

Lista de lucrări

Teza de doctorat

Curgerea fluidului real cu aplicații în debitmetrie, conducator de doctorat prof.dr.ing. M.D. Cazacu, Universitatea Politehnica Bucuresti, Facultatea de Energetica, Diploma de doctor in domeniul Energetica, in baza Ordinului Ministrului Educatiei si Cercetarii nr. 3824/3.05.2006, 043-2847, 532(043),148 p.

Lucrări indexate WOS

1. Boncescu C, Robescu D, Munteanu A., Murgescu I., **Bunea F.**, *Optimization of energy consumption for the wastewater treatment plant using photovoltaic power system*, UPB Sci. Bul. series C-Electrical Eng. and Computer Science, 84 (1), p 275-384, 2022, *impact factor* 0.368,
2. Bucur D M, Dunca G, **Bunea F***, Chihaiia R A, Grecu I S, Mitruț R, *Experimental investigation of small axial hydro-kinetic turbines*, 31th IAHR Symposium on Hydraulic Machinery and Systems, IAHR 2022, *IOP Conf. Ser.: Earth Environ. Sci.* 1079 012020, doi:10.1088/1755-1315/1079/1/012020,
3. **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. <https://doi.org/10.3390/w13182459>, *impact factor* 3.103,
4. Nedelcu A, **Bunea F***, Danca P, Chihaiia R A, Babutanu C A, Marin D, Ciocan G D, *Experimental research on a hydrokinetic turbine model*, Conference of the Sustainable Solutions for Energy and Environment (EENVIRO 2020), Bucharest 21-23 oct., 2021 *IOP Conf. Ser.: Earth Environ. Sci.* 664 012061, DOI 10.1088/1755-1315/664/1/012061,
5. Dancă P, Băbuțanu CA, **Bunea F***, Nedelcu A, *Mixing flow characteristics in cylindrical tank*, EENVIRO 2020, Bucharest 21-23 oct., *IOP Conference Series: Earth and Environmental Science*, vol 664, nr. 1, 2021, DOI 10.1088/1755-1315/664/1/012060,
6. Murgan I, **Bunea F***, Nedelcu A., Ciocan G. D., *Experimental setup to study two phase flows for environmental applications*, 9-13 October, Cluj 2018 EENVIRO Conference on Sustainable Solutions for Energy and Environment, E3S Web of Conferences 85, 07010 (2019), DOI:10.1051/e3sconf/20198507010,
7. **Bunea F**, Ciocan GD, Nedelcu A, *Assessment of cavitation regime in divergent vortex flows*, 29th IAHR Symposium on Hydraulic Machinery and Systems, September 16-21, Kyoto, Japan, *IOP Conf. Series: Earth and Environmental Science* **240** (2019) 062027, doi:10.1088/1755-1315/240/6/062027,
8. Bucur DM, Dunca G, **Bunea F**, Ciocan GD, *Experimental analysis of the operation of a small Francis turbine*, 29th IAHR Symposium on Hydraulic Machinery and Systems, September 16-21 Kyoto, Japan, *IOP Conf. Series: Earth and Environmental Science* **240** (2019) 042010, doi:10.1088/1755-1315/240/4/042010,
9. **Bunea F**, Ciocan GD, Chapter 17: Experimental study of standard aeration efficiency in a bubble column, **Book title:** Desalination and Water Treatment, InTechOpen Book Chapter, Book edited by: Dr. Murat Eyvaz, p. 349-368, DOI: 10.5772/intechopen.76696, Published: September 19th 2018, ISBN: 978-1-78923-759-7,

