



FIȘA PENTRU VERIFICAREA STANDARDELOR MINIMALE

domeniul fundamental "Științe inginerești"

comisia de specialitate "Inginerie mecanică, mecatronică și robotică"

Îndeplinirea indicatorilor specifici de evaluare

Dr ing. Gabriela HUMINIC

Criteriul CDI, minim 10 – Activitatea de cercetare, dezvoltare tehnologică și inovare	328.845	Criteriul DID, minim 10 – Activitatea didactică și profesională	12.26	Criteriul RIA, minim 10 – Recunoașterea și impactul activității	27.396
Contribuție principală, minim 6	327.845	Contribuție principală, minim 6	7.26	Contribuție principală, minim 6	25.645
Contribuție complementară	1.00	Contribuție complementară	5.00	Contribuție complementară	1.751
Indicator	Punctaj	Indicator	Punctaj	Indicator	Punctaj

Criteriul CDI

Activitate de cercetare științifică, dezvoltare tehnologică și inovare

Contribuție principală

Articole științifice publicate în reviste de specialitate cotate ISI (CDI-ART)

1 articol = $FI \cdot \text{articol} + \sum FI \cdot \text{citare}$; $FI^* = 0.1 + \text{Factor de impact (martie 2015)}$

Nr. crt.	Referința bibliografică (ISI / Scopus)	FI articol	FI* articol	Puncte /articol
17.	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., „ <i>Highly magnetic Fe₂O₃nanoparticles synthesized by laser pyrolysis used for biological and heat transfer applications</i> ”, Applied Surface Science 336 (2015) 297–303, ISSN: 01694332, doi: 10.1016/j.apsusc.2014.12.098	2.538	2.638	2.638

16.	Huminić G., Huminić A., "Numerical study on heat transfer characteristics of thermosyphon heat pipes using nanofluids", Energy Conversion and Management, Volume 76, 2013, Pages 393-399, ISSN: 01968904, doi: 10.1016/j.enconman.2013.07.026	3.590	3.690		35.602
Citări (Web of Science / Scopus)		<i>FI citare</i>	<i>FI* citare</i>	ΣFI^*_{citare}	
16.1	Avramenko, A.A et al., "Heat transfer at film condensation of moving vapor with nanoparticles over a flat surface" International Journal of Heat and Mass Transfer , Volume 82, 2 August 2015, Pages 316-324, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2014.11.059.	2.522	2.622		
16.2	Kothandapani, M. and Prakash, J., "Effect of radiation and magnetic field on peristaltic transport of nanofluids through a porous space in a tapered asymmetric channel", Journal of Magnetism and Magnetic Materials, Volume 378, 15 March 2015, Pages 152-163, ISSN: 03048853, doi: 10.1016/j.jmmm.2014.11.031.	2.002	2.102		
16.3	Amiri, A., et al., "Performance dependence of thermosyphon on the functionalization approaches: An experimental study on thermo-physical properties of graphene nanoplatelet-based water nanofluids", Energy Conversion and Management, Volume 92, 1 March 2015, Pages 322-330, ISSN: 01968904, doi: 10.1016/j.enconman.2014.12.051.	3.590	3.690		
16.4	Avramenko, A.A et al., "Heat transfer at film condensation of stationary vapor with nanoparticles near a vertical plate", Applied Thermal Engineering , Volume 73, Issue 1, 5 December 2014, Pages 389-396, ISSN: 13594311, doi:10.1016/j.applthermaleng.2014.07.070.	2.624	2.724		
16.5	Shahmohammadi, A., Jafari, A., "Application of different CFD multiphase models to investigate effects of baffles and nanoparticles on heat transfer enhancement", Frontiers of Chemical Science and Engineering ,Volume 8, Issue 3, 15 October 2014, Pages 320-329, ISSN: 20950179, doi: 10.1007/s11705-014-1437-7.		0.1	31.912	
16.6	Khoshvaght-Aliabadi, M, "Influence of different design parameters and Al2O3-water nanofluid flow on heat transfer and flow characteristics of sinusoidal-corrugated channels" Energy Conversion and Management , Volume 88, December 2014, Pages 96-105, ISSN: 0196890, doi: 10.1016/j.enconman.2014.08.042	3.590	3.690		
16.7	Aly W.I.A., "Numerical study on turbulent heat transfer and pressure drop of nanofluid in coiled tube-in-tube heat exchangers", Energy Conversion and Management, Volume 79, March 2014, pp. 304-316, ISSN: 01968904, doi: 10.1016/j.enconman.2013.12.031	3.590	3.690		
16.8	Ting T. W., et al., "Effects of streamwise conduction on thermal performance of nanofluid flow in microchannel heat sinks", Energy Conversion and Management, Volume 78, 2014, Pages 14-23, ISSN: 01968904, doi: 10.1016/j.enconman.2013.10.061	3.590	3.690		
16.9	Chehade A.A., et al., "Experimental investigation of thermosyphon loop thermal performance", Energy Conversion and Management Volume 84, August 2014, Pages 671-680, ISSN: 01968904, doi: 10.1016/j.enconman.2014.04.092	3.590	3.690		
16.10	Alawi, O.A., et al., "Fluid flow and heat transfer characteristics of	2.124	2.224		

