

Request for
The competition organized within the Romanian Research Gala - 2024 Edition

Professor Nicu BIZON

National University of Science and Technology POLITEHNICA Bucharest

Doctor since 1986.

Individual application

The research carried out mainly falls into the field of:

6. Energy and advanced materials - "Nicolae Vasilescu Karpen" Award;

Results:

1. works as main author or co-author classified with the article document type, published in Web of Science JCR quartile Q1 indexed journals according to AIS (the last available classification is taken into account in relation to the year of submission of the application) - minimum 7; 38 works, according to Annex 1
2. ranking in the top 1% by citations/Highly Cited Researcher – No;
3. national and international research projects, won through competition, with a value of at least 100,000 euros each and a team of at least 3 members, as director/project leader – at least 1; national and international research projects, won through competition – 4, according to Annex 3
4. the quality of researcher/invited teaching staff at prestigious universities abroad – minimum 1; Not
5. the quality of editor-in-chief at a journal indexed Journal Citation Reports – minimum 1; Not
6. cumulative influence score A, calculated as the sum of the weighted influence scores related to the articles published in the last 5 years (where the weighted influence score related to an article is defined as the influence score - AIS related to the article related to the number of authors of the article) - A minimum of 5; $A = 45,821 + 1,699 = 47,520$, according to Annexes 1 and 6; Calculated according to JCR 2022 (June 2023 edition): AIS, *Scor Relativ de Influență* (<https://uefiscdi.gov.ro/scientometrie-baze-de-date>)

Annexes 1 (AIS Q1 papers), 3 (List of research projects) and 6 (cumulative influence score), mentioned above, are attached to this application, together with (according to the Regulation on the organization and operation of the "Romanian Research Gala" program, from 22.11.2023.):

Annex 7. Description of the most important achievements of the last 5 years (maximum 4 pages, 12 TNR, 1.5 space)

Appendix 8. CV

Appendix 9. List of publications

Annex 10. List of patents

Date 29.01.2022

prof. dr. ing. Nicu Bizon



Cerere pentru
Competiția organizată în cadrul **Galei Cercetării Românești – Ediția 2024**

Profesor Nicu BIZON

Universitatea Națională de Știință și Tehnologie POLITEHNICA București

Cercetarea efectuată se încadrează cu preponderanță în domeniul:

6. Energie și materiale avansate – Premiul “Nicolae Vasilescu Karpen”;

Rezultate:

1. lucrări în calitate de autor principal sau coautor încadrate cu tipul de document articole, publicate în reviste indexate Web of Science JCR cuartila Q1 conform AIS (se ia în considerare ultima clasificare disponibilă în raport cu anul depunerii cererii) – minimum 7; 38 de lucrări, conform Anexei 1
2. clasare în top 1% după citări/Highly Cited Researcher – Nu;
3. proiecte de cercetare naționale și internaționale, câștigate prin competiție, cu valoare de minimum 100.000 euro fiecare și echipă de minimum 3 membri, în calitate de director/conducător de proiect – minimum 1; proiecte de cercetare naționale și internaționale, câștigate prin competiție – 4, conform Anexei 3
4. calitatea de cercetător/cadru didactic invitat la universități de prestigiu din străinătate – minimum 1; Nu
5. calitatea de editor-șef la o revistă indexată Journal Citation Reports – minimum 1; Nu
6. scor de influență cumulat A, calculat ca sumă a scorurilor de influență ponderate aferente articolelor publicate în ultimii 5 ani (unde scorul de influență ponderat aferent unui articol se definește ca fiind scorul de influență – AIS aferent articolului raportat la numărul de autori ai articolului) – A minim 5 ; $A = 45.821 + 1.699 = 47.520$, conform Anexei 1 și 6 ; Calculat conform **JCR 2022** (ediția iunie 2023): AIS, [Scor Relativ de Influență](https://uefiscdi.gov.ro/scientometrie-baze-de-date) (<https://uefiscdi.gov.ro/scientometrie-baze-de-date>)

Data 29.01.2022

prof. dr. ing. Nicu Bizon



Profesor Nicu BIZON

Anexa 3

Proiecte de cercetare naționale și internaționale, câștigate prin competiție, în calitate de director/conducător de proiect

1. Experimental validation of a propulsion system for a hydrogen fuel cell for a light vehicle - Mobility hydrogen Demonstrator (Validarea experimentală a unui sistem de propulsie cu pile de combustibil cu hidrogen pentru un autovehicul ușor - Demonstrator de Mobilitate cu Hidrogen), PN-III-P2-2.1-PED-2016-1223, 53PED-2017 (project's responsible)
<http://uefiscdi.gov.ro/userfiles/file/Inovare/Transfer%20la%20operatorul%20economic/Lista%20proiecte/R ezultate finale PTE.pdf>
2. Concept Development of an Energy Storage Unit Using High Temperature Superconducting Coil for Spacecraft Power Systems (SMESinSpace) (project's responsible)
https://star.rosa.ro/downloads/C3_2016/CDI_final.pdf
3. Intelligent control algorithms for the Energy Generation Systems (Algoritmi Inteligenti Pentru Controlul Eficient al unui Sistem Invertor Alimentat de la o Pila de Combustie), research grant of CNCSIS no. 570/2006, 2006-2008. (project's responsible)
<http://194.102.64.7/GranturiFinalizate/faces/Projects/ProjectDetails.jsp>
4. Integrated Energy Generation Systems using renewable sources (Sistem integrat de conversie a energiei din surse regenerabile); beneficiary: AMCSIT, contractor: Institutul National de Cercetare-Dezvoltare pentru Tehnologii Criogenice si Izotopice - ICSI Rm. Valcea, PC 4286, CEEX no. 2354/2006, 2006-2008 (consortium; project's responsible of research team for University of Pitesti: www.upit.ro CEEX226; coordinated by ICSI Rm. Valcea <http://www.icsi.ro/proiecte/ceex226/info.html>).
http://www.cnmp.ro/ceex/comp1_2006/oferta.php?id=4286,

Date 29.01.2022

prof. dr. ing. Nicu Bizon





Nicu Bizon (IEEE M'06; SM'16), was born in Albesti de Muscel, Arges county, Romania, 1961. He received the B.S. degree in electronic engineering from the University "Polytechnic" of Bucharest, Romania, in 1986, and the PhD degree in Automatic Systems and Control from the same university, in 1996. From 1996 to 1989, he was in hardware design with the Dacia Renault SA, Romania. He is currently professor with the

National University of Science and Technology POLITEHNICA Bucharest, Pitești University Centre, Romania. He received two awards from Romanian Academy, in 2013 and 2016. He is editor of 17 books and more than 600 papers in scientific fields related to Energy. His current research interests include power electronic converters, fuel cell and electric vehicles, renewable energy, energy storage system, microgrids, and control and optimization of these systems.

Professional experience and employers:

2012 – 2016, 2020-2024: member of the committee of the National Council for the Recognition of Diplomas and Certificates, Romania
2012 - 2013: Management of technical activities for IEEE Romania
2012 - present: PhD supervisor; Evaluation / Research / Management for the National University of Science and Technology POLITEHNICA Bucharest, SD-ETIT
2012 - 2017: Dean of the Faculty of Electronics, Communication and Computers (FECC)
2008 - 2011: Associate Director of the ECIE department, FECC
2008 - 2012: Director of the Research Center "Modeling and simulation of processes and systems" of the University of Pitesti (UPIT)
2000 - 2004: Director of the Research Department of the University of Pitesti
2000 - 2004: General Director of the "Muntenia" Training Center of the University of Pitesti
2000 - present: university professor at the University of Pitesti
1999 - 2000: General Director of the Center for Institutional Strengthening: Organizations - Companies - Universities - University of Pitesti
1998-1999: Executive Director of the Center of Scientific Excellence "Automotive Engineering"
1997 - 2000: Lecturer - University of Pitesti
1992 - 1997: Lecturer - University of Pitesti
1989-1992: Assistant - University of Pitesti
1986 - 1989: engineer - Dacia Renault

Vocational education and training

September 15, 1992 - July 30, 1996: PhD - Engineering / Automatic Systems.
Politehnica University of Bucharest, Faculty of Electronics and Telecommunications
01.10.1980 - 30.10.1985: Bachelor of Science - Engineering / Electronics and Telecommunications, Technical University of Bucharest.
14 professional trainings in EU programs

Academic recognition

1. The "Tudor Tanasescu" Award of the Romanian Academy for 2013.
<http://www.academiaromana.ro/premiileAR/liste/2013.pdf>
2. The "Spiru Haret Award" of MLNR and the Romanian Academy for 2016
<http://www.tvrplus.ro/emisiune-gala-premiilor-marii-loji-nationale-din-romania-5051>

