

**List  
Of the scientific papers in the field of subjects in the teaching post**

**A – Ph.D. thesis**

„ *Researches regarding the use of rape oil fuels in comparison with Diesel at the compression ignition engine for the diminution of pollution* ”

scientific leader: Professor Ph.D. Nicolae Burnete

Technical University of Cluj-Napoca

Public support: 09.12.2009.

**B – Books and chapters in books published in the last 10 years**

**BOOKS**

1. Nicolae Cordoş, *Elements of Road Telematics*. Publishing, U.T. Press, Cluj-Napoca, 210 pg, 2015, ISBN 978-606-737-030-0,
2. Todoruţ, A.; Cordoş, N., *Physico-mathematical models in road accident dynamics*. Cluj-Napoca, Publishing U.T.PRESS, 148 pg., 2017, ISBN 978-606-737-267-0. [https://art.utcluj.ro/colectiv/books/todorut/267-0\\_MF-M\\_DACR.pdf](https://art.utcluj.ro/colectiv/books/todorut/267-0_MF-M_DACR.pdf).

**C – ISI/BDI indexed works published in the last 10 years.**

**C1) Articles / studies published in internationally recognized specialized journals (ISI quotes)**

1. Iclodean, C., Cordoş, N., Varga, B.O., *Autonomous Shuttle Bus for Public Transportation: A Review*, *Energies MDPI (ISI IF 2019 2.702)* 2019, ISSN: 1996-1073; <https://doi.org/10.3390/en13112917>;
2. Todoruţ, A., Cordoş, N., Iclodean, C., *Replacing the diesel buses with electric buses for sustainable public transportation and reduction the CO2 emissions*, *Polish Journal of Environmental Studies (ISI IF 2018 1.186)* 2019, ISSN: 1230-1485; <https://doi.org/10.15244/pjoes/112899>;
3. Iclodean, C., Cordoş, N., Todoruţ, A., *Analysis of the Electric Bus Autonomy Depending on the Atmospheric Conditions*, *Energies MDPI (ISI IF 2018 2.707)* 2019, ISSN: 1996-1073; <https://doi.org/10.3390/en12234535>;
4. Cordoş, N., Bere, P., Nemes, O.; *“Effects of 2-ethylhexyl nitrate on auto-ignition and combustion qualities of rapeseed oil”*, *Studia Universitatis Babes-Bolyai Chemia*, 2012, ISSN 1224-7154, volum 1, pg. 175-184, (ISI IF 2019 0.497).

**C2) Articles/studies published in volumes of international scientific events organized abroad and, in the country – indexed ISI Proceedings**

1. Cordoş, N.; Todoruţ, A.; Iclodean, C.; Barabás, I. (2020). Influence of the Dynamic Vehicle Load on the Power Losses Required to Overcoming the Rolling Resistance. In: Dumitru, I., Covaciu, D., Racila, L., Rosca, A. (Editors), *Proceedings of the 30th SIAR International Congress of Automotive and Transport Engineering – “Science and Management of Automotive and Transportation Engineering - 4th edition”*, 23-25 October, 2019, Craiova, Romania, © Springer Nature Switzerland AG 2020, pp. 195–202, 2020. SMAT 2019, Springer, ISBN 978-3-030-32563-3, ISBN 978-3-030-32564-0 (eBook), <https://doi.org/10.1007/978-3->

