

## LISTA DE LUCRĂRI

### ❖ Articole publicate în reviste cu factor de impact (indexate WoS)

1. Buidin T.I.C., **Mariașiu F.** (2021) Battery Thermal Management Systems: Current Status and Design Approach of Cooling Technologies, *Energies*, 14(16), 4879 (WoS IF=3.004)
2. Buidin T.I.C., **Mariașiu F.** (2021) Modeling Approach of an Air-Based Battery Thermal Management System for an Electric Vehicle, *Applied Sciences*, 11(15), 7089 (WoS IF=2.679)
3. Burnete N.V., **Mariașiu F.**, Moldovanu D., Depcik C. (2021) Simulink model of a thermoelectric generator for vehicle waste heat recovery, *Applied Sciences*, 11 (3), 1340, (WoS IF=2.474)
4. Varga, B.O., **Mariașiu, F.**, Miclea C.D., Szabo I., A.A.Sirca, N. Vlad (2020) Direct and Indirect Environmental Aspects of an Electric Bus Fleet Under Service, *Energies*, 13(2), 336; <https://doi.org/10.3390/en13020336> (WoS IF=2.707)
5. Varga, B.O., Sagoian, A., **Mariașiu, F.** (2019) Prediction of Electric Vehicle Range: A Comprehensive Review of Current Issues and Challenges, *Energies*, 12(5), 946; <https://doi.org/10.3390/en12050946> (WoS IF=2.676)
6. Motogna M., Moldovanu D., **Mariașiu, F.** (2018) Numerical Analysis Of Fuel Flow Pattern At Nozzle Exit Considering Different Fuels And Functional Conditions Of A Diesel Engine, *Transactions of FAMENA*, 42(4), 63-74, DOI:10.21278/TOF.42406 (WoS IF=0.797).
7. Moldovanu, D., **Mariașiu, F.** (2018) Studies And Research Regarding Optimal Cargo Load Of A Transport Van Using Carmaker Software, *Romanian Journal of Automotive Engineering*, 24(4), 135-146 (WoS IF=0)
8. Varga, B., **Mariașiu, F.** (2018) Indirect environment-related effects of electric car vehicles use, *Environmental Engineering and Management Journal*, 17(7), 1591-1597 (WoS IF=1.334).
9. Moldovanu D., **Mariașiu F.**, Bagameri N. (2018) Influence of swirl and tumble motion inside the combustion chamber of a compression ignited engine on vertices formation, *MATEC Web of Conferences* 184: 01022, DOI: 10.1051/mateconf/201818401022 (WoS ISI Proceedings)
10. Moldovanu D., **Mariașiu F.** (2018) Numerical analysis of the injection law influence on NOx emissions for a compression ignited engine, *MATEC Web of Conferences* 184: 01019, DOI: 10.1051/mateconf/201818401019 (WoS ISI Proceedings)
11. Moldovanu D., **Mariașiu F.** (2017) Influences Of Chemical Characteristics And Nano-Additive Participation On Raw Vegetable Oils' Tribological Properties, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 39(7), 2713-2720, (WoS IF=1.235).
12. **Mariașiu F.**, Burnete N.V., Moldovanu D., Varga B.O., Iclodean C., Kocsis L. (2015) Effects Of Bioethanol Ultrasonic Generated Aerosols Application On Diesel Engine Performances, *Thermal Science*, 19(5), 1931-1941, 2015 (WoS IF=0.939).
13. Manzetti S., **Mariașiu F.** (2015) Electric vehicle battery technologies: From present state to future systems, *Renewable and Sustainable Energy Reviews* 51, 1004–1012, 2015 (WoS IF=6.798).
14. **Mariașiu, F.** (2015) Numerical Investigation Of The Effects Of Biofuel Characteristics On The Injector Nozzle Erosion Process, *Tribology & Lubrication Technology*, 71(2), 44-53, 2015 (WoS IF=0.082) – republicare cu acordul STLE org la cererea jurnalului (Editor's monthly choice article).
15. **Mariașiu, F.** (2014) Attempts to reduce biodiesel blends NO<sub>x</sub> pollutant emissions by ultrasonic conditioning, *Transport*, 29:1, 43-49, 2014, (WoS IF=0.553).
16. **Mariașiu, F.** (2013) Possibilities for reducing tractor engine friction losses at cold start using an ultrasonic irradiation technique, *Turk. J. Agric. For.*, 37, 623-631, 2013, (WoS IF=0.914).
17. **Mariașiu, F.** (2013) Numerical Investigation Of The Effects Of Biofuel Characteristics On The Injector Nozzle Erosion Process, *Tribology Transactions*, 56(2), 161-168, 2013 (WoS IF=0.914)
18. Deac T., Ros, V., **Mariașiu, F.**, Savan, E., Borza, Gh. (2011) Analysis of energy efficiency for sawdust briquetting process, în cadrul celui de-al 39-lea Simpozion Internațional „Actual task on agricultural engineering”, 22-25 feb., 2011, Opatia, Croatia, pg.189-200, ISSN 1333-2651 (WoS ISI Proceedings)
19. **Mariașiu, F.**, Varga, B. (2010) Possibilities to improve the cold start process of tractors engines fuelled with biodiesel, *Journal of Food, Agriculture and Environment (JFAE)*, 8 (3&4), 1120-1122, 2010, (WoS IF= 0.425).
20. **Mariașiu, F.**, Burnete, N. (2010) The Influence of External Energy Conditioning on Biofuels Physical Properties, în cadrul celui de-al 38-lea Simpozion Internațional „Actual task on agricultural engineering”, 22-26 feb., 2010, Opatija, Croatia, pg.383-390, ISSN 1333-2651 (WoS ISI Proceedings).
21. **Mariașiu, F.**, Varga, B. (2009) Simulation of the combustion chamber geometric shape with the liquid length phase penetration of biofuel jet spray, în cadrul celui de-al 37-lea Simpozion Internațional „Actual task on agricultural engineering”, 10-13 feb., 2009, Opatija, Croatia, pg.51-56, ISSN 1333-2651 (WoS ISI Proceedings)
22. **Mariașiu, F.**, Burnete, N. (2008) The study concerning the biofuels and elastomers sealing elements of the oil filter compatibility, în cadrul celui de-al 36-lea Simpozion Internațional „Actual task on agricultural engineering”, 11-15 feb., 2008, Opatija, Croatia, ISSN 1333-2651 (WoS ISI Proceedings).