3. member of the Romanian Committee for the History and Philosophy of Science and Technology (CRIFT), Romanian Academy, Pitesti branch, since 2010:
<http://www.acad.ro/crifst/crifst.htm>
4. Professional recognition from IEEE: Senior member, 2016
5. Member in Editorial Board for:
 - IET Renewable Power Generation (RPG) Journal (impact factor (IF 2022) = 3.034, <https://digital-library.theiet.org/journals/iet-rpg/editorial-board>),
 - Energies Journal (IF 2022 = 3.004 <https://www.mdpi.com/journal/energies/editors>)
 - Mathematics Journal (IF 2022 = 2.258 <https://www.mdpi.com/journal/mathematics/editors>)
 - Sustainability Journal (IF 2022 = 3.251, <https://www.mdpi.com/journal/sustainability/editors>)
 - Electronics Journal (IF 2022 = 2.397 <https://www.mdpi.com/journal/electronics/editors>)
 - Journal of Low Power Electronics and Applications - <https://www.mdpi.com/journal/jlpea/editors>
 - Journal of Energy Systems (JES) - www.dergipark.gov.tr/jes
 - J of Operation and Automation in Power Engineering- <http://joape.uma.ac.ir/journal/editorial.board>;
 - IJTPE Journal <http://www.iotpe.com/IJTPE/EditorialBoard.html> ;
 - Journal of Energy Management and Technology - <http://www.jemat.org/journal/editorial.board>
6. Editor-in-Chief for:
 - JEECCS Journal <http://jeeccs.net/index.php/journal/about/editorialTeam>
 - IJTPE Journal – indexed in Scopus: <http://www.iotpe.com/IJTPE/EditorialBoard.html> ;
7. Memberships to 7 Editorial Boards of International Journals;
8. Chair of International conference ECAI (IEEE indexed), all editions, <http://ecai.ro/>;
9. Membership in the steering and / or technical program committee (TPC) for several conferences:
10. Evaluator for EU Research Projects - FP7 Program, EVAL-INCO Program, EACI Program etc. Peer-review activity for international programs/projects:
 - a) For EU Research competitions:
 - FP7 Programme (starting with 2010)
 - EVAL-INCO Programme (starting with 2010)
 - EACI Programme (starting with 2010)
 - b) For regional and national competitions:
 - Fund for Scientific Research – FNRS (Belgium): 12 projects
 - National Strategic Reference Framework - NSRF (Greece) 2007-2013; 2 projects
 - ERANETMED Call for EU Member States, Associated Countries and Mediterranean Partner Countries (starting with 2014): Renewable Energies, Water Resources And Energy-Water-Nexus (JC-Energy-2014 – 3 projects)
 - ERA.Net RUSSIAN Plus (starting with 2014): Innovation (2014- 1 project)
 - Estonian Research Council; POST-DOCTORAL GRANT PROPOSAL; 1 project (2015); 1 project (2016)
 - NEWFELPRO (Croatia) 2013-2017: 1 project (2012); 3 projects (2014)
 - The Estonian Research Council (starting with 2016)
 - UEFISCDI - PN II Programme – Ideas (Romania) 2007-2013: 1 project
 - UEFISCDI - PN II Programme – Partnership (Romania) 2007-2013: 24 projects
 - UEFISCDI-TE2017: 3 projects

UEFISCDI - PN-III-P3-3.1-PM-RO-CN-2018: 8 projects
UEFISCDI -PMROCN2018: 1 project
MCI, Romania – “Nucleu” projects: 22 projects
PRIN: PROGETTI DI RICERCA DI RILEVANTE INTERESSE NAZIONALE – Italia,
Ministero dell'Istruzione dell'Università e della Ricerca: 1 project

11. 21 invited presentations at international conferences.

12. Awarded product by UEFISCDI: Integrated PEMFC 2kW - photovoltaic electrolyser, authors: M. Culcer (ICSI-Rm. Valcea), N. Bizon (UPIT) and all, research project CEEX 226, 2011.

13. Awarded papers:

2015, 3rd prize, International Telecommunications Energy Conference – INTELEC 2017,
<http://www.intelec2015.org/>

2016, 1st prize, European Conference on Renewable Energy Systems - ECRES,
<http://www.ewres.info/files/PROGRAMME.pdf>

14. Excellence in Research Award from the JECRC University, Jaipur, India, 2020.

Scientometric indicators:

Web of Science: Hirsch index = 27 and the total number of citations = 1423 (without self-citations);

Scopus: h- index = 32 and the total number of citations = 3410 (without self-citations);

Google Scholar: Hirsch index = 42 and the total number of citations = 4891.

Profile address from Scopus Author ID, ORCID, Researcher ID and Google Scholar:

<http://www.scopus.com/authid/detail.url?origin=AuthorProfile&authorId=22936824500>

<http://orcid.org/0000-0001-9311-7598>

www.researcherid.com/rid/B-8523-2011

https://www.researchgate.net/profile/Nicu_Bizon

<http://scholar.google.com/citations?user=owM5oXoAAAAJ&hl=en>

www.brainmap.ro: U-1700-039B-5289 <https://www.brainmap.ro/nicu-bizon>

and official website of the National University of Science and Technology POLITEHNICA Bucharest, Pitești University Centre:

<https://www.upit.ro/ro/academia-reorganizata/facultatea-de-electronica-comunicatii-si-calculatoare-2/departamentul-de-electronica-calculatoare-si-inginerie-electrica-decie/despre-decie/membrii-departamentului>

Research projects: 1 international project (PI- principal investigator), 4 national projects (PI and project's responsible of UPIT team) and 9 national projects (member in project team).

Date 19.01.2024

prof. dr. ing. Nicu Bizon



Annex 7. Description of the most important achievements of the last 5 years

Professor Nicu BIZON

a) Share of articles published in Q1 (red zone) and Q2 (yellow zone) journals, from the total number of published articles in requested period (2018-2023) is $38/103=36.89\%$ and $7/103=6.79\%$.

Share of articles published in Q1 (red zone) / Q2 (yellow zone) journals, from the total number of published articles is $46/103=44.66\%$

Professor Nicu BIZON was ranked by Research group (using data compiled from OpenAlex and CrossRef by December 21st 2022) in position 4 and 4750 at National and Word level

<https://research.com/university/electronics-and-electrical-engineering/university-of-pitesti>

10 relevant papers which highlights international collaboration in research:

1) The paper Power equalizer for a series fuel cell architecture based on load tracking control (N. Bizon, S. Pierfederici, M. Bahrami, P. Thounthong), was published in Renewable and Sustainable Energy Reviews 2022:166:112644-112667, <https://doi.org/10.1016/j.rser.2022.112644>

2) The paper Efficient Energy Control Strategies for a Standalone Renewable/Fuel Cell Hybrid Power Source (N. Bizon, M. Oproescu, M. Raceanu), which was published in Energy Conversion Management 2015:90:93-110, has 113 citations and still is of interest for the readers (receiving 20, 10, 6 and 2 citations in 2020, 2021, 2022 and 2023, respectively).

3) The review paper Fuel Cell Electric Vehicles—A Brief Review of Current Topologies and Energy Management Strategies (Sorlei, I.-S.; Bizon, N.; Thounthong, P.; Varlam, M.; Carcadea, E.; Culcer, M.; Iliescu, M.; Raceanu, M.), which was published in Energies 2021, 14: 252-281, has already received 87 citations and highlight that open access is the right solution to publish if the researchers have appropriate funds.

4) The paper in field of multi-stack fuel cell systems titled Design and control of multiphase interleaved boost converters-based on differential flatness theory for PEM fuel cell multi-stack applications (Thounthong P, Mungporn P, Guilbert D, Takorabet N, Pierfederici S, Nahid-Mobarakeh B, Hu Y, Bizon N, Huangfu Y, Kumam P.; International Journal of Electrical Power & Energy Systems 2021, 24: 106346-106372, <https://doi.org/10.1016/j.ijepes.2020.106346>) has been cited by 7, 5 and 4 papers published in 2021, 2022 and 2023, respectively.

5) The paper in field of Hybrid Power System (HPS) titled Hydrogen Economy of the Fuel Cell Hybrid Power System optimized by air flow control to mitigate the effect of the uncertainty about available renewable power and load dynamics (Nicu Bizon, Jose Manuel Lopez-Guede, Erol Kurt, Phatiphat Thounthong, Alin Gheorghita Mazare, Laurentiu Mihai Ionescu, Gabriel Iana; Energy

Conversion and Management 2019;179:152-165; <https://doi.org/10.1016/j.enconman.2018.10.058>) has been cited since 2019 by 6 papers in average per year.

6) The paper in field of microgrid titled Load Frequency Control Using Hybrid Intelligent Optimization Technique for Multi-Source Power Systems (Gupta, DK; Jha, AV; Appasani, B; Srinivasulu, A; Bizon, N; Thounthong, P. ENERGIES 2021, 14(6):1581-1597, 10.3390/en14061581) has been cited by 4, 7 and 7 papers published in 2021, 2022 and 2023, respectively.

