

PERSONAL INFORMATION



Gabriela HUMINIC

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POSITION
PhD COORDINATOR
IOSUD UTBV

PhD coordinator in the doctoral studies domain: Mechanical Engineering
 Since: Year / date –2015/October
 Expertise fields and research interest topics within the coordinated PhD domain

- Heat Transfer using CFD and experimental techniques
- Applied Thermodynamics
- Heat exchangers
- Heat pipes
- Nanofluids for heat transfer applications

Nationality Romanian

WORK EXPERIENCE

Sept. 2001 – Present	<p>Professor, Associate Professor, Lecturer, Assistant Professor, Teaching assistant Transilvania University of Brasov, Faculty of Mechanical Engineering</p> <ul style="list-style-type: none"> ▪ Teaching (courses, tutorials, laboratories), research <p>Education and research</p>
2016-2020	<p>Member CNATDCU (Mechanical Engineering Section), Romania</p>
2008-2011	<p>Scientific secretary of the Thermodynamics and Fluid Mechanics Department Transilvania University of Brasov, , Faculty of Mechanical Engineering</p>

EDUCATION AND TRAINING

September 2015	<p>Habitation thesis in <i>Mechanical Engineering</i> Transilvania University of Brasov</p>
March. 2006 – June 2006	<p>Post-graduation qualification in <i>Energy Audit of the Buildings and Installations</i> Technical University of Civil Engineering Bucharest, Faculty of Building Service</p>
Sept. 2001 – March 2005	<p>PhD degree in <i>Mechanical Engineering</i> Transilvania University of Brasov</p>
Oct. 2000 – July 2001	<p>MSc in <i>Energy and Environment Protection</i> Transilvania University of Brasov, Faculty of Mechanical Engineering</p>
Oct 1995 – July 2000	<p>BSc in <i>Aircraft Design</i> Transilvania University of Brasov, Faculty of Manufacturing Engineering</p>

PERSONAL SKILLS

Mother tongue(s) **ROMANIAN**

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	B2	B2	C1
French	B2	B2	A2	A2	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Communication skills Good communication skills gained through my experience as teacher

Computing skills CAD Programmes –AutoCAD, Pro-Engineer
 CAE Programmes, CFD (heat transfer) - ANSYS CFX, ANSYS-FLUENT; Grid generation in ANSYS Workbench; Experience with parallel computer systems of distributed memory

ADDITIONAL INFORMATION

Publications Articles published in **ISI journals: 31 (24 articles published in red area (Q1))**
 Articles indexed in BDI/ISI: 39
 Invited chapter of books: 4 (Elsevier, CRC Press)

Projects National projects: 15(3 as project manager, 12 as member in team)

Conferences Articles published in international conferences: 15
 Articles published in national conferences: 30

Patent Number of patent: 1

Honours and awards Certificate of Excellence for Outstanding Results in Scientific Research, December 2013.

Certificate of Outstanding Contribution in Reviewing, awarded by the editors of „Energy Conversion and Management Journal“, November 2014

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "International Journal of Thermal Sciences", April 2016

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "European Journal of Mechanics - B/Fluids", October 2016

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "Renewable and Sustainable Review", July 2017.

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "Experimental Thermal and Fluid Science", September 2018.

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "Applied Energy", June 2018.

Certificate of Outstanding Contribution in Reviewing, awarded by the Editors of "Journal of Molecular Liquids", May, 2018.

Awarding the results of the research 2009-2020, UEFISCDI, Romania

Memberships Vice-president of Romanian Thermal Engineering Society;
 American Nano Society – USA.

Reviewer Reviewer at over 50 ISI journals: International Journal Heat and Mass Transfer; Experimental

Thermal and Fluid Science, Experimental Heat Transfer, International Journal of Thermal Sciences, Chemical Engineering Communications, Chemical Engineering Science, Industrial & Engineering Chemical Research, International Journal Physical Sciences, Heat Transfer Engineering, Materials Science and Engineering B, Energy Conversion and Management, European Journal of Mechanics - B/Fluids, Energy Technology, Fuel, International Journal of Multiphase Flow, Journal of Heat Transfer, Renewable & Sustainable Energy Reviews, Thermal Science, Applied Thermal Engineering, Chemical Engineering Research and Design, Engineering International Journal of Exergy, Cryogenics, Applied Energy, Int J Refrigeration, International Journal of Refrigeration, The Canadian Journal of Chemical Engineering, Journal of Molecular Liquids, Industrial and Engineering Chemistry, Energy, Chemical Engineering & Processing: Process Intensification, Current Nanoscience, Nanomaterials, Heat Transfer Research, Powder Technology, International Journal of Thermophysics

