

PERSONAL INFORMATION

Rareş - Andrei Chihaiia



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Sex Male | Date of birth 30 Sept. 1986 | Nationality Romanian

WORK EXPERIENCE

April 2011 - present

Scientific Researcher II

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Research and Development Sector

The work carried out within the Department of Renewable Sources and Energy Efficiency focuses on the use of renewable energy sources, research, development and design of innovative products for energy harvesting from renewable energy sources.
 Coordination of activities as project manager for projects with topics related to the area of competence. Participation in the implementation of research projects and activities elaborated within the department, for the assimilation and implementation of the obtained results. Equipment and system testing, interpretation and dissemination of results, performing energy efficiency analysis. Elaboration and dissemination of scientific papers, writing project proposals for different competitions financed by the State Budget or by European Structural and Investment Funds.

EDUCATION AND TRAINING

October 2012 – December 2015

PhD in Civil Engineering RQF level 8

Technical University of Civil Engineering Bucharest , Faculty of Hydrotechnical Engineering, Doctoral School in the field of Hydrotechnical engineering
 Thesis title: *Innovative solutions used for developing small hydropower plants with reduced environmental impact*
 Principal subjects covered: Water intakes for Small Hydropower Plants, water turbines, small scale experimentation and validation, design and testing of new and innovative solution for hydro technical arrangements.

October 2009 – February 2011

Masters degree in Hydropower Engineering RQF level 7

Politehnica University of Bucharest , Power Engineering Faculty, Bucharest, ROMANIA
 Principal subjects covered: Technical hydraulics and power engineering, hydraulics and pneumatics of turbomachines, pumps and water turbines.

October 2005 – July 2009

Bachelor of Science Degree - Engineer RQF level 6

Politehnica University of Bucharest, Power Engineering Faculty, Bucharest, ROMANIA
 Engineer diploma in the field of Hydropower Systems
 Principal subjects covered: General and specific engineering knowledge and skills in the hydropower engineering field.

PERSONAL SKILLS

Mother tongue
 Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user
Replace with name of language certificate. Enter level if known.					
French	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user	B2 Independent user

Communication and organisational skills

Good communication skills gained through my experience as project manager and responsible of certain research projects carried out within the department of energy, team spirit, sociable and communicative person.

Relevant experience in the proposed project field

Project responsible for 5 projects, from which:

- in the field of environment protection: *“Analysis of the climatic factors regarding the renewable energy recovery for Dambovita and Ialomita river basins”* carried out in 2012 for Dambovita County Council;
- in the field of harnessing renewable energy sources: Scientific research contract no. 14N / 2016, PN 16 11 01 05/2016 "Innovative constructive solutions for designing and realization of hydrokinetic hydraulic turbines" and 46N/2019, PN19310201 - Increasing the efficiency of renewable energy production equipment by using new methods for characterizing the flow of working fluids – “Desing and on-site testing of a hydrokinetic turbine experimental model”.

Participation in the elaboration of the Common Strategy for Terrestrial And River Transport For Development Of The Călăraşi - Silistra Cross-Border Area within the CLEEA project - Clean Access In The Calarasi-Silistra Cross-Border Area” MIS-ETC code 118.

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Proficient user	Proficient user	Proficient user	Proficient user	Proficient user

Levels: Basic user - Independent user - Proficient user, [Digital competences - Self-assessment grid](#)

Elaboration and editing of documents, spreadsheet operation and presentations using the Office package (Word, Excel, Power Point);
 Computer Aided Design: AutoCAD for general design and CorelDRAW for graphics, Eagle and Circuit Maker for schematics and printed circuit design;
 Dedicated airfoil simulation/optimization software: Qblade and water intakes: Coanda-Effect Screen Analysis Software.