7) The paper titled A Cost-Technical Profit-Sharing Approach for Optimal Energy Management of a Multi-Microgrid Distribution System (R. Alireza, S. Hossein, D. Abdolmajid, N. Bizon). Energy 2022, 261(B):125057-125062 <https://doi.org/10.1016/j.energy.2022.125057>

8) Thounthong P, Mungporn P, Pierfederici S, Guilbert D, Takorabet N, Nahid-Mobarakeh B, Hu, YH, Bizon N, et al Robust Hamiltonian Energy Control Based on Lyapunov Function for Four-Phase Parallel Fuel Cell Boost Converter for DC Microgrid Applications. IEEE TRANSACTIONS ON SUSTAINABLE ENERGY 2021, 12(3):1500-1511, DOI 10.1109/TSTE.2021.3050783

9) Maria Simona Răboacă, Nicu Bizon, Phatiphat Thounthong. Intelligent charging station in 5G environments: Challenges and perspectives, INTERNATIONAL JOURNAL OF ENERGY RESEARCH 2021, 45(11): 16418-16435, DOI: 10.1002/er.6889

10) The paper titled Experimental Results for an Off-Road Vehicle Powered by a Modular Fuel Cell Systems Using an Innovative Startup Sequence (Raceanu, M.; Bizon, N.; Varlam, M.; Energies 2022, 15, 8922; <https://doi.org/10.3390/en15238922>), has been cited by a recent paper published in field of fuel cell vehicle: Fayyazi, M.; Sardar, P.; Thomas, S.I.; Daghigh, R.; Jamali, A.; Esch, T.; Kemper, H.; Langari, R.; Khayyam, H. Artificial Intelligence/Machine Learning in Energy Management Systems, Control, and Optimization of Hydrogen Fuel Cell Vehicles. Sustainability 2023, 15, 5249; <https://doi.org/10.3390/su15065249>.

10 relevant books/monographs which highlights international collaboration in research:

1. Bhargav Appasani, Nicu Bizon (Eds.). Smart Grid 3.0: Computational and Communication Technologies. Publisher: Springer Chame, ISBN 978-3-031-38506-3, Softcover ISBN 978-3-031-38508-7, Published: September 2023, Number of Pages: XII, 417, <https://link.springer.com/book/9783031385056> Series Title: Power Systems, Series ISSN 1612-1287, Series E-ISSN 1860-4676; <https://link.springer.com/search?query=978-3-031-38505-6>

2. Nicu Bizon, Mamadou Baïlo Camara and Bhargav Appasani (Eds.). Efficiency and Sustainability of the Distributed Renewable Hybrid Power Systems Based on the Energy Internet, Blockchain Technology and Smart Contracts-Volume II, ISBN 978-3-0365-6371-8 (hardback); ISBN 978-3-0365-6370-1 (PDF), <https://doi.org/10.3390/books978-3-0365-6370-1>, Published: January 2023 Pages: 290.

3. Nicu Bizon (Ed.). Advanced Modeling, Control, and Optimization Methods in Power Hybrid Systems - 2021, ISBN 978-3-0365-4144-0 (Hbk); ISBN 978-3-0365-4143-3 (PDF); <https://doi.org/10.3390/books978-3-0365-4143-3> Pages: 292, Published: May 2022.
4. Cristian Monea, Nicu Bizon. Signal Processing and Analysis Techniques for Nuclear Quadrupole Resonance Spectroscopy, Springer International Publishing, Print ISBN: 978-3-030-87860-3, Electronic ISBN: 978-3-030-87861-0, <https://link.springer.com/book/10.1007/978-3-030-87861-0> Pages: 175, Published: November 2021
5. Nicu Bizon (Ed.). Advanced Modeling and Research in Hybrid Microgrid Control and Optimization, MDPI Publishing House, ISBN 978-3-0365-1886-2 (Hbk); ISBN 978-3-0365-1885-5 (PDF), <https://doi.org/10.3390/books978-3-0365-1885-5> Pages: 249, Published: November 2021
6. Nicu Bizon (Ed.). Efficiency and Sustainability of the Distributed Renewable Hybrid Power Systems Based on the Energy Internet, Blockchain Technology and Smart Contracts, MDPI Publishing House, ISBN 978-3-0365-1834-3 (Hbk); ISBN 978-3-0365-1833-6 (PDF) <https://doi.org/10.3390/books978-3-0365-1833-6> Pages: 305, Published: August 2021
7. Nicu Bizon (Ed.). Fuel Cell Renewable Hybrid Power Systems, MDPI Publishing House, ISBN 978-3-0365-1307-2 (Hbk); ISBN 978-3-0365-1308-9 (PDF), <https://doi.org/10.3390/books978-3-0365-1308-9> Pages: 222; Published: July 2021
<https://www.mdpi.com/books/pdfview/book/4069>
8. N. Bizon. Optimization of the Fuel Cell Renewable Hybrid Power Systems. Springer International Publishing, 2020 (febr.; 336 pages). Print ISBN 978-3-030-40240-2, <https://doi.org/10.1007/978-3-030-40241-9>
9. Naser Mahdavi Tabatabaei, Ersan Kabalci, Nicu Bizon (Eds.). Microgrid Architectures, Control and Protection Methods. Springer International Publishing, 2019 (aug). eBook ISBN 978-3-030-23723-3; Hardcover ISBN 978-3-030-23722-6; Series ISSN 1612-1287 <https://www.springer.com/in/book/9783030237226> 781 pag
10. Naser Mahdavi Tabatabaei, Sajad Najafi Ravadanegh, Nicu Bizon (Eds.). Power Systems Resiliency: Modeling, Analysis and Practice. Springer Verlag London Limited, 2018 (dec); eBook ISBN 978-3-319-94442-5, Hardcover ISBN 978-3-319-94441-8 <https://www.springer.com/in/book/9783319944418> 353 pag

b) The total number of citations and the average of citations per publications, according to the Web of Science Core Collection on June 20, 2023, is 1,285 (without self-citations) and 10.14 per item. The total number of citations and the average of citations per publications (without self-citations), according to the Scopus on June 20, 2023, is 1611 and 5.59 per item.

c) Hirsch Index according to the Web of Science on January 29, 2024, is 27.

Hirsch Index according to Scopus on January 29, 2024, is 33.

Hirsch Index according to Google Scholar on January 29, 2024, is 46.

d) Personal link from the platform at <https://www.brainmap.ro/> for ID U-1700-039B-5289:

[BrainMap](#)

e) Profile address from Scopus Author ID, ORCID, Researcher ID and Google Scholar:

<http://www.scopus.com/authid/detail.url?origin=AuthorProfile&authorId=22936824500>

<http://orcid.org/0000-0001-9311-7598>

www.researcherid.com/rid/B-8523-2011

https://www.researchgate.net/profile/Nicu_Bizon

<http://scholar.google.com/citations?user=owM5oXoAAAAJ&hl=en>

Date 29.01.2022

prof. dr. eng. Nicu Bizon



1. Chowdhury, Dibyendu, Bishnu Prasad De, Bhargav Appasani, Navaneet Kumar Singh, Rajib Kar, Durbadal Mandal, Nicu Bizon, and Phatiphat Thounthong. 2023. "A Novel Dielectric Modulated Gate-Stack Double-Gate Metal-Oxide-Semiconductor Field-Effect Transistor-Based Sensor for Detecting Biomolecules" *Sensors* 2023, 23, no. 6: 2953. <https://doi.org/10.3390/s23062953> Published MAR 2023 WOS: 000959935900001 eISSN 1424-8220 AIS= 1.314
2. H. Shayeghi, A. Rahnema, N. Takorabet, P. Thounthong, and N. Bizon. Designing a Multi-Stage PD(1+PI) Controller for DC-DC Buck Converter. *Energy Reports* 2022 8(16), 765-773 December 2022 <https://doi.org/10.1016/j.egy.2022.10.448> WOS ISSN 2352-4847 IF=4.937 Q2 AIS= 0.937
3. Benbouhenni, H (Benbouhenni, Habib); Bounadja, E (Bounadja, Elhadji); Gasmi, H (Gasmi, Hamza); Bizon, N (Bizon, Nicu); Colak, I (Colak, Ilhami). A new PD(1+PI) direct power controller for the variable-speed multi-rotor wind power system driven doubly-fed asynchronous generator. *Energy Reports* 2022, 8, 15584-15594, DOI 10.1016/j.egy.2022.11.136, Published NOV 2022, WOS:000892862100005, ISSN 2352-4847 <https://doi.org/10.1016/j.egy.2022.11.136> IF=4.937 Q2 AIS = 0.937
4. Ovidiu-Constantin Novac, Mihai Cristian Chirodea, Cornelia Mihaela Novac, Nicu Bizon, Mihai Oproescu, Ovidiu Petru Stan, and Cornelia Emilia Gordan. 2022. Analysis of the Application Efficiency of TensorFlow and PyTorch in Convolutional Neural Network. *Sensors* 2022, no. 22: 8872-8895. WOS:000887839500001, eISSN 1424-8220 <https://doi.org/10.3390/s22228872> Published: 16 November 2022 IF= 3.847 Q2 AIS= 1.314
5. Farzam Monfaredi, Hossein Shayeghi, Nicu Bizon. Developing optimal energy management of integrated energy systems in the hybrid electricity and gas networks. *Journal of Energy Storage*, Volume 48, April 2022, 103984 - 103998, <https://doi.org/10.1016/j.est.2022.103984>, WOS:000819927400004 eISSN 2352-152X IF=8.907 Q1 AIS= 1.555
6. Thounthong P, Mungporn P, Guilbert D, Takorabet N, Pierfederici S, Nahid-Mobarakeh B, Hu Y, Bizon N, Huangfu Y, Kumam P. Design and control of multiphase interleaved boost converters-based on differential flatness theory for PEM fuel cell multi-stack applications. *International Journal of Electrical Power & Energy Systems* 2021, 24: 106346-106372 January 2021, <https://doi.org/10.1016/j.ijepes.2020.106346>, Impact Factor: 4.63 (2020) Q1 WOS:000573215500010 e-ISSN: 1879-3517, Print ISSN: 0142-0615 AIS= 1.552
7. Monea, Cristian; Iana, Gabriel V.; Ionita, Silviu; Ionescu, LM; Zaharia, SA; Ilie, S; Bizon, N. An optimized NQR spectrometer for detection of prohibited substances. *MEASUREMENT* Volume: 151 Article Number: 107158 Published: FEB 2020 ISSN: 0263-2241 WOS:000500942200092 Q1 Impact Factor 3.364 (2019) Research Domain Engineering Instruments & Instrumentation AIS= 1.710

