051
31. Grecu, I.S., Dunca, G., Bucur, D.M., Cervantes, M.J., Wall-layer treatment considering the pressure gradient for RANS simulations of turbulent flows, 2019 International Conference on ENERGY and ENVIRONMENT (CIEM), October 2019, pp. 289-293, doi: 10.1109/CIEM46456.2019.8937633, 2019, Art. 8937633, INDEXATA IEEE, INDEXATA ISI WOS:000630902700061
32. Mitrut, R., Bucur, D.M., Dunca, G., Cervantes, M.J., Numerical simulation of the rotating vortex rope with code_saturne, 2019 International Conference on ENERGY and ENVIRONMENT (CIEM), 2019, pp. 152-156, Art. 8937583, doi: 10.1109/CIEM46456.2019.8937583, INDEXATA IEEE, ISI WOS:000630902700033
33. Dunca, G., Bucur, D.M., Iovanel, R.G., Călinoiu, C., Grecu, I.S., Mitrut, R., Efficiency evaluation and vibration analysis of small Pelton turbines, 2019 International Conference on ENERGY and ENVIRONMENT (CIEM), 2019, pp. 384-388 Art. 8937612, doi: 10.1109/CIEM46456.2019.8937612, INDEXATA IEEE, INDEXATA ISI WOS:000630902700080
34. Bucur, D.M., Dunca, G., Bunea, F., Ciocan, G.D., Experimental analysis of the operation of a small Francis turbine equipped with an innovative aeration device, IOP Conference Series: Earth and Environmental Science, 240(4), Art. 042010, 29th IAHR Symposium on Hydraulic Machinery and Systems, IAHR 2018, , Kyoto, Japan, SEP 16-21, 2018, Code 146470, doi: 10.1088/1755- 1315/240/4/042010, INDEXATA ISI WOS:000560282601039
35. Iovănel, R.G., Bucur, D.M., Dunca, G., Cervantes, M.J., Numerical analysis of a Kaplan turbine model during transient operation, IOP Conference Series: Earth and Environmental Science 240(2), Art. 022046, 29th IAHR

Symposium on Hydraulic Machinery and Systems, IAHR 2018, Kyoto, Japan, SEP 16-21, 2018, Code 146470, doi: 10.1088/1755-1315/240/2/022046, INDEXATA ISI WOS:000560282600046

36. Grecu, IS, Bucur, DM, Dunca, G , Panaitescu, VN, Cervantes, MJ, Implementation of the Standard Wall Function in Numerical Computation Software, 2017 International Conference on Energy and Environment (CIEM), pp. 231-235, Bucharest, ROMANIA, OCT 19-20, 2017, doi: 10.1109/CIEM.2017.8120848, Indexată IEEE, , INDEXATA ISI WOS:000427610300049

37. Georgescu, SC, Bucur, DM, Dunca, G, Georgescu, AM, Nicolae, AA, Ciuc, PO, Hydraulic Balancing of the Cooling Water System of a Pumped Storage Power Plant, 2017 International Conference on Energy and Environment (CIEM), pp. 246-250, Bucharest, ROMANIA, OCT 19-20, 2017, doi: 10.1109/CIEM.2017.8120766, INDEXATĂ IEEE, INDEXATA ISI WOS:000427610300052

38. Dunca, G., Bucur, D.M., Cervantes, M.J., Sensitivity analysis on flow rate estimation using design of experiments: Application to the pressure-time method, 2017 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2017, pp. 533-538, doi: 10.1109/ATEE.2017.7905035, INDEXATA IEEE, INDEXATA ISI WOS:000403399400104

39. Bucur, D.M., Dunca, G., Bunea, F., Călinoiu, C., Aeration process influence over the operation of a small hydro turbine - Generator unit, 2017 10th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2017, pp. 746-751, doi: 10.1109/ATEE.2017.7905045, INDEXATA IEEE, INDEXATA ISI WOS:000403399400145

40. Digulescu, A , Murgan, I , Candel, I, Bunea, F, Ciocan, G, Bucur, DM, Dunca, G, Ioana, C, Vasile, G, Serbanescu, A, Cavitating vortex characterization based on acoustic signal detection, 28TH IAHR SYMPOSIUM ON HYDRAULIC MACHINERY AND SYSTEMS (IAHR2016), PTS 1-12 Book
Series: IOP Conference Series-Earth and Environmental Science, Volume: 49, Article Number: 082009, DOI: 10.1088/1755- 1315/49/8/082009, pp. 1-10, INDEXATA ISI WOS:000400156200114