10. **Bunea F.**, Nedelcu A, Ciocan G.D., 2017, *Prediction of water aeration efficiency in high turbulent flow*, Desalination and Water Treatment, vol. 85, p. 55-62, DOI: 10.5004/dwt.2017.20774, ISSN 1944-3994, Impact Factor 1.631,
11. Murgan I., **Bunea F.***, Ciocan G.D., *Experimental PIV and LIF characterization of a bubble column flow*, 2017, Flow Measurement and Instrumentation, 54, 2017, p. 224–235, DOI 10.1016/j.flowmeasinst.2017.02.004, Impact Factor 1,203,
12. **Bunea F.**, Ciocan G.D., Nedelcu A., Bucur D.M., Dunca G., Chihaiia R., 2017, *Experimental setup for the study of new aeration devices in hydraulic turbines*, Environmental Engineering and Management Journal, May 2017, Vol.16, No. 5, p. p1033-1040, ISSN:1582-9596, impact factor 1,096,
13. Bucur D.M., Dunca G., **Bunea F.**, Călinoiu C., 2017, *Aeration process influence over the operation of a small hydro turbine - generator unit*, 10th International Symposium On Advanced Topics In Electrical Engineering (ATEE), 23-25 March 2017, Bucharest, **Publisher:** IEEE, **DOI:** 10.1109/ATEE.2017.7905045,
14. Chihaiia R.A., **Bunea F.**, Oprina G., El-Leathey L.A., *Power Prediction Method Applicable to Horizontal Axis Hydrokinetic Turbines*, IEEE 2017 International Conference on Energy and Environment, October 2017, Bucharest, p. 221-225. doi: 10.1109/CIEM.2017.8120825,
15. Pîslaru–Dănescu L., Morega A.M., Morega M., **Bunea F.**, Popa M., Babutanu, C.A., *A New Type of Linear Magnetostrictive Motor*, Electrical Engineering Journal, Archiv für Elektrotechnik, Springer, June 2017, Vol. 99, Iss. 2, pp 601–613, DOI: 10.1007/s00202-016-0388-z, impact factor 0.662,
16. Digulescu A., Murgan I., **Bunea F.**, Ciocan G., Bucur D., Dunca G., Candel I., Ioana C., *Cavitating vortex characterization based on acoustic signal detection*, IOP Conf. Series: Earth and Environmental Science 49 (2016) 082009, IOP Publishing, 28th IAHR Symposium on Hydraulic Machinery and Systems, Grenoble, July 4 - 8th, 2016, DOI:10.1088/1755-1315/49/8/082009,
17. Murgan I., Candel I., Ioana C., Digulescu A., **Bunea F.**, Ciocan G. D., Anghel A., *Flow velocity profiling using acoustic time of flight flow metering based on wide band signals and beamforming techniques*, IOP Conf. Series: Earth and Environmental Science 49, 28th IAHR Symposium on Hydraulic Machinery and Systems, Grenoble, July 4-8th, 2016, DOI:10.1088/1755-1315/49/6/062003,
18. Digulescu A., Ioana C., **Bunea F.**, Nedelcu A., Candel I., Vasile G., Serbanescu A., *Cavitation characterization using wide band signals in an acoustic active sensing system*, OCEANS'16 MTS/IEEE Monterey, California, 19-22 Sep 2016, **DOI:** 10.1109/OCEANS.2016.7761114,
19. Chihaiia R. A., El-Leathey L.A., Nicolaie S., **Bunea F.**, Oprina G., *Study Regarding the influence of Orifice Diameter on an Ecological Water Intake*, Energy and Clean Technologies Conf., SGEM 2016, Vol. 1, 28 iunie - 6 iulie 2016, Albena, p. 669 – 676,
20. Candel I., **Bunea F.**, Dunca G., Bucur D.M., Ioana C., Reeb B., Ciocan G.D., *Detection of cavitation vortex in hydraulic turbines using acoustic techniques*, 27th IAHR Symposium on Hydraulic Machinery and Systems, 22-26 sep. 2014, Montreal, Canada, IOP Conf. Series - Earth and Environmental Sci., vol. 22, Iss. 5, ISSN: 1755-1307, DOI:10.1088/1755-1315/22/5/052007,