	nanofluids in heat pipes: A review", International Communications in Heat and Mass Transfer, Volume 56, August 2014, Pages 50-62, ISSN: 07351933, doi: 10.1016/j.icheatmasstransfer.2014.04.014				
16.11	Karami N., Rahimi, M., " Heat transfer enhancement in a PV cell using Boehmite nanofluid", Energy Conversion and Management Volume 86, October 2014, Pages 275-285, ISSN: 01968904, doi: 10.1016/j.enconman.2014.05.037	3.590	3.690		
15.	Huminic G., Huminic A., "Numerical Analysis of Laminar Flow Heat Transfer of Nanofluids in a Flattened Tube", International Communications in Heat and Mass Transfer, Volume 44, May 2013, Pages 52-57, ISSN: 07351933 doi: 10.1016/j.icheatmasstransfer.2013.03.003	2.124	2.224		
15.1	Naphon, P., Nakharintr, L. , "Turbulent two phase approach model for the nanofluids heat transfer analysis flowing through the minichannel heat sinks", International Journal of Heat and Mass Transfer , Volume 82, March 2015, Pages 388-395, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2014.11.024.	2.522	2.622		6.876
15.2	Manikandan, S., Jancirani, J., "Review on heat transfer enhancement of nanofluids - Engine coolant", Advanced Materials Research , Volume 984-985, 2014, Pages 1095-1101, ISSN: 10226680, doi: 10.4028/www.scientific.net/AMR.984-985.1095		0.1	4.652	
15.3	Tohidi A., et al., "Laminar Heat Transfer Enhancement Utilizing Nanofluids in a Chaotic Flow", Journal of Heat Transfer, Volume 136, Issue 9, June 2014, Pages 8, ISSN 00221481, doi: 10.1115/1.4027773	1.830	1.930		
14.	Huminic A., Huminic G., "Numerical Flow Simulation for a Generic Vehicle Body on Wheels with Variable Underbody Diffuser", SAE Technical Paper 2012-01-0172, 2012, doi: 10.4271/2012-01-0172		0.1		0.1
13.	Huminic A., Huminic G., Şoica A., "Study of aerodynamics for a simplified car model with the underbody shaped as a Venturi nozzle", International Journal of Vehicle Design, Volume 58, Issue 1, March 2012, Pages 15-32, ISSN: 01433369 doi: 10.1504/IJVD.2012.045927	0.239	0.339		1.943
Citari (Web of Science / Scopus)		<i>FI citare</i>	<i>FI* citare</i>	ΣFI^*_{citare}	
13.1	Sudin M.N. et al., " Review of research on vehicles aerodynamic drag reduction methods", International Journal of Mechanical and Mechatronics Engineering, Volume 14, Issue 2, 2014, pp. 35-47, ISSN: 22272771, paper id:145302-6868-IJMME-IJENS	1.504	1.604	1.604	
12.	Huminic G., Huminic A., "The Cooling Performances Evaluation of Nanofluids in a Compact Heat Exchanger", SAE Technical Paper 2012-01-1045, 2012, doi:10.4271/2012-01-1045		0.1		5.710
Citari (Web of Science / Scopus)		<i>FI citare</i>	<i>FI* citare</i>	ΣFI^*_{citare}	
12.1	Hussein A.M. et al., "A review of forced convection heat transfer enhancement and hydrodynamic characteristics of a nanofluid", Renewable and Sustainable Energy Reviews, Volume 29, 2014, 734-743, ISSN: 13640321, doi: 10.1016/j.rser.2013.08.014	5.510	5.610	5.610	
11.	Huminic G., Huminic A., "Application of nanofluids in heat exchangers: A Review", Renewable and Sustainable Energy Reviews, Volume 16, Issue 8, October 2012, Pages 5625-5638 ISSN: 13640321, doi: 10.1016/j.rser.2012.05.023	5.510	5.610		99.809
Citări (Web of Science / Scopus)		<i>FI citare</i>	<i>FI* citare</i>	ΣFI^*_{citare}	