Calcul AIS relativ (ultimii 5 ani) pentru reviste AIS Q2

AIS	Nr autori	AISr	revista AIS Q2
1.314	6	0.219	Sensors
0.937	5	0.187	Energy Reports
0.937	5	0.187	Energy Reports
1.314	7	0.188	Sensors
1.555	3	0.518	Journal of Energy Storage
1.552	10	0.155	International Journal of Electrical Power & Energy Systems
1.71	7	0.244	MEASUREMENT
		1.699	

2013-2017

8. N. Bizon, E. Kurt. Performance Analysis of Tracking of the Global Extreme on Multimodal Patterns using the Asymptotic Perturbed Extremum Seeking Control Scheme. *International Journal of Hydrogen Energy* 2017; 42(28):17645-54, Impact Factor: 4.229 <http://dx.doi.org/10.1016/j.ijhydene.2016.11.173> 13 July 2017 WOS:000406726000009
9. Nicu Bizon, Phatiphat Thounthong, Marian Raducu, Luminita Mirela Constantinescu. Designing and Modelling of the Asymptotic Perturbed Extremum Seeking Control Scheme for Tracking the Global Extreme. *International Journal of Hydrogen Energy* 2017; 42(28):17632-44, Impact Factor: 4.229 <http://dx.doi.org/10.1016/j.ijhydene.2017.01.086> WOS:000406726000008
10. N. Bizon M. Radut, M. Oproescu, Energy control strategies for the Fuel Cell Hybrid Power Source under unknown load profile. *Energy* 86 (15 June 2015) 31-41, <http://dx.doi.org/10.1016/j.energy.2015.03.118> Impact Factor: 4.968 WOS:000356986300004
11. N. Bizon, Improving the PEMFC energy efficiency by optimizing the fuelling rates based on extremum seeking algorithm. *International Journal of Hydrogen Energy* 39(20) (3 July 2014), 10641-10654. <http://dx.doi.org/10.1016/j.ijhydene.2014.04.194> WOS:000338388200032

12. N. Bizon, FC energy harvesting using the MPP tracking based on advanced extremum seeking control, International Journal of Hydrogen Energy 38(4) (12 February 2013),1952-1966. <http://dx.doi.org/10.1016/j.ijhydene.2012.10.112> WOS:000314860600023

Date 29.01.2022

prof. dr. ing. Nicu Bizon

A handwritten signature in blue ink, appearing to be 'NB', with a long horizontal stroke extending to the right.

Patents

1. N. Bizon, G. Iana, M. Oproescu, Device and method for searching the extremes of power photovoltaic panels (Dispozitiv și metodă de căutare a extremelor de putere pentru panourile fotovoltaice), request A201500228 from 30.03.2015 (under review)
2. N. Bizon, M. Oproescu, G. Iana, Method to optimize the efficiency of hydrogen-based hybrid energy sources (Metodă de optimizare a eficienței surselor hibride de energie bazate pe hidrogen), request A1000793 from 04/10/2017 (under review)

Data 29.01.2022

prof. dr. ing. Nicu Bizon



Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Nicu BIZON**
 Address(es) **PITEȘTI UNIVERSITY CENTRE, The National University of Science and Technology
 POLITEHNICA Bucharest
 11'**
 Phone **...**
 Fax(es) **...**
 E-mail(s) **...**
 Nationality **Romanian**
 Date of birth **14.02.1961**
 Gender **M**

Desired employment / Occupational field **Electronics Engineering**

Work experience

Dates	2012 – 2016, 2020 - 2024
Occupation or position held	member in the Commission of Electronics, Telecommunications and Nanotechnology of the National Council for the Recognition of Degrees, Diplomas and Certificates
Main activities and responsibilities	Evaluation
Name and address of employer	Ministry of Education and Research, Romania
Dates	2012 – 2013
Occupation or position held	Chair with Technical Activities
Main activities and responsibilities	Management of Technical Activities of IEEE Romania Section
Name and address of employer	IEEE Romania Section
Dates	2012 – present
Occupation or position held	PhD Advisor
Main activities and responsibilities	Evaluation / research / management
Name and address of employer	POLITEHNICA University of Bucharest, Doctoral School, SD-ETTI (O-MEC 5268 / 5.9.2011)
Dates	2012 – 2016 and 2016 - 2017
Occupation or position held	Dean of the Faculty of Electronics, Communication and Computers
Main activities and responsibilities	Administration and Educational Management
Name and address of employer	UNIVERSITY OF PITEȘTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	2008 – 2011
Occupation or position held	Associate head of Electronics and Computers department
Main activities and responsibilities	Administration and Educational Management



Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	2008 – 2012
Occupation or position held	Executive manager of research centre: Modelling and Simulation of Processes and Systems
Main activities and responsibilities	Research Management
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	2000 – 2004
Occupation or position held	Manager of research department of University of Pitesti
Main activities and responsibilities	Administration and Research Management
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	2000 – 2004
Occupation or position held	General manager of "Muntenia" Training Center
Main activities and responsibilities	Administration and Educational Management
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	2000 – present
Occupation or position held	professor
Main activities and responsibilities	Research and education
Name and address of employer	UNIVERSITY OF PITESTI named from October 1, 2023, as PITEȘTI UNIVERSITY CENTRE, part of The National University of Science and Technology POLITEHNICA Bucharest 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1999 - 2000
Occupation or position held	General manager of Institution Building Project: Organizations – Companies – Universities relations Centre
Main activities and responsibilities	Administration and Educational Management
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1998-1999
Occupation or position held	Executive Manager of the Center for Scientific Excellence "Automotive Engineering"
Main activities and responsibilities	Research Management
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti Str. Targu din Vale, nr.1, Arges, Romania
Dates	1998-present
Occupation or position held	Head of research team "Applied Electronics and Computer Science" from the Department of Electronics and Computer
Main activities and responsibilities	Research
Name and address of employer	UNIVERSITY OF PITESTI named from October 1, 2023, as PITEȘTI UNIVERSITY CENTRE, part of The National University of Science and Technology POLITEHNICA Bucharest 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1997 – 2000
Occupation or position held	Associate professor
Main activities and responsibilities	Research and education
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1992 - 1997
Occupation or position held	Lecturer

Main activities and responsibilities	Research and education
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1989-1992
Occupation or position held	Assistant professor
Main activities and responsibilities	Research and education
Name and address of employer	UNIVERSITY OF PITESTI 110040 Pitesti, Str. Targu din Vale, nr.1, Arges, Romania
Dates	1986 - 1989
Occupation or position held	engineer
Main activities and responsibilities	Research and maintenance
Name and address of employer	Automobile Dacia Renault

Education and training

Dates	September 15, 1992 – July 30, 1996
Title of qualification awarded	PhD
Principal subjects / occupational skills covered	Engineering / Automatic Systems
Name and type of organisation providing education and training	Polytechnic University of Bucharest, Faculty of Electronics, Communication and IT
Dates	October 01, 1980 – October,30, 1986
Title of qualification awarded	Bachelor of Science
Principal subjects / occupational skills covered	Engineering / Electronics, Communication
Name and type of organisation providing education and training	Polytechnic University of Bucharest, Faculty of Electronics, Communication and IT
Dates	September 15, 1976 – July 15, 1980
Title of qualification awarded	Lyceum diploma
Name and type of organisation providing education and training	Dinicu Golescu Lyceum
Dates	September 2-5, 2007
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Power Electronics and Control for Renewable Energy Systems
Name and type of organisation providing education and training	University of Aalborg, Danemarca
Dates	October 16-18, 2004
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	World Affairs / marketing and entrepreneurial
Name and type of organisation providing education and training	Junior Achievement Romania
Dates	May 13-14, 2001
Title of qualification awarded	professional certificate



Principal subjects / occupational skills covered	Development and learning in the enterprise
Name and type of organisation providing education and training	CESI France
Dates	June 6-11, 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Economic performance and management mechanisms
Name and type of organisation providing education and training	CESI France
Dates	August 1-30, 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Intensive English course
Name and type of organisation providing education and training	Odense Technical College
Dates	August 5-25, 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Training of trainers in ICT
Name and type of organisation providing education and training	Odense Technical College
Dates	12 to 14 July 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Continue training evaluation techniques
Name and type of organisation providing education and training	Academy of Lille, Greta Cambresis, France
Dates	5 to 11 June 2000 and 5 to 11 February 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	European Management
Name and type of organisation providing education and training	TRC - Patras University and CESI / Paris - Ile de France, respectively
Dates	March 27-April 1, 2000, April 17-21, 2000, and July 2-6, 2001:
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Information and Communication Technology
Name and type of organisation providing education and training	Loom - Consultation's Information Service - Lisbon, Leeds Metropolitan University and the Loom - Consultation's Information Service - Lisbon, respectively
Dates	13 to 17 June 2000, 25 to 29 October 2000, and 21 to 26 May 2001
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	Languages of the European Communities
Name and type of organisation providing education and training	Odense Technical College, Denmark, "Mountaigne IUT Michel de Bordeaux 3 University and "Nice Sophia Antipolis" University, France, respectively
Dates	March 6 to 12, and 13 to 19 September, 2000
Title of qualification awarded	professional certificate
Principal subjects / occupational skills covered	European Common Law, trainer from