- 030-32564-0\_23,[https://link.springer.com/content/pdf/10.1007%2F978-3-030-32564-0\\_23.pdf](https://link.springer.com/content/pdf/10.1007%2F978-3-030-32564-0_23.pdf),  
<https://link.springer.com/book/10.1007/978-3-030-32564-0>, <http://apps.webofknowledge.com> -  
Web of Science Core Collection, WOS:000528526600023.
2. Todoruț, A.; **Cordoș, N.** (2019). Evaluation of the Vehicle Sideslip Angle According to Different Road Conditions. In: Burnete N., Varga B. (eds) Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pp. 814-819. AMMA 2018. Proceedings in Automotive Engineering. Springer, Cham, Copyright information © Springer Nature Switzerland AG 2019, DOI: [https://doi.org/10.1007/978-3-319-94409-8\\_95](https://doi.org/10.1007/978-3-319-94409-8_95), First Online:30 September 2018, Print ISBN 978-3-319-94408-1, Series Print ISSN 2524-7778, Online ISBN 978-3-319-94409-8, Series Online ISSN 2524-7786, <https://link.springer.com/> chapter/10.1007/978-3-319-94409-8\_95, <https://www.springer.com/us/book/9783319944081>, <http://apps.webofknowledge.com> - Web of Science Core Collection, WOS:000578264900095.
  3. **Cordoș, N.**; Todoruț, A. (2019). Influences of the Suspensions Characteristics on the Vehicle Stability. In: Burnete N., Varga B. (eds) Proceedings of the 4th International Congress of Automotive and Transport Engineering (AMMA 2018), pp. 808-813. AMMA 2018. Proceedings in Automotive Engineering. Springer, Cham, Copyright information © Springer Nature Switzerland AG 2019, DOI: [https://doi.org/10.1007/978-3-319-94409-8\\_94](https://doi.org/10.1007/978-3-319-94409-8_94), First Online: 30 September 2018, Print ISBN 978-3-319-94408-1, Series Print ISSN 2524-7778, Online ISBN 978-3-319-94409-8, Series Online ISSN 2524-7786, <https://link.springer.com/> chapter/10.1007/978-3-319-94409-8\_94, <https://www.springer.com/us/book/9783319944081>, <http://apps.webofknowledge.com> - Web of Science Core Collection, WOS:000578264900094.
  4. I Barabás, A Todoruț, **N Cordoș**, A Molea (2017). Current challenges in autonomous driving. IOP Publishing, 2017, IOP Conference Series: Materials Science and Engineering (IOP Conf. Ser.: Mater. Sci. Eng.), Volume 252, 012096, ISSN: 1757-8981, Conference 1, CAR-2017, International Congress of Automotive and Transport Engineering - Mobility Engineering and Environment, Pitesti, Romania, 8-10 November 2017, Editors: Adrian Clenci (University of Pitesti), Ștefan Tabacu (University of Pitesti), DOI:10.1088/1757-899X/252/1/012096, [http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012096/meta;jsessionid = EAD0BD9FCE7D5CED19720AF4DFF CD19 E.c2. iopscience.cld. iop.org](http://iopscience.iop.org/article/10.1088/1757-899X/252/1/012096/meta;jsessionid=EAD0BD9FCE7D5CED19720AF4DFFCD19E.c2.iopscience.cld.iop.org), <http://www.scopus.com>, <http://apps.webofknowledge.com> - Web of Science Core Collection, WOS:000419817200096.
  5. **N Cordoș**, A Todoruț, I Barabás (2017). Evaluation of the tire pressure influence on the lateral forces that occur between tire and road. IOP Publishing, 2017, IOP Conference Series: Materials Science and Engineering (IOP Conf. Ser.: Mater. Sci. Eng), Volume 252, 012011, ISSN: 1757-8981, Conference 1, CAR-2017, International Congress of Automotive and Transport Engineering - Mobility Engineering and Environment, Pitesti, Romania, 8-10 November 2017, Editors: Adrian Clenci (University of Pitesti), Ștefan Tabacu (University of Pitesti), DOI : 10.1088 /1757 - 899X/ 252 / 1/ 012011, <http://iopscience.iop.org/article/10.1088 /1757-899X /252 /1/012011 /meta;jsessionid = DE1B4ACD284A67A38A3D660D319F68BE.c1.iopscience.cld.iop.org>, <http://www.scopus.com>, <http://apps.webofknowledge.com> - Web of Science Core Collection, WOS:000419817200011.
  6. **Cordoș, N.**; Todoruț, A.; Barabás, I.; Mureșan, R.D. (2017). *Evaluation of the Behavior in Cornering for Different Classes of Passenger Cars by Numerical Modeling*. Springer International Publishing Switzerland 2017, A. Chiru and N. Ispas (eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, DOI 10.1007/978-3-319-45447-4\_9, ISBN: 978-3-319-45446-7 (Print), 978-3-319-45447-4 (eBook), pp 83-89, [http://link.springer.com/chapter/10.1007/978-3-319-45447-4\\_9](http://link.springer.com/chapter/10.1007/978-3-319-45447-4_9).
  7. Barabás, I.; Todoruț, A.; **Cordoș, N.** (2017). *Estimation of Boiling Points of Brake Fluids*. Springer International Publishing Switzerland 2017, A. Chiru and N. Ispas (eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, DOI 10.1007/978-3-

319-45447-4\_24, ISBN: 978-3-319-45446-7 (Print), 978-3-319-45447-4 (eBook), pp 209-216, [http://link.springer.com/chapter/10.1007/978-3-319-45447-4\\_24](http://link.springer.com/chapter/10.1007/978-3-319-45447-4_24).