11.1	Wu, Y.-Y., et al., "Performance analysis of photovoltaic-thermoelectric hybrid system with and without glass cover", Energy Conversion and Management, Volume 93, 15 March 2015, Pages 151-159, ISSN: 01968904, doi: 10.1016/j.enconman.2015.01.013.	3.590	3.690	94.199
11.2	Khoshvaght-Aliabadi, M., Alizadeh, A., "An experimental study of Cu-water nanofluid flow inside serpentine tubes with variable straight-section lengths" Experimental Thermal and Fluid Science, Volume 61, February 01, 2015, Pages 1-11, ISSN: 08941777, doi: 10.1016/j.expthermflusci.2014.09.014.	2.080	2.180	
11.3	Lomascolo, M., et al., "Review of heat transfer in nanofluids: Conductive, convective and radiative experimental results", Renewable and Sustainable Energy Reviews, Volume 43, March 2015, Pages 1182-1198, ISSN: 13640321, doi: 10.1016/j.rser.2014.11.086.	5.510	5.610	
11.4	Mustafa, M., et al., "Analytical and numerical solutions for axisymmetric flow of nanofluid due to non-linearly stretching sheet", International Journal of Non-Linear Mechanics, Volume 71, May 2015, Pages 22-29, ISSN: 00207462, doi: 10.1016/j.ijnonlinmec.2015.01.005.	1.463	1.563	
11.5	Khoshvaght-Aliabadi, M., Hormozi, F., "Heat transfer enhancement by using copper-water nanofluid flow inside a pin channel", Experimental Heat Transfer, Volume 28, Issue 5, 3 September 2015, Pages 446-463, ISSN: 08916152, doi: 10.1080/08916152.2014.907844.	0.400	0.500	
11.6	Fani, B., et al., "Investigating the effect of Brownian motion and viscous dissipation on the nanofluid heat transfer in a trapezoidal microchannel heat sink", Advanced Powder Technology, Volume 26, Issue 1, 1 January 2015, Pages 83-90, ISSN: 09218831, doi: 10.1016/j.appt.2014.08.009.	1.642	1.742	
11.7	Mohanraj, M., et al., "Applications of artificial neural networks for thermal analysis of heat exchangers - A review", International Journal of Thermal Sciences, Volume 90, April 2015, Pages 150-172, ISSN: 12900729, doi: 10.1016/j.ijthermalsci.2014.11.030.	2.563	2.663	
11.8	Mustafa, M., "Boundary layer flow of nanofluid over a nonlinearly stretching sheet with convective boundary condition", IEEE Transactions on Nanotechnology, Volume 14, Issue 1, 1 January 2015, Article number 6967833, Pages 159-168, ISSN: 1536125X, doi: 10.1109/TNANO.2014.2374732.	1.619	1.719	
11.9	Rahimi-Gorji, M., et al., "Statistical optimization of microchannel heat sink (MCHS) geometry cooled by different nanofluids using RSM analysis", European Physical Journal Plus, Volume 130, Issue 2, 2015, Pages 1-21, ISSN: 21905444, doi: 10.1140/epjp/i2015-15022-8.	1.475	1.575	
11.10	Sarkar, J., et al., "A review on hybrid nanofluids: Recent research, development and applications" Renewable and Sustainable Energy Reviews, Volume 43, March 2015, Pages 164-177, ISSN: 13640321, doi: 10.1016/j.rser.2014.11.023.	5.510	5.610	
11.11	Taghizadeh Tabari Z., Zeinali Heris S., "Heat Transfer Performance of Milk Pasteurization Plate Heat Exchangers Using MWCNT/Water Nanofluid", Journal of Dispersion Science and Technology, Volume 36, Issue 2, 1 February 2015, Pages 196-20, ISSN: 01932691,	0.705	0.805	

