**Universitatea TRANSILVANIA din Braşov**

***Facultatea de Inginerie Mecanică***

Str. Politehnicii Nr. 1, 500024; Tel. 0268 474 761, f-im@unitbv.ro

# FIŞA PENTRU VERIFICAREA STANDARDELOR MINIMALE

***domeniul fundamental "Ştiinţe inginereşti"***

***comisia de specialitate " Inginerie mecanică, mecatronică şi robotică"***

Îndeplinirea indicatorilor specifici de evaluare — Dr ing. Angel HUMINIC

| **Criteriul CDI, minim 10**<br>– Activitatea de cercetare, dezvoltare tehnologică şi inovare | **551.097** | **Criteriul DID, minim 10**<br>– Activitatea didactică şi profesională | **21.98** | **Criteriul RIA, minim 10**<br>– Recunoaşterea şi impactul activităţii | **57.168** |
|---|---|---|---|---|---|
| Contribuţie principală, minim 6 | 548.757 | Contribuţie principală, minim 6 | 15.980 | Contribuţie principală, minim 6 | 19.451 |
| Contribuţie complementară | 2.340 | Contribuţie complementară | 6.000 | Contribuţie complementară | 37.717 |
| Indicator | Punctaj | Indicator | Punctaj | Indicator | Punctaj |
| **TOTAL** | **630.245** | | | | |

## Criteriul CDI

### Activitate de cercetare ştiinţifică, dezvoltare tehnologică şi inovare

**Contribuţie principală**

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

*1 articol = FI*articol + ΣFI*citare; FI* = 0.1 + Factor de impact (martie 2016)*

| **Nr. crt.** | **Referinţa bibliografică (ISI / Scopus)** | FI articol | FI* articol | | **Puncte /articol** |
|---|---|---|---|---|---|
| **23.** | **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** | 5.901 | 6.001 | | **6.001** |

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|---|---|---|---|---|---|
| **22.** | **Huminic G., Huminic A., "*Heat transfer and entropy generation analyses of nanofluids in helically coiled tube-in-tube heat exchangers"*, Int. Comm. Heat Mass Transfer Volume 71, 2016, pages 118–125, ISSN: 0735-1933, doi:10.1016/j.icheatmasstransfer.2015.12.031** | 2.782 | 2.882 | | **2.882** |
| **21.** | **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** | 2.349 | 2.449 | | **7.421** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 21.1 | Dalkilic A.S. et al., "Prediction of graphite nanofluids' dynamic viscosity by means of artificial neural networks", International Communications in Heat and Mass Transfer, Volume 73, 2016, pages 33-42, ISSN: 07351933, doi: 10.1016/j.icheatmasstransfer.2016.02.010 | 2.782 | 2.882 | **4.972** | |
| 18.2 | Saptoro A., et al. "Microwave irradiation based non-chemical method to manipulate surface tension of nanofluids", Experimental Thermal and Fluid Science, Volume 72, 2016, pages 228-234, ISSN: 0894-1777, doi: 10.1016/j.expthermflusci.2015.11.015 | 1.990 | 2.090 | | |
| **20.** | **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 pyrolysisused for biological and heat transfer applications*", Applied Surface Science 336 (2015) 297–303, ISSN: 01694332, doi: 10.1016/j.apsusc.2014.12.098** | 2.538 | 2.638 | | **3.397** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 20.1 | Comănescu M.V. et al., "Toxicity of L-DOPA coated iron oxide nanoparticles in intraperitoneal delivery setting – preliminary preclinical study", Romanian Journal of Morphology and Embryology, Volume 56(2), 2015, pages 691-696, ISSN 1220-0522. | 0.659 | 0.759 | **0.759** | |
| **19.** | **Huminic G., Huminic 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 | | **52.720** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 19.1 | Anin Vincely D., Natarajan E., "Experimental investigation of the solar FPC performance using graphene oxide nanofluid under forced circulation", Energy Conversion and Management Volume 117, 2016, pages 1-11, ISSN: 01968904, doi: 10.1016/j.enconman.2016.03.015 | 4.380 | 4.480 | **49.030** | |
| 19.2 | Ersöz M.A., Yildiz A., "Thermoeconomic analysis of thermosyphon heat pipes", Renewable and Sustainable Energy Reviews Volume 58, 2016, pages 666-673, ISSN: 1364-0321, doi: 10.1016/j.rser.2015.12.250 | 5.901 | 6.001 | | |
| 19.3 | Chehade A., Louahlia-Gualous, H., Le Masson, S., Lépinasse, E., "Experimental investigations and modeling of a loop thermosyphon for cooling with zero electrical consumption", Applied Thermal Engineering Volume 87, 2015, pages 559-573, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2015.05.041 | 2.739 | 2.839 | | |