Member “Mechanical Engineering, Mechatronic and Robotic” Section – Transilvania University of Brasov

Expert – Evaluator Romanian research projects supported by CNCISIS / ANCS / UEFISCDI -2008-2020

Member in Editorial Board Fundamental Journal of Thermal Science and Engineering
http://www.frdint.com/fundamental_journal_thermal_science_engineering_edit.html
 International Journal of Thermofluid Science and Technology (SCOPUS).
<http://ajhmt.uscip.us/EditorialBoard.aspx>
 Energies (ISI), https://www.mdpi.com/journal/energies/sectioneditors/thermal_management

Citations > 1300 (SCOPUS- without self - citations)
 >1100 (Web of Science - without self - citations)
 > 1800 (Google Scholar)

H-index 18 (Scopus - without self citation)
 16 (Web of Science – without self citation)
 20(Google Scholar)

ANNEXES

List of relevant research articles (**articles published in red area (Q1)**):

1. Huminic G, Huminic A, Flăcă C., Dumitrache F, Morjan I., “*Experimental study on viscosity of water based Fe-Si hybrid nanofluids*”, Journal of Molecular Liquids 321 (2021) 114938.
2. Huminic G, Huminic A, Dumitrache F, Flăcă C., Morjan I., “*Study of the thermal conductivity of hybrid nanofluids: recent research and experimental study*”, Powder Technology 367 (2020) 347–357
3. Huminic G, Huminic A., “*Entropy generation of nanofluid and hybrid nanofluid flow in thermal systems: A review*”, Journal of Molecular Liquids 302(2020), Article number 112533.
4. Huminic A, Huminic, G., “*Aerodynamics of curved underbody diffusers using CFD*”, Journal of Wind Engineering and Industrial Aerodynamics 205 (2020) 104300.
5. Minea, A.A., Buonomo, B., Burggraf, J., Ercole, D., Karpaiya, K.R., Di Pasqua, A., Sekrani, G., Steffens, J., Tibaut, J., Wichmann, N., Farber, P., Huminic, A., Huminic, G, Mahu, R., Manca, O., Oprea, C., Poncet, S., Ravnik, J., “*NanoRound: A benchmark study on the numerical approach in nanofluids' simulation*” 108(2019) 104292.
6. Huminic A, Huminic G, Flăcă C., Dumitrache F, Morjan I., “*Thermo-physical properties of water based lanthanum oxide nanofluid. An experimental study*”, Journal of Molecular Liquids 287 (2019) 111013.

7. Hernaiz, M., Alonso, V., Estellé, P., Wu, Z., Sundén, B., Doretti, L., Mancin, S., Çobanoğlu, N., Karadeniz, Z.H., Garmendia, N., Lasheras-Zubiate, M., Hernández López, L., Mondragón, R., Martínez-Cuenca, R., Barison, S., Kujawska, A., Turgut, A., Amigo, A., Huminic, G., Huminic, A., Kalus, M.-R., Schroth, K.-G., Buschmann, M.H., "The contact angle of nanofluids as thermophysical property", *Journal of Colloid and Interface Science* 547 (2019) 393-406.
8. Huminic G, Huminic A., "The influence of hybrid nanofluids on the performances of elliptical tube: Recent research and numerical study", *International Journal of Heat and Mass Transfer* 129 (2019) 132-143.
9. Huminic G, Huminic A., "Heat transfer capability of the hybrid nanofluids for heat transfer applications", *Journal of Molecular Liquids* 272 (2018) 857-870.
10. Moldoveanu, G. M., Huminic, G., Minea, A. A., Huminic, A., "Experimental study on thermal conductivity of stabilized Al_2O_3 and SiO_2 nanofluids and their hybrid", *International Journal of Heat and Mass Transfer* 127 (2018) 450-457.
11. Huminic, G., Huminic, A., "The heat transfer performances and entropy generation analysis of hybrid nanofluids in a flattened tube", *International Journal of Heat and Mass Transfer* 119 (2018) 813-827.
12. Huminic, G., Huminic, A., "Hybrid nanofluids for heat transfer applications – A state-of-the-art review", *International Journal of Heat and Mass Transfer* 125 (2018) 82-103.