8. **Cordoş, N.**; Todoruţ, A.; Barabás, I. (2013). *Exhaust Emissions of a Medium Power Diesel Engine Operated with Biodiesel*. În: Advanced Engineering Forum, Vols. 8-9, pp. 93-102, doi:10.4028/www.scientific.net/AEF.8-9.93, Trans Tech Publications, Switzerland, ISSN 2234-991X. **web of science**
9. Todoruţ, A.; **Cordoş, N.**; Barabás, I.; Miheţ, S. (2017). *Evaluation by Experimental Methods of the Parameters that Influence the Behavior of Various Passenger Cars Classes in the Braking Process*. Springer International Publishing Switzerland 2017, A. Chiru and N. Ispas (eds.), CONAT 2016 International Congress of Automotive and Transport Engineering, DOI 10.1007/978-3-319-45447-4\_8, ISBN: 978-3-319-45446-7 (Print), 978-3-319-45447-4 (eBook), pp 75-82, [http://link.springer.com/chapter/10.1007/978-3-319-45447-4\\_8](http://link.springer.com/chapter/10.1007/978-3-319-45447-4_8).

### **C3. Category B+ journals (indexed in international databases)**

1. Todoruţ, A.; **Cordoş, N.**; Barabás, I.; Bălcău, Monica; Miheţ, S. (2016). *Studies on the braking behaviour of vehicles using numerical models and computerised simulation*. Cluj-Napoca, Buletinul Ştiinţific al UTC-N, *Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering*, Vol. 59, Issue IV, November, 2016, pg. 369-378, Editura U.T.PRESS,ISSN 1221-5872, <http://www.atna-mam.utcluj.ro/index.php/Acta/article/view/805>, *The paper is indexed by: IndexCopernicus™ International*, <http://journals.indexcopernicus.com/karta.php?action=masterlist&id=4755>.  
<http://journals.indexcopernicus.com/ACTA+TECHNICA+NAPOCENSIS+SERIES+APPLIED+MATHEMATICS+MECHANICS+AND+ENGINEERING,p3528,3.html>.
2. Adrian TODORUŢ, **Nicolae CORDOŞ**, István BARABÁS, Radu Daniel MUREŞAN, Monica BĂLCĂU, “Comparative Study On The Dynamic Behaviour In Cornering From Different Classes Of Passenger Cars, By Experimental And Simulation Methods”, *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, Vol 59, No 3, 2016.
3. István BARABÁS, Adrian TODORUŢ, **Nicolae CORDOŞ**, “An Artificial Neural Network Approach To Estimate The Viscosity Of Biodiesel-Diesel-Ethanol Blends”, *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, Vol 59, No 3, 2016.
4. Adrian TODORUŢ, **Nicolae CORDOŞ**, István BARABÁS, Monica BĂLCĂU, “Aspects Regarding The Numerical Modeling Of Traffic Incidents Between Motorcycles And Passenger Cars “, *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, Vol 59, No 2, 2016.
5. Todoruţ, A., **Cordoş, N.**, Bălcău, M., & Varga, T. I. “Aspects Regarding The Numerical Modeling Of The Traffic Accidents With Mutual Visibility Between Vehicles”. *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, 59(1), 2016.
6. Todoruţ, A., **Cordoş, N.**, Barabás, I., & Bălcău, M. (2015). Aspects Regarding The Numerical Modelling Of Pedestrian-Vehicle Accidents When Both Parties Have Continuous Visibility Of Each Other In Traffic. *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, 58(4).
7. Todoruţ, A., **Cordoş, N.**, Burdea, M. D., & Bălcău, M. “The Evaluation Of Normal Load Redistribution Onthe Static Axles And On The Wheels, When The Vehicle Is In Motion”. *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, 58(3), 2015.
8. **Cordoş, N.**, Marinică, M., Todoruţ, A., & Bălcău, M. Possibilities Of Creating An Accidentology Database. *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, 58(2), 2015.
9. Todorut, A., and **N. Cordos**. "Possibility Of An Self Propelled Tractor Fuel Alternative With Diesel And Biodiesel Based On Used Sunflower Oil." *Agricultura, Agricultural Practice And Science Journal* 93.1-2, 2015.