Name and type of organisation providing education and training Univ. Polytechnic of Catalunya
 Dates 10 to 14 July 1999
 Title of qualification awarded professional certificate
 Principal subjects / occupational skills covered Training Evaluation / Evaluation of continuous training

Name and type of organisation providing education and training National School of Arts and Industry of Strasbourg
 Dates 4 to 10 June 1998
 Title of qualification awarded professional certificate
 Principal subjects / occupational skills covered Magnetic materials and superconducting materials - trainer from
 Name and type of organisation providing education and training Institute of Materials Science, Barcelona

	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
Italian	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user	B1	Independent user
French	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User	A2	Basic User

(*) [Common European Framework of Reference \(CEF\) level](#)

Social skills and competences I'm a sociable, communicative, reliable, conscientious, responsible and very creative person
 Computer skills and competences ECDL professional certificate / Matlab, Spice, Labview
 Other skills and competences Chief Editor - *Journal of Electrical Engineering, Electronics, Control and Computer Science -JEECCS* ;
 Chief Editor - *International Journal on "Technical and Physical Problems of Engineering"(IJTPE)*
 Associate Editor - *Heliyon*, Elsevier;
 Associate Editor - *Scientific journal of the University of Pitesti "Electronics and Computer Science"*;
 General chair - Conference "*Electronics, Computers and Artificial Intelligence - ECAT*"

Driving licence(s) B category

Annexes List of the published papers is available on:

Profile address from Scopus Author ID, ORCID, Researcher ID and Google Scholar:

<http://www.scopus.com/authid/detail.url?origin=AuthorProfile&authorId=22936824500>

<http://orcid.org/0000-0001-9311-7598>

www.researcherid.com/rid/B-8523-2011

https://www.researchgate.net/profile/Nicu_Bizon

<http://scholar.google.com/citations?user=owM5oXoAAAAJ&hl=en>

www.brainmap.ro: U-1700-039B-5289 <https://www.brainmap.ro/nicu-bizon>

and official website of University of Pitesti:

<https://www.upit.ro/ro/academia-reorganizata/facultatea-de-electronica-comunicatii-si-calculatoare-2/departamentul-de-electronica-calculatoare-si-inginerie-electrica-decie/despre-decie/membrii-departamentului>

Academic recognition (see below)

Academic recognition

1. The “Tudor Tanasescu” Award of the Romanian Academy for 2013.

<http://www.academiaromana.ro/premiileAR/liste/2013.pdf>

2. The “Spiru Haret Award” of MLNR and the Romanian Academy for 2016

<http://www.tvrplus.ro/emisiune-gala-premiilor-marii-loji-nationale-din-romania-5051>

3. member of the Romanian Committee for the History and Philosophy of Science and Technology (CRIFT), Romanian Academy, Pitesti branch, since 2010: <http://www.acad.ro/crifst/crifst.htm>

4. Professional recognition from IEEE: Senior member, 2016

5. Member in Editorial Board for:

IET Renewable Power Generation (RPG) Journal (impact factor (IF 2020) = 3.894, <https://digital-library.theiet.org/journals/iet-rpg/editorial-board>),

Energies Journal (IF 2020 = 3.004 <https://www.mdpi.com/journal/energies/editors>)

Mathematics Journal (IF 2020 = 2.258 <https://www.mdpi.com/journal/mathematics/editors>)

Sustainability Journal (IF 2020 = 3.251, <https://www.mdpi.com/journal/sustainability/editors>)

Electronics Journal (IF 2020 = 2.397 <https://www.mdpi.com/journal/electronics/editors>)

Journal of Low Power Electronics and Applications - <https://www.mdpi.com/journal/jlpea/editors>

Journal of Energy Systems (JES) - www.dergipark.gov.tr/jes

J of Operation and Automation in Power Engineering- <http://joape.uma.ac.ir/journal/editorial.board>;

IJTPE Journal <http://www.ijotpe.com/IJTPE/EditorialBoard.html> ;

Journal of Energy Management and Technology - <http://www.jemat.org/journal/editorial.board>

6. Editor-in-Chief for:

JEECCS Journal <http://jeeccs.net/index.php/journal/about/editorialTeam>

IJTPE Journal <http://www.ijotpe.com/IJTPE/EditorialBoard.html> ;

7. Memberships to 7 Editorial Boards of International Journals

8. Chair of International conference ECAI (IEEE indexed), all editions, <http://ecai.ro/>;

9. Membership in the steering and / or technical program committee (TPC) for several conferences:

10. Evaluator for EU Research Projects - FP7 Program, EVAL-INCO Program, EACI Program etc.

11. 21 invited presentations at international conferences.

12. Awarded product by UEFISCDI: Integrated PEMFC 2kW - photovoltaic electrolyser, authors: M. Culcer (ICSI-Rm. Valcea), N. Bizon (UPIT) and all, research project CEEX 226, 2011.

13. Awarded papers:

2015, 3rd prize, International Telecommunications Energy Conference – INTELEC 2017, <http://www.intelec2015.org/>

2016, 1st prize, European Conference on Renewable Energy Systems - ECRES, <http://www.ewres.info/files/PROGRAMME.pdf>

14. Excellence in Research Award from the JECRC University, Jaipur, India, 2020.

Scientometric indicators:

Web of Science: Hirsch index = 27 and the total number of citations = 1423 (without self-citations);

Scopus: h- index = 32 and the total number of citations = 3410 (without self-citations);

Google Scholar: Hirsch index = 42 and the total number of citations = 4891.

Research projects: 1 international project (PI- principal investigator), 4 national projects (PI and project's responsible of UPIT team) and 9 national projects (member in project team)

Date 19.01.2024

prof. dr. ing. Nicu Bizon

List of the publications and the research projects: professor Nicu BIZON

a) N. Bizon, PhD thesis title: "Performance Evaluation of Systems in multi-criteria conditions" ("Evaluarea performanțelor sistemelor în condiții multicriteriale"), 1996, PhD in the field of Engineering (Automatic Systems), Polytechnic University of Bucharest, Faculty of Automation.