	doi:10.1080/01932691.2014.894917.				
11.12	Nicoletti, R., "The importance of the heat capacity of lubricants with nanoparticles in the static behavior of journal bearings" Journal of Tribology, Volume 136, Issue 4, October 2014, Article number 044502, ISSN: 07424787, doi: 10.1115/1.4027861.	0.897	0.997		
11.13	Said, Z., et al., "New thermophysical properties of water based TiO ₂ nanofluid-The hysteresis phenomenon revisited", International Communications in Heat and Mass Transfer, Volume 58, Issue 1, November 01, 2014, Pages 85-95, ISSN: 07351933, doi: 10.1016/j.icheatmasstransfer.2014.08.034.	2.124	2.224		
11.14	Mustafa, M., et al., "Nonlinear radiation heat transfer effects in the natural convective boundary layer flow of nanofluid past a vertical plate: A numerical study" , PLoS ONE , Volume 9, Issue 9, 24 September 2014, Article number e103946, ISSN: 19326203, doi: 10.1371/journal.pone.0103946.	3.534	3.634		
11.15	Khoshvaght-Aliabadi M., et al., "Effects of geometrical parameters on performance of plate-fin heat exchanger: Vortex-generator as core surface and nanofluid as working media", Applied Thermal Engineering, Volume 70, Issue 1, 5 September 2014, Pages 565-579, ISSN 1359-4311, doi: 10.1016/j.applthermaleng.2014.04.026	2.624	2.724		
11.16	Nikkhah, V., et al., "Particulate fouling of CuO-water nanofluid at isothermal diffusive condition inside the conventional heat exchanger-experimental and modeling", Experimental Thermal and Fluid Science , Volume 60, September 01, 2014, Pages 83-95, ISSN: 0894177, doi: 10.1016/j.expthermflusci.2014.08.009	2.080	2.180		
11.17	Atashrouz S., et al., "Estimation of the viscosity of nine nanofluids using a hybrid GMDH-type neural network system", Fluid Phase Equilibria, Volume 372, 25 June 2014, Pages 43-48, ISSN 0378-3812, doi: 10.1016/j.fluid.2014.03.031	2.241	2.341		
11.18	Nine M.J., et al., "Is metal nanofluid reliable as heat carrier?", Journal of Hazardous Materials', Volume 273, 30 May 2014, Pages 183-191, ISSN 1873-3336, doi: 10.1016/j.jhazmat.2014.03.055	4.330	4.430		
11.19	Batmunkh, M., et al., "Thermal conductivity of TiO ₂ nanoparticles based aqueous nanofluids with an addition of a modified silver particle", Industrial and Engineering Chemistry Research, olume 53, Issue 20, 21 May 2014, Pages 8445-8451, ISSN 1520-5045, DOI: 10.1021/ie403712f	2.240	2.340		
11.20	Al-Nimr M.A., Al-Dafaie A.M.A., "Using nanofluids in enhancing the performance of a novel two-layer solar pond", Energy, Volume 68, 15 April 2014, Pages 318-326, ISSN 0360-5442, DOI: 10.1016/j.energy.2014.03.023	4.159	4.259		
11.21	Halelfadl S., et al., "Efficiency of carbon nanotubes water based nanofluids as coolants", Experimental Thermal and Fluid Science, Volume 53, 2014, Pages 104-110, ISSN: 08941777, doi:10.1016/j.expthermflusci.2013.11.010	2.080	2.180		
11.22	Gurav P., et al., "Stable colloidal copper nanoparticles for a nanofluid: Production and application", Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 441, 2014, Pages 589-597, ISSN: 09277757, doi:10.1016/j.colsurfa.2013.10.026	2.354	2.454		
11.23	Vermahmoudi Y., et al., "Experimental investigation on heat transfer performance of Fe ₂ O ₃ /water nanofluid in an air-finned	1.545	1.645		