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|---|---|---|---|---|---|
| 19.4 | Khoshvaght-Aliabadi M., Hormozi F., "Heat transfer of Cu-water nanofluid in parallel, corrugated, and strip channels", Journal of Thermophysics and Heat Transfer, Volume 29, Issue 4, 2015, Pages 747-756, ISSN: 08878722, doi: 10.2514/1.T4479 | 0.833 | 0.933 | | |
| 19.5 | Amiri A., Sadri R., Shanbedi M., 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, 2015, pages 322-330, ISSN: 01968904, doi: 10.1016/j.enconman.2014.12.051 | 4.380 | 4.480 | | |
| 19.6 | 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. | 2.383 | 2.483 | | |
| 19.7 | 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, 2015, pages 152-163, ISSN: 03048853, doi: 10.1016/j.jmmm.2014.11.031. | 1.970 | 2.070 | | |
| 19.8 | El Mghari, H., Louahlia-Gualous, H., Lepinasse, E., Numerical study of nanofluid condensation heat transfer in a square microchannel, Numerical Heat Transfer; Part A: Applications 68 (11) (2015) 1242-1265, ISSN: 1040-7782, doi: 10.1080/10407782.2015.1037178 | 1.975 | 2.075 | | |
| 19.9 | 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 | | |
| 19.10 | 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(3), 2014, pages 320-329, ISSN: 20950179, doi**:** 10.1007/s11705-014-1437-7. | | 0.1 | | |
| 19.11 | 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, 2014, pages 96-105, ISSN: 0196890, doi**:** 10.1016/j.enconman.2014.08.042 | 3.590 | 3.690 | | |
| 19.12 | 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, pp. 304-316, ISSN: 01968904, doi: 10.1016/j.enconman.2013.12.031 | 3.590 | 3.690 | | |
| 19.13 | 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 | | |
| 19.14 | Chehade A.A., et al., "Experimental investigation of thermosyphon loop thermal performance", Energy Conversion and Management Volume 84, 2014, Pages 671-680, ISSN: 01968904, doi: 10.1016/j.enconman.2014.04.092 | 3.590 | 3.690 | | |

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|---|---|---|---|---|---|
| 19.15 | Alawi, O.A., et al., "Fluid flow and heat transfer characteristics of nanofluids in heat pipes: A review", International Communications in Heat and Mass Transfer, Volume 56, 2014, pages 50-62, ISSN: 07351933, doi: 10.1016/j.icheatmasstransfer.2014.04.014 | 2.124 | 2.224 | | |
| 19.16 | 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 | | |
| **18.** | **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 | | **18.442** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI* citare* | |
| 18.1 | Zhao, N., Yang, J., Li, H., Zhang, Z., Li, S., Numerical investigations of laminar heat transfer and flow performance of Al2O3-water nanofluids in a flat tube, International Journal of Heat and Mass Transfer Volume 92, 2016, pages 268-282, ISSN: 0017-9310, doi: 10.1016/j.ijheatmasstransfer.2015.08.098 | 2.383 | 2.483 | **16.218** | |
| 18.2 | Sidik, N.A.C., Yazid, M.N.A.W.M., Mamat, R., "A review on the application of nanofluids in vehicle engine cooling system", International Communications in Heat and Mass Transfer, Volume 68, 2015, pages 85-90, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2015.08.017 | 2.782 | 2.882 | | |
| 18.3 | Islam, M.R., Shabani, B., Rosengarten, G., Andrews, J., "The potential of using nanofluids in PEM fuel cell cooling systems: A review", Renewable and Sustainable Energy Reviews, Volume 48, 2015, pages 523-539, ISSN: 1364-0321 doi: 10.1016/j.rser.2015.04.018 | 5.901 | 6.001 | | |
| 18.4 | Naphon, P., Nakharintr, L., Numerical investigation of laminar heat transfer of nanofluid-cooled mini-rectangular fin heat sinks, Journal of Engineering Physics and Thermophysics Volume 88(3), 2015, pages 666-675, ISSN: 1062-0125, doi: 10.1007/s10891-015-1235-1. | | 0.1 | | |
| 18.5 | Buonomo, B., Manca, O., Marinelli, L., Nardini, S., "Laminar forced convection in flat tubes with nanofluids for automotive applications", 3rd International Conference on Computational Methods for Thermal Problems, ThermaComp 2014, pages 125-128, ISBN: 978-887431727-1. | | 0.1 | | |
| 18.6 | 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, 2015, pages 388-395, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2014.11.024. | 2.383 | 2.483 | | |
| 18.7 | 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 | | |
| 18.8 | Tohidi A., et al., "Laminar Heat Transfer Enhancement Utilizing Nanofluids in a Chaotic Flow", Journal of Heat Transfer, Volume 136(9), 2014, pages 8, ISSN 00221481, doi: 10.1115/1.4027773 | 1.830 | 1.930 | | |

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|---|---|---|---|---|---|
| **17.** | **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** |
| **16.** | **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) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 16.1 | 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** | |
| **15.** | **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 | | **8.592** |
| Citari (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 15.1 | Sidik, N.A.C., Yazid, M.N.A.W.M., Mamat, R., A review on the application of nanofluids in vehicle engine cooling system, International Communications in Heat and Mass Transfer 68 (2015) 85-90, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2015.08.017 | 2.782 | 2.882 | **8.492** | |
| 15.2 | 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 | | |
| **14.** | **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 | | **197.424** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI*citare* | |
| 14.1 | Devendiran, D.K., Amirtham, V.A., A review on preparation, characterization, properties and applications of nanofluids, Renewable and Sustainable Energy Reviews, 60 (2016) 21-40, ISSN: 1364-0321, doi: 10.1016/j.rser.2016.01.055. | 5.901 | 6.001 | **191.814** | |
| 14.2 | Xing, M., Yu, J., Wang, R., Experimental investigation and modelling on the thermal conductivity of CNTs based nanofluids, International Journal of Thermal Sciences 104 (2016) 404-411, ISSN: 12900729, doi: 10.1016/j.ijthermalsci.2016.01.024 | 2.629 | 2.729 | | |
| 14.3 | Satti, J.R., Das, D.K., Ray, D.R., Measurements of densities of propylene glycol-based nanofluids and comparison with theory, Journal of Thermal Science and Engineering Applications 8(2) (2016) 021021, ISSN: 1948-5085, doi: 10.1115/1.4032671 | | 0.1 | | |
| 14.4 | Taghizadeh-Tabari, Z., Zeinali Heris, S., Moradi, M., Kahani, M., The study on application of TiO2/water nanofluid in plate heat exchanger of milk pasteurization industries, Renewable and Sustainable Energy Reviews, 58 (2016) 1318-1326, ISSN: 1364-0321, doi: 10.1016/j.rser.2015.12.292 | 5.901 | 6.001 | | |
| 14.5 | Sasmal, C., Nirmalkar, N., Momentum and heat transfer characteristics from heated spheroids in water based nanofluids, International Journal of Heat and Mass Transfer 96 (2016) 582- | 2.383 | 2.483 | | |