21. **Bunea F.**, Ciocan G.D., Bucur D.M., Dunca G., *Aeration solution of water used by hydraulic turbines to respect the environmental policies*, Electrical and Power Engineering, 2014 International Conf. and Exposition on, IEEE, p. 1015-1020, DOI 10.1109/ICEPE.2014.6970062,
22. Digulescu A., Teodor P., Candel I., **Bunea F.**, G. Dunca, Bucur D., Ioana C., *On the vortex parameter estimation using wide band signals in active acoustic system*, OCEANS Taipei, China, 7-10 Apr. 2014, IEEE, DOI: 10.1109/OCEANS-TAIPEI.2014.6964552,
23. **Bunea F.**, Ciocan G.D., Oprina G., Băran G., Băbuțanu C.A., 2010, *Hydropower impact on water quality*, Environmental Engineering and Management Journal, Vol. 9, No. 11, p. 1459-1464, ISSN 1582-9596, Impact Factor 1,435,
24. Bucur D.M., **Bunea F***, Ciocan G.D., Băran G., Isbășoiu E.C., 2010, *Water parameters evolution in a hydroelectric site*, Environmental Engineering and Management Journal, Vol. 9, No. 11, p. 1539-1544, Impact Factor 1,435,
25. **Bunea F.**, Houde S., Ciocan G.D., Oprina G., Baran G., Pincovchi I., *Aspects concerning the quality of aeration for environmental friendly turbines*, 25th IAHR2010 Symposium on Hydraulic Machinery and Systems, published by the Institute of Physics, IoP Conf. Series: Earth and Environmental Science, 12 (2010) 012035,
26. Mândrea L., Băbuțanu C. A., Băran Gh., Oprina G., **Bunea F.**, 2010, *Draft tube length influence on the flow inside reactors with intubated impeller*, Revista Română de Chimie, Vol. 61, nr. 11, p. 1105-1107, impact factor 0,693,
27. Oprina G., **Bunea F.**, Pincovschi I., Mândrea L., *Aspects of hydrodynamics and mass transfer in diffused aeration systems*, Environmental Engineering and Management Journal, 2010, vol. 9, nr. 4, p. 565-572, impact factor: 1,435,
28. **Bunea F.**, Oprina G., Lazaroiu Gh., Babutanu C.A., Pincovschi I., *Technical and economic aspects of the new waste water treatment technologies*, 5th International Conference Management of Technological Changes, Alexandroupolis, Greece, 25-26 August 2007, v. I,
29. Pincovschi I., Oprina G., **Bunea F.**, Băran G., *Methods for determining flow regimes in bubble columns with fine pore diffusers*, International Conference Management of Technological Changes, Alexandroupolis, Greece, on 25-26 August 2007, v. I.

Lucrari BDI relevante

30. C. Boncescu, D. Robescu, A. Munteanu, I. Murgescu, **F. Bunea**, Optimization of energy consumption for the wastewater treatment plant using photovoltaic power system, U.P.B. Sci. Bull., Series C, Vol. 84, Iss. 1, p 275-384, 2022, ISSN 2286-3540
31. Danca P.A., **Bunea F***, Babutanu C.A., Nedelcu A., Grecu I.S., *Study of the flow induced by an axial hydrokinetic turbine*, HIC 2022: 14th International Conference on Hydroinformatics, Bucharest, July 4-8, 2022, in press
32. Danca P.A., Nicolae S., Bode F., **Bunea F.**, *Experimental and numerical investigation of hydrokinetic turbine shrouds*, XXIInd International Multidisciplinary Scientific GeoConference Surveying, Geology and Mining, Ecology and Management – SGEM 2022, 2 - 11 July, 2022, in press
33. Danca P.A., **Bunea F.**, Nicolaie S., Nedelcu A., Tanase N., Babutanu C. A., *Study of Hydrokinetic Turbine Shrouds*, 10th International Conference on Energy and Environment 2021, 14-15 october, Bucharest, DOI: 10.1109/CIEM52821.2021.9614929
34. Băbuțanu C.A., Nedelcu A., **Bunea F.***, Experimental setup to study biphasic mixtures, 24th Edition of International Conference on Hydraulics and Pneumatics – HERVEX, Proceedings of