b) Books and chapters in books

b1) Books published in International Publishing House

1. Bhargav Appasani, Nicu Bizon (Eds.). Smart Grid 3.0: Computational and Communication Technologies. Publisher: Springer Chame, ISBN 978-3-031-38506-3, Softcover ISBN 978-3-031-38508-7, Published: September 2023, Number of Pages: XII, 417, <https://link.springer.com/book/9783031385056> Series Title: Power Systems, Series ISSN 1612-1287, Series E-ISSN 1860-4676; <https://link.springer.com/search?query=978-3-031-38505-6>
2. Nicu Bizon, Mamadou Baïlo Camara and Bhargav Appasani (Eds.). Efficiency and Sustainability of the Distributed Renewable Hybrid Power Systems Based on the Energy Internet, Blockchain Technology and Smart Contracts-Volume II, ISBN 978-3-0365-6371-8 (hardback); ISBN 978-3-0365-6370-1 (PDF), <https://doi.org/10.3390/books978-3-0365-6370-1>, Published: January 2023 Pages: 290.
3. Nicu Bizon (Ed.). Advanced Modeling, Control, and Optimization Methods in Power Hybrid Systems - 2021, ISBN 978-3-0365-4144-0 (Hbk); ISBN 978-3-0365-4143-3 (PDF); <https://doi.org/10.3390/books978-3-0365-4143-3> Pages: 292, Published: May 2022.
4. Cristian Monea, Nicu Bizon. Signal Processing and Analysis Techniques for Nuclear Quadrupole Resonance Spectroscopy, Springer International Publishing, Print ISBN: 978-3-030-87860-3, Electronic ISBN: 978-3-030-87861-0, <https://link.springer.com/book/10.1007/978-3-030-87861-0> Pages: 175, Published: November 2021
5. Nicu Bizon (Ed.). Advanced Modeling and Research in Hybrid Microgrid Control and Optimization, MDPI Publishing House, ISBN 978-3-0365-1886-2 (Hbk); ISBN 978-3-0365-1885-5 (PDF), <https://doi.org/10.3390/books978-3-0365-1885-5> Pages: 249, Published: November 2021
6. Nicu Bizon (Ed.). Efficiency and Sustainability of the Distributed Renewable Hybrid Power Systems Based on the Energy Internet, Blockchain Technology and Smart Contracts, MDPI Publishing House, ISBN 978-3-0365-1834-3 (Hbk); ISBN 978-3-0365-1833-6 (PDF) <https://doi.org/10.3390/books978-3-0365-1833-6> Pages: 305, Published: August 2021
7. Nicu Bizon (Ed.). Fuel Cell Renewable Hybrid Power Systems, MDPI Publishing House, ISBN 978-3-0365-1307-2 (Hbk); ISBN 978-3-0365-1308-9 (PDF), <https://doi.org/10.3390/books978-3-0365-1308-9> Pages: 222; Published: July 2021 <https://www.mdpi.com/books/pdfview/book/4069>
8. N. Bizon. Optimization of the Fuel Cell Renewable Hybrid Power Systems. Springer International Publishing, 2020 (febr.; 336 pages). Print ISBN 978-3-030-40240-2, <https://doi.org/10.1007/978-3-030-40241-9>
9. Naser Mahdavi Tabatabaei, Ersan Kabalci, Nicu Bizon (Eds.). Microgrid Architectures, Control and Protection Methods. Springer International Publishing, 2019 (aug). eBook ISBN 978-3-030-23723-3; Hardcover ISBN 978-3-030-23722-6; Series ISSN 1612-1287 <https://www.springer.com/in/book/9783030237226> 781 pag
10. Naser Mahdavi Tabatabaei, Sajad Najafi Ravadanegh, Nicu Bizon (Eds.). Power Systems Resiliency: Modeling, Analysis and Practice. Springer Verlag London Limited, 2018 (dec); eBook ISBN 978-3-319-94442-5, Hardcover ISBN 978-3-319-94441-8 <https://www.springer.com/in/book/9783319944418> 353 pag
11. Erol Kurt, Nicu Bizon, Necmi Altın, Burak Akın (Eds.). Special Issue on the 4th European Conference on Renewable Energy Systems (ECRES 2016), 28-31 August 2016, Istanbul, Turkey. International Journal of Hydrogen Energy 2017;42(28):17559-18144 (13 July 2017) <https://www.sciencedirect.com/journal/international-journal-of-hydrogen-energy/vol/42/issue/28>
12. N. Bizon, N. M. Tabatabaei, Frede Blaabjerg, and Erol Kurt (Ed.), Energy Harvesting and Energy Efficiency: Technology, Methods and Applications, Springer Verlag London Limited, 2017; eBook ISBN: 978-3-319-49875-1; DOI 10.1007/978-3-319-49875-1; Hardcover ISBN 978-3-319-49874-4; Series ISSN 2195-1284 661 pp <http://www.springer.com/us/book/9783319498744>
13. N. M. Tabatabaei, N. Bizon, A. J. Aghbolaghi, and Frede Blaabjerg (Ed.), Fundamentals and Contemporary Issues of Reactive Power Control in AC Power Systems, Springer Verlag London Limited, 2017; eBook ISBN: 978-3-319-51118-4, Hardcover ISBN: 978-3-319-51117-7; Series ISSN: 1612-1287 DOI 10.1007/978-3-319-51118-4 <http://www.springer.com/gp/book/9783319511177>
14. N. Bizon, L. Dascalescu, and N. M. Tabatabaei (Ed.), Autonomous Vehicles: Intelligent Transport Systems and Smart Technologies, Nova Science Publishers Inc., USA, 2014, ISBN: 978-1-63321-324-1 541 pp <https://novapublishers.com/shop/autonomous-vehicles-intelligent-transport-systems-and-smart-technologies/>
15. N. Bizon, N. M. Tabatabaei and Hossein Shayeghi (Ed.), Analysis, Control and Optimal Operations in Hybrid Power Systems - Advanced Techniques and Applications for Linear and Nonlinear Systems, Springer Verlag London Limited, London, UK, 2013. 978-1-4471-5538-6, 978-1-4471-5537-9 ; 394 PAG <https://www.springer.com/gp/book/9781447155379> <http://dx.doi.org/10.1007/978-1-4471-5538-6> <http://www.springer.com/engineering/control/book/978-1-4471-5537-9>
16. N. Bizon and N. M. Tabatabaei (Ed.), Advances in Energy Research: Energy and Power Engineering, Nova Science Publishers Inc., USA, 2013 978-1-62257-534-3 (hardcover), 978-1-62257-546-6 (ebook). 698 pp <https://novapublishers.com/shop/advances-in-energy-research-energy-and-power-engineering/>
17. N. Bizon (Ed.), Advances in Energy Research: Distributed Generation systems integrating Renewable Energy Resources, 3 chapters by N. Bizon, Nova Science Publishers Inc., USA, 2012, 978-1-61209-991-0 (hardcover), 978-1-61209-991-2 (ebook). 692 pp

<https://www.amazon.in/Advances-Energy-Research-Distributed-Generations/dp/1612099912>

b2) Chapters in books published in International Publishing House (1 in the last six years)

1. Fernando Georgel Bîrleanu , Petre Anghelescu , Nicu Bizon , Emil Pricop. Cyber Security Objectives and Requirements for Smart Grid. In Handbook of Smart Grid Communications (Eds. Ersan KABALCI, Yasin KABALCI). Springer Verlag London Limited, 2019, 28 Pages 607-634 <https://www.springer.com/us/book/9789811317675> .
2. N. Bizon, Intelligent control of the Energy Generation System, book chapter in: K. Metaxiotis (Ed.), Intelligent Information Systems and Knowledge Management for Energy: Applications for Decision Support, Usage and Environmental Protection, IGI Global, USA, 2009, chapter 2, pp. 40 -96, ISBN 978-1-60566-737-9 (hardcover), ISBN 978-1-60566-738-6 (ebook). <http://www.igi-global.com/bookstore/Chapter.aspx?TitleId=36963>

b3) Books published in Publishing House recognized by CNCIS - National Council of Scientific Research in Higher Education

b31) Books on research area (in English language)

1. N. Bizon, L. Dascalescu, and N. M. Tabatabaei (Ed.), Autonomous Hybrid Vehicles: Intelligent Transport Systems and Automotive Technologies, Publishing house of the University of Pitești, Pitești, 2013, ISBN 978-606-560-327-1 ; 365 PAG
2. N. Bizon, 2010 (second edition in 2011), 4 chapters in N. Bizon (Ed.), Complex Behaviour of the Distributed Generation System: Intelligent Management of the Renewable Energy Resources for assuring the DG System Power Quality and a Sustainable Development, Publishing house of the University of Pitești, Pitești, ISBN 978-606-560-128-4 (hardcover), ISBN 978-606-560-129-1 (e-book). 560 pag
3. N. Bizon, Dimitris C. Voukalis, 2007, Fundamentals of Electromagnetic Compatibility, Theory and Practice, 250 pages, MatrixROM Publishing house, Bucharest, ISBN: 978-973-755-263-1. <http://www.matrixrom.ro/english/publishing/domains/contents.php?contents=ECC0>

b32) Books on research area (in Romanian language)

1. N. Bizon, 2009, 1 chapter in N. Bizon (Ed.), Education in rural areas can also be managed in a performance way (Si in mediul rural educatia poate fi condusa performant – MEDURUR), chapter: Minimal level of computer skills for managers and ways of obtaining these skills (Nivelul minimal al competențelor managerilor privind utilizarea calculatorului personal si caile de dobândire, pp. 28-42), Publishing house of the University of Pitești, Pitești, ISBN 978-973-680-260-6.
2. N. Bizon, 2008, Modelling of Inverter Systems supplied by Fuel Cells (Modelarea Sistemelor Invertor alimentate de la Pile de Combustie), 220 pages, Publishing house of the University of Pitești, Pitești, ISBN 978-973690-817-0.
3. N. Bizon, 2008, Optimized Systems for Green Power Conversion (Sisteme Optimizate pentru Conversia Energiei Curate), 215 pages, MatrixROM Publishing house, Bucharest, ISBN 978-973-755-401-7.
4. N. Bizon, M. Oproescu, 2007, Power Converters for Energy Generation Systems (Convertoare de Putere utilizate in Sistemele de Generare a Energiei), 160 pages, Publishing house of the University of Pitești, Pitești, ISBN 978-973-690-644-2.

b23) Books for students

1. N. Bizon, 2007, Structura Hardware a Calculatorului Personal si Comunicatia cu Echipamentele Periferice (PC architecture and Communication with Devices), 440 pag, Editura MatrixROM, București, ISBN 978-973-755-131-3.
2. N. Bizon, 2004, Convertoare (Power Converter), 180 pag., Editura MatrixROM, București, ISBN 973-685-836-7.
3. N. Bizon, 2004, Teoria Sistemelor - Teorie si Aplicatii (Theory and Control Systems), 185 pag., Editura MatrixROM, București, ISBN 973-685-677-1.
4. N. Bizon, 2002, Dispozitive Electronice de Putere (Power Electronics Devices) , 132 pag., Editura MatrixROM, București, ISBN 973-685-402-7.
5. N. Bizon, 2002, Managementul procesării, stocării și prezentării datelor (Data processing, storage and retrieval), 200 pag., Editura MatrixROM, București, ISBN.
6. N. Bizon, 2002, Structura hardware a calculatorului personal (PC hardware), 250 pag., Editura Universității din Pitești, Pitești, ISBN 973-690-023-1.
7. G. Chirleşan, D. Chirleşan, M. Abrudeanu, N. Bizon, T. Macarie, E. Neagu, V. Nicolae. 2002, Centrul de formare MUNTENIA: ghid de prezentare și evaluare (Center for training – evaluation guide), 120 pag., Editura MatrixROM, București, ISBN 973-31-2062-6.
8. N. Bizon – Variatoare de putere (AC-AC converters), 2001, 100 pag., Editura MatrixROM, București, ISBN 973-685-9.
9. N. Bizon, 2001, Mecatronică și tehnologii neconvenționale (Mecatronics and advanced technologies), 150 pag., Ed. MatrixROM, București, ISBN 973-685-301-2.
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e1) Papers in Journals of the Romanian Academy