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|---|---|---|---|---|---|
| | 601, ISSN: 0017-9310,<br>doi: 10.1016/j.ijheatmasstransfer.2016.01.054 | | | | |
| 14.6 | Faizal, M., Bouazza, A., Singh, R.M. , Heat transfer enhancement of geothermal energy piles, Renewable and Sustainable Energy Reviews 57 (2016) 16-33, ISSN: 13640321, doi: 10.1016/j.rser.2015.12.065 | 5.901 | 6.001 | | |
| 14.7 | Azizi, Z., Alamdari, A., Malayeri, M.R. , Thermal performance and friction factor of a cylindrical microchannel heat sink cooled by Cu-water nanofluid, Applied Thermal Engineering 99 (2016) 970-978, ISSN: 1359-4311, doi: 10.1016/j.applthermaleng.2016.01.140 | 2.739 | 2.839 | | |
| 14.8 | Sarafraz, M.M., Hormozi, F., Heat transfer, pressure drop and fouling studies of multi-walled carbon nanotube nano-fluids inside a plate heat exchanger, Experimental Thermal and Fluid Science 72 (2016) 1-11, ISSN: 0894-1777,<br>doi: 10.1016/j.expthermflusci.2015.11.004 | 1.990 | 2.090 | | |
| 14.9 | Fsadni, A.M., Whitty, J.P.M., A review on the two-phase heat transfer characteristics in helically coiled tube heat exchangers, International Journal of Heat and Mass Transfer 95 (2016) 551-565, ISSN: 0017-9310,<br>doi: 10.1016/j.ijheatmasstransfer.2015.12.034 | 2.383 | 2.483 | | |
| 14.10 | Wang, L., Wang, Y., Yan, X., Wang, X., Feng, B., Investigation on viscosity of Fe3O4 nanofluid under magnetic field, International Communications in Heat and Mass Transfer 72 (2016) 23-28, ISSN: 0735-1933, doi: 10.1016/j.icheatmasstransfer.2016.01.013 | 2.782 | 2.882 | | |
| 14.11 | Kandasamy R., et al., "Single walled carbon nanotubes on MHD unsteady flow over a porous wedge with thermal radiation with variable stream conditions", Alexandria Engineering Journal 55(1) (2016) 275-285, ISSN: 1110-0168, doi: 10.1016/j.aej.2015.10.006 | | 0.1 | | |
| 14.12 | Vanaki S.M. et al. "Numerical study of convective heat transfer of nanofluids: A review", Renewable and Sustainable Energy Reviews Volume 54, 2016, pages 1212-1239, ISSN: 1364-0321,<br>doi: 10.1016/j.rser.2015.10.042 | 5.901 | 6.001 | | |
| 14.13 | Khoshvaght-Aliabadi, M., Rad, S.E.H., Hormozi, F., Al2O3-water nanofluid inside wavy mini-channel with different cross-sections, Journal of the Taiwan Institute of Chemical Engineers 58 (2016) 8-18, ISSN: 1876-1070, doi: 10.1016/j.jtice.2015.05.029 | 3.000 | 3.010 | | |
| 14.14 | Zhao, N., Wen, X., Li, S., An evaluation of the application of nanofluids in intercooled cycle marine gas turbine intercooler, Journal of Engineering for Gas Turbines and Power 138(1) (2016), ISSN: 0742-4795, doi: 10.1115/1.4031170 | 0.804 | 0.904 | | |
| 14.15 | Meyer, J.P., Adio, S.A., Sharifpur, M., Nwosu, P.N., The Viscosity of Nanofluids: A Review of the Theoretical, Empirical, and Numerical Models, Heat Transfer Engineering 37 (5) (2016) 387-421 , ISSN: 0145-7632, doi: 10.1080/01457632.2015.1057447 | 0.814 | 0.914 | | |
| 14.16 | Kumar, V., Tiwari, A.K., Ghosh, S.K., Application of nanofluids in plate heat exchanger: A review, Energy Conversion and Management, 105 (2015) ISSN: 1017-1036, ISSN: 01968904, doi: 10.1016/j.enconman.2015.08.053 | 4.380 | 4.480 | | |
| 14.17 | Wan, M., Parashar, R., Kumar, N., (...), Ngila, J.C., Parashar, V., Heat transfer biofluids: A novel approach towards weed management, Ecological Engineering 84 (2015) 492-495, ISSN: 09258574, doi: 10.1016/j.ecoleng.2015.09.020 | 2.580 | 2.680 | | |