- International Conference on Hydraulics and Pneumatics – HERVEX 2018, November 7-9, Băile Govora, Romania, p. 149-156, ISSN 1454 – 8003
35. **Bunea F.**, Nedelcu A., Băbuțanu C.A., *A new automated device for turbined water aeration*, Proceedings of 2017 International Conference on Hydraulics and Pneumatics – 23 rd. edition HERVEX, November 8-10, 2017, Baile Govora, Romania, ISSN 1454 – 8003, Issue 23, p406-414,
 36. Digulescu A., Teodor P., Candel I., Ioana C., **Bunea F.**, Dunca G., Bucur D. M., Serbanescu A., 2015, *Rotational Vortex Rope Detection Using Recurrence Plot Analysis*, Military Technical Academy Review (MTA), Vol. XXV, No. 1, p. 5-15, Military Technical Academy Publishing House Bucharest, March 2015, ISSN 1843-3391
 37. Ciocan GD, **Bunea F***, Houde S., Deschênes C., 2012, *Measurement technique for air-water disperse system study*, University Politehnica of Bucharest Scientific Bulletin, Ed. Politehnica Press, serie D, p. 115 - 124, vol. 74, no. 1, ISSN 1454-2358
 38. Tanase N., **Bunea F**, Ciocan GD, (2012), *Numerical simulation of the flow in the draft tube of the Kaplan turbine*, 5th International Conference on Energy and Environment CIEM2011, Bucharest, Romania, 3-4 November 2011, Ed. Politehnica Press, University Politehnica of Bucharest Scientific Bulletin, serie D, vol. 74, nr. 1, p. 83-90, ISSN 1454-2358,
 39. Ciocan GD, **Bunea F***, Houde S., Deschênes C., (2012), *Measurement technique for air-water disperse system study* 5TH International Conference on Energy and Environment CIEM2011, Bucharest, Romania, 3-4 November, University Politehnica of Bucharest Scientific Bulletin, Ed. Politehnica Press, serie D, p. 115-124, vol. 74, nr. 1, ISSN 1454-2358
 40. Mândrea L., Chihaia R., **Bunea F.**, Oprina G., Voicu G., Ivan C., (2012), *The Modernization of the Secondary Intakes Draxin and Cascoe*, CIEM2011, Bucharest, 3-4 Nov. 2011, UPB Sci. Bull., serie D, iss. 2, v. 74, p. 273-280, ISSN 1454-2358
 41. Cirlionu T.M., **Bunea F***, Ciocan G.D., Panaitescu V., 2013, *Statistical analysis of the flow induced by the injection of air*, University Politehnica of Bucharest Scientific Bulletin, Series D, Vol. 75, Iss. 1, p. 249-257, ISSN 1454-2358
 42. Mândrea L., **Bunea F.**, Chihaia R., *The calculus of the depression in swirling flow*, 6th International Conference on Energy and Environment CIEM2013, Section 6 – Fluid Mechanics and Application, pozitia CD S6_3, Bucharest, Romania, 7-8 c 2013, Ed. Politehnica Press, ISSN 2067-0893
 43. **Bunea F.**, Oprina G, Nicolae B., Baran G., (2012), *The influence of the velocity induced by an aeration grid upon oxygen transfer*, 5th International Conference on Energy and Environment CIEM2011, Bucharest, Romania, 3-4 November 2011, University Politehnica of Bucharest Scientific Bulletin, Ed. Politehnica Press, serie D, vol. 74, nr. 1, p. 125-132, ISSN 1454-2358
 44. **Bunea F.**, G. Oprina, G. Ciocan, G. Baran, *Optimisation study of the aeration devices for eco-turbines*, Rev. Tehnologiiile Energiei, Ed. ICEMENERG, v. 43, nr. 3/2010, ISSN 1842-7189, p. 2-7
 45. **Bunea F.**, Oprina G., Ciocan G.D., Băran G., Ilie C., Pincovschi I., 2009, *Aeration parameters optimization for an imposed energy consumption*, Acta Technica Napocensis, Technical University of Cluj-Napoca, series: Applied Mathematics and Mechanics, Nr. 52, Vol.II, p. 279-284, ISSN 1221-5872,
 46. Baran G., Safta CA, **Bunea F.**, Oprina G., *Stages of noises and vibration to a butterfly valve in working with cavitation*, U.P.B., Sci. Bull., Series D, Vol. 70, No. 4, p. 15-22, 2008, ISSN 1454-2358
 47. Oprina G., Pincovschi I., **Bunea F.**, *Flow Regime Transitions in Diffused Aeration Systems*, Proc. of the 11th International Conf. Multiphase Flow in Industrial Plant, Palermo, September 7-10, 2008, p. 659-666, ISBN 88-88198-13-X
 48. Pincovschi I., Oprina G., **Bunea F.**, *Photographic method applied to local gas hold-up measurements*, Proc. of the 11th International Conference Multiphase Flow in Industrial Plant, Palermo, September 7-10, 2008, p. 667-674, ISBN 88-88198-13-X
 49. Băran G., **Bunea F.**, Oprina G., *On Cavitation and Cavitation Damage at Butterfly Valves*, 2nd IAHR International Meeting of the Workgroup on Cavitation and Dynamic Problems in Hydraulic Machinery and Systems, Scientific Bulletin of the Politehnica University of Timisoara, Transactions on Mechanics, Tom 52 (66), 24-26 October 2007, p. 41-46. ISSN 1224-6077,