	heat exchanger", <i>European Journal of Mechanics - B/Fluids</i> , Volume 44, March–April 2014, Pages 32–41, ISSN: 09977546, doi: 10.1016/j.euromechflu.2013.10.002				
11.24	Khoshvaght-Aliabadi, M., et al., "Experimental study of Cu–water nanofluid forced convective flow inside a louvered channel", <i>Heat and Mass Transfer</i> , Volume 51, Issue 3, 2014, Pages 423-432, ISSN: 09477411, doi: 10.1007/s00231-014-1422-1	0.929	1.029		
11.25	Rimbault, B., et al., "Experimental investigation of CuO-water nanofluid flow and heat transfer inside a microchannel heat sink", <i>International Journal of Thermal Sciences</i> , Volume 84, October 2014, Pages 275-292, ISSN: 12900729, doi: 10.1016/j.ijthermalsci.2014.05.025.	2.563	2.663		
11.26	Chen, T.Y. et al., "Performance analysis of Al/water nanofluid with cationic chitosan dispersant", <i>Advances in Materials Science and Engineering</i> , Volume 2013, Article number 686409, ISSN: 16878434, doi:10.1155/2013/686409	0.897	0.997		
11.27	Khoshvaght-Aliabadi, M., "Influence of different design parameters and Al ₂ O ₃ -water nanofluid flow on heat transfer and flow characteristics of sinusoidal-corrugated channels", <i>Energy Conversion and Management</i> , Volume 88, December 2014, Pages 96-105, ISSN: 01968904, doi: 10.1016/j.enconman.2014.08.042.	3.590	3.690		
11.28	Tiwari, A.K., et al., "Numerical investigation of heat transfer and fluid flow in plate heat exchanger using nanofluids", <i>International Journal of Thermal Sciences</i> , Volume 85, November 2014, Pages 93-103, ISSN: 12900729, doi: 10.1016/j.ijthermalsci.2014.06.015.	2.563	2.663		
11.29	Gupta, M., et al., "A comprehensive review of experimental investigations of forced convective heat transfer characteristics for various nanofluids", <i>International Journal of Mechanical and Materials Engineering</i> , Volume 9, Issue 1, 1 December 2014, Article number 11, 21p, ISSN: 18230334, doi: 10.1186/s40712-014-0011-x	0.140	0.240		
11.30	Khoshvaght-Aliabadi M., et al., "Wavy Channel and Different Nanofluids Effects on Performance of Plate-Fin Heat Exchangers", <i>Journal of Thermophysics and Heat Transfer</i> , Volume 28, Issue 3, July-September 2014, Pages 474-484, ISSN: 08878722, doi:10.2514/1.T4209	0.871	0.971		
11.31	Safikhani H. et al., "Modeling and Optimization of Nanofluid Flow in Flat Tubes Using a Combination of CFD and Response Surface Methodology", <i>Heat Transfer—Asian Research</i> , 2014 doi:10.1002/htj.21126		0.1		
11.32	Halelfadl S., et al., "Heat transfer properties of aqueous carbon nanotubes nanofluids in coaxial heat exchanger under laminar regime", <i>Experimental Thermal and Fluid Science</i> , Volume 55, May 2014, Pages 174-180 doi:10.1016/j.expthermflusci.2014.03.003	2.080	2.180		
11.33	Ricardo F.P. Tiecher, et al., "A comparative parametric study on single-phase Al ₂ O ₃ –water nanofluid exchanging heat with a phase-changing fluid", <i>International Journal of Thermal Sciences</i> , Volume 74, December 2013, 190–198, doi:10.1016/j.ijthermalsci.2013.06.014	2.563	2.663		
11.34	Tiwari A.K. et al., "Performance comparison of the plate heat exchanger using different nanofluids", <i>Experimental Thermal and</i>	2.080	2.180		

	Fluid Science, Volume 49, 2013, Pages 141-151, ISSN: 08941777, doi:10.1016/j.expthermflusci.2013.04.012				
11.35	Abdullah S. et al., "Clinicopathological features and immunohistochemical detection of antigens in acute experimental Streptococcus agalactiae infection in red tilapia", SpringerPlus, Volume 2, Issue 1, 2013, Pages 1-7, ISSN: 21931801, doi:10.1186/2193-1801-2-286		0.1		
11.36	Cabaleiro D., et al., "Rheological and volumetric properties of TiO ₂ -ethylene glycol nanofluids", Nanoscale Research Letters, Volume 8, Issue 1, 2013, ISSN: 19317573, doi: 10.1186/1556-276X-8-286	2.481	2.581		
11.37	Wu Z., et al., "Pressure drop and convective heat transfer of water and nanofluids in a double-pipe helical heat exchanger", Applied Thermal Engineering, Volume 60, Issue 1-2, 2013, Pages 266-274, ISSN: 13594311, doi:10.1016/j.applthermaleng.2013.06.051	2.624	2.724		
11.38	Chehade A.A., et al., "Boiling local heat transfer enhancement in minichannels using nanofluids", Nanoscale Research Letters, Volume 8, Issue 1, 2013, Pages 1-20, ISSN: 19317573, ISSN: 13594311, doi:10.1186/1556-276X-8-130	2.481	2.581		
11.39	Javadi F.S., et al., "The effects of nanofluid on thermophysical properties and heat transfer characteristics of a plate heat exchanger", International Communications in Heat and Mass Transfer, Volume 44, May 2013, Pages 58-63, ISSN: 07351933, doi:10.1016/j.icheatmasstransfer.2013.03.017	2.124	2.224		
11.40	Tiwari, A.K., et al., "Heat transfer and pressure drop characteristics of CeO ₂ /water nanofluid in plate heat exchanger", Applied Thermal Engineering, Volume 57, Issue 1-2, 2013, Pages 24-32, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2013.03.047	2.624	2.724		
11.41	Mital M., "Semi-analytical investigation of electronics cooling using developing nanofluid flow in rectangular microchannels", Applied Thermal Engineering, Volume 52, Issue 2, 2013, Pages 321-327, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2012.12.020	2.624	2.724		
11.42	Mital M., "Evolutionary optimization of electronic circuitry cooling using nanofluid", Modelling and Simulation in Engineering, Volume 2012, 2012, Article number 793462, ISSN: 16875591, doi: 10.1155/2012/793462		0.1		
10.	Huminić G., Huminić A., "Heat transfer characteristics in double tube helical heat exchangers using nanofluids", International Journal of Heat and Mass Transfer, Volume 54, Issue 19-20, 2011, Pages 4280-4287, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2011.05.017	2.522	2.622		41.695
Citări (Web of Science / Scopus)		<i>FI</i> citare	<i>FI</i> * citare	Σ <i>FI</i> * citare	
10.1	Efstathios E. Michaelides, "Nanofluidics: Thermodynamic and Transport Properties", ISBN 978-3-319-05620-3, DOI: 10.1007/978-3-319-05621-0, Springer 2014		0.1	39.073	
10.2	Khoshvaght-Aliabadi, M., Alizadeh A., "An experimental study of Cu-water nanofluid flow inside serpentine tubes with variable straight-section lengths", Experimental Thermal and Fluid Science, Volume 61, February 01, 2015, Pages 1-11, ISSN: 08941777, doi: 10.1016/j.expthermflusci.2014.09.014.	2.080	2.180		
10.3	Mukesh Kumar, P.C., et al., "CFD analysis of heat transfer and pressure drop in helically coiled heat exchangers using Al ₂ O ₃ / water nanofluid", Russian Journal of Pacific Geology, Volume 9,	0.350	0.450		