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|---|---|---|---|---|---|
| 14.18 | Gurav, P., Naik, S., Bhanvase, B.A., (...), Sonawane, S.H., Ashokkumar, M., Heat transfer intensification using polyaniline based nanofluids: Preparation and application, Chemical Engineering and Processing: Process Intensification 95 (2015) 195-20, ISSN: 02552701, doi: 10.1016/j.cep.2015.06.010 | 2.071 | 2.171 | | |
| 14.19 | Xing, M., Yu, J., Wang, R., Experimental study on the thermal conductivity enhancement of water based nanofluids using different types of carbon nanotubes, International Journal of Heat and Mass Transfer 88 (2015) 609-616, ISSN: 00179310, doi: 10.1016/j.ijheatmasstransfer.2015.05.005 | 2.383 | 2.483 | | |
| 14.20 | Zhao, N., Wen, X., Yang, J., Li, S., Wang, Z., Modeling and prediction of viscosity of water-based nanofluids by radial basis function neural networks, Powder Technology 281 (2015) 173-183, ISSN: 00325910, doi: 10.1016/j.powtec.2015.04.058 | 2.349 | 2.449 | | |
| 14.21 | John, J., Thomas, L., Kumar, B.R., Kurian, A., George, S.D., Shape dependent heat transport through green synthesized gold nanofluids, Journal of Physics D: Applied Physics 48 (33) (2015), ISSN: 00223727, doi: 10.1088/0022-3727/48/33/335301 | 2.721 | 2.821 | | |
| 14.22 | Xing, M., Yu, J., Wang, R., Thermo-physical properties of water-based single-walled carbon nanotube nanofluid as advanced coolant, Applied Thermal Engineering 87 (2015) 344-351, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2015.05.033 | 2.739 | 2.839 | | |
| 14.23 | Bortz, D.M., Modeling and simulation of nanomaterials in fluids: Nanoparticle self-assembly (Book Chapter), Modeling, Characterization and Production of Nanomaterials: Electronics, Photonics and Energy Applications (2015) 419-441, ISBN: 978-178242235-8;978-178242228-0, doi: 10.1016/B978-1-78242-228-0.00017-X | | 0.1 | | |
| 14.24 | Goodarzi, M., Amiri, A., Goodarzi, M.S., (...), Languri, E.M., Dahari, M., Investigation of heat transfer and pressure drop of a counter flow corrugated plate heat exchanger using MWCNT based nanofluids, International Communications in Heat and Mass Transfer 66 (2015) 172-179, ISSN: 07351933, doi: 10.1016/j.icheatmasstransfer.2015.05.002 | 2.782 | 2.882 | | |
| 14.25 | Mirfendereski, S., Abbassi, A., Saffar-Avval, M., Experimental and numerical investigation of nanofluid heat transfer in helically coiled tubes at constant wall heat flux, Advanced Powder Technology 26 (5) (2015) 1483-1494, ISSN: 09218831, doi: 10.1016/j.apt.2015.08.006 | 2.638 | 2.738 | | |
| 14.26 | Gunnasegaran, P., Abdullah, M.Z., Yusoff, M.Z., Abdullah, S.F., Optimization of SiO2 nanoparticle mass concentration and heat input on a loop heat pipe, Case Studies in Thermal Engineering 6 (2015) 238-250, ISSN: 2214157X, doi: 10.1016/j.csite.2015.10.004 | | 0.1 | | |
| 14.27 | Vivek, M., Thirumalini, S., Study of heat transfer characteristics of Al2O3/water-propylene glycol nanofluid as a coolant in an automotive radiator, International Journal of Applied Engineering Research 10 (16) (2015) 37105-37109, ISSN: 09734562. | | 0.1 | | |
| 14.28 | Tarighaleslami, A.H., Walmsley, T.G., Walmsley, M.R.W., Atkins, M.J., Neale, J.R., Heat transfer enhancement in heat recovery loops using nanofluids as the intermediate fluid, Chemical Engineering Transactions 45 (2015) 991-996, ISSN: 22839216, doi: 10.3303/CET1545166 | | 0.1 | | |

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|---|---|---|---|---|---|
| 14.29 | Sridhara, V., Satapathy, L.N., Effect of Nanoparticles on Thermal Properties Enhancement in Different Oils-A Review, Critical Reviews in Solid State and Materials Sciences, 40 (6) (2015) 399-424, ISSN: 10408436, doi: 10.1080/10408436.2015.1068159 | 6.450 | 6.550 | | |
| 14.30 | Zargartalebi, H., Ghalambaz, M., Noghrehabadi, A., Chamkha, A., Stagnation-point heat transfer of nanofluids toward stretching sheets with variable thermo-physical properties, Advanced Powder Technology 26 (3) (2015) 819-829, ISSN: 09218831, doi: 10.1016/j.apt.2015.02.008 | 2.638 | 2.738 | | |
| 14.31 | Safikhani H., et al., "Modeling and optimization of nanofluid flow in flat tubes using a combination of CFD and response surface methodology", Heat Transfer - Asian Research 44 (4) (2015) 377-395, ISSN: 10992871, doi: 10.1002/htj.21126 | | 0.1 | | |
| 14.32 | Han, X., Meng, X., Li, C., Buoyancy-driven convection heat transfer of copper-water nanofluid in a square enclosure under the different periodic oscillating boundary temperature waves, Case Studies in Thermal Engineering 6 (2015) 93-103, ISSN: 2214157X, doi: 10.1016/j.csite.2015.07.001 | | 0.1 | | |
| 14.33 | Pourmehran, O., Rahimi-Gorji, M., Hatami, M., Sahebi, S.A.R., Domairry, G., Numerical optimization of microchannel heat sink (MCHS) performance cooled by KKL based nanofluids in saturated porous medium, Journal of the Taiwan Institute of Chemical Engineers 55 (2015) 49-68, ISSN: 18761070, doi: 10.1016/j.jtice.2015.04.016 | 3.000 | 3.010 | | |
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| 14.38 | 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. | 5.901 | 6.001 | | |
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| 14.47 | 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, doi:10.1080/01932691.2014.894917. | 0.795 | 0.895 | | |
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| 14.64 | Tiwari, A.K., et al., “Numerical investigation of heat transfer and fluid flow in plate heat exchanger using nanofluids”, International Journal of Thermal Sciences , Volume 85, November 2014, Pages 93-103, ISSN: 12900729, doi: 10.1016/j.ijthermalsci.2014.06.015. | 2.563 | 2.663 | | |
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| 14.76 | 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 | | |
| 14.77 | 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 | | |
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| 14.79 | Tiwari, A.K., et al., "Heat transfer and pressure drop characteristics of CeO2/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 | | |
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| 13.26 | 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 | | |
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| 13.31 | Mukesh Kumar, P.C. et al., "Heat transfer and friction factor studies in helically coiled tube using $Al_2O_3$/water nanofluid", European Journal of Scientific Research, Volume 82, Issue 2, July 2012, Pages 161-172 | 0.740 | 0.840 | | |
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| 12.16 | 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 | | |
| 12.17 | Sarafraz, M.M., et al., "Thermal performance and efficiency of a thermosyphon heat pipe working with a biologically ecofriendly nanofluid" International Communications in Heat and Mass Transfer , Volume 57, October 2014, Pages 297-303, ISSN: | 2.124 | 2.224 | | |