Article is classified as Hot Paper and Highly Cited Paper by Essential Science Indicators

13. Sova D, Porojan M., Bedeleian B, Huminc G, "Effective thermal conductivity models applied to wood briquettes", *International Journal of Thermal Sciences* 124(2018) 1-12.
14. Huminic G, Huminic A, Fleaca C., Dumitrache F, Morjan I., "Thermo-physical properties of water based SiC nanofluids for heat transfer applications", *International Communications in Heat and Mass Transfer* 84(2017) 94–101, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2017.04.006
15. Huminic G, Huminic A., "Heat transfer and flow characteristics of conventional fluids and nanofluids in curved tubes: A review", *Renewable and Sustainable Energy Reviews* 58 (2016) 1327–1347, ISSN: 1364-0321, doi: 10.1016/j.rser.2015.12.230

Article is classified as a Highly Cited Paper by Essential Science Indicators

16. Huminic G, Huminic A., "Heat transfer and entropy generation analyses of nanofluids in helically coiled tube-in-tube heat exchangers", *International Communications in Heat Mass Transfer* 71 (2016) 118–125, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2015.12.031
17. Huminic A., Huminic G*, Fleaca C., Dumitrache F, Morjan I., "Thermal conductivity, viscosity and surface tension of nanofluids based on FeC nanoparticles", *Powder Technology* 284 (2015) 78–84, ISSN: 0032-5910, doi: 10.1016/j.powtec.2015.06.040

Articol included in Top 25 Hottest Articles, Science Direct, Chemical Engineering, Powder Technology, July to September 2015, October to December 2015

18. Dumitrache F, Morjan I, Fleaca C., Badoi A., Manda G, Pop S., Marta D.S., Huminic G, Huminic A., Vekas L., Daia C., Marinica O., Luculescu C., Niculescu A.M., „Highly magnetic Fe_2O_3 nanoparticles synthesized by laser pyrolysis used for biological and heat transfer applications”, *Applied Surface Science* 336 (2015) 297–303, ISSN: 0169-4332, doi: 10.1016/j.apsusc.2014.12.098
19. Huminic G, Huminic A., "Numerical study on heat transfer characteristics of thermosiphon heat pipes using nanofluids", *Energy Conversion and Management* 76 (2013) 393-399, ISSN: 0196-8904, doi: 10.1016/j.enconman.2013.07.026
20. Huminic G, Huminic A., "Numerical analysis of laminar flow heat transfer of nanofluids in a flattened tube", *International Communications in Heat and Mass Transfer*, 44 (2013) 52-57, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2013.03.003

Articol included in Top 25 Hottest Articles, Science Direct, Engineering, International Communications in Heat and Mass Transfer, January to March 2013

21. Huminic G, Huminic A., "Application of nanofluids in heat exchangers: A review", *Renewable and Sustainable Energy Reviews*, 16 (8) (2012) 5625-5638, ISSN: 136403212, doi: 10.1016/j.rser.2012.05.023

Article is classified as a Highly Cited Paper by Essential Science Indicators

22. Huminic G, Huminic A., "Heat transfer characteristics in double tube helical heat exchangers using nanofluids", *International Journal of Heat and Mass Transfer* 54 (19-20) (2011) 4280-4287, ISSN: 0017-9310, doi: 10.1016/j.ijheatmasstransfer.2011.05.017

Articol included in Top 25 Hottest Articles, Science Direct, Engineering-Energy, International Journal of Heat and Mass Transfer July to September 2011.

23. Huminic G, Huminic A., "Heat transfer characteristics of a two-phase closed thermosyphons using nanofluids", *Experimental Thermal and Fluid Science* 35 (3) (2011) 550–557, doi: 10.1016/j.expthermflusci.2010.12.009

Articol included in Top 25 Hottest Articles, Science Direct, Engineering-Energy, Experimental Thermal and Fluid Science, January to March 2011 și în „Most Cited Experimental Thermal and Fluid Science Articles” Published Since 2010.

24. Huminic G, Huminic A., I. Morjan I., F. Dumitrache F., "Experimental study of the thermal performance of thermosyphon heat pipe using iron oxide nanoparticles", *International Journal of Heat and Mass Transfer*, 54 (1-3) (2011) 656–661, ISSN: 0017-9310, doi: 10.1016/j.ijheatmasstransfer.2010.09.005

Articol included in Top 25 Hottest Articles, Science Direct, Engineering-Energy, International Journal of Heat and Mass Transfer, October to December 2010.