50. Pincovski I., Oprina G., **Bunea F.**, The effect of superficial gas velocity on bubble size distribution in diffused aeration systems, CIEM 2007, Bucharest, 22 – 23 of November 2007, UPB Sci. Bull., Series C, Vol. 69, No. 4, p. 465-472, ISSN 1454-234x
51. Băran G., Băbuțanu C.A., **Bunea F.**, Oprina G., Mândrea L., Optimizing the operation of biogas plants, CIEM2007, 22-23 november 2007, UPB Sci. Bull., Series C, Vol. 69, No. 4, p. 61-68, ISSN 1454-234x
52. Băran G., **Bunea F.**, Oprina G., *Experimental results concerning the vortexes evolution in cylindrical tanks with tangential feed*, Scientific Bulletin of the Politehnica University of Timișoara, Proceedings of the 2nd Workshop on Vortex Dominated Flows Achievements and Open Problems, Romania, June 30 – July 1, **2006**, Tom 51 (65), ISSN 1224-6077, p. 59-62
53. **Bunea F.**, Cazacu M.D., 2005, *Numerical solve of permanent laminar two-dimensional flow at the entrance into a channel*, UPB Sci. Bull., Series D, Vol. 67, No. 4, p. 69-77, 2005, ISSN 1454-2358.
54. Băran Gh., Oprina G., **Bunea F.**, The bubbles emission stability generated by porous diffusers, Scientific Bulletin of the Politehnica University of Timișoara, Transactions on Mechanics Special issue, Timisoara, June 10 - 11, 2005, Tom 50 (64), p. 191-196, ISSN 1224-6077