Other skills

Telecom Technician Certified,

ANNEXES

- A1 - Representative list of papers; A2 - Representative Scientific Activities and Responsibilities
- A3 – Patent list



27.09.2022

A1 - Representative list of papers

1. **Rareș - Andrei CHIHAIA**, Corneliu MĂLĂNCIOIU, Nicolae TĂNASE, Andreea MITULEȚ, Lucian MĂNDREA, „Imbunătățirea condițiilor de curgere în cadrul captărilor secundare”, The 4th European & International Conference eRENEWABLIA, eHYDROGENIA, eEFFICIENCIA, September 20-21, 2011, Bucharest, ROMANIA, Academia Română, AULA MAGNA, ISBN-10: 973-1704-17-5, ISBN-13: 978-973-1704-17-3.
2. Mihai Gheorghe MIHĂIESCU, Dorian MARIN, Victor STOICA, Sergiu NICOLAIE, **Rareș-Andrei CHIHAIA**, "Synchronous machine with dual excitation", The 4th European & International Conference eRENEWABLIA, eHYDROGENIA, eEFFICIENCIA, September 20-21, 2011, Bucharest, ROMANIA, Academia Română, AULA MAGNA, Calea Victoriei, 125 ISBN-10: 973-1704-17-5, ISBN-13: 978-973-1704-17-3.
3. Lucian MĂNDREA, **Rareș - Andrei CHIHAIA**, Florentina BUNEA, Gabriela OPRINA, Gheorghe VOICU, Constantin IVAN, "Modernizarea captărilor secundare Draxin și Cascoe", Editura Politehnica Press, Buletinul Științific seria D, Vol. 74, 2012, pag. 273-280.
4. Mihail POPESCU, Gabriela OPRINA, Sergiu NICOLAIE, Lucia - Andreea MITULEȚ, **Rareș - Andrei CHIHAIA**, „ICPE-CA (ECCE), Realizări și direcții de dezvoltare în domeniul conversiei energiei” - *Achievements and directions of development in the field of energy conversion*, Simpozionul de Mașini electrice SME'12, 23 Noiembrie 2012 București, poziția 11 pe CD, ISSN 1843-5912.
5. Mihail POPESCU, Lucia - Andreea MITULEȚ, **Rareș - Andrei CHIHAIA**, Sergiu NICOLAIE ș.a., „*Finite Element Analysis of a Low Speed Permanent Magnets Synchronous Generator with Direct Drive*”, The 8th International Symposium on ADVANCED TOPICS IN ELECTRICAL ENGINEERING, May 23-25, 2013, Bucharest, ISSN: 2068-7966, ISBN: 978-1-4673-5978-8, IEEE Catalog Number CFP1314P-CDR.
6. Mihail POPESCU, Gabriela Oprina, Lucia - Andreea MITULEȚ, Sergiu NICOLAIE, **Rareș - Andrei CHIHAIA**, ș.a., „*Aspects Regarding the Application of Electric Generators to Wind Energy Conversion Using Counter Rotating Turbines*”, The 8th International Symposium on ADVANCED TOPICS IN ELECTRICAL ENGINEERING, May 23-25, 2013, Bucharest, ISSN: 2068-7966, ISBN: 978-1-4673-5978-8, IEEE Catalog Number CFP1314P-CDR.
7. Măndrea 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, Bucharest, Romania, 7-8 November 2013, poziția pe CD S6_3, Ed. Politehnica Press, ISSN 2067-0893.
8. Andreea Mituleț, Mihail Popescu, Sergiu Nicolaie, Gabriela Oprina, **Rareș-Andrei Chihaia**, „*Studiu privind implementarea unor metode de eficientizare a instalațiilor eoliene*”, The 12th WEC CENTRAL & EASTERN EUROPE REGIONAL ENERGY FORUM - FOREN 2014, USB ISSN 2284-9505, 22-26 Iunie 2014, București, România.
9. Lucian MĂNDREA, Corneliu MĂLĂNCIOIU, **Rareș Andrei CHIHAIA**, Nicolae TĂNASE „*Creșterea siguranței în exploatare a barajului Izvoru Muntelui prin modernizarea echipamentelor hidromecanice ale gollerilor de fund*”, a XIV-a Conferință internațională multidisciplinară "Profesorul Dorin PAVEL - fondatorul hidroenergeticii românești" Sebeș - Alba, 6-7 iunie 2014, articol publicat în revista *Știință și Inginerie* vol.25 /2014, pg. 221-230, ISSN: 2067-7138;
10. Mihail POPESCU, Tiberiu TUDORACHE, Daniel ILINA, **Rareș Andrei CHIHAIA**, „*Sistem de propulsie electrică pentru vehicule ușoare*”, Simpozionul de mașini electrice SME'14 – 3 octombrie 2014, poziția 11 pe CD, ISSN:1843-5912 ;
11. Mihail POPESCU, Sergiu NICOLAIE, Gabriela OPRINA, Radu CÎRNARU, Andreea MITULEȚ, **Rareș CHIHAIA**, Radu MIREA, „*Improving the Energy Conversion Efficiency of Counter Rotating Wind Turbines by Using Innovative Generators*”, Proceedings of 21st edition of International Conference of Hydraulics, Pneumatics, Tools, Sealing elements, fine mechanics, specific electronic equipment & mechatronics – HERVEX 2014, 5-7 noiembrie, Călimănești – Căciulata, ISSN 1454-8003, pp. 249-254.
