

ROMÂNIA  
 MINISTERUL APĂRĂRII NAȚIONALE  
 ACADEMIA NAVALĂ "MIRCEA CEL BĂTRÂN"  
 Anexa la Cererea nr.                      din

LISTA DE LUCRĂRI A ..... **DR. ING. BARACU TUDOR**.....  
 ANUL UNIVERSITAR .....

1. Lista celor maximum 10 lucrări considerate de candidat a fi cele mai relevante pentru realizările profesionale proprii, care sunt incluse în format electronic în dosar și care se pot regăsi și în celelalte categorii de lucrări:

- Lucrări publicate în reviste ISI:

Articol	Nr. Crt.	Nivel; Factor de impact ISI
Badea A., Baracu T., Dinca C., Tutica D., Grigore R., Anastasiu M., A life-cycle cost analysis of the Passive House "Politehnica" from Bucharest, Energy and Buildings, Vol. 80:542-555, ISSN 0378-7788, May 4, 2014 <a href="http://dx.doi.org/10.1016/j.enbuild.2014.04.044">http://dx.doi.org/10.1016/j.enbuild.2014.04.044</a>	1	ISI; 2.88
Ionescu C., Baracu T., Vlad G-B, Necula H, Badea A., The historical evolution of the energy efficient buildings, Renewable and Sustainable Energy Reviews, Vol. 49:243-253, ISSN 1364-0321, May 14, 2015. <a href="http://dx.doi.org/10.1016/j.rser.2015.04.062">http://dx.doi.org/10.1016/j.rser.2015.04.062</a>	2	ISI; 5.90
Baracu, T., Costinas S., Christian G., Badea A., Vladulescu F., Jugravescu D.- New analytical methodologies for radiative heat transfer in enclosures based on matrix formalism and network analogy, 2015 Applied Thermal Engineering Volume 107, 25 August 2016, Pages 1269–1286. <a href="https://doi.org/10.1016/j.applthermaleng.2016.06.157">https://doi.org/10.1016/j.applthermaleng.2016.06.157</a>	3	ISI; 3.043
Baracu T, Badescu V, Teodosiu C, Degeratu M, Patrascu M, Streche C- Consideration of a new extended power law of air infiltration through the building's envelope providing estimations of the leakage area, 2017 Energy and Buildings, Elsevier. <a href="https://doi.org/10.1016/j.enbuild.2017.04.055">https://doi.org/10.1016/j.enbuild.2017.04.055</a>	4	ISI; 2.973
Attia S, Eleftheriou P, Xenii F, Morlot R, Menezo C, Kostopoulos V, Betsi M, Kalaitzoglou I, Pagliano L, Cellura M, Almeida M, Ferreira M, Baracu T, Badescu V, Crutescu R, Hidalgo-Betanzos J M, Overview and future challenges of nearly zero energy buildings (nZEB) design in Southern Europe, 2017 Energy and Buildings Vol 155, 15 Nov 2017, Pages 439-458. <a href="https://doi.org/10.1016/j.enbuild.2017.09.043">https://doi.org/10.1016/j.enbuild.2017.09.043</a>	5	ISI; 2.973
Patrascu M, Baracu T, Badescu V, Birsan M-V, Teodosiu C, Degeratu M, Avram E R, Udrea M, Calancea L, Mesteru C, Modeling air leakage in buildings caused by the cyclic variation of the atmospheric pressure, 2018 Building Services Engineering Research and Technology, SAGE, <a href="https://doi.org/10.1177/0143624417749536">https://doi.org/10.1177/0143624417749536</a> <a href="https://doi.org/10.1177/0143624417749536">https://doi.org/10.1177/0143624417749536</a> ; WOS: 000436022000004	6	ISI; 0.670
Badescu V, Baracu T, Avram R, Grigore R, Patrascu M, On the design and optimization of constructal networks of heat exchangers by considering entropy generation minimization and thermoeconomics, 2017, Constructal and Second Law Conference, CLC2017, May 15-16, 2017, pp 539-547, Bucharest, Romania, Publishing Romanian Academy, ISBN 978-973-27-2748-5, WOS:000418803300033, Bucharest, Romania. <a href="https://acad.ro/sectii2002/proceedings/doc2018-1s/continut/273-278.pdf">https://acad.ro/sectii2002/proceedings/doc2018-1s/continut/273-278.pdf</a>	7	ISI; 1.083