1. N Bizon, Fuzzy Adaptive Gain for a Robust Speed-up of the Generic Process Output, Fuzzy System and Artificial Intelligence (FSAI) Vol. 11, No. 1-3, pp. 73-108, 2005.

e2) Papers in international Journals

1. N. Bizon, M. Oproescu, M. Raducu, L.M. Constantinescu, 2010, International Journals on Technical and Physical Problems of Engineering (IJTPE2010, ISSN 2077-3528), 5(3) 133-141
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2. Bizon Nicu, M. Oproescu, Control Performances of the Bi-Buck Interface used for Inverter Current Ripple Compensation, International Journals on Technical and Physical Problems of Engineering (IJTPE, ISSN 2077-3528), 1(1) 2010, 5-10, <http://www.ijotpe.com/TPE-Journal/IJTPE-2010/IJTPE-2010.html>
3. Bizon Nicu, M. Oproescu, Modelling the Bi-Buck Interface for Inverter Current Ripple Compensation, International Journals on Technical and Physical Problems of Engineering (IJTPE, ISSN 2077-3528), TPEJournal-Autumn2009 1(1) 32-37, www.ijotpe.com/TPE-Journal/.../IJTPE-Dec2009-No1-Vol1-Pe32-37.pdf
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e3) Papers in national journals (14)

f) Patents

1. N. Bizon, G. Iana, M. Oproescu, Device and method for searching the extremes of power photovoltaic panels (Dispozitiv și metodă de căutare a extremelor de putere pentru panourile fotovoltaice), request A201500228 from 30.03.2015 (under review)

2. N. Bizon, M. Oproescu, G. Iana, Method to optimize the efficiency of hydrogen-based hybrid energy sources (Metodă de optimizare a eficienței surselor hibride de energie bazate pe hidrogen), request A1000793 from 04/10/2017 (under review)

g) R & D projects

g1) International research projects

1. Cost-Efficient Data Collection for Smart Grid and Revenue Assurance (CERA-SG), ID: 77594, 2016-19, ERA-Net Smart Grids Plus; (PI in the project team of the University of Pitesti, Romania; MINcom Smart Solutions GmbH, Coordinator, Germany) 01/04/2016 - 31/03/2019 <https://www.era-learn.eu/network-information/networks/era-net-smartgridplus/era-net-smart-grids-plus-joint-call-for-proposals/cost-efficient-data-collection-for-smart-grid-and-revenue-assurance>

g2) National research projects

List of research grants and project as project coordinator or partner team leader

1. Experimental validation of a propulsion system for a hydrogen fuel cell in a light vehicle - Mobility hydrogen Demonstrator (Validarea experimentală a unui sistem de propulsie cu pile de combustibil cu hidrogen pentru un autovehicul ușor - Demonstrator de Mobilitate cu Hidrogen), PN-III-P2-2.1-PED-2016-1223, 53PED-2017 (project's responsible) http://uefiscdi.gov.ro/userfiles/file/Inovare/Transfer%20la%20operatorul%20economic/Lista%20proiecte/Rezultate_finale_PTE.pdf
2. Concept Development of an Energy Storage Unit Using High Temperature Superconducting Coil for Spacecraft Power Systems (SMESinSpace) (project's responsible) 167 STAR-2017 https://star.rosa.ro/downloads/C3_2016/CDI_final.pdf
3. Intelligent control algorithms for the Energy Generation Systems (Algoritmi Inteligenți Pentru Controlul Eficient al unui Sistem Invertor Alimentat de la o Pila de Combustie), research grant of CNCIS no. 570/2006, 2006-2008. (project's director) <http://194.102.64.7/GranturiFinalizate/faces/Projects/ProjectsList.jsp>
4. Integrated Energy Generation Systems using renewable sources (Sistem integrat de conversie a energiei din surse regenerabile); beneficiary: AMCSIT, contractor: Institutul National de Cercetare-Dezvoltare pentru Tehnologii Criogenice si Izotopice - ICSI Rm. Valcea, PC 4286, CEEX no. 2354/2006, 2006-2008 (consortium; project's responsible of research team for University of Pitesti: www.upit.ro CEEX226; coordinated by ICSI Rm. Valcea <http://www.icsi.ro/proiecte/ceex226/info.html>). http://www.cnmp.ro/ceex/comp1_2006/oferta.php?id=4286

Member in project team for next projects:

1. Research on intelligent control of hybrid electric propulsion system with continuous transmission (Cercetări privind controlul inteligent al unui sistem de propulsie electric hibrid cu transmisie continuă - CVT), PNCD II 4 Parteneriate PC 72209 (3733/1.10.2008): beneficiary: AMCSIT, contractor: Universitatea din Pitesti, 2008-2011; <http://www.electromet.upit.ro> <http://cnmp.ro:8083/pncdi2/program4/2008/main/index.php?&we=a4e9428fad82837902e19b9a12e1443f&wf=detail&id=2731&wchck=7eb4c9dfdc3bc8535ef71c5b54c83e>
2. Mathematical modeling of electrical activity of neurons and isolated tissue cardiomyocytes with applications in predicting arrhythmias and the response to antiarrhythmic-MYOMODEL (Modelarea matematică a activității electrice a neuronilor și cardiomyocitelor izolate în țesut, cu aplicații în predicția aritmiilor și a răspunsului la antiaritmice- MYOMODEL), PNCD II 4 Parteneriate PC 61010 (1343/1.10.2008): beneficiary: AMCSIT, contractor: Universitatea din București, 2007-2011; <http://myomodel.net> <http://cnmp.ro:8083/pncdi2/program4/competitie/main/index.php?&we=26531b94a8aa9ff7df5c5d983a506cd6&wf=detail&id=343&wchck=e3b9f3f33c547b8f5f36b9fd32269da1>
3. Intelligente locomotion prosthesis (Proteze locomotorii inteligente – INTELPROT), PNCD II 4 Parteneriate PC 11069 (1379/1.10.2008) : beneficiary: AMCSIT, contractor: Universitatea Politehnica din București, 2008-2011; <http://www.intelprot.ro> 500,000 Euro 2027400 lei <http://cnmp.ro:8083/pncdi2/program4/competitie/main/index.php?&we=26531b94a8aa9ff7df5c5d983a506cd6&wf=detail&id=379&wchck=d5d9b613891edc3853fba1fbb0c9af4f>
4. Theoretical and experimental demonstrations of electric and hybrid propulsion systems to develop competitive and sustainable transport systems (Cercetări teoretice și experimentale demonstrative ale sistemelor de propulsie electrică și hibridă pentru dezvoltarea sistemelor de transport competitive și durabile), MEC- PNCDI- AMTRANS, CEEX no. 5558 X2C31, 2006-2008 (consortium) . http://www.cnmp.ro/ceex/comp1_2006/oferta.php?id=5558
5. Polymer composite films as a means of electromagnetic shielding in the microwave field (Pelicle polimerice în sistem compozit utilizate ca mijloace de ecranare electromagnetică în domeniul microundelor), PC 8003, beneficiary MEC- PNCDI – MATNANTECH, 2006-2008 (consortium) http://www.cnmp.ro/ceex/comp1_2006/oferta.php?id=8003.
6. Technology-based nanostructured materials for electrochemical double layer capacitors used to store electricity - Supercapacitors (Tehnologie pe baza de materiale nanostructurate pentru condensatori electrochimici cu strat dublu utilizabili la stocarea energiei electrice – Supercondensatori), beneficiary MEC- PNCDI - AMCSIT, 2006-2008 (consortium) http://www.cnmp.ro/ceex/comp1_2006/oferta.php?id=4162.
7. Integrated System for Mobile User (SIUM – Sistem integrat pentru utilizatorul mobil), beneficiary: Agenția managerială de cercetare științifică, inovare și transfer tehnologic – AMCSIT, contractor: Institutul National de Informatică – ICI, nr. 80/3.10.2005, 2005-2008. <http://www.cnmp.ro/ceex/comp1/oferta.php?id=1234>
8. Analysis, organization and improvement of operation for educational computer networks connected to the Internet (Analiza, organizarea și îmbunătățirea funcționării rețelei educaționale de calculatoare conectate la internet), Contract de cercetare Nr

26/2001, Program INFOSOC, subprogram INFOSOC 3 – SISTEME; 2001-2003, contractor: ICI Bucuresti (consortium).
http://www.cnmp.ro/documente/infosoc/D3_Infosoc_finantate1.xls

9. Modeling, simulation and implementation of microsystems for deterministic processing and neuro-fuzzy signals; applications in communications and process controllers (Modelarea, simularea si implementarea de microsiseme pentru procesarea deterministă și neuro-fuzzy a semnalelor ; aplicații în comunicații și controlere de proces), research grant of CNCSIS, 1996-1999.

g3) Other research projects

1. Polarity checking circuit for electrolytic capacitors (Modul de verificare a polarității condensatoarelor electrolitice), research project No. 7888/30/11/2001, 01.12.2001 – 01.05.2002, beneficiary: Draxlmaier Serviceleistung, Romania. (project's responsible)

h) International projects on Development & Institution Building

1. Institution Building Project: Continuous formation center MUNTENIA (CFM), Program Tempus JEP 14448 (member in project team), 2000-2004.
2. Institution Building Project: Organizations – Companies – Universities relation center (DROIU), Program Tempus JEP 12243 (member in project team), 1999-2001.

j) Educational Research Projects (Erasmus, LdV etc.)