12. Mituleț, L.A., Oprina, G., **Chihaia, R.A.**, Nicolaie, S., Nedelcu, A., Popescu, M. (2014) *Wind tunnel testing for a new experimental model of counter-rotating wind turbine*, Annals of DAAAM International for 2014, volume 25, no. 1 & Collection of Working Papers for 25th DAAAM International Symposium, ISBN 978-3-901509-99-5, ISSN 2304-1382, CDROM version, Editor B. Katalinic, Published by DAAAM International, Vienna, Austria, EU, 2014.
13. L. Pîslaru-Dănescu, A.M. Morega, M. Morega, **R. Chihaia**, M. Popa, L. Flore, „*Electronic Drive System of a Linear Magnetostrictive Motor Designed for Outer Space Applications*”, THE 9th INTERNATIONAL SYMPOSIUM ON ADVANCED TOPICS IN ELECTRICAL ENGINEERING, May 7-9, 2015, Bucharest, Romania, ISSN:2068-7966;ISBN:978-1-4799-7514-3, DOI:10.1109/ATEE.2015.7133769 pg:225-230.
14. Lucian Măndrea, **Rareș-Andrei Chihaia**, Ileana Popa, „*Determinarea solicitărilor prizelor de apă cu conducte înglobate în pile*”, A XV-a Conferință Internațională Multidisciplinară Profesorul Dorin Pavel- fondatorul hidroenergeticii românești”, Sebeș – Alba, 5-6 iunie 2015, articol publicat în revista *Știință și Inginerie* vol.27 /2015, pg. 391-396, ISSN: 2067-7138;
15. Lucian Pîslaru-Dănescu, Mihail Popescu, **Rareș – Andrei Chihaia**, Sergiu Nicolaie, „*Aționarea motoarelor asincrone de mare turație de uz general cu utilizarea convertizoarelor de frecvență*”, Revista Automatizări și Instrumentație nr.2 / 2015, ISSN 1582-3334;
16. **CHIHAIA Rareș Andrei**, Evaluarea caracteristicilor hidraulice pentru un grătar Coandă în cazul utilizării la captările secundare cu prize tiroleze – Buletinul științific al Universității Tehnice de Construcții București, Nr. 3-4 / 2015, L-ISSN: 1224-628X;
17. **CHIHAIA R.A.**, *Comportarea în exploatare a prizelor de apă în regim de ape mari*, Revista Hidrotehnica nr.8-9 /2015, Vol.60, ISSN: 0439-0962;
18. Voinea, A., Măndrea, L., Oprina, G., Băbuțanu, **Chihaia R.**, *Innovative intake for sand-less water solution for river management* - 8th. International Conference On Environmental Engineering and Management S2-P7, 9-12 Sept.2015, Iași, România;
19. **Rareș Andrei Chihaia**, Lucia-Andreea El-Leathey, Gabriela Oprina, Sergiu Nicolaie, Radu Mirea, ș.a, „*Implementation Analysis of an Ecological Transport System in Călărași - Silistra Border Area*”, Proceedings of the Union of Scientists - Ruse Sixth International Conference, Ruse-Bulgaria, 11-12 November 2015, ISSN 1311-9974, pp. 360-371;
20. Sergiu Nicolaie, Gabriela Oprina, **Rareș - Andrei CHIHAIA**, Lucia – Andreea El-Leathey, Radu Mirea ș.a., „*Alternative Improved Accessibility accross the Danube in Calarasi-Silistra Cross-Border Area*”, Proceedings of the Union of Scientists - Ruse Sixth International Conference, Ruse-Bulgaria, 11-12 November 2015, ISSN 1311-9974, pp. 770-777;
21. Bunea F., Ciocan G. D., Nedelcu A., Bucur D. M., Dunca G., **Chihaia R.**, *Oxygen deficiency decrease from the turbined water.*, 7th International Conference on Energy and Environment CIEM 2015, Clean and Safe power, 22-23. Oct., CD Proceedings, Section 5, Environmental Impact, ID S5_07
22. Mituleț L.A., Nedelcu A., Nicolaie S., **Chihaia R.A.**, „*LabVIEW Design and Simulation of a Small Scale Microgrid*”, UPB Sci. Bull., Series C, Electrical Engineering and Computer Science, Vol. 78, Iss. 1, 2016, ISSN 2286-3540, pp. 235-246.
23. **Rareș Andrei CHIHAIA**, Lucian MĂNDREA, Gabriela OPRINA, Lucia-Andreea EL-LEATHEY, Bogdan CORBESCU, „*Optimizarea funcționării unei prize de apă ecologice prin testarea unui model la scară redusă*”, Lucrările celei de A XVI-a Conferințe Naționale multidisciplinare - cu participare internațională - „Profesorul Dorin PAVEL – fondatorul hidroenergeticii românești”, SEBEȘ, 2016, articol publicat în revista *Știință și Inginerie* vol.29/2016, pg. 305-314, ISSN 2067-7138;
24. L.A. El-Leathey, L. Pîslaru-Dănescu, S. Nicolaie, **R. A. Chihaia**, A. Nedelcu, „*Assessment of Wind Energy Density Probability by Using the Weibull Distribution Function. A Study Case*”, 16th International Multidisciplinary Scientific GeoConference & Expo SGEM 2016, 28 iunie – 6 iulie 2016, Albena, Bulgaria, pp. 147 – 154, ISBN 978-619-710-63-6, ISSN 1314-2704 ;

