

Data 08.06.2017

Facultatea de Energetică  
 Departamentul de Producere și Utilizare a Energiei  
 Concurs pentru ocuparea postului **poz. 31, de șef de lucrări**,  
 Disciplinele: Metode numerice; Calitatea aerului în incinte; Utilizarea energiei; Transfer de căldură și masă.  
 Domeniul : Inginerie energetică

## LISTA DE LUCRĂRI

Candidat: Tudor BARACU - **Dr. Ing.** /din 2014

### Lista celor 10 lucrări relevante pentru realizările profesionale

Articol	Nr. Crt.	Factor de impact
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, <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> , May 4, 2014	1	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, <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> , May 14, 2015	2	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.	3	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, DOI: 10.1016/j.enbuild.2017.04.055, Elsevier.	4	2.973
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, <a href="http://dx.doi.org/10.1080/2093761X.2013.777682">http://dx.doi.org/10.1080/2093761X.2013.777682</a> , Indexed in BIB, RIS, Geobase, Taylor & Francis, London – Seoul, June 28, 2013	5	Nu
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 Law and Second Law Conference, 15-16 Mai, 2017 Bucharest (Romania), The Publishing House of the Romanian Academy, ISBN: 978-973-27-2748-55 August 2016, Pp 539-547.	6	Nu
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	7	Nu
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, Indexed in the International Databases "Viniti", Bacau, Romania, 22 - 25 Mai, 2013	8	Nu
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	9	Nu
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	10	Nu

### I. 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.+

Tudor BARACU  
 tbaracu@yahoo.co.uk



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.

## II. Articole/ Studii in extenso publicate (R, V)

**Ris** - Reviste de specialitate de circulație internațională recunoscute (cotate / indexate ISI Thomson Reuters, sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de selectie a revistelor pe baza unor criterii de performanta). *Se mentioneaza la fiecare lucrare includerea in Baza ISI si/sau denumirea altei (altor) BDI.*

**Rio** – Alte reviste de specialitate de circulație internațională.

**Rns** - Reviste de specialitate de circulație națională recunoscute de CNCSIS. Se mentioneaza Categoria CNCSIS.

**Rno** - Alte reviste de specialitate de circulație națională.

**Vis**- Volumele unor manifestări științifice internaționale recunoscute, organizate in țară și străinătate, indexate ISI Thomson Reuters sau indexate in alte Baze de Date Internationale - BDI specifice domeniului, care fac un proces de 5 selectie a publicațiilor pe baza unor criterii de performanta. *Se mentioneaza la fiecare lucrare includerea in Baza ISI si/sau denumirea altei (altor) BDI.*

### a) Articole ISI (Ris)

Articol ISI	Ris	Factor de impact
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, <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> , May 4, 2014	Ris1	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, <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> , May 14, 2015	Ris2	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.	Ris3	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, DOI: 10.1016/j.enbuild.2017.04.055, Elsevier.	Ris4	2.973

### b) Articole BDI (Ris)

Articol BDI	Ris	Factor de impact
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, <a href="http://dx.doi.org/10.1080/2093761X.2013.777682">http://dx.doi.org/10.1080/2093761X.2013.777682</a> , Indexed in BIB, RIS, Geobase, Taylor & Francis, London – Seoul, June 28, 2013	Ris5	Nu
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 Law and Second Law Conference, 15-16 Mai, 2017 Bucharest (Romania), The Publishing House of the Romanian Academy, ISBN: 978-973-27-2748-55 August 2016, Pp 539-547.	Ris6	
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	Ris7	Nu
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, Indexed in the International Databases "Viniti", Bacau, Romania, 22 - 25 Mai, 2013	Ris8	Nu

### c) Articole la manifestari stiitifice nationale/internationale recunoscute (Vis)

Articol Vis	Vis	Factor de impact
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	Vis1	Nu

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 2069-9905, Indexed in "Viniti", April 14-15, 2011 - Bacau, Romania	Vis2	Nu
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	Vis3	Nu
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	Vis4	Nu
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	Vis5	Nu
Baracu T., Teodosiu C., Birsan M.-V., Badea A., Theoretical evaluations of the natural infiltration of the air in buildings, 6-th International Conference on Energy and Environment, CIEM 2013, Bucharest - Romania, 2013	Vis6	Nu

### III. Comunicari stiintifice nepublicate

E – Lucrări prezentate la diferite seminarii/expoziții, conferințe, etc

### IV. Alte materiale publicate (I, D) - Nu

I - Culegeri și îndrumare publicate (separate în edituri cu ISBN și în tipografiile locale/de instituții sau de uz intern).

D - Alte lucrări publicate: capitole publicate în volume colective, capitole teoretice redactate, sisteme de laborator funcționale etc.

### V. Brevete de invenție/ Inovații (B, A)- Nu

### VI. Contracte și rapoarte științifice (P, F)- Nu

P – Proiecte de cercetare-dezvoltare – inovare obținute prin competiție, pe bază de contract/grant, în țară/străinătate (Pn – naționale, Pi - internaționale).

F – Alte lucrări de cercetare – dezvoltare (*Obs.-a se menționa calitatea de responsabil/director sau coautor*).

#### Rapoarte științifice prezentate

Raport	Fn	Factor de impact
Baracu T- Problems of ecology, management and legislation regarding the nuclear reactors, 2007 Technical Report, University Ovidius of Constanta, Romania	Fn1	-
Baracu T- Energy simulation of buildings, 2011 Technical Report, University Politehnica of Bucharest, Romania	Fn2	-
Baracu T- Moisture in buildings and heat transfer in porous media, 2012 Technical Report, INSA de Lyon, Lyon, France.	Fn3	-
Baracu T- Mathematical models for consumers and sources of energy from a building, 2013 Technical Report, University Politehnica of Bucharest, Romania	Fn4	-
Baracu T- Numerical models of the enclosures, 2013 Technical Report, University Politehnica of Bucharest, Romania	Fn5	-
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)	Fn6	-
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)	Fn7	-
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)	Fn8	-
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)	Fn9	-
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)	Fn10	-
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)	Fn11	-
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)	Fn12	-

Baracu T- A course on equation of diffusion, 2016 University Politehnica of Bucharest, Romania	Fn13	-
Baracu T- A course on equations of boundary layer, 2016 University Politehnica of Bucharest, Romania	Fn14	-
Baracu T- A course on Navier-Stokes equations, 2016 University Politehnica of Bucharest, Romania	Fn15	-

## VII. Cărți publicate (C) – Nu

**Ca** – Cărți / cursuri (manuale) pentru uzul studentilor, publicate în edituri recunoscute.

**Cb** - Cărți de specialitate publicate în edituri recunoscute (autor, coautor, editor).

**Cc** - Cărți publicate în alte edituri, cu ISBN

## VIII. Creatii artistice (A, E)- Nu

**A**- Creații artistice prezentate la manifestări recunoscute (A1, A2 etc.).

**E**- articole/studii publicate în volumele unor manifestări științifice naționale, lucrări prezentate la diferite seminarii/expoziții și nepublicate (E1, E2 etc.) etc.

**Data 08.06.2017**

**Candidat**

Tudor BARACU