1. Leonardo da Vinci, Partnerships, LLP-LdV/PAR/2012/RO/125, "DISCOVER A NEW WORKING FIELD" (member in project team)
2. Leonardo da Vinci, Transfer of Innovation, 2013-1-ES1-LEO01-66485, "ONE TEACHER AND ONE STUDENT WORKING WITH PROJECTX (ONE2ONE)" (member in project team)
3. Erasmus+, Cooperation for Innovation and the exchange of good practices, 2015-1-TR01-KA203-021342, "Innovative European Studies on Renewable Energy Systems" (member in project team)

Date 29.01.2024

prof. dr. ing. Nicu Bizon



1. Benbouhenni Habib, Nicu Bizon, Mohamed I. Mosaad, Ilhami Colak, Abdelkadir Belhadj Djilali, Hamza Gasmi. Enhancement of the power quality of DFIG-based dual-rotor wind turbine systems using fractional order fuzzy controller. *Expert Systems with Applications* 2023, Volume 238, Part A, 121695-121713, 18 pages Published MAR 15 2024 Early Access SEP 2023 Indexed 2023-11-04, Computer Science, Artificial Intelligence, Engineering, Electrical & Electronic, Operations Research & Management Science, ISSN 0957-4174 eISSN 1873-6793 WOS:001087055700001 <https://doi.org/10.1016/j.eswa.2023.121695>, IF 2022 8.5 Q1 AIS= 2.421 Q1
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3. Nicu Bizon, Serge Pierfederici, Milad Bahrami, Phatiphat Thounthong. Power equalizer for a series fuel cell architecture based on load tracking control. *Renewable and Sustainable Energy Reviews*, Volume 166, September 2022, 112644-112667, <https://doi.org/10.1016/j.rser.2022.112644> ISSN 1364-0321 eISSN 1879-0690 WOS:000830672800002 IF2022=16.799 Q1, AIS= 3.652 Q1
4. Thounthong, P (Thounthong, Phatiphat), Mungporn, P (Mungporn, Pongsiri), Pierfederici, S (Pierfederici, Serge), Guilbert, D (Guilbert, Damien), Takorabet, N (Takorabet, Nouredine), Nahid-Mobarakeh, B (Nahid-Mobarakeh, Babak), Hu, YH (Hu, Yihua), Bizon, N (Bizon, Nicu), Huangfu, YG (Huangfu, Yigeng), Kumam, P (Kumam, Poom), Burikham, P (Burikham, Piyabut). Robust Hamiltonian Energy Control Based on Lyapunov Function for Four-Phase Parallel Fuel Cell Boost Converter for DC Microgrid Applications. *IEEE TRANSACTIONS ON SUSTAINABLE ENERGY* 2021, 12(3):1500-1511, DOI 10.1109/TSTE.2021.3050783, ISSN 1949-3029, eISSN 1949-3037, WOS:000665008500001 IF2022 = 8.31 Q1, AIS= 4.306 Q1
5. Maria Simona Răboacă, Nicu Bizon, Phatiphat Thounthong. Intelligent charging station in 5G environments: Challenges and perspectives, *INTERNATIONAL JOURNAL OF ENERGY RESEARCH* 2021, 45(11): 16418-16435, September 2021, DOI: 10.1002/er.6889, ISSN: 1099-114X, WOS:000656093100001 IF2021= 5.164 IF2022= 4.672 Q1= 1.834 AIS Q1
6. Raboaca, MS (Raboaca, Maria Simona); Bizon, N (Bizon, Nicu); Grosu, OV (Grosu, Oana Vasilica). Optimal energy management strategies for the electric vehicles compiling bibliometric maps. *INTERNATIONAL JOURNAL OF ENERGY RESEARCH* 2021, 45(7): 10129-10172, 10 June 2021, DOI: 10.1002/er.6503, iunie 2021, WOS:000618443200001, e-ISSN: 1099-114X, IF2021= 5.164, IF2022= 4.672 Q1, AIS= 1.834 Q1.
7. Mungporn, Pongsiri; Thounthong, Phatiphat; Yodwong, Burin; Ekkaravarodome, Chainarin; Bilsalam, Anusak; Pierfederici, Serge; Guilbert, Damien; Nahid-Mobarakeh, Babak; Bizon, Nicu; Shah, Zahir; Khomfoi, Surin; Kumam, Poom; Burikham, Piyabut. Modeling and Control of Multiphase Interleaved Fuel-Cell Boost Converter Based on Hamiltonian Control Theory for Transportation Applications. *IEEE TRANSACTIONS ON TRANSPORTATION ELECTRIFICATION* Volume: 6 Issue: 2 Pages: 519-529 Published: JUN 2020 WOS:000545438200013 ISSN: 2332-7782 IF2021 = 5.444 IF2022= 6.519 Q1 AIS= 3.564 Q1
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11. Nicu Bizon, Real-time optimization strategies of FC Hybrid Power Systems based on Load-following control: a new strategy, and a comparative study of topologies and fuel economy obtained. *Applied Energy* 241C (2019) pp. 444-460 <https://doi.org/10.1016/j.apenergy.2019.03.036> Impact Factor (2019): 8.848, 1 May 2019 WOS:000465509500034, IF2022 11.446 Q1, AIS= 4.417 Q1
12. Nicu Bizon, C. I. Hoarcă, Hydrogen saving through optimized control of both fueling flows of the Fuel Cell Hybrid Power System under a variable load demand and an unknown renewable power profile, *Energy Conversion and Management* 2019;184:1-14, <https://doi.org/10.1016/j.enconman.2019.01.024> 15 march WOS:000461728300001, IF2022=10.4 Q1, AIS= 4.096 Q1
13. Nicu Bizon. Hybrid power sources (HPSs) for space applications: analysis of PEMFC/Battery/SMES HPS under unknown load containing pulses. *Renewable & Sustainable Energy Reviews* 2019;105:14-37, <https://doi.org/10.1016/j.rser.2019.01.044> MAY 2019 WOS:000460121000002, IF2022=16.799 Q= 3.652 I, AIS Q1
14. N. Bizon, Jose Manuel Lopez-Guede, Erol Kurt, Phatiphat Thounthong, Alin Gheorghita Mazare, Laurentiu Mihai Ionescu, Gabriel Iana. Hydrogen Economy of the Fuel Cell Hybrid Power System optimized by air flow control to mitigate the effect of the uncertainty about available renewable power and load dynamics. *Energy Conversion and Management* 2019;179:152-165 ian 2019 WOS:000451490200013 <https://doi.org/10.1016/j.enconman.2018.10.054>, IF2022= 10.4 Q1, AIS= 4.096 Q1
15. N. Bizon. Effective Mitigation of the Load Pulses by Controlling the Battery/SMES Hybrid Energy Storage System. *Applied Energy* 2018;229:459-473, <https://doi.org/10.1016/j.apenergy.2018.08.013> 1 nov WOS: 000449891500037 IF2022 11.446 Q1, AIS=4.417 Q1

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19. N. Bizon, Alin Gheorghita Mazare, Laurentiu Mihai Ionescu, Florentina Magda Enescu. Optimization of the Proton Exchange Membrane Fuel Cell Hybrid Power System for Residential Buildings. *Energy Conversion and Management* 2018;163:22-37, 1 May 2018 <https://doi.org/10.1016/j.enconman.2018.02.025> WOS:000431837400003, IF2022= 10.4 Q1, AIS=4.096 Q1
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Calcul AIS relativ (ultimii 5 ani) pentru reviste AIS Q1

AIS	Nr autori	AISr	revista AIS Q1
2.421	6	0.404	Expert Systems with Applications
3.201	4	0.800	Energy
3.652	4	0.913	RSER
4.306	11	0.391	IEEE TRANSACTIONS ON SUSTAINABLE ENERGY
1.834	3	0.611	INTERNATIONAL JOURNAL OF ENERGY RESEARCH
1.834	3	0.611	INTERNATIONAL JOURNAL OF ENERGY RESEARCH
			IEEE TRANSACTIONS ON TRANSPORTATION
3.564	13	0.274	ELECTRIFICATION
4.417	1	4.417	Applied Energy
4.417	1	4.417	Applied Energy
4.096	1	4.096	ECM
4.417	1	4.417	Applied Energy
4.096	2	2.048	ECM
3.652	1	3.652	RSER
4.096	7	0.585	ECM
4.417	1	4.417	Applied Energy
2.49	7	0.356	IEEE Transactions on Industry Applications
4.096	2	2.048	ECM
3.652	2	1.826	ECM
4.096	4	1.024	ECM
4.417	1	4.417	Applied Energy
4.096	1	4.096	ECM
		45.821	

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