	Issue 1, 2015, Pages 697-705, ISSN: 18197140, doi: 10.1007/s12206-015-0129-7		
10.4	Narrein K, Mohammed H.A., "Heat transfer and fluid flow characteristics in helically coiled tube heat exchanger (HCTHE) using nanofluids: A review", Journal of Computational and Theoretical Nanoscience, Volume 11, Issue 4, 2014, Pages 911-927, ISSN: 1546-1955, doi: 10.1166/jctn.2014.3445	1.032	1.132
10.5	Aly W.I.A., "Numerical study on turbulent heat transfer and pressure drop of nanofluid in coiled tube-in-tube heat exchangers", Energy Conversion and Management, Volume 79, 2014, Pages 304-316, doi: 10.1016/j.enconman.2013.12.031	3.590	3.690
10.6	Yarmand, H., et al., "Entropy generation during turbulent flow of zirconia-water and other nanofluids in a square cross section tube with a constant heat flux", Entropy, Volume 16, Issue 11, 2014, Pages 6116-6132, ISSN: 10994300, doi: 10.3390/e16116116.	1.564	1.664
10.7	Kahani M. et al., "Effects of Curvature Ratio and Coil Pitch Spacing on Heat Transfer Performance of Al ₂ O ₃ /Water Nanofluid Laminar Flow through Helical Coils", Journal of Dispersion Science and Technology, Volume 34, Issue 12, 2013, Pages 1704-1712, ISSN: 0193-2691, doi: 10.1080/01932691.2013.764485	0.705	0.805
10.8	Bahiraei M., Hangi M., "Investigating the efficacy of magnetic nanofluid as a coolant in double-pipe heat exchanger in the presence of magnetic field", Energy Conversion and Management, Volume 76, 2013, Pages 1125-1133, doi: 10.1016/j.enconman.2013.09.008	3.590	3.690
10.9	Mahian O. et al., "A review of entropy generation in nanofluid flow", International Journal of Heat and Mass Transfer, Volume 65, 2013, Pages 514-532, doi:10.1016/j.ijheatmasstransfer.2013.06.010	2.522	2.622
10.10	Sundar L.S. et al., "Empirical and theoretical correlations on viscosity of nanofluids: A review", Renewable and Sustainable Energy Reviews, Volume 25, 2013, Pages 670-686, ISSN: doi: 10.1016/j.rser.2013.04.003	5.510	5.610
10.11	Narrein K, Mohammed, H.A., "Influence of nanofluids and rotation on helically coiled tube heat exchanger performance", Thermochimica Acta, Volume 564, 2013, Pages 13-23, doi: 10.1016/j.tca.2013.04.004	2.105	2.205
10.12	Michaelides E.E., "Transport properties of nanofluids. A critical review", Journal of Non-Equilibrium Thermodynamics, Volume 38, Issue 1, 2013, Pages 1-79, ISSN: 1437-4358, doi: 10.1515/jnetdy-2012-0023	0.805	0.905
10.13	Akbaridoust F. et al., "Experimental and numerical investigation of nanofluid heat transfer in helically coiled tubes at constant wall temperature using dispersion model", International Journal of Heat and Mass Transfer, Volume 58, Issue 1-2, 2013, Pages 480-491 doi: 10.1016/j.ijheatmasstransfer.2012.11.064	2.522	2.622
10.14	Gorman J.M. et al., "Operating characteristics and fabrication of a uniquely compact helical heat exchanger", Applied Thermal Engineering, Volume 50, Issue 1, 2013, Pages 1070-1075, doi: 10.1016/j.applthermaleng.2012.06.023	2.624	2.724
10.15	Syam-Sundar L., Singh M.K., "Convective heat transfer and friction factor correlations of nanofluid in a tube and with inserts: A review", Renewable and Sustainable Energy Reviews, Volume 20,	5.510	5.610

