

**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
- 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
- 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
- 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



Teza de doctorat

(PhD Thesis)

Studii și cercetări privind influența injectiei 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.**, *Ethanolinspritzung 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
- 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



- 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
- 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
- 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
- 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
- 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
- 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

**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
- 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

**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

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