

**LISTA DE PUBLICAȚII**  
**(LIST OF PUBLICATIONS)**

Șef lucrări dr. ing. (Lecturer Phd. Eng.) BURNETE Nicolae Vlad

**Selecție articole relevante pentru realizările profesionale****(Selection of papers relevant for the professional achievements)**

- 1) **Burnete, N., V.**, Mariasiu, F., Moldovanu, D., Burnete, N., Capata, D., Jurchis, B., *Parametric study of air-cooled TEG heat exchanger design for waste heat recovery in heavy-duty vehicle*, IOP Conference Series: Materials Science and Engineering 1169, 2021, DOI: 10.1088/1757-899X/1169/1/012027  
<https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012027>
- 2) **Burnete, N., V.**, Mariasiu, F., Moldovanu, D., Depcik, C., *Simulink Model of a Thermoelectric Generator for Vehicle Waste Heat Recovery*, Applied Sciences 11, 2021, DOI: 10.3390/app11031340  
<https://www.mdpi.com/2076-3417/11/3/1340>
- 3) Mattson, J., **Burnete, N., V.**, Depcik, C., Moldovanu, D., Burnete, N., *Second law analysis of waste cooking oil biodiesel versus ULSD during operation of a CI engine*, Fuel 255, 2019, DOI: 10.1016/j.fuel.2019.115753  
<https://www.sciencedirect.com/science/article/pii/S0016236119311056>
- 4) **Burnete, N., V.**, Burnete, N., Jurchiș, B., M., Iclodean, C., D., *Influences of diesel pilot injection on ethanol autoignition - a numerical analysis*, IOP Conf. Ser.: Mater. Sci. Eng. 252, 2017, DOI: 10.1088/1757-899X/252/1/012066  
<http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012066>
- 5) **Burnete, N., V.**, *Separate direct injection of diesel and ethanol – a numerical analysis*, Thermal Science 21: 451-463, 2017, DOI: 10.2298/TSCI160824274B  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=Y1t4CUaUjcxEkC2Yu4g&page=1&doc=1](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=Y1t4CUaUjcxEkC2Yu4g&page=1&doc=1)
- 6) Mariasiu, F., **Burnete, N., V.**, Moldovanu, D., Varga, B.O., Iclodean, C., Kocsis, L., *Effects of bioethanol ultrasonic generated aerosols application on diesel engine performances*, Thermal Science 19: 1931–1941, 2015, DOI: 10.2298/TSCI140703108M  
<http://www.doiserbia.nb.rs/img/doi/0354-9836/2015/0354-98361500108M.pdf>



- 7) **Burnete, N., V.**, Iclodean, C., Popescu, G., & Filip, N., *The Effects of a Diesel-Ethanol Blend Without Additives on Diesel Engine Operation*. In A. Chiru & N. Ispas (Eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, pp. 387–394, Springer International Publishing. DOI: 10.1007/978-3-319-45447-4\_43  
[http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=4](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=4)
- 8) **Burnete, N., V.**, Iclodean, C., Moldovanu, D., Filip, N., *Direct Injection of Diesel and Ethanol in a Diesel Engine - A Numerical Analysis*. In A. Chiru & N. Ispas (Eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, pp. 379–386, Springer International Publishing. DOI: 10.1007/978-3-319-45447-4\_42  
[http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=3](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=3)
- 9) **Burnete, N., V.**, Filip, N., Barabás, I., *Diesel-Ethanol blends and their use in Diesel engines*. Romanian Journal of Automotive Engineering vol. 21, no. 3, 2015, pp. 89-106, ISSN 2457 – 5275  
[http://www.ingineria-automobilului.ro/reviste/RoJAE\\_201509\\_03.pdf](http://www.ingineria-automobilului.ro/reviste/RoJAE_201509_03.pdf)



**Teza de doctorat**

**(PhD Thesis)**

**Studii și cercetări privind influența injecției de combustibil asupra emisiei de poluanți la motoare cu aprindere prin comprimare**

*Studies and research regarding the influence of fuel injection on pollutant emissions in compression ignition engines*