- Lucrări în reviste indexate în baze de date

Articol	Nr. Crt.	Nivel; Factor de impact ISI
Baracu T., Tanasiev V., Mamut T., Streche C., Badea A., A transient thermal analysis by thermal networks of the Passive House "POLITEHNICA" from Bucharest, International Journal of Sustainable Building Technology and Urban Development, Vol. 4, Issue 2, pp146–159, Taylor & Francis, London – Seoul, June 28, 2013. <a href="http://dx.doi.org/10.1080/2093761X.2013.777682">http://dx.doi.org/10.1080/2093761X.2013.777682</a>	1	BDI/B+
Baracu T., Croitoru A.-M., Badea A., Theoretical investigations of the solar radiation at the site of passive house "Politehnica" from Bucharest, The Scientific Bulletin of University POLITEHNICA of Bucharest, U.P.B. Sci. Bull., Series C, Vol. 76, Iss. 4, 2014, ISSN 2286-3540, Romania, 2014	2	BDI/B+

<a href="https://www.scientificbulletin.upb.ro/rev_docs_arhiva/full52d_368966.pdf">https://www.scientificbulletin.upb.ro/rev_docs_arhiva/full52d_368966.pdf</a>		
Baracu T., Muresan M., Badea A., A comparative analysis of the controllers On-Off and PI for the heating system of a building, Proceedings of Francophone Multidisciplinary Colloquium on Materials, Environment and Electronics, PLUMEE 2013, ISSN 2343-9092, Bacau, Romania, 22 - 25 Mai, 2013. <a href="http://pubs.upb.ro/?pg=revues&amp;rev=plumee&amp;num=201301&amp;vol=1&amp;aid=3961">http://pubs.upb.ro/?pg=revues&amp;rev=plumee&amp;num=201301&amp;vol=1&amp;aid=3961</a>	3	BDI/B+
Streche C, Baracu T, Apostol T, Cocarta D M, Stan C- Evaluation of the efficiency of combining the electrochemical remediation and soil flushing methods in the soil contamination with diesel, 2017, Proceedings of 8th International Conference on Energy and Environment: Energy Saved Today is Asset for Future, CIEM 2017 (2018) 143-147, ISBN 978-1-5386-3943-6. <a href="https://doi.org/10.1109/CIEM.2017.8120864">https://doi.org/10.1109/CIEM.2017.8120864</a>	4	BDI/B+

### - Lucrări în volume ale manifestărilor științifice internaționale

Articol	Nr. crt	Nivel; Factor de impact ISI
Baracu T., A. Badea A., Contributions to the modeling of conductive heat transfer between the foundation of a building and ground, 8-th International Conference On Industrial Power Engineering, CIEI 2011, ISSN-L 2069-9905, April 14-15, 2011 - Bacau, Romania. ISSN-L 2069-9905	1	B
Baracu T, Mamut T D, Badea A- A transient thermal analysis of a passive house by thermal networks, 2011, 5th International Conference on Energy and Environment, CIEM 2011, November 3-4, 2011, Bucharest. ISSN 1454-23xx	2	B
Baracu T., Teodosiu C., Birsan M.-V., Badea A., Theoretical evaluations of the natural infiltration of the air in buildings, 2013, 6-th International Conference on Energy and Environment, CIEM 2013, ISSN: 2067-0893, Bucharest - Romania, 2013. ISSN: 2067-0893	3	B
Ionescu C, Baracu T, Badea A- An evolution of the concept of energy efficient house, 2013, 6-th International Conference on Energy and Environment, CIEM 2013, ISSN: 2067-0893, Bucharest - Romania, 2013. ISSN: 2067-0893	4	B
Baracu T, Anastasiu M, Tutica D, Grigore R, Dinca C, Baadea A- A life-cycle cost analysis involving thermal insulation of a passive house, 2013, 6-th International Conference on Energy and Environment, CIEM 2013, ISSN: 2067-0893, Bucharest - Romania, 2013.	5	B
Avram R. E., Baracu T, Sciubba E., Mamut E., Marinescu F., Thermoeconomic Analysis of the Environmental Impact of Condensing Boilers, 1st International Congress on Mechanical and Electrical Engineering and Technology / 4th International Conference on Marine Industry, MEET/MARIND, Volume 5, 06-11 October, 2002, Varna, Bulgaria.	6	-