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| 12.19 | Shanbedi M., et al., "Improvement in Heat Transfer of a Two-Phased Closed Thermosyphon Using Silver-Decorated MWCNT/Water", Journal of Dispersion Science and Technology, Volume 35, Issue 8, August 2014, Pages 1086-1096, ISSN 1532-2351, DOI: 10.1080/01932691.2013.833101 | 0.705 | 0.805 | | |
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| 12.26 | 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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| 11.6 | Chan, C.W., Siqueiros, E., Ling-Chin, J., Royapoor, M., Roskilly, A.P., Heat utilisation technologies: A critical review of heat pipes, Renewable and Sustainable Energy Reviews 50 (2015) 615-627, ISSN: 13640321, doi: 10.1016/j.rser.2015.05.028 | 5.901 | 6.001 | | |
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| 11.47 | Liu Z.-H., Li Y.-Y., "A new frontier of nanofluid research – Application of nanofluids in heat pipes", International Journal of Heat and Mass Transfer, Volume 55, Issue 23-24, November 2012, Pages 6786-6797, ISSN: 00179310,<br>doi:10.1016/j.ijheatmasstransfer.2012.06.086 | 2.522 | 2.622 | | |
| 11.48 | Yousefi T., et al., "Effect of Al2O3 nanofluids on the thermal performance of a sintered heat pipe", 6th International Conference on Thermal Engineering Theory and Applications, Istanbul, Turkey, 2012, Code 92657, ISBN: 978-192676908-0 | | 0.1 | | |
| 11.49 | Firouzfar E., et al., "Investigation of heat pipe heat exchanger effectiveness and energy saving in air conditioning systems using silver nanofluid", International Journal of Environmental Science and Technology, Volume 9, Issue 4, 2012, Pages 587-594, ISSN: 17351472, doi: 10.1007/s13762-012-0051-9 | 1.794 | 1.894 | | |
| 11.50 | Zhang L., et al., "An experimental investigation of a natural circulation heat pipe system applied to a parabolic trough solar collector steam generation system", Solar Energy, Volume 86, Issue 3, 2012, Pages 911-919, ISSN: 0038092X, doi: 10.1016/j.solener.2011.11.020 | 3.541 | 3.641 | | |
| 11.51 | Shanbedi M., et al., "Investigation of Heat-Transfer Characterization of EDA-MWCNT/DI-Water Nanofluid in a Two-Phase Closed Thermosyphon", Industrial & Engineering Chemistry Research, Volume 51, Issue 3, 25 January 2012, Pages 1423-1428, ISSN: 08885885, doi: 10.1021/ie202110g | 2.240 | 2.340 | | |
| **10.** | **Huminic G., Huminic A., "Study on Thermal Performances of the Heat Pipes with Water - Nanoparticles Mixture", SAE Technical Paper 2010-01-0183, 2010, doi:10.4271/2010-01-** | | 0.1 | | **0.2** |