Carti/Capitole de carti

1. **Bunea F.**, Dancă P.A., Năstase I., Determinarea vitezelor în curgeri cu ajutorul imaginilor de particule – PIV. Noțiuni generale și aplicații, 2021, editie electronică, 152p. Biblioteca Nationala a Romaniei, ISBN 978-973-0-34566-7
2. **Bunea F.**, Nedelcu A, Biphasic flows in mass transfer processes (in Romanian - Curgeri bifazice in procese de transfer de masa), Ed. Conspress, ISBN 978-973-100-510-2, 117 p, 2020
3. **Bunea F.**, Ciocan GD, Chapter 17: Experimental study of standard aeration efficiency in a bubble column, **Book title:** Desalination and Water Treatment, InTechOpen Book Chapter, Book edited by: Dr. Murat Eyvaz, p. 349-368, DOI: 10.5772/intechopen.76696, Published: September 19th 2018, ISBN: 978-1-78923-759-7, Print ISBN: 978-1-78923-758-0
4. **Bunea F.**, Bucur D.M., Dumitran G.E., Ciocan G.D., may 2012, **Book title:** *Ecological Water Quality - Water Treatment and Reuse*, **Chapter Title:** *Water quality in hydroelectric sites*, Ed. Intech (Open Access Publisher), Croatia, p. 391-408, ISBN 978-953-51-0508-4, DOI 10.5772/32078
5. **Bunea F.**, Cazacu M.D., *The real fluid flow through channels and pipeline* (in Romanian Curgerea fluidului real prin canale si conducte), 2014, 81 p., Ed. AGIR, ISSN 978-973-720-520-9
6. Băran G., **Bunea F.**, Oprina G., 2007, *Rankine Vortex Stability in Cylindrical Tanks with Tangential Inlet*, Monography, Vortex Dominated Flows, Ed. Eurostampa, p. 414-418, ISBN 978-973-687-659-2

Manuale/suport de curs

1. Bunea F., *Aplicatii in Mecanica Fluidelor*, Suport curs in editie electronica (CD), 50 p. Bucuresti, Biblioteca Nationala a Romaniei, ISBN 978-973-19838-6, 2015
2. Mândrea L., Băran G., Bunea F., Oprina G., Băbuțanu CA., *Culegere de probleme de Mecanica Fluidelor*, 2013, Ed. Politehnica Press, 167 pag, ISBN 978-606-515-532-9
3. Mândrea L., Băran G., Bunea F., Oprina G., Băbuțanu CA., *Mecanica fluidelor – lucrări de laborator*, 2012, Ed. Politehnica Press, 137 pagini. ISBN 978-606-515-384-4.

Brevet international

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

Brevete

1. **Bunea F.**, Oprina G., Baran G., *Instalatie de laborator pentru determinarea caracteristicilor hidrodinamice ale difuzorilor de bule*, Brevet RO 125997 B1, 28.02.2012,
2. Oprina G., Ilie C., Popa M., Baran G., Bunea F., *Simulator pentru determinarea parametrilor optimi ai containerelor de transport animale acvatice*, Patent no 126155/ 30.08.2018,
3. Pîslaru-Dănescu L., Morega A.M., Morega M., Lipan L.C., **Bunea F.**, Motor sonic magnetostrictiv cu modul electronic de actionare, Brevet RO 129685, Hotararea nr 6/23 din 30.03.2016,
4. **Bunea F.**, Ciocan G.D., Stand pentru studiul curgerilor bifazice, rotationale, cu gradient advers de presiune, Brevet RO131118-A0 / 30 May 2016.

Cereri de brevet

1. Bunea F., Ciocan G.D., Nedelcu A., Bucur D.M., Dunca G., Codescu, Sistem de aerare a apei pentru turbine hidraulice, OSIM no. A/00688 / 20.09.2017, BOPI nr.2/2018, Gold Medal PRO INVENT 2018, Silver medal Geneva 2018, Médaille „Inventateur 2018 pour l'avenir de L'Europe”,
2. Pîslaru-Dănescu L., Popa M., Bunea F., Chihaiia R.A., Morega A.M., Morega M., Gabor D., Liniar magnetostrictiv motor, OSIM A00879/2014, Silver medal EUREKA, Barcelona2017; Gold medal PROINVENT 2017
3. Pîslaru-Dănescu L., Popa M., Ilie C.I., Chihaiia R.A., Băbuțanu C.A., Nicolaie S., Bunea F., Stoian F.D., Holotescu S., Marinică O.M., Morega A.M., Morega M., Dumitru J.B., Popa N.C., Transformator planar cu nanofluid magnetic, CBI nr. A 2016 00713/2016, Gold medal EURO INVENT 2017
4. Nicolaie S., Mihaescu G.M., Bunea F., Popescu M., Chihaiia R., Babutanu C.A., Dumitru C., Macamete E., Guțu M., Ilie C.I., Fuiorea I., Microhidrocentrală cu două turbine contrarotitoare cu curgere transversala, Cerere brevet de inventie OSIM nr. A/00615 din 28.08.2018