Conducători științifici: Prof. Dr. Ing. Nicolae FILIP

(PhD Advisors) Prof. Dr. Ing. habil. Prof. E. h. Dr. h. c. Cornel STAN

Doctor prin Ordinul Ministrului Educației Naționale și Cercetării Științifice: 5895 / 28.11.2016

(Doctor by the Order of the Minister of Education and Scientific Research)

**Cărți / Manuale didactice / Îndrumătoare / Capitole de carte****(Books / Teaching manuals / Guides / Book chapters)*****Cărți / Manuale didactice / Îndrumătoare******(Books / Teaching manuals / Guides)***

- 1) **Burnete, N., V.**, *Ethanolespritzung mit Selbstzündung im Diesilverfahren*, Ed. Springer Vieweg, ISBN 978-3-658-19381-2 (eBook), ISBN 978-3-658-19380-5, 2017  
<http://www.springer.com/gp/book/9783658193805>
- 2) **Burnete, N., V.**, Burnete, N., *Motoare cu ardere internă și termodinamică. Noțiuni fundamentale*, Ed. UT Press, ISBN 978-606-737-539-8 (eBook), 2021  
<https://biblioteca.utcluj.ro/files/carti-online-cu-coperta/539-8.pdf>
- 3) **Burnete, N., V.**, Iclodean, C., D., Jurchiș, B., M., *Motoare cu ardere internă. Procese și management motor*, Ed. UT Press, ISBN 978-606-737-542-8 (eBook), 2021  
<https://biblioteca.utcluj.ro/files/carti-online-cu-coperta/542-8.pdf>
- 4) **Burnete, N., V.**, Moldovanu, D., *Elemente de modelare și simulare a motoarelor cu ardere internă. Vol. 1*, Ed. UT Press, ISBN 978-606-737-555-8 (eBook), 2022  
<https://biblioteca.utcluj.ro/files/carti-online-cu-coperta/555-8.pdf>

***Capitole de carte******(Book chapters)***

- 1) Merie, V., Crăciun, Ș., **Burnete, N., V.**, *Engineering materials in Machine Elements for Industrial Robots specialization*, capitol în „Organe de Mașini – Metodologie de predare a disciplinei la diferite specializări” editată de Bîrleanu, C., Haragâș, S., Pustan, M., Editura Risoprint, ISBN 978-973-53-1793-5, Cluj-Napoca, 2016, pp. 109-126


**Lucrări indexate ISI/ ISI proceedings**
**(ISI/ISI proceedings papers)**

- 1) **Burnete, N., V.**, Mariasiu, F., Moldovanu, D., Burnete, N., Capata, D., Jurchis, B., *Parametric study of air-cooled TEG heat exchanger design for waste heat recovery in heavy-duty vehicle*, IOP Conference Series: Materials Science and Engineering 1169, 2021, DOI: 10.1088/1757-899X/1169/1/012027  
<https://iopscience.iop.org/article/10.1088/1757-899X/1169/1/012027>
- 2) **Burnete, N., V.**, Mariasiu, F., Moldovanu, D., Depcik, C., *Simulink Model of a Thermoelectric Generator for Vehicle Waste Heat Recovery*, Applied Sciences 11, 2021, DOI: 10.3390/app11031340  
<https://www.mdpi.com/2076-3417/11/3/1340>
- 3) Merie, V., V., **Burnete, N., V.**, Birleanu, C., Pustan, M., *Nanocharacterization of metallic thin films deposited on different substrates*, Materials Science-Poland 38, 2020, DOI: 10.2478/msp-2019-0095  
<https://content.sciendo.com/view/journals/msp/38/1/article-p8.xml?language=en>
- 4) **Burnete, N., V.**, Balint, R., J., Magherusan, C., A., Moldovanu, D., *Performance, Combustion and Emissions Study of a DI Diesel Engine Running on Several Types of Diesel Fuels*, 30th SIAR International Congress of Automotive and Transport Engineering: Science and Management Of Automotive and Transportation Engineering (SMAT 2019), pp. 153-159, DOI: 10.1007/978-3-030-32564-0\_18  
[https://link.springer.com/chapter/10.1007/978-3-030-32564-0\\_18](https://link.springer.com/chapter/10.1007/978-3-030-32564-0_18)
- 5) Mattson, J., **Burnete, N., V.**, Depcik, C., Moldovanu, D., Burnete, N., *Second law analysis of waste cooking oil biodiesel versus ULSD during operation of a CI engine*, Fuel 255, 2019, DOI: 10.1016/j.fuel.2019.115753  
<https://www.sciencedirect.com/science/article/pii/S0016236119311056>
- 6) **Burnete, N., V.**, Șerdean, F., M., Burnete, N., Moldovanu, D., *Combustion Analysis for Single Cylinder Engine Running on Various Types of Diesel*, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pp. 593–600, Springer, Cham, DOI: 10.1007/978-3-319-94409-8\_69  
[https://link.springer.com/chapter/10.1007/978-3-319-94409-8\\_69](https://link.springer.com/chapter/10.1007/978-3-319-94409-8_69)