23. **Mariașiu, F.**, Varga, B., Baldean, D. (2008) Considerations about the reliability's study of the agricultural systems using Bayes theorems, în cadrul celui de-al 36-lea Simpozion Internațional „Actual Task on Agricultural Engineering”, 11-15 feb., 2008, Opatija, Croatia, ISSN 1333-2651 (WoS ISI Proceedings).

#### ❖ Articole publicate în reviste indexate BDI

1. AA Sirca, **F. Mariașiu**, S Morariu, N Vlad (2020) Numerical analysis of the influence of the number of blades on the dynamic performance of a drone, IOP Conference Series: Materials Science and Engineering 898 (1), 012001 (Scopus)
2. AA Sirca, **F. Mariașiu**, BO Varga, S Morariu (2020) Numerical analysis of the influence of the relative position of the drone's rotor inside the nacelle on the airflow dynamics, IOP Conference Series: Materials Science and Engineering 898 (1), 012019 (Scopus)
3. I Szabo, L Kocsis, **F. Mariașiu** (2020) Research on the behaviour of a LiFePo4 prismatic cell subjected to mechanical stress, IOP Conference Series: Materials Science and Engineering 898 (1), 012021 (Scopus)
4. I Szabo, L Kocsis, **F. Mariașiu** (2020) Research on the behaviour of a LiFePo4 pouch cell under mechanical stress, IOP Conference Series: Materials Science and Engineering 898 (1), 012020 (Scopus)
5. **Mariașiu F.**, Borzan A, Motogna MS, Szabo I. Performance Analysis of Electric Vehicles Available in the Current Automotive Market. The Annals of "Dunarea de Jos" University of Galati. Fascicle IX, Metallurgy and Materials Science, Vol 42 No 1 (2019), 25-30, <https://doi.org/10.35219/mms.2019.1.04>.
6. Scurtu, L., Varga, B.O., **Mariașiu, F.**, Buidin, T., Borzan, A., Moldovanu, D (2019) Numerical analysis of the SOC factor variations' influence on the autonomy of an electric vehicle, IOP Conference Series: Materials Science and Engineering, Volume 568, Issue 1, 17 September 2019, Article number 012046, Annual International Session of Scientific Papers - IMT Oradea 2019; Oradea, Felix SPA; Romania; 30 May 2019 through 31 May 2019; Code 152405 (Scopus)
7. Scurtu, L., Szabo, I., **Mariașiu, F.**, Moldovanu, D., Mihali, L., Jurco, A. (2019) Numerical analysis of the influence of mechanical stress on the battery pack's housing of an electric vehicle, IOP Conference Series: Materials Science and Engineering, Volume 568, Issue 1, 17 September 2019, Article number 012054, Annual International Session of Scientific Papers - IMT Oradea 2019; Oradea, Felix SPA; Romania; 30 May 2019 through 31 May 2019; Code 152405 (Scopus)
8. Motogna, M.S., Moldovanu, D., **Mariașiu, F.** (2019) Numerical study on the effects of using different concentrations of FAME blends on the spray structure of the injection process, IOP Conference Series: Materials Science and Engineering, Volume 568, Issue 1, 17 September 2019, Article number 012047, Annual International Session of Scientific Papers - IMT Oradea 2019; Oradea, Felix SPA; Romania; 30 May 2019 through 31 May 2019; Code 152405 (Scopus)
9. Moldovanu, D., **Mariașiu, F.** (2018) Numerical analysis of the injection law influence on NOx emissions for a compression ignited engine, MATEC Web of Conferences, Volume 184, 31 July 2018, Article number 01019, 2018 Annual Session of Scientific Papers IMT ORADEA 2018; Felix SPA; Romania; 31 May 2018 through 1 June 2018; Code 140050 (Scopus)