Proiecte de cercetare relevante

36 proiecte CDI (25 mationale, 3 internationale, 5 proiecte de consultanta) dintre care la 10 ca **director de proiect** :

1. Curgeri axial simetrice induse, CNCSIS ID_25, PN-II-ID-PCE-2007-1, contract 232/2007-2010, director de proiect.
2. Curgerea fluidelor prin debitmetre și instalațiile lor de etalonare, Contract nr. EN 060401, CNCSIS - 454/2004-2005, director de proiect
3. Realizarea și atestarea difuzorilor ceramici poroși pentru oxigenarea apelor reziduale în stațiile de epurare din aglomerările urbane – DIFUCEROXI, Contract nr. 411/2004-2006, Ministerul Educației și Cercetării, PNCDI, Programul MENER, director de proiect
4. Sistem inovativ de aerare a apei turbinate în vederea menținerii condițiilor necesare vieții acvatice, Acronim ECOTURB, competitia PN II-PT-PCCA-2013-4-0814, UEFISCDI, 2014-2017, ctr. 88/2014, Director de proiect
5. “Asistenta tehnica pentru pregatirea aplicatiei de finantare si a documentatiilor de atribuire pentru proiectul regional de dezvoltare a infrastructurii de apa si apa uzata din Judetul Dambovita în perioada 2014-2020”, 2014-2015, Contract prestari servicii, ROMAIR CONSULTING S.R.L, pentru un Proiect cofinantat prin Fondul European de Dezvoltare Regionala, Autoritate Contractanta S.C. COMPANIA DE APA TARGOVISTE - DAMBOVITA S.A., Autoritate de Management: Ministerul Mediului si Schimbarilor Climatice, Directia Generala AM POS Mediu, contract nr. 272/2014, 3115/2014, Director de proiect
6. Technical assistance and operation of the free surface channel in order to obtain the velocity profiles using acoustic sensors, contract. No. 3566/04.08.2015 (nr. Int. 1101/2015), pursuant to the quotation no. 2942/10.07.2015, Employer: SARL SIGITEC, France, project manager

7. Creșterea eficienței echipamentelor de producere a energiei din surse regenerabile prin utilizarea a noi metode de caracterizare a curgerii fluidelor de lucru, Program Nucleu 2019-2022: Materiale, metode, tehnologii, dispozitive și echipamente specifice ingineriei electrice pentru creșterea competitivității agenților economici și dezvoltarea durabilă a societății, Acronim: ELECTRO-ECO-TECH, contract no. 46N/2019 – PN19310201, Responsabil proiect
8. Sistem energetic ecologic pentru utilizarea energiei hidrocinetice a curenților de apă de cădere foarte mică ctr. 478PED/2020, PN-III-P2-2.1-PED-2019-3247, Responsabil proiect (2020-2022)
9. Turbină hidrokinetică pretabilă cursurilor de ape naturale și artificiale, cu cădere mică - MICROHIDRO, contract subsidiar de cercetare industrială și/sau dezvoltare experimentală în colaborare efectivă între organizația de cercetare și întreprindere 126-D4/2020, în cadrul contractului Transfer de cunoștințe către mediul privat în domeniul energie având la bază experiența științifică a ICPE-CA TRANSENERG, ID / Cod My SMIS: P_40_432 / 105567, Responsabil proiect
10. i-Turb sistem inteligent integrat pentru obținerea celui mai bun echilibru între potențialul ecologic al apei și randamentul turbinei, PN-III-CERC-CO-PTE-2-2019, 2022-2024, ctr. 73 PTE/30.06.2022