- 7) Moldovanu, D., Varga, B., O., Mariasiu, F., Iclodean, C., **Burnete, N., V.**, Liviu Mihali, Sebastian Ola, *Van dynamics performance analysis for different battery pack placement*, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), 2018, pp. 338–345, Springer, Cham, DOI: 10.1007/978-3-319-94409-8\_38  
[https://link.springer.com/chapter/10.1007/978-3-319-94409-8\\_38](https://link.springer.com/chapter/10.1007/978-3-319-94409-8_38)
- 8) Merie, V., V., Birleanu, C., J., Popa, C., O., Pustan, M., S., **Burnete, N., V.**, *Re-sintering influence on tribological and structural characteristics of iron-based composites for automotive applications*, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), 2018, pp. 413–420, Springer, Cham, DOI: 10.1007/978-3-319-94409-8\_48  
[https://link.springer.com/chapter/10.1007/978-3-319-94409-8\\_48](https://link.springer.com/chapter/10.1007/978-3-319-94409-8_48)
- 9) Popa, M., F., **Burnete, N., V.**, *Study of brake system parameters for commercial vehicles*, Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), 2018, pp. 686–694, Springer International Publishing, DOI: 10.1007/978-3-319-94409-8\_80  
[https://link.springer.com/chapter/10.1007/978-3-319-94409-8\\_80](https://link.springer.com/chapter/10.1007/978-3-319-94409-8_80)
- 10) **Burnete, N., V.**, Burnete, N., Jurchiș, B., M., Iclodean, C., D., *Influences of diesel pilot injection on ethanol autoignition - a numerical analysis*, IOP Conf. Ser.: Mater. Sci. Eng. 252, 2017, DOI: 10.1088/1757-899X/252/1/012066  
<http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012066>
- 11) Jurchiș, B., M., Burnete, N., **Burnete, N., V.**, Iclodean, C., D., *Particulate matter emission characteristics for a compression ignition engine fueled with a blend of biodiesel and diesel*, IOP Conf. Ser.: Mater. Sci. Eng. 444, 2017, DOI: 10.1088/1757-899X/444/7/072012  
<http://iopscience.iop.org/article/10.1088/1757-899X/444/7/072012>
- 12) Jurchiș, B., M., Burnete, N., Iclodean, C., D., **Burnete, N., V.**, *Study of emissions for a compression ignition engine fueled with a mix of DME and diesel*, IOP Conf. Ser.: Mater. Sci. Eng. 252, 2017, DOI: 10.1088/1757-899X/252/1/012065  
<http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012065>
- 13) Molea, A., Visuian, P., Barabás, I., Suciuc, R., C., **Burnete, N., V.**, *Key fuel properties and engine performances of diesel-ethanol blends, using tetrahydrofuran as surfactant additive*, IOP Conf. Ser.: Mater. Sci. Eng. 252, DOI: 10.1088/1757-899X/252/1/012077  
<http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012077>



