

PERSONAL INFORMATION



WORK EXPERIENCE

2014 – present 2000 - 2014

Angel HUMINIC

- Transilvania University of Brasov, faculty of Mechanical Engineering 29 Bulevardul Eroilor, Brasov 500036, RO
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Professor Dr. habil.

Associate Professor and Assistant Professor

Transilvania University of Brasov, Mechanical Engineering department 29 Bulevardul Eroilor, Brasov 500036, RO, <u>www.unitbv.ro</u>

- charged with Fluid Mechanics and Aerodynamics courses and practical works, charged with the Aerodynamics laboratory of Transilvania University of Brasov
- research activity: coordinator/team member in research projects with industry and Romanian Ministry
 of Education and Research regarding road vehicle aerodynamics, fluid dynamics simulations,
 thermophysical properties of fluids used in heat transfer

2012 - 2020 Engineer

INAS (Institutul pentru Analiza Sistemelor) SA 37C Bulevardul N. Romanescu, Craiova 200738, RO, <u>www.inas.ro/ro</u>

- charged with research activity in the field of mechanical structures design and CFD analyses (ANSYS CFX, ANSYS FLUENT)
 - coordinator/team member in research projects
- charged with courses of Fluid Mechanics and Introduction to CFD (Computational Fluid Dynamics)

1996 - 2000 Engineer

SC IAR (Intreprinderea Aeronautică Română – Romanian Aeronautical Company) SA, dept. of R&D 1 Aeroportului street, Ghimbav 507075, RO, <u>www.iar.ro</u>

- charged with design of aircraft structures and mechanical components

EDUCATION

2016 Habilitation Thesis

Transilvania University of Brasov

Mechanical Engineering: Road Vehicles Aerodynamic Design

2005 PhD Thesis

- Transilvania University of Brasov
- Mechanical Engineering: Ground effect in Road Vehicle Aerodynamics

1996 Aerospace Engineer

Transilvania University of Brasov

PERSONAL SKILLS

Romanian

Other language(s)

Native language

UNDERSTANDING		SPEAKING		WRITING
Reading	Listening	Spoken interaction	Spoken production	



English	C2	C2	C2	C1	C1
Français	B2	B1	A2	A1	A1

Communication skills	 Communication skills based on the experience during teaching activity, dissemination of research and participation in international programmes and projects Attending and speaker to international conferences/programmes (England, Belgium, France, Germany, Greece, Italy, Spain, Portugal, the USA)
Organisational and managerial skills	Organisational and managerial skills based on the experience during research activity • Coordinator of research projects with industry and Romanian Ministry of Education and Research • Organizer (team member) of scientific events: national and international conferences
Job-related technical skills	Fluid dynamics simulation (CFD) and CAD design • ANSYS CFD, Matlab
Licenses and certifications	 ANSYS Certified Professional, Fluids - Technical V1, ANSYS Certification Program (R17/2016, R19/2018) Fundamentals of Aerodynamics Applied to Race Cars, SAE International Professional Development Program (Society of Automotive Engineers, USA), 2008. Aircraft Design and Mechanical Structures, SC IAR SA Brasov (Romanian Aeronautical Company) professional certificate no. 1767/01/1999

ADDITIONAL INFORMATION

Publications

Books/Book chapters (selection)

- Huminic G., Huminic A., Entropy Generation Analysis of Hybrid Nanofluids Flow in Ducts with Various Shapes, chapter 5 in Nanofluids and Their Engineering Applications, Taylor & Francis, CRC Press, ISBN 9780429468223, 2019
- Huminic G., Huminic A., Dumitrache F., Fleacă C., Carbon-Based Nanofluids Characteristics Basics and Applications on Heat Pipes, chapter 4 in Advances in New Heat Transfer Fluids From Numerical to Experimental Techniques, Taylor & Francis, CRC Press, ISBN 978-1-4987-5185-8, 2017
- Huminic A., Mecanica Fluidelor (Fluid Mechanics), Transilvania University Press, 2014, ISBN 978-606-19-0380-1
- Soica A., Chiru A., Ispas N., Huminic A., Caroserii şi Sisteme de Siguranță Pasivă (Cars Bodies and Passive systems of Safety), Transilvania University Press, ISBN 973-635-461-X, 2005

Articles in international journals (selection)

- Huminic A., Huminic G., Fleaca C., Dumitrache F., Morjan I., Influence of solid surface, temperature and concentration on contact angle of water-FeC nanofluid, International Communications in Heat and Mass Transfer, 2021, 128, 105650
- Huminic A., Huminic, G., 2020, Aerodynamics of curved underbody diffusers using CFD, Journal of Wind Engineering and Industrial Aerodynamics, 205, 104300
- Huminic A., Huminic G., Fleaca C., Dumitrache F., Morjan I., Thermo-physical properties of water based lanthanum oxide nanofluid. An experimental study, 2019, Journal of Molecular Liquids 287, 111013
- Huminic A., Huminic G., Aerodynamic study of a generic car model with wheels and underbody diffuser, 2017, International Journal of Automotive Technology, 18(3), 397-404
- Huminic A., Huminic G., Fleaca C., Dumitrache F., Morjan I., Thermal conductivity, viscosity and surface tension of nanofluids based on FeC nanoparticles, 2015, Powder Technology, 284, 78-84
- Huminic A., Huminic G., Soica A., 2012, Study of aerodynamics for a simplified car model with the underbody shaped as a Venturi nozzle, Int. J. of Vehicle Design, 58, 15-32
- Huminic G., Huminic A., Numerical analysis of laminar flow heat transfer of nanofluids in a flattened tube, 2013, International Communications in Heat and Mass Transfer, 44, 52-57

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

- Huminic G., Huminic A., Application of nanofluids in heat exchangers: A review, 2012, Renewable and Sustainable Energy Reviews, 16(8), 5625-5638
- Huminic G., Huminic A., Heat transfer characteristics in double tube helical heat exchangers using nanofluids, 2011, International Journal of Heat and Mass Transfer, 54(19-20), 4280-4287

in Top 25 Hottest Articles, Science Direct, Engineering-Energy, International Journal of Heat and Mass Transfer



July to September 2011.