41. Bucur D.M., Cosoiu C.I, Iovanel R.G., Nicolae A.A., Georgescu S.C., Assessing the Operation of the Cooling Water System of a Hydro-Power Plant Using EPANET, Sustainable Solutions for Energy and Environment, EENVIRO 2016, 26-28 October 2016, Bucharest, Romania, Energy Procedia 112
(2017), ISSN 1876-6102, 51-57, doi: 10.1016/j.egypro.2017.03.1058, INDEXATA ISI WOS000404848300007

42. Georgescu A.-M.,Georgescu S.-C., Cosoiu C.-I., Hasegan L., Anton A., Bucur D.M. EPANET Simulation of control methods for centrifugal pumps operating under variabile system demand, Procedia Engineering, 119 (2015), pp. 1012-1019, ISSN 1877-7058, doi:10.1016/j.proeng.2015.08.995, INDEXATA ISI WOS:000380489900113

43. Digulescu, A., Candel, I.,Ioana, C., Vasile, G., Dunca, G., Bucur, D.M., Serbanescu, A. Water hammer effect characterization using an acoustic signal processing approach 2015 9th International Symposium on Advanced Topics in Electrical Engineering (ATEE), 2015, pp. 5-8, ISBN: 978- 147997514-3 doi: 10.1109/ATEE.2015.7133666, INDEXATA IEEE, INDEXATA ISI WOS:000368159800001
10.1088/1755-1315/12/1/012112 INDEXATA ISI WOS:000325657000112

D. Lucrări publicate în ultimii 10 anii în reviste şi volume de conferinţe cu referenţi (neindexate)

- Reviste

1. -

- Selecţie cu maximum 20 lucrări în volume de conferinţe

1. C. Carp-Ciocârdia, R.A. Becheru, G. Dunca, D.M. Bucur, I. Magheți, M. Anica, Identifying shaft surface defects using vibration analysis, 6th International Conference on Thermal Equipment, Renewable Energy and Rural Development, TE-RE-RD 2017, ISSN 2457-3302, pp. 335-340, Ed. Politehnica Press

2. Bucur D M, Dunca G, Grecu I S, Stroilescu A I, Mitruț R, Bunea F, Dumitriu C, Dancă P, Mihăiescu G M, Guțu M, Ovezea D, Fuiorea I, *Hydrokinetic eco - Power System for ultra low head water streams* (HyPER), Poster The 26th International Exhibition of Inventions "INVENTICA 2022" Iasi, Romania

3. F. Bunea, G.D. Ciocan, A. Nedelcu, D.M. Bucur, G. Dunca, Water aeration system for the hydraulic turbines, (Poster) The 26th International Exhibition of Inventions "INVENTICA 2022" Iasi, Romania

E. Brevete obținute în întreaga activitate

1. Bunea F., Ciocan G.D., Nedelcu A, Bucur D.M., Dunca G., Codescu S., Water aeration system for the hydraulic turbines (СИСТЕМА АЭРАЦИИ ВОДЫ ДЛЯ ГИДРАВЛИЧЕСКИХ ТУРБИН), Eurasian Patent no 036765/17.12.2020 B1, Derwent Primary Accession Number: 2018-15985M. Premii:

- Medalie de aur, Diploma de onoare la The 26th International Exhibition of Inventions "INVENTICA 2022" Iasi, Romania, Water aeration system for the hydraulic turbines (2022)
- Medalie de aur la European Exhibition of Creativity and Innovation, EURO INVENT10-th Edition, Aeration system of water passing through hydraulic turbines (2018)
- Medalie de argint la Salon International des Inventions Genève GINVENTIONS, pour l'invention Système d'aération de l'eau passant par les turbines hydrauliques (2018)
- Diploma „Inventateur 2018 pour l'avenir de L'Europe", pour l'invention Système d'aération de l'eau pour les turbines hydrauliques, acordată de Europe France Inventateurs și Federation Francaise des Inventeurs (2018)

Data: 24.06.2025