25. **R. A. Chihaia**, L.A. El-Leathey, S. Nicolaie, F. Bunea, G. Oprina, "Study Regarding the influence of Orifice Diameter on an Ecological Water Intake", 16th International Multidisciplinary Scientific GeoConference & Expo SGEM 2016, 28 iunie – 6 iulie 2016, Albena, Bulgaria, pp. 669-676, ISBN 978-619-710-63-6, ISSN 1314-2704;
26. **Rareș-Andrei CHIHAIA**, Gabriela OPRINA, Sergiu NICOLAIE, Andreea EL-LEATHEY, Corina BĂBUȚANU, Adrian NEDELUCU, „Assessing the blade chord length influence on the efficiency of a horizontal axis hydrokinetic turbine”, Proceedings of 2016 International Conference on Hydraulics and Pneumatics – HERVEX, November 9-11, pp.290-297, Baile Govora, Romania, ISSN 1454 – 8003.
27. Lucian Pîslaru-Dănescu, Elena Chițanu, **Rareș-Andrei Chihaia**, Dorian Marin, Lucia-Andreea El-Leathey, Virgil Marinescu, Beatrice Gabriela Sbârcea, Corina Alice Băbuțanu, *New Harvesting System Based on Photovoltaic Cells with Antireflexive ZnO Nanoparticles Coatings and DC/DC Isolation Conversion*, Proceedings of the 2016 4th International Symposium on Environmental Engineering Friendly energies and applications (EFEA), Univ Belgrade, Elect Engrn Inst Nikola Tesla, Belgrade, SERBIA, 14-16 sept. 2016, ISBN:978-1-5090-0748-6.
28. Oprina G., **Chihaia R.A.**, El-Leathey L.A., Nicolaie S., Băbuțanu C., Voina A., *A review on counter-rotating wind turbines development*, comunicată în cadrul Conferinței de inginerie energetică CIE 2016, 2-4 iunie, Oradea, România, publicată în *Journal of Sustainable Energy*, vol. 7, nr. 3, 2016, pp.71-78, ISSN 2067-5534.
29. El-Leathey (Mituleț) L.A., Nicolaie S., **Chihaia R.A.**, Oprina G., "Technical Economic Analysis of a Small-Scale Microgrid for a Specific Location", *Electrotehnică, Electronică, Automatică (EEA)*, nr. 3/2016, pp. 134-140, ISSN 1582-5175.
30. L.A. El-Leathey, A. Nedelcu, **R.A. Chihaia**, G. Oprina, S. Nicolaie, D. Marin, Efficiency "Assessment of an Urban Area Grid Connected PV Power Plant", The 10th International Symposium on Advanced Topics in Electrical Engineering March 23-25, 2017, Bucharest, Romania, DOI: 10.1109/ATEE.2017.7905152,
31. E. Chițanu, L. Pîslaru-Dănescu, **L.A. El-Leathey**, D. Marin, R.A. Chihaia, ș.a., "Improvement of polycrystalline solar cells operation under low solar radiation conditions by using ZnO nanostructured materials", The 10th International Symposium on Advanced Topics in Electrical Engineering March 23-25, 2017, Bucharest, Romania, DOI: 10.1109/ATEE.2017.7905074, Publisher: IEEE;
32. Bunea F., Ciocan G.D., Nedelcu A., Bucur D.M., Dunca G., **Chihaia R.**, Experimental setup for the study of new aeration devices in hydraulic turbines, *Environmental Engineering and Management Journal*, May 2017, Vol.16, No. 5, pp. 1033-1040;
33. **R.A. Chihaia**, F. Bunea, G. Oprina, L.A. El-Leathey, "Power Prediction Method Applicable to Horizontal Axis Hydrokinetic Turbines", IEEE 2017 International Conference on Energy and Environment, October 2017, ISI Proceedings Paper, Bucharest, Romania, pp. 221-225. doi: 10.1109/CIEM.2017.8120825.