### - Lucrări în volumele manifestărilor științifice naționale

Articol	Nr. crt	Nivel; Factor de impact ISI
Grigoras-Benescu S., Baracu T., Computational model of a free surface hydraulic flow over a stair-step, The 2nd Conference of the Young Researchers from TUCEB, November 17-18, Bucharest- Romania, 2011.	1	-
Baracu T., Grigoras-Benescu S., Computational analysis of the flow around a cylinder and of the drag force, The 2nd Conference of the Young Researchers from TUCEB, November 17-18, Bucharest- Romania, 2011.	2	-
Baracu T, Croitoru A-M, Badea A- Some investigations of the solar radiation at the site of passive house "Politehnica" from Bucharest, 2013, The International conference on Innovation and Collaboration in Engineering Research, , INCER 2013, ISSN 2344 – 1720, 20 – 21 June, 2013, Bucharest, Romania. ISSN 2344 – 1720	3	-
Streche C., Baracu T, Istrate I, Badea A, Apostol T, Evaluation of the efficiency of the method electro-flushing for the case of polluted soils with diesel oil, Workshop Recoland: Remediation of the contaminated soils and the evaluation of the risk for the human health, Sinaia, Romania; June 6, 2013.	4	-

### 2. Teza sau tezele de doctorat;

*Baracu, Tudor – Contributii la modelarea energetica a cladirilor, 2013, Teza de doctorat, Universitatea Politehnica, Facultatea de Energetica, Conducator de doctorat Prof. univ. dr. ing. Adrian Badea.*

### 3. Brevete de invenție și alte titluri de proprietate industrială;

....

#### 4. Cărți și capitole în cărți;

Raport științific internațional: *Attia S, Eleftheriou P, Xenii F, Morlot R, Menezes C, Kostopoulos V, Betsi M, Kalaitzoglou I, Pagliano L, Almeida M, Ferreira M, Baracu T, Badescu V, Crutescu R, Hidalgo-Betanzos J M- Overview of challenges of residential nearly Zero Energy Buildings (nZEB) in Southern Europe, 2016, Report of University of Liege, ISBN: 9782930909059, 1e, 20-Oct-2016, Liege, Belgium, 87 pages, <http://hdl.handle.net/2268/202600>.*

#### 5. Articole/studii in extenso, publicate în reviste din fluxul științific internațional principal

....

#### 6. Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

....

#### 7. Contracte/proiecte de cercetare-dezvoltare-inovare pe bază de contract/grant (incluzând numele proiectului, codul, competiția, directorul de proiect, valoarea totală, valoarea alocată instituției membre la care candidatul era afiliat în timpul derulării proiectului, alte informații)

- 1) *Competitie nationala: Proiect P3-P1-1-1.2-PCCDI-2017-0406 corespunzator proiectului P1 Proiect 1 **Optimizarea semnificativa a sistemelor complexe de productie a energiei regenerabile in zone costiere si ape curgatoare***, din cadrul proiectului complex *“Tehnologii inovative de productie a energiei regenerabile din surse naturale integrate in instalatii complexe TEACHERS”* cu nr. 81PCCDI/2018. Valoare proiect: 4.494.375,00 lei (echivalent Euro: 950.000 Euro).
- 2) *Competitie internationala: CMIRA 2014-Aide à la mobilité Individuelle entrante “Accueil Pro”, CETHIL UMR 5008, Sadi Carnot Bldg., Institut National de Sciences Appliquées de Lyon, France. Valoare proiect (echivalent euro): 25000 Euro*
- 3) *Competitie nationala: European Social Fund (ESF) funded project - „Burse doctorale: investitii în cercetare-inovare-dezvoltare pentru viitor (DocInvest)” (Contract no. POSDRU/107/1.5/S/76813). Valoare proiect (echivalent euro): 17640 Euro*
- 4) *Competitie U.P.B.: Proiect Nr. 3406 – “Reabilitarea imbinarilor sudate de colt din componenta structurilor sudate, in vederea maririi duratei de viata la oboseala “ (Contract de munca nr. 6338C/15.03.2019). Valoare proiect: 25247 Lei (echivalent Euro: 5200 Euro).*
- 5) *Competitie U.P.B.: Proiect Nr. 3407 - competitie U.P.B. – “Cercetari teoretice si experimentale privind aprecierea tensiunilor remanente din piese” (Contract de munca nr. 6341C/15.03.2019). Valoare proiect: 25123 Lei (echivalent Euro: 5200 Euro).*