Invited chapter

25. Huminic G, Huminic A., "Entropy Generation Analysis of Hybrid Nanofluids Flow in Ducts with Various Shapes", chapter in the book "Nanofluids and their engineering applications" edited by K.R.V. Subramanian, Tubati Nageswara Rao and Avinash Balakrishnan, pp. 77-104, 2019, CRC Press Taylor & Francis, doi.org/10.1201/9780429468223
26. Huminic G, Huminic A., Dumitrache F, Fleaca C., "Carbon-Based Nanofluids Characteristics - Basics and Applications on Heat Pipes", chapter in the book „Advances in New Heat Transfer Fluids”, pp. 75-112, 2017, CRC Press Taylor & Francis, doi: 10.1201/9781315368184-3

Research projects, as project manager:

1. „Application of nanofluids to heat pipes for high performances in cooling systems”, PNII-IDEAS 2011-2016, no. 122/5.10.2011, Transilvania University of Braşov, 2011- 2016.
2. "Heat transfer optimization by devices based on phase change of the magnetic liquids”, PNII-IDEAS 2007-2010, no. 216/1.10.2007, Transilvania University of Braşov, 2007-2010.
3. "Synergetic analysis of the vaporisation processes”, CNCSIS TD, no. 33369/29.06.2004, Transilvania University of Braşov, 2004.

Research projects, as partner team leader:

4. "Aerodynamic optimization of the automotive spoilers and wings”, PNII – IDEAS, no. 758/2008, Transilvania University of Braşov, 2008-2010.
5. "Study of the Aerodynamic Interaction between Cars and Road”, CEEX-ET CNCSIS, no. 5885/18.09.2006, Transilvania University of Braşov, 2006-2008.\
6. "CFD Analysis of Ground Effect Influence on Aerodynamic Characteristics of a Land Vehicle – Stage II: Experimental Study” - Contract no. 33.253/25.06.2003 CNCSIS At - Universitatea Transilvania Brasov, CNCSIS code 151, 2003.
7. "CFD Analysis of Ground Effect Influence on Aerodynamic Characteristics of a Land Vehicle – Stage I: Study in virtual Environment” - Contract no. 33.45917.07/2002 CNCSIS At - Transilvania University of Brasov, CNCSIS code 306, 2002.
8. „Increasing the wetting power of a thermal fluid” contract no. 14533/05.11.2015 - Insitut fur Solartechnik SPF, Elvetia - Transilvania University of Brasov, 2015.
9. „Experimental determination of the functional characteristics of wind turbines 1 and Windy 2”, contract no. 7862/15.06.2010, COTA PFA - Transilvania University of Brasov, 2010.
10. „Realisation of the experimental installation for determination the working parameters of the prototype of a reduction gear - pressure regulator for nitrogen”, contract no. 18/31.07.2008, S.C. Cambric Consulting SRL Brasov - Transilvania University of Brasov, 2008.
11. „Experimental determination of the working parameters of the prototype of a reduction gear - pressure regulator for nitrogen”, contract no. 19/31.07.2008, S.C. Cambric Consulting SRL Brasov - Transilvania University of Brasov, 2008.
12. "Establishing of the working parameters of the Smoky wind turbine”, contract no. 1/09.02.2004 SC Smoky SRL Harman, Brasov - Transilvania University of Brasov, 2004.

13. „Study of heat balance for boilers CAF 100 Gcal/h and CR 16/1” – Contract no. 06/09/2002, SC ROMAN - ENERGETIC SA and Transilvania University of Brasov, 2002.
14. „Study of heat balance for steam boilers of SC Rulmentul SA Brasov”– Contract no. 07/09/2002, SC RULMENTUL SA and Transilvania University of Brasov, 2002.
15. “Study of heat balance for high-power boiler” - Contract no. 08/09/2002, SC METROM SA Brasov and Transilvania University of Brasov, 2002.

International projects:

16. COST-Horizon 2020, “Overcoming Barriers to Nanofluids Market Uptake (NANO-UPTAKE)” – substitute member in Management Committee, 2016-2020
17. SOCRATES – Invited Professor at HOCHSCHULE KONSTANZ Technic, Wirtschaft und Gestaltung, Germany, 2007.
18. TEMPUS, Nr. IB_JEP 14397-1999, *Retraining the Administrators from Education Field*, coordinator „Dunărea de Jos” University, Galați - Invited Professor at Oficina de Cooperation Universitaria, Madrid, Spain.

Granted national patents:

19. Huminic G, Huminic A., *Working fluid for a heat pipe*, Transilvania University of Brasov, RO126060/30.09.14

January, 2021