34. Măndrea L., Oprina G., **Chihaia R.-A.**, El-Leathey L.-A., Mirea R., Theoretical and experimental study of gas bubbles behavior, *International Journal of Modeling and Optimization*, Vol.7, nr. 3, 2017, pp. 145-151, ISSN: 2010-3697, DOI: 10.7763/IJMO.2017.V7.574, BDI indexare Engineering & Technology Digital Library, ProQuest, Crossref, Electronic Journals Library, Google Scholar, EI (INSPEC, IET).
35. B. Corbescu, T.Gyöngyösi, D.Puiu, **R.A.Chihaia**, V.N.Panaitescu - Sequential visualisation of the ice plug development process inside the test section of a large diameter pipeline-A XVIII-a Conferință internațională multidisciplinară „Profesorul Dorin Pavel –fondatorul hidroenergeticii românești”. Cluj Napoca, 2 iunie 2018, articol publicat în Volumul Știință și Inginerie nr.34/2018.
36. Stoica V., Marin D., **Chihaia R.**, "Electric Propulsion System for Light Vehicles", in *Electrotehnica, Electronica, Automatica (EEA)*, 2018, vol. 66, no. 1, pp. 36-40, ISSN 1582-5175
37. **Rareș - Andrei Chihaia**, Lucia-Andreea El-Leathey, Gabriela Cîrciumaru, Nicolae Tănase, : *Increasing the Energy Conversion Efficiency for Shrouded Hydrokinetic Turbines Using Experimental Analysis on a Scale Model*, Sustainable Solutions for Energy and Environment EENVIRO 2018, 9-13 oct. 2018 / Sesiunea III; articol publicat în E3S Web of Conferences, 2267-1242 no. 85/2019, article no. 06004, DOI number: 10.1051/e3sconf/20198506004;
38. Lucia-Andreea El-Leathey, **Rareș-Andrei Chihaia**, Ion Murgescu, Gabriela Cîrciumaru, Adrian Nedelcu, *Analysis of a Low Voltage Operating Microgrid Located in a Residential Area*, Sustainable Solutions for Energy and Environment EENVIRO 2018, 9-13 oct. 2018 / Sesiunea VIII; articol publicat în E3S Web of Conferences 2267-1242, no.85/2019, article no. 08001, DOI number: 10.1051/e3sconf/20198508001;
39. Ion Murgescu, Lucia-Andreea El-Leathey, **Rareș - Andrei Chihaia**, Gabriela Cîrciumaru, *Efficient Energy Use and Storage Practices within Residential Facilities for Compliance with the nZEB Criteria*, Sustainable Solutions for Energy and Environment EENVIRO 2018, 9-13 oct. 2018 / Sesiunea VIII, articol publicat în E3S Web of Conferences 2267-1242, no. 85/2019, article number: 08002, DOI number: 10.1051/e3sconf/20198508002;
40. Ion Murgescu, Lucia-Andreea El-Leathey, **Rareș - Andrei Chihaia**, *Durata de viață promisă versus durata de viață reală a modulelor fotovoltaice în România*, ZASTR 2018 - The Days of the Academy of Technical Sciences of Romania 13th edition Energy and environment – major challenges of the 21st century, 18 – 19 oct. 2018;