#### 8. Alte lucrări și contribuții științifice sau, după caz, din domeniul creației artistice.

##### a) Teze (T)

Teze	T	Nivel
Baracu T- "Contributii la modelarea numerica a cladirilor" ("Contributions to the numerical modeling of the buildings"), teză de doctorat, Departamentul de Producere și Utilizare a Energiei, Facultatea de Energetică, Universitatea POLITEHNICA din București, decembrie 2013.	T1	Ph.D.
Baracu T- The design of a Ship Diesel Engine with Turbocharger, 2000 BSc Thesis, Faculty of Electromechanics, Maritime University of Constanta	T2	B.Sc.+
Baracu T- The design of a quay in the Port Constanta-Sud, 2001 BSc Thesis, Faculty of Civil Engineering, University Ovidius of Constanta	T3	B.Sc.+
Baracu T- Optimization of the heat exchangers with corrugated tubes, 2002 MSc Thesis- Scientific Coordinators Prof. Dr. Eng. Eden Mamut, Constantin Munteanu University Ovidius of Constanta	T4	M.Sc.
Baracu T- Psychological aspects of personnel counseling employed in activities of nuclear security, 2007 BSc Thesis- Scientific Coordinators Prof. Dr. Psy. Martin Nicolae, Faculty of Psychology, University Ovidius of Constanta	T5	B.Sc.+
Baracu T- Advanced fuel cycles in the nuclear reactor CANDU, 2007 MSc Thesis- Scientific Coordinators Prof. Dr. Eng. Alexandru Berinde, Faculty of Physics, Chemistry and Oil Technology - University "Ovidius" of Constanta, Romania	T6	M.Sc.
Baracu T- Plan of investment for electric energy production from renewable sources - wind farm near the town Topolog, 2009 MSc Thesis- Scientific Coordinators Prof. Dr. Ec. Gheorghe Negoescu, Faculty of Economic Sciences, University Ovidius of Constanta	T7	M.Sc.

## b) Rapoarte stiintifice

Raport	Nr. Crt.	Nivel; Factor de impact ISI
Baracu T- Problems of ecology, management and legislation regarding the nuclear reactors, 2007 Technical Report, University Ovidius of Constanta, Romania	1	-
Baracu T- Energy simulation of buildings, 2011 Technical Report, University Politehnica of Bucharest, Romania	2	-
Baracu T- Moisture in buildings and heat transfer in porous media, 2012 Technical Report, INSA de Lyon, Lyon, France.	3	-
Baracu T- Mathematical models for consumers and sources of energy from a building, 2013 Technical Report, University Politehnica of Bucharest, Romania	4	-
Baracu T- Numerical models of the enclosures, 2013 Technical Report, University Politehnica of Bucharest, Romania	5	-
Baracu T- Physical modeling and principles of acquisition and processing of data, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	6	-
Baracu T- Mathematical modeling and numerical analysis, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	7	-
Baracu T- Applied Hydraulics- Laminar and turbulent flow, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	8	-
Baracu T- The laminar and turbulent boundary layer developed at external flow, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	9	-
Baracu T- Elements of hydrodynamics of the hulls. Drag force, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	10	-
Baracu T- Numerical methods used for the modelation of the flow around the hull, 2011 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	11	-
Baracu T- Methods and technics of research in the Thermo-aerodynamics of the buildings, 2013 PhD Technical Report- Scientific Coordinator Prof Dr. Eng. Mircea Degeratu, Departemenet of Hydraulics and Protection of environment, Faculty of Hidrotechnics, Technical University of Civil Engineering From Bucharest (TUCEB)	12	-
Baracu T- A course on equation of diffusion, 2016 University Politehnica of Bucharest, Romania	13	-
Baracu T- A course on equations of boundary layer, 2016 University Politehnica of Bucharest, Romania	14	-
Baracu T- A course on Navier-Stokes equations, 2016 University Politehnica of Bucharest, Romania	15	-

Data

Semnătura