	2013, Pages 23-35, doi: 10.1016/j.rser.2012.11.041			
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9.3	Jia, R., et al., "Experimental and numerical study on the self-balancing heating performance of a thermosyphon during the process of oil production", Applied Thermal Engineering, Volume 73, Issue 1, 5 December 2014, Pages 1270-1278, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2014.09.027	2.624	2.724	
9.4	Avramenko, A.A., et al. « Heat transfer at film condensation of stationary vapor with nanoparticles near a vertical plate" Applied Thermal Engineering, Volume 73, Issue 1, 5 December 2014, Pages 389-396, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2014.07.070	2.624	2.724	
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9.6	Heris S.Z., et al., " Effect of electric field on thermal performance of thermosyphon heat pipes using nanofluids", Materials Research Bulletin, Volume 53, 2014, Pages 21-27, doi: 10.1016/j.materresbull.2014.01.030	1.968	2.068	
9.7	Jiang F., et al., "Heat transfer enhancement in a three-phase closed thermosyphon", Applied Thermal Engineering, Volume 65, Issue 1-2, 2014, Pages 495-501, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2014.01.043	2.624	2.724	
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9.19	Brusly Solomon, A., et al., "Thermal performance of anodized two phase closed thermosyphon (TPCT)", Experimental Thermal and Fluid Science, Volume 48, July 2013, Pages 49-57, ISSN: 08941777, doi: 10.1016/j.expthermflusci.2013.02.007	2.080	2.180
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8.31	Brusly-Solomon A., et al., "Thermal performance of anodized two phase closed thermosyphon (TPCT)", Experimental Thermal and Fluid Science, Volume 48, July 2013, Pages 49-57, ISSN: 08941777, doi: 10.1016/j.expthermflusci.2013.02.007	2.080	2.180		
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8.34	Chen Y.-J., et al., "Application of water-based SiO ₂ functionalized nanofluid in a loop thermosyphon", International Journal of Heat and Mass Transfer, Volume 56, Issue 1-2, 1 January 2013, Pages 59-68, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2012.09.048	2.522	2.622		
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Contribuție complementară

Brevete de invenție: 1 brevet de invenție național = 1 punct

Nr. crt.	Denumire brevet	Nr. brevet	Puncte	TOTAL
1.	Huminic G., Huminic A., „Fluid de lucru pentru un tub termic”, Universitatea Transilvania din Brasov.	RO126060/30.09.14.	1.00	1.00

Criteriul DID

Activitate didactică și profesională

Contribuție principală

Manuale - suport de curs, format tipărit sau electronic (DID-MS): 1 punct = 50 pagini

Nr. crt.	Referința bibliografică	Nr. pagini	Puncte	TOTAL
1.	HUMINIC G., ȘOVA D., "Engineering Thermodynamics", Editura Universității Transilvania din Brașov, ISBN 978-973-598-546-2, 2009.	161	3.22	7.26
2.	HUMINIC G., "Analiza entropică a proceselor termice", Editura Universității Transilvania din Brașov, ISBN 978-973-598-238-6, 2008.	202	4.04	

Contribuție complementară

Standuri/instalații pentru activități didactice realizate (DID-LAB): 1 punct = 1 lucrare de laborator cu infrastructură realizată

Nr. crt.	Stand/instalație	Puncte	TOTAL
3.	Stand pentru determinarea parametrilor termodinamici la starea critică	1	5
4.	Stand pentru testarea tuburilor termice	1	
5.	Stand pentru determinarea proprietăților termice ale lichidelor și solidelor.	1	
6.	Stand pentru determinarea proprietăților fizice ale lichidelor (tensiune superficială, densitate, vâscozitate, unghiul de contact, sedimentare).	1	
7.	Sistem de calcul mutiprosesor, 32 processor cores, 128 GB mRAM	1	