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|---|---|---|---|---|---|
| | **0183.** | | | | |
| Citari (Web of Science / Scopus) | | $FI_{citare}$ | $FI^*_{citare}$ | $\Sigma FI^*_{citare}$ | |
| 10.1 | Hadi Salehi et al., "Effects of a Nanofluid and Magnetic Field on the Thermal Efficiency of a Two-Phase Closed Thermosyphon", Heat Transfer—Asian Research, Volume 42, Issue 7, pages 630–650, 2013, doi: 10.1002/htj.21043 | | 0.1 | 0.1 | |
| **9.** | **Huminic A., Huminic G., "Computational Study of Flow in the Underbody Diffuser for a Simplified Car Model," SAE Technical Paper 2010-01-0119, 2010, doi:10.4271/2010-01-0119** | | 0.1 | | **3.024** |
| Citări (Web of Science / Scopus) | | $FI_{citare}$ | $FI^*_{citare}$ | $\Sigma FI^*_{citare}$ | |
| 9.1 | Khaled, M., et al., "Review of underhood aerothermal management: Towards vehicle simplified models", Applied Thermal Engineering, Volume 73, Issue 1, 5 December 2014, Pages 840-856, ISSN: 13594311, doi: 10.1016/j.applthermaleng.2014.08.037. | 2.624 | 2.724 | **2.924** | |
| 9.2 | Daryakenari B. et al., "Numerical Study of Multiple Channel Road Vehicle Underbody Diffusers", International Review of Mechanical Engineering, Volume 6 (3), 2012, pp. 583-587. | | 0.1 | | |
| 9.3 | Ramakrishnan, V., Soundararaju, D., Karbon, K., and Jha, P., "A Numerical Approach to Evaluate the Aerodynamic Performance of Vehicle Exterior Surfaces," SAE Technical Paper 2011-01-0180, 2011, doi:10.4271/2011-01-0180 | | 0.1 | | |
| **8.** | **Huminic A. and Huminic G., "CFD Study Concerning the Influence of the Underbody Components on Total Drag for a SUV", SAE Technical Paper 2009-01-1157, 2009, doi:10.4271/2009-01-1157.** | | 0.1 | | **0.660** |
| Citări (Web of Science / Scopus) | | $FI_{citare}$ | $FI^*_{citare}$ | $\Sigma FI^*_{citare}$ | |
| 8.1 | Mariani F. et al., "Formula-SAE Racing Car: Experimental and Numerical Analysis of the External Aerodynamics", Energy Procedia, Volume 81, 2015, pages 1013–1029 | | 0.1 | **0.560** | |
| 8.2 | Jory K. et al., "Computational drag analysis in the under-body for a sedan type car model", International Conference on Energy Efficient Technologies for Sustainability, ICEETS 2013, Article number 6533481, Pages 765-770 | | 0.1 | | |
| 8.3 | Wang J.-Y et al., "Influence of tail-end styling on aerodynamic characteristics of minibus", Journal of Jilin University (Engineering and Technology Edition), Volume 41, Issue 3, 2011, Pages 618-622 | 0.260 | 0.360 | | |
| **7.** | **Huminic G., Huminic A., " CFD study of the heat pipes with water-nanoparticles mixture", Proceeding of European Automotive Simulation Conference, EASC 2009, Munich, pp. 217-228,** | | 0.1 | | **0.2** |
| Citări (Web of Science / Scopus) | | $FI_{citare}$ | $FI^*_{citare}$ | $\Sigma FI^*_{citare}$ | |
| 7.1 | Salehi H., et al., "Effects of a nanofluid and magnetic field on the thermal efficiency of a two-phase closed thermosyphon", Heat Transfer - Asian Research, Volume 42, Issue 7, November 2013, Pages 630-650, ISSN: 10992871, doi: 10.1002/htj.21043 | | 0.1 | **0.1** | |
| **6.** | **Huminic G., Huminic A., "Entropy analysis of isobar - isothermal processes, Revista de Chimie", Volume 60(5), 2009, pg. 518-523.** | 0.677 | 0.777 | | **0.777** |
| **5.** | **Huminic A. and Huminic G., "On the Aerodynamics of the Racing Cars," SAE Technical Paper 2008-01-0099, 2008, doi:10.4271/2008-01-0099.** | | 0.1 | | **0.2** |
| Citări (Web of Science / Scopus) | | $FI_{citare}$ | $FI^*_{citare}$ | $\Sigma FI^*_{citare}$ | |

| | | | | | |
|---|---|---|---|---|---|
| 5.1 | Hetawal, S., et al., "Aerodynamic study of formula SAE car", Procedia Engineering, Volume 97, 2014, Pages 1198-1207, ISSN: 18777058, doi: 10.1016/j.proeng.2014.12.398 | | 0.1 | **0.1** | |
| **4.** | **Huminic G., Huminic A., "New synergy analysis of alternative refrigerants used in refrigerating transport", International Journal of Low Carbon Technologies, Volume 3, Issue 1, January 2008, Pages 12-23, doi: 10.1093/ijlct/3.1.12** | | 0.1 | | **0.1** |
| **3.** | **Huminic A., Chiru A., "On CFD Investigations of Vehicle Aerodynamics with Rotating Wheels' Simulation," SAE Technical Paper 2006-01-0804, 2006, doi:10.4271/2006-01-080** | | 0.1 | | **1.203** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI* citare* | |
| 3.1 | Yang Z., et al., "Influence of wheel width on vehicle aerodynamic drag", Tongji Daxue Xuebao/Journal of Tongji University, Volume 42, Issue 11, 1 November 2014, Pages 1682-1686 and 1732, ISSN 0253374X, doi: 10.11908/j.issn.0253-374x.2014.11.009 | | 0.1 | 1.103 | |
| 3.2 | YANG Y., et al., "Improved research of automobile underbody flow filed based on aerodynamic lift", Journal of Central South University (Science and Technology), Vol.44 No.10, 2013, ISSN 1672-7207, pp. 4064-4068 | 0.464 | 0.564 | | |
| 3.3 | Wang G., et al., "Research on aerodynamic characteristics of steel wheel", 2010 2nd International Conference on Computational Intelligence and Natural Computing, CINC 2010, Volume 2, 2010, Article number 5643744, Pages 237-239 | | 0.1 | | |
| 3.4 | Satya Prasad M., Watkins S., "Vehicle wheel aerodynamic testing, using the double-symmetry technique", International Journal of Vehicle Design, vol. 48, no. 1-2/2008, pg 81-96, doi:10.1504/IJVD.2008.021153. | 0.239 | 0.339 | | |
| **2.** | **Huminic A., Lutz Th., "CFD Study of Ground Effect Simulation", Proceedings of HEFAT2005, 4th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics, 2005, Cairo, Egypt, ISBN 1-86854-624-1** | | | | **1.154** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI* citare* | |
| 2.1 | Schmid S., Lutz Th., Kramer E., "Impact of Modelling Approaches on the Prediction of the Ground Effect Aerodynamics", Engineering Applications of Computational Fluid Mechanics, Vol. 3, No. 3, pp. 419-429, 2009, ISSN 1994-2060 | 1.144 | 1.155 | 1.154 | |
| **1.** | **Benche V., Huminic A., "Transient processes for vent-ejectors assisted by Coandă effect", Scientific Bulletin of the Politehnica University of Timisoara Transactions on Mechanics, Special Issue, 2004, pp. 433-438,** | | | | **2.779** |
| Citări (Web of Science / Scopus) | | *FI citare* | *FI* citare* | *ΣFI* citare* | |
| 1.1 | Valentína D., et al., "Use of Coandă nozzles for double glazed façades forced ventilation", Energy and Buildings, Volume 62, July 2013, Pages 605–614 | 2.679 | 2.779 | 2.779 | |