10. Todoruț, A., **Cordoș, N.**, Barabás, i., & Bălcău, M. “The evaluation of kinematic measures which characterize the vehicle-pedestrian accident” *Acta Technica Napocensis-Series: Applied Mathematics, Mechanics, And Engineering*, 58(1), 2015.
11. **Cordoș, N.**; Zsoldics, B.; Todoruț, A.; Barabás, I.; Bălcău, Monica (2014). *Evaluation of the parameters that influencing the vehicles equilibrium state of cornering displacement*. În: 3<sup>rd</sup> International Congress Science and Management of Automotive and Transportation Engineering (SMAT2014) 23<sup>rd</sup> - 25<sup>th</sup> of October 2014, Craiova, Romania, Section: Modern Transport Systems and Road Traffic, Paper Identification Number: SMAT 2014-MTSRT41, Proceeding, Tome I, pg. 171-180, Published by Universitaria Craiova, ISBN: 978-606-14-0864-1, 978-606-14-0865-8.
12. Todoruț, I.-A.; Barabás, I.; **Cordoș, N.**; Moldovanu, D.; Bălcău, Monica (2014). *The evaluation of kinematic measures within the process of overtaking motor vehicles*. În: 3<sup>rd</sup> AMMA International Congress “Automotive, Motor, Mobility, Ambient” - AMMA 2013, 17-19 October 2013. Paper Identification Number: AMMA 2013\_412, <http://amma2013.utcluj.ro/images/program.pdf>. Published - *Acta Technica Napocensis - Scientific Journal of Technical University of Cluj-Napoca, Series Environmental Engineering & Sustainable Development Entrepreneurship (EESDE), Special Edition AMMA 2013, Volume 3, Issue 1, Special Edition (January – March 2014), pg. 29-44, ISSN: 2284-743X; ISSN-L: 2284-743X, U.T.Press Publishing House Cluj-Napoca.*
13. Todoruț, A.; **Cordoș, N.** (2014). *Researches regarding the construction of the indicated diagram at compression ignition engines whith fuel based of used cooking oil in related with diesel*. În: *Agriculture Science and Practice Journal*, Vol 89-90, No 1-2 (2014), pg. 59-64, ISSN 1221-5317.
14. Todoruț, A.; **Cordoș, N.**; Bălcău, Monica (2014). *Algorithm for Designing the Saw Diagram for Vehicles*. Cluj-Napoca, *Buletinul Științific al UTC-N, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering*, Vol. 57, Issue II, June, 2014, pg. 307-312, Editura U.T.PRESS, ISSN 1221-5872.
15. Todoruț, A.; **Cordoș, N.**; Barabás, I.; Bălcău, Monica (2014). *Possibility of Evaluation the Pre-Collisions Speed and Space Crossing by Vehicle within Process of Braking*. Cluj-Napoca, *Buletinul Științific al UTC-N, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering*, Vol. 57, Issue III, September, 2014, pg. 385-392, Editura U.T.PRESS, ISSN 1221-5872.
16. **Cordoș, N.**; Todoruț, A.; Barabás, I.; Bălcău, Monica. (2014). *The study of the overtaking process in the situation where from the opposite direction another vehicle is approaching*. Cluj-Napoca, *Buletinul Științific al UTC-N, Acta Technica Napocensis, Series: Applied Mathematics, Mechanics, and Engineering*, Vol. 57, Issue IV, November, 2014, pg. 527-536, Editura U.T.PRESS, ISSN 1221-5872.
17. **Cordoș, N.**; Burnete, N.; (2012) “*The influence of engine loads on smoke emissions of biodiesel blends*”, *Ecology and Safety*, Volume 6, Part 2, ISSN 1313-2563, Published at :<http://www.science-journals.eu>.
18. Bere, P.; Berce, P.; Nemes, O.; **Cordoș, N.**; Popescu, A.; Cocis, E.; “*Research regarding mechanical characteristics of carbon/epoxy composite tubes*”, B+”*Academic Journal of Manufacturing Engineering*” – *AJME*, ISSN 1583-7904, 2011.
19. Mariasiu, F.; Varga, B.; Deac, T.; **Cordoș, N.**; “*The influences of ultrasonic irradiation process on bioethanol-gasoline blended fuels on si engine functional parameters*”, “*Research Journal of Agricultural Science*”, ISSN 2066-1843, Vol 43, No 1, pg. 334-339, 2011.
20. **Cordoș, N.**; Mariasiu, F.; Burnete, N.; “*The influence of biofuels based on rapeseed oil using in diesel tractor engine D-2402 type on effective power and torque performance, compared to diesel fuel*” ; “*Research Journal of Agricultural Science*”, ISSN 2066-1843, Vol 43, No 1, pg.297-305, 2011.
21. **Cordoș, N.**; Mariasiu, F.; “*Hydrocarbon emissions from biofuel based on rapeseed oil compared to diesel fuel in diesel engine D-2402*”, “*Research Journal of Agricultural Science*”, ISSN 2066-1843, Vol 43, No 1,pg. 289-296, 2011.