41. **Rareș-Andrei Chihaia**, Sergiu Nicolaie, Gabriela Cîrciumaru, Andreea El-Leathey, Dumitru Constantin, *Market potential of unconventional wind turbines. A technology review*, 2019 International Conference on Hydraulics and Pneumatics – HERVEX , 13 -15 noiembrie 2019, Băile Govora, România, www.hervex.ro, articol indexat BDI și publicat în Proceedings of 2019 International Conference on Hydraulics and Pneumatics - HERVEX ISSN 1454 – 8003, pg.159-168, <http://www.fluidas.ro/hervex/proceedings2019/pp.159-168.pdf>;
42. **Chihaia Rareș-Andrei**, Vasile Ionuț, Sburlan Ion, Tudor Emil, Nicolaie Sergiu, Dumitru Constantin, *Improving the energy conversion efficiency for hydrokinetic turbines using MPPT charge controller*, ASMES 2019 – Structuri, materiale și sisteme electrice avansate, 20-22 Noiembrie 2019, Predeal, România, <http://www.icpe-ca.ro/evenimente/asmes2019/asmes2019.htm> , Book of Abstracts of ASMES 2019 (pg.45-46);
43. **Chihaia, R.-A.**; Vasile, I.; Cîrciumaru, G.; Nicolaie, S.; Tudor, E.; Dumitru, C. Improving the Energy Conversion Efficiency for Hydrokinetic Turbines Using MPPT Controller. *Applied Science* 2020, 10(21), 7560; <https://doi.org/10.3390/app10217560>
44. Cîrciumaru G., **Chihaia R.-A.**, Ovezza D., Chiriță I., Nicolaie S., El-Leathey L.-A., Nedelcu A., *Experimental Study on the Performance of Small-Scale Wind Turbine Rotors*, 2020 7th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE), 12-14 November 2020, Ruse, Bulgaria, DOI: 10.1109/EEAE49144.2020.9279066, Publisher: IEEE, Electronic ISBN: 978-1-7281-0362-4, <https://ieeexplore.ieee.org/document/9279066>
45. Corbescu B., Ionescu D., Gyöngyösi T., **Chihaia R.A.**, Panaitescu V.N., *Computational model and experimental validation of the ice plug obturation of a horizontal pipe*, U.P.B. Sci. Bull., Series D, Vol. 83, Iss. 1, 2021., ISSN 1454-2358, pp.281-292. https://www.scientificbulletin.upb.ro/rev_docs_arhiva/rezfo9_890532.pdf
46. G Cîrciumaru, **R-A Chihaia**, N Tănase, L-A El-Leathey, A Voina, *Increasing energy efficiency of counter-rotating wind turbines by experimental modelling*, The 25th edition of IManEE 2021 International Conference, Iași, Romania, October 21 – 23, 2021 online edition, IOP Conf. Series: Materials Science and Engineering 1235 (2022), 012064 IOP Publishing doi:10.1088/1757-899X/1235/1/012064
47. Cîrciumaru G, Chihaia R-A, Voina A, Gogoșe Nistoran D-E, Simionescu Ș-M, El-Leathey L-A, Măndrea L. Experimental Analysis of a Fish Guidance System for a River Water Intake. *Water*. 2022; 14(3):370. <https://doi.org/10.3390/w14030370>
48. **R.-A. Chihaia**, G. Cîrciumaru, T. Nicolae, A. Voina, L. -A. El-Leathey and C. Dumitru, "Portable on-site testing system for hydrokinetic turbines," *2022 8th International Conference on Energy Efficiency and Agricultural Engineering (EE&AE)*, 2022, pp. 1-6, doi: 10.1109/EEAE53789.2022.9831355.
49. Simionescu, Ștefan-Mugur; Gogoșe, Daniela-Elena; Cîrciumaru, Gabriela; **Chihaia, Rareș-Andrei**, Numerical Simulation of Water Flow through an Ecological River Intake, *Hidraulică; București Iss. 2, (2022): 45-54.*