## Contribuţie complementară

Monografii de specialitate sau capitole în monografii de specialitate (CDI-MON): 1 punct = 50 pagini editură naţională

| Nr. crt. | Referinţa bibliografică | Nr. pagini | Puncte | TOTAL |
|---|---|---|---|---|
| 1. | HUMINIC A., Notiuni Fundamentale de Aerodinamica Autovehiculelor, capitol publicat in Şoica A., Chiru A., Ispas N., Huminic A., "Caroserii şi Sisteme de Siguranţă Pasivă", Editura Universităţii Transilvania Braşov, ISBN 973-635-461-X, 2005. | 67 | 1.34 | **1.34** |

Brevete de invenţie: 1 brevet de invenţie naţional = 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 | **1** |

## Criteriul DID

### Activitate didactică şi profesională

**Contribuţie principală**

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

| Nr. crt. | Referinţa bibliografică | Nr. pagini | Puncte | TOTAL |
|---|---|---|---|---|
| 4. | Huminic A., Huminic G., Mecanica Fluidelor. Aplicaţii practice – Fluid Mechanics. Practical Works, Editura Universităţii Transilvania din Braşov, ISBN 978-606-19-0730-4, 2016 | 139 | 2.78 | **15.98** |
| 3. | HUMINIC A., "Mecanica Fluidelor", Universitatea Transilvania din Braşov, ISBN 978-606-19-0380-1, 2014 | 376 | 7.52 | |
| 2. | HUMINIC A., "Fluid Mechanics - Theory and Applications", Editura Universităţii Transilvania din Braşov, ISBN 978-973-598-022-1, 2007 | 154 | 3.08 | |
| 1. | HUMINIC A., "Mecanica Fluidelor şi Aerodinamică Experimentală – Noţiuni teoretice şi Aplicaţii practice", Editura Universităţii Transilvania Braşov, ISBN 978-973-635-856-2, 2006 | 130 | 2.60 | |

**Contribuţie complementară**

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

| Nr. crt. | Stand/instalaţie | Puncte | TOTAL |
|---|---|---|---|
| 6. | Balanţă aerodinamică cu trei componente | 1 | **6** |
| 5. | Sistem de calcul mutiprocesor, 32 processor cores, 128 GB mRAM | 1 | |
| 4. | Dispozitiv pentru determinarea caracteristicilor aerodinamice în efect de sol | 1 | |
| 3 . | Sistem pentru determinarea parametrilor curenţilor de aer | 1 | |
| 2. | Sistem de achiziţie date balanţă aerodinamică. | 1 | |
| 1. | Balanţă aerodinamică cu patru componente. | 1 | |

## Criteriul RIA

### Recunoaştere şi impactul activităţii

**Contribuţie principală:** Director sau responsabil granturi şi contracte (RIA-GRA, RIA-CTR)

Director contract cu beneficiar din mediul economic internaţional (1 punct = 2000 Eur)

| Nr. crt. | Denumirea | Perioada de derulare | Valoare (eur) | Punctaj |
|---|---|---|---|---|
| 1. | "Îmbunătăţirea capacităţii de udare a unui fluid termic", contract de cercetare nr. 14533/05.11.2015, Istitut fur Solartechnik SPF, Elveţia - Universitatea Transilvania Braşov, Româmia | 2015 | 1500 | 0.75 |

Proiecte câştigate prin competiţie internaţională în calitate de director (1 punct = 10000 EUR)

| Nr. crt. | Denumirea | Perioada de derulare | Valoare (eur) | Punctaj |
|---|---|---|---|---|
| 1. | "Ground Effect in Design of Vehicles - CFD Study Concerning the Behaviour of Clark-Y Airfoil in Ground Effect", Proiect desfăşurat în cadrul programului HPC EUROPA (High Performance Computing) finanţat de Comisia Europeana, contract nr. RII3-CT-2003-506079, desfăşurat la Institutul de Aerodinamică şi Gazodinamică, Universitatea din Stuttgart, Germania, august – septembrie 2004, http://www.hpc-europa.eu/?q=node/119 | 2004 | 2500 | 0.25 |

Proiecte câştigate prin competiţie naţională în calitate de director (1 punct = 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 Braşov | 2010<br>2008 | 125340 | 2.507 |
| 3. | "Studiul Interacţiunii Aerodinamice Automobil – Cale de Rulare", contract CEEX-ET CNCSIS, nr. 5885/18.09.2006, Universitatea Transilvania din Braşov | 2008<br>2006 | 120000 | 2.400 |
| 2. | "Tehnici numerice şi experimentale de determinare a caracteristicilor aerodinamice ale automobilelor", Proiect BD, CNCSIS, Universitatea Transilvania din Braşov | 2004<br>2003 | 3960 | 0.079 |
| 1. | "Analiza CFD a influenţei efectului de sol asupra caracteristicilor aerodinamice ale unui automobil de teren" - contract nr. 33.459/17.07.2002, CNCSIS, Universitatea Transilvania din Braşov | 2003<br>2002 | 8600 | 0.172 |