- 14) **Burnete, N., V.**, *Separate direct injection of diesel and ethanol – a numerical analysis*, Thermal Science 21: 451-463, 2017, DOI: 10.2298/TSCI160824274B  
[https://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=1&SID=Y1t4CUaUjcxEkC2Yu4g&page=1&doc=1](https://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=Y1t4CUaUjcxEkC2Yu4g&page=1&doc=1)
- 15) Mariașiu, F., **Burnete, N.V.**, Moldovanu, D., Varga, B.O., Iclodean, C., Kocsis, L., *Effects of bioethanol ultrasonic generated aerosols application on diesel engine performances*, Thermal Science 19: 1931–1941, 2015, DOI: 10.2298/TSCI140703108M  
<http://www.doiserbia.nb.rs/img/doi/0354-9836/2015/0354-98361500108M.pdf>
- 16) **Burnete, N. V.**, Iclodean, C., Popescu, G., & Filip, N., *The Effects of a Diesel-Ethanol Blend Without Additives on Diesel Engine Operation*. In A. Chiru & N. Ispas (Eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, pp. 387–394, Springer International Publishing. DOI: 10.1007/978-3-319-45447-4\_43  
[http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=4](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=4)
- 17) **Burnete, N., V.**, Iclodean, C., Moldovanu, D., Filip, N., *Direct Injection of Diesel and Ethanol in a Diesel Engine - A Numerical Analysis*. In A. Chiru & N. Ispas (Eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, pp. 379–386, Springer International Publishing. DOI: 10.1007/978-3-319-45447-4\_42  
[http://apps.webofknowledge.com/full\\_record.do?product=WOS&search\\_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=3](http://apps.webofknowledge.com/full_record.do?product=WOS&search_mode=GeneralSearch&qid=3&SID=3E6wHSesqJKomQJJYfY&page=1&doc=3)

**Lucrări indexate în alte baze de date internaționale - BDI****(Papers indexed in other international databases - BDI)**

- 1) Kocsis, L., Iclodean, C., D., Gaspar, F., **Burnete, N., V.**, *Comparison of international vehicle testing cycles using simulation*, The Romanian Journal of Technical Sciences, vol. 63, no. 1, 2018, pp. 25–35, ISSN 2601-582X  
<https://rjts-am.utcluj.ro/#titleIssue-2018-1>
- 2) Moldovanu, D., Băldean, D., L., **Burnete, N., V.**, Jurchiș, B., M., *Advanced strategies for investigation of internal combustion engine*, The Romanian Journal of Technical Sciences, vol. 63, no. 1, 2018, pp. 36–49, ISSN 2601-582X  
<https://rjts-am.utcluj.ro/#titleIssue-2018-1>
- 3) **Burnete, N., V.**, Filip, N., Barabás, I., *Diesel-Ethanol blends and their use in Diesel engines*. Romanian Journal of Automotive Engineering vol. 21, no. 3, 2015, pp. 89-106, ISSN 2457 – 5275  
[http://www.ingineria-automobilului.ro/reviste/RoJAE\\_201509\\_03.pdf](http://www.ingineria-automobilului.ro/reviste/RoJAE_201509_03.pdf)
- 4) **Burnete, N.V.**, Iclodean, C., *Advanced Computer Simulation Methods of C.I. Engines Processes. Surrogate Models*, Journal Ingineria Automobilului, SIAR, Vol. 8, nr. 1 (30), 2014, pp. 17 – 21, ISSN: 2284-5690  
[http://www.ingineria-automobilului.ro/reviste/Ingineria\\_30\\_en.pdf](http://www.ingineria-automobilului.ro/reviste/Ingineria_30_en.pdf)



**Alte articole - publicate sau prezentate la conferințe****(Other papers – published or presented at conferences)**

- 1) **Burnete, N., V.**, Filip, N., Moldovanu, D., *Improved Combustion in a Diesel Engine by Diesel-Ethanol Injection – A Numerical Analysis*, EAEC-ESFA, București 2015
- 2) Iclodean, C., Varga, B., O., **Burnete, N., V.**, *Numerical Evaluation Of Real-Time Energy Consumption Of Three Different Powertrain Systems For Urban Electric Vehicle*, EAEC-ESFA, București 2015
- 3) **Burnete, N., V.**, Iclodean, C., Sârbu, G., *LIN, CAN, FLEXRAY, MOST. Comparative analysis*, Sesiunea de comunicări științifice a studenților Facultății de Mecanică, Ediția a X-a, 15 mai 2014

Data (Date)

05.01.2022

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