22. **Cordoș, N.**; Burnete, N.; Magdalena O. “*Effect of biodiesel based on rapeseed oil on tractor engines performance*”, CAR 2011 — The International Congress on Automotive Pitesti, ROMANIA, 2-4 November, 2011
23. **Cordoș, N.**; Burnete, N. “*The study of auto-ignition and combustion qualities of rapeseed oil and diesel fuel mixtures*”, "Agricultura – Știință și practică nr. 1 - 2 (77-78), pg. 163-172, ISSN: Print ISSN 1221-5317, 2011.
24. **Cordoș, N.**; Burnete, N.; Mariașiu, F.;. “*Study concerning the physico-chemical properties of rapeseed oil mixed with diesel fuel*”, Acta Technica Napocensis, nr. 54, vol.2, pg. 283-292, 2011.

**D – Works published in the last 10 years in journals and conference volumes with reviewers (unindexed)**

***D3. Articles/studies published in volumes of international scientific events organized in Romania***

1. **Cordoș, N.**; Zsoldics, B.; Todoruț, A.; Barabás, I.; Bălcău, Monica (2014). *Evaluation of the parameters that influencing the vehicles equilibrium state of cornering displacement*. In: 3<sup>rd</sup> International Congress Science and Management of Automotive and Transportation Engineering (SMAT2014) 23<sup>rd</sup> - 25<sup>th</sup> of October 2014, Craiova, Romania, Section: Modern Transport Systems and Road Traffic, Paper Identification Number: SMAT 2014-MTSRT41, Proceeding, Tome I, pg. 171-180, Published by Universitaria Craiova, ISBN: 978-606-14-0864-1, 978-606-14-0865-8.
2. Todoruț, I.-A.; Barabás, I.; **Cordoș, N.**; Moldovanu, D.; Bălcău, Monica (2014). *The evaluation of kinematic measures within the process of overtaking motor vehicles*. In: 3<sup>rd</sup> AMMA International Congress “Automotive, Motor, Mobility, Ambient” - AMMA 2013, 17-19 October 2013. Paper Identification Number: AMMA2013\_412, <http://amma2013.utcluj.ro/images/program.pdf>. Published - Acta Technica Napocensis - Scientific Journal of Technical University of Cluj-Napoca, Series Environmental Engineering & Sustainable Development Entrepreneurship (EESDE), Special Edition AMMA 2013, Volume 3, Issue 1, Special Edition (January – March 2014), pg. 29-44, ISSN: 2284-743X; ISSN-L: 2284-743X, U.T.Press Publishing House Cluj-Napoca, <http://imadd.utcluj.ro/eesde/welcome.html>, [http://imadd.utcluj.ro/eesde/welcome\\_files/Special%20Edition%20AMMA\\_2013\\_1.pdf](http://imadd.utcluj.ro/eesde/welcome_files/Special%20Edition%20AMMA_2013_1.pdf), <http://journals.indexcopernicus.com/ACTA+TECHNICA+NAPOCENSIS+SERIES+ENVIRONMENTAL+ENGINEERING+and+SUSTAINABLE+DEVELOPMENT+ENTREPRENEURSHIP,p11789,3.html>.

***D4. Articles/studies published in volumes of national scientific events with international participation***

1. Todoruț, A.; Barabás, I.; **Cordoș, N.** (2012). *Possibilities for assessing the parameters of the starting capacity of motor vehicles*. In: Știință și Inginerie, Vol. 22, pg. 421-430. București, Publishing AGIR, ISSN 2067-7138, e-ISSN 2359-828X.
2. Todoruț, A.; Barabás, I.; **Cordoș, N.** (2012). *Modelling of passenger restraint by seat belt*. In: Știință și Inginerie, Vol. 22, pg. 431-440. București, Publishing AGIR, ISSN 2067-7138, e-ISSN 2359-828X.
3. **Cordoș, N.**; Todoruț, A.; Moldan, R. (2012). *Aspects on the reconstruction of road accidents bicycle-car type*. In: Știință și Inginerie, Vol. 22, pg. 441-450. București, Publishing AGIR, ISSN 2067-7138, e-ISSN 2359-828X.