Director contract cu beneficiar din mediul economic naţional (1 punct = 10000 RON)

| Nr. crt. | Denumirea | Perioada de derulare | Valoare (lei) | Punctaj |
|---|---|---|---|---|
| 5 | "Analiza CFD in regim stationar a modelului 3D in forma sa actuala", CA 1033/21.08.2014, SC New Class automobil Devolopment S.R.L. Bucuresti - S.C. INAS Craiova | 2014 | 84568 | 8.457 |
| 4. | "Calculul eficientei energetice a hidroagregatului Francis" contract CA 1029/10.05.2013, S.C. Hydro-Engineering S.A. Reşiţa - S.C. INAS Craiova | 2013 | 43760 | 4.376 |
| 3. | "Determinarea caracteristicilor funcţionale ale turbinelor de vânt Windy 1 şi Windy 2", contract 7862/15.06.2010, COTA PFA - Universitatea Transilvania Brasov | 2010 | 1800 | 0.18 |
| 2. | "Determinarea experimentală a parametrilor funcţionali ai prototipului unui reductor – regulator de presiune pentru argon", contract 19/31.07.2008, SC CABRIC Brasov - Universitatea Transilvania din Braşov | 2008 | 1500 | 0.15 |
| 1. | "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 | 0.130 |

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

Proiecte câştigate prin competiţie naţională în calitate de membru în echipă (0.25 puncte = 50000 RON)

| Nr. crt. | Denumirea | Perioada de derulare | Valoare (lei) | Puncte |
|---|---|---|---|---|
| 8. | ”Turbină cu gaze utilizând combustia in situ – Turist”, contract nr. 286/2014 PNII, instituţie coordonatoare Institutul Naţional de Cercetare-Dezvoltare Turbomotoare COMOTI Bucureşti, instutuţii partenere: Universitatea Politehnica din Bucureşti, Institutul pentru Analiza Sistemelor Craiova, Academia Forţelor Aeriene Henri Coandă Braşov, SIVECO Bucureşti | 2016 2014 | 432802 | 2.164 |
| 7. | ”Ridicarea performanţelor panourilor uşoare cu o nouă proiectare optimizată pentru structuri aeronautice avansate – HIPEAS”, contract nr. 206/2012 PN II, instituţie coordonatoare Universitatea Politehnica din Bucureşti, instutuţii partenere: S.C. STRAERO S.A., Universitatea Politehnica din Timişoara, Institutul pentru Analiza Sistemelor Craiova, S.C. Smart Mechanics S.R.L. | 2016 2012 | 108119 | 0.541 |
| 6. | "Aplicarea nanofluidelor la tuburile termice în vederea imbunatăţirii performanţelor sistemelor de răcire", PNII–IDEI, nr. 122/5.10.2011, Universitatea Transilvania din Braşov, coordonator dr ing. Gabriela Huminic | 2016 2011 | 1430000 | 7.150 |
| 5. | "Influenţa profilului frontal al caroseriei asupra vătămării pietonilor", PNII-IDEI, CNCSIS, ID 218/2007, Universitatea Transilvania din Braşov, coordonator dr ing. Adrian Şoica | 2010 2007 | 206000 | 1.030 |
| 4. | "Optimizarea transferului de caldură prin dispozitive bazate pe schimbarea de fază a lichidelor magnetice", PNII-IDEI, nr. 216/1.10.2007, Universitatea Transilvania din Braşov, coordonator dr ing. Gabriela Huminic | 2010 2007 | 122915.5 | 0.615 |
| 3. | "Sisteme avansate pentru autovehicule si transport rutier", proiect CNCSIS, Platforme interdisciplinare de formare si cercetare, contract 77/2006, coordonator Prof. Dr ing. Anghel Chiru. | 2008 2006 | 4860000 | 24.300 |
| 2. | "Studiul teoretic şi experimental al accidentelor de circulaţie de tipul autoturism pieton", contract nr. 2/169 din 2004, CNCSIS - Universitatea Transilvania Brasov, coordonator Dr ing. Adrian Soica. | 2005 2004 | 32000 | 0.160 |
| 1. | "Modelarea proceselor hemodinamice în sistemul carotidian uman", Contract nr. 3993/14.06.2000 CNCSU - Universitatea Transilvania din Braşov, coordonator prof. dr ing. Adrian Postelnicu. | 2001 2000 | 4000 | 0.020 |

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

| Nr. crt. | Denumirea | Perioada de derulare | Valoare (lei) | Punctaj |
|---|---|---|---|---|
| 6 | "Monitorizarea variatiei puterii calorice a gazului", contract nr. 7517/08.06.2010, SC GEOASSET SRL Bucuresti, Universitatea Transilvania din Brasov, director Prof. Dr. ing. Bacanu G. | 2010 | 54729.88 | 1.368 |
| 5. | „Realizarea instalaţiei experimentale pentru determinarea parametrilor funcţionali 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, director Prof. Dr. ing. Tierean M. | | | |
| 4. | "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, Prof. Dr. ing. Vestemean N. | 2002 | 4470 | 0.112 |
| 3. | "Realizarea Bilanţurilor 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, Prof. Dr. ing. Vestemean N. | 2002 | 7000 | 0.175 |
| 2. | "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, Prof. Dr. ing. Vestemean N. | 2002 | 2490 | 0.062 |
| 1. | "Analiza Hidraulică a Liniei 7134-G027, a dimensionării 7134-PCV 313 şi 7134-PCV 314, şi a vibraţiilor din zona PCV 313 şi PCV 314", contract SNN-SA Centrala Nuclearo-Electrică Cernavodă (beneficiar), SC STEVENSON S.A, SC INAS Craiova, SC Eurotest Bucureşti (executant) | 2000 | | |

04.04.2016 Prof. Dr ing. Angel HUMINIC