 Huminic G., Huminic A., Heat transfer characteristics of a two-phase closed thermosyphons using nanofluids, 2010, Experimental Thermal and Fluid Science, 35(3), 550–557

in Top 25 Hottest Articles, Science Direct, Engineering-Energy, Experimental Thermal and Fluid Science, January to March 2011.

 Huminic G., Huminic A., I. Morjan I., F. Dumitrache F., Experimental study of the thermal performance of thermosyphon heat pipe using iron oxide nanoparticles, 2010, International Journal of Heat and Mass Transfer, 54(1-3), 656–661

	Mass fransier, 54(1-5), 050-001
	in Top 25 Hottest Articles, Science Direct, Engineering-Energy, International Journal of Heat and Mass Transfer, October to December 2010.
Attending to international programmes (selection)	 2020-2024, CEEPUS, Building Knowledge and Experience Exchange in CFD, CIII-RS-1012-01-1516, partner team leader 2016-2020, COST Action, Nanouptake – Overcoming Barriers to Nanofluids Market Uptake, CA-15119 (member of Management Committee) 2015, Îmbunătățirea capacității de udare a unui fluid termic, research contract 14533/05.11.2015, Istitut fur Solartechnik SPF, Elveția- Transilvania University of Brasov (coordinator) 2007, ERASMUS, teaching staff mobility to Fh. Konstanz, Germany 2007, Leonardo da Vinci, Exchange of Competencies On Renewable Energy Sources and Environment Management, project RO/2003/PL 91183 2004, HPC EUROPA (High Performance Computing), Ground Effect in Design of Vehicles - CFD Study Concerning the Behaviour of Clark-Y Airfoil in Ground Effect (project coordinator) 2001-2002, TEMPUS, Retraining the Administrators from Education Field, project IB_JEP 14397-1999
Attending to international conferences (selection)	 1st International Conference on Nanofluids (INCf) and 2nd European Symposium on Nanofluids (ESNf), 2019, Castello, Spain International Conference on "Energy Conversion, Management, Recovery, Saving, Storage and Renewable Systems", AIGE/IIETA 2016, Naples, 2017, Genoa, Italy French Symposium In Energy, Environment, Economy and Thermodynamics - COFRET 2014, Paris, France 4th European Automotive Simulation Conference 2009, Munich, Germany SAE World Congress 2008, 2009, 2012, Detroit, the USA
Professional Affiliations	 Member of SAE International (Society of Automotive Engineers, USA) no 6111203020, 2004-2019 Associate member of SAE Road Vehicle Aerodynamics Committee, since 2009
PROFESSIONAL RECOGNITION	
Reviewer for international journals, > 65 (selection)	Advances in Mechanical Engineering (SAGE), Applied Thermal Engineering (ELSEVIER), Colloids and Surfaces A (ELSEVIER), Energy (ELSEVIER), Energy Conversion and Management (ELSEVIER), Heat Transfer Engineering (Taylor&Francis), International Journal of Energy Research (Wiley), International Journal of Aerospace (SAE), International Journal of Heat and Mass Transfer (ELSEVIER), International Journal of Passenger Cars: Mechanical Systems (SAE), International Journal of Thermal Science (ELSEVIER), Journal of Automobile Engineering (SAGE), Journal of Heat Transfer (ASME), Journal of Molecular Liquids (ELSEVIER), Journal of Thermal Analysis and Calorimetry (SPRINGER), Journal of Wind Engineering & Industrial Aerodynamics (ELSEVIER), Measurement (ELSEVIER), Microfluidics and Nanofluidics (SPRINGER), Powder Technology (ELSEVIER), Vehicle Aerodynamics (SAE).
Evaluator for:	European Commision, European Innovation Council and SMEs Executive Agency (https://eismea.ec.europa.eu/index_en), 2024, 2025
	Czech Science Foundation (https://gacr.cz/en/), 2022
	UEFISCDI (https://uefiscdi.gov.ro/), 2021, 2020
Awards	 Member Service Award, 2008, SAE International Outstanding contributions in reviewing, 2017, Energy, IJHMT, IJTS, JOES 2016, ECM , PT,

WoS/Scopus citations > 2600/3200



• **1 ISI WoS Hot Paper in the Field** (paper published in the past two years and received enough citations to place it in the top 0.1% of papers in its academic field)

Huminic G., Huminic A., Hybrid nanofluids for heat transfer applications - A state-of-the-art review, 2018, International Journal of Heat And Mass Transfer, 125, 82-103

• 3 ISI WoS Highly Cited in the Field (papers published in the past two years and received enough citations to place them in the top 1% of their academic field)

Huminic G., Huminic A., Entropy generation of nanofluid and hybrid nanofluid flow in thermal systems: A review, 2020, Journal Of Molecular Liquids, 302, 112533

Huminic G., Huminic A., Hybrid nanofluids for heat transfer applications - A state-ofthe-art review, 2018, International Journal of Heat And Mass Transfer, 125, 82-103

Huminic G., Huminic A., Application of nanofluids in heat exchangers: A review, 2012, Renewable & Sustainable Energy Reviews, 16(8), 5625-5638

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