Criteriul RIA

Recunoaștere și impactul activității

Contribuție principală: Director sau responsabil granturi și contracte (RIA-GRA, RIA-CTR)

Proiecte câștigate prin competiție națională în calitate de director (1 punct = 50000 RON)

Nr. crt.	Denumirea	Perioada de derulare	Valoare (lei)	Punctaj
1.	"Aplicarea nanofluidelor la tuburile termice în vederea îmbunătățirii performanțelor de sistemelor de răcire", PNII - IDEI, nr. 122/5.10.2011, Universitatea Transilvania din Brașov	2011 2016	1.430.000,0 (1.153.137,5lei /2011-2015)	23.063
2.	" Optimizarea transferului de caldură prin dispozitive bazate pe schimbarea de fază a lichidelor magnetice, PNII - IDEI, nr. 216/1.10.2007 Universitatea Transilvania din Brașov	2007 2010	122.915,5	2.458
3.	" Analiza sinergetică a proceselor de vaporizare, CNCSIS TD, nr. 33369/29.06.2004, Universitatea Transilvania din Brașov	2004	6.200,0	0.124

Contribuție complementară: Activitate de cercetare - dezvoltare - inovare în cadrul granturilor/proiectelor

Proiecte câștigate prin competiție națională în calitate de membru în echipă (0.25 puncte = 50000 RON)

Nr. crt.	Denumirea	Perioada de derulare	Valoare (lei)	Punctaj
4.	"Optimizarea structurilor Aerodinamice Deportante de Automobile", contract PNII IDEI - CNCSIS, ID 758/2008, Universitatea Transilvania din Brașov, coordonator dr ing. Angel Huminic	2010 2008	125.340,0	0.627
5.	"Studiul Interacțiunii Aerodinamice Automobil - Cale de Rulare", contract CEEX-ET CNCSIS, nr. 5885/18.09.2006, Universitatea Transilvania din Brașov, coordonator dr ing. Angel Huminic	2008 2006	120.000,0	0.600
7.	"Analiza CFD a influenței efectului de sol asupra caracteristicilor aerodinamice ale unui automobil de teren" - contract nr. 33.459/17.07.2002, CNCSIS, Universitatea Transilvania din Brașov, coordonator dr ing. Angel Huminic	2003 2002	8.600,0	0.043

Membru în echipă, contract cu beneficiar din mediul economic național (0.25 puncte = 10000 RON)

Nr. crt.	Denumirea	Perioada de derulare	Valoare (lei)	Punctaj
8.	"Determinarea caracteristicilor funcționale ale turbinelor de vânt Windy 1 și Windy 2", contract 7862/15.06.2010, COTA PFA - Universitatea Transilvania Brasov	2010	1800	0.045
9.	"Determinarea experimentală a parametrilor funcționali ai prototipului unui reductor - regulator de presiune pentru argon", contract 19/31.07.2008, SC CABRIC Brasov - Universitatea Transilvania din Brașov	2008	1500	0.037
10.	„Realizarea instalației experimentale pentru determinarea parametrilor funcționali ai prototipului unui reductor - regulator de presiune pentru argon”, contract nr.	2008	800	0.020

	18/31.07.2008, SC CABRIC Brasov, Universitatea Transilvania din Braşov			
11.	"Determinarea caracteristicilor funcţionale ale turbinei de vânt Smoky", contract nr. 1/09.02.2004 între SC Smoky SRL Hărman, Braşov - Universitatea Transilvania din Braşov	2004	1297	0.032
12.	"Bilanţ Termic pentru Cazan CAF 100 Gcal/ora si Bilanţ Termic pentru Cazanul de Abur CR 16/1", contract nr. 06/09/2002, SC ROMAN ENERGETIC SA Braşov, Universitatea Transilvania din Braşov	2002	4470	0.112
13.	"Realizarea Bilanşurilor Energetice ale Cazanelor din Centrala de Abur a SC Rulmentul SA, Braşov si Propuneri de Îmbunătăţire a Randamentelor Termice în Vederea Optimizărilor Energetice", contract nr. 07/09/2002, SC RULMENTUL SA Braşov, Universitatea Transilvania din Braşov	2002	7000	0.175
14.	"Consultanta si Bilant Energetic, Reducerea Pierderilor de Energie Termica si Propuneri pentru Marirea Randamentului Termic", contract nr. 08/09/2002, SC METROM SA Braşov, Universitatea Transilvania Brasov	2002	2490	0.062

27.04.2015

Dr ing. Gabriela HUMINIC