A2 - Representative Scientific Activities and Responsibilities

No.	Position	Title	Financing	Year
1.	Project Responsible	"The flow improvement within the secondary intakes Draxin and Cascoe (Clabuțet Hydroelectric Plant)"	Hidroelectrica S.A	2011
2.	Project Responsible	" Wind energy conversion system with an output of 1.5 kW "	UEFISCDI and ROFEP SA Urziceni	2012
3.	Project Responsible	"Analysis of the climatic factors regarding the renewable energy recovery for Dambovită and Ialomița river basins"	Dambovită County Council	2012
4.	Project Responsible	"Innovative constructive solutions for designing and realization of kinetic hydraulic turbines".	UEFISCDI	2016/2017
5	Project Responsible	46N/2019, PN19310201 - Increasing the efficiency of renewable energy production equipment by using new methods for characterizing the flow of working fluids – "Desing and on-site testing of a hydrokinetic turbine experimental model".	UEFISCDI	2021/2022

A3 – Patent List

A 3.1. Patent application

- OSIM A/00478 /27.06.2012:– Jaw Valve, Inventors: Corneliu MĂLĂNCIOIU, **Rareș - Andrei CHIHAIA**, Nicolae TĂNASE, Ionel CHIRIȚĂ, Sergiu NICOLAIE ;
- OSIM A/00865/23.11.2012: Hydropower unit for hydraulic energy conversion extracted from watercourses, Inventors: MIHAIESCU Gheorghe Mihai, POPESCU Mihail, NICOLAIE Sergiu, OPRINA Gabriela, CHIRIȚĂ Ionel, TĂNASE Nicolae, **CHIHAIA Rareș – Andrei**, MITULEȚ Lucia – Andreea, NEDELICU Adrian.
- OSIM A/00879/17.11.2014: Magnetostrictive liniar motor", Inventors: PÎSLARU-DĂNESCU Lucian, POPA Marius, BUNEA Florentina, **CHIHAIA Rareș – Andrei**, MOREGA Alexandru-Mihail, Morega Mihaela, GABOR Dumitrița; FLORE Lică, POPESCU Ionel;
- OSIM A/00201/18.03.2015: "Water intake embedded in a sluice gate", Inventors: **CHIHAIA Rareș – Andrei**, Lucian Mândrea, Gabriela Oprina, Andreea Mituleț, Nicolae Tănase;
- OSIM A/00874/23.11.2015: "Piezoelectric rotational motor", Inventors: PÎSLARU-DĂNESCU Lucian, POPA Marius, BĂBUȚANU Corina-Alice, **CHIHAIA Rareș – Andrei**, MOREGA Alexandru-Mihail, Morega Mihaela, FUIOREA Ion, FLORE Lică, GABOR Dumitrița;
- OSIM A/00713/7.10.2016: „Nanofluid planar transformer”, Inventors: PÎSLARU-DĂNESCU Lucian, POPA Marius, ILIE Cristinel, **CHIHAIA Rareș – Andrei**, BĂBUȚANU Corina-Alice, NICOLAIE Sergiu, BUNEA Florentina.
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