10. D. Moldovanu, B.O. Varga, **F. Mariașiu**, C. Iclodean, N.V. Burnete, L. Mihali, S. Ola (2018) Van Dynamics Performance Analysis for Different Battery Pack Placement, Proceedings of International Congress AMMA 2018 (AMMA 2018\_ HEV11), pp.338-345, ISBN 978-3-319-94408-1, (Springerlink).
11. D. Moldovanu, B.O. Varga, **F. Mariașiu**, C. Iclodean, N.V. Burnete, L. Mihali, S. Ola (2018) Effects of Battery Placement on Vehicle Stability Performance, Proceedings of International Congress AMMA 2018 (AMMA 2018\_ HEV12), pp.338-345, ISBN 978-3-319-94408-1, (Springerlink).
12. C. Iclodean, V. Solcan, M. Craciunescu, **F. Mariașiu**, B. Jurchis (2018) Control of Injection Process Using iRate Injection Law on Single Cylinder Diesel Engine's by Numerical Simulation, Proceedings of International Congress AMMA 2018 (AMMA 2018\_ AES26), pp 40-51, ISBN 978-3-319-94408-1, (Springerlink).
13. **F. Mariașiu**, H.M. Raboca (2017) Assessment of extracurricular activities' effects on automotive engineering education: A cross-national study, International Journal of Mechanical Engineering Education, 45(2), 120-141, DOI: 10.1177/0306419016674144, (Scopus).
14. Iclodean C., **Mariașiu F.** (2014) Possibility to Increase Biofuels Energy Efficiency used for Compression Ignition Engines Fueling, TEM Journal, 3(1), 36-41 (indexata BDI: EBSCO, Copernicus)
15. **Mariașiu, F.** (2013) Consumers' Attitudes Related to Biofuel Use in Transportation, International Review of Management and Marketing, 3(1), 1-9 (indexata BDI: EBSCO, ProQuest, RePEc, IDEAS, CABELL, Scirus, DOAJ, Uilrich's, Copernicus).
16. **Mariașiu, F.** (2012) Energy Sources Management and Future Automotive Technologies: Environmental Impact, International Journal of Energy economics and Policy, 2(4), 342-347 (indexata BDI: Scopus, EBSCO, ProQuest, RePEc, IDEAS, CABELL, Scirus, DOAJ, Uilrich's, Copernicus).
17. **Mariașiu, F.** (2012) Effects of lubricating oil characteristics on valve train system friction losses, Research Journal of Agricultural Science, 44(1), 281-288 (indexata BDI: CABI, Uilrich's, Copernicus, CNCSIS B+).
18. **Mariașiu, F.** (2012) The influences of ultrasonic irradiation process on biodiesel blends oxidation stability, Research Journal of Agricultural Science, 44(1), 275-280 (indexata BDI: CABI, Uilrich's, Copernicus, CNCSIS B+).
19. **Mariașiu, F.** (2011) Benchmark tests for a Formula SAE Student car prototyping, Central European Journal of Engineering, Special Issue "Benchmark Test Cases for CFD in Mechanical Engineering", 423-429, DOI: 10.2478/s13531-011-0047-0, (indexata BDI: SpringerLink).

20. **Mariașiu, F.,** Moldovanu, D., Kocsis, L. (2011) CFD simulation of ultrasonic conditioning influences on biodiesel injection process, Research Journal of Agricultural Science, 43(1) , 327-333, (indexata BDI: CABI, Uilrich's, Copernicus, CNCIS B+).
21. **Mariașiu, F.,** Varga, B., Deac, T., Cordos, N. (2011) The influences of ultrasonic irradiation process on bioethanol-gasoline blended fuels on SI engine functional parameters, Research Journal of Agricultural Science, 43(1), 334-339 (indexata BDI: CABI, Uilrich's, Copernicus, CNCIS B+).
22. **Mariașiu, F.,** Burnete, N. (2010) External Energy Conditioning on Biofuels Physically Parameters, Research Journal of Agricultural Science, 42(1), 623-629, ISSN 2066-1843 (indexata BDI: CABI, Uilrich's, Copernicus, CNCIS B+).
23. **Mariașiu, F.,** Varga, B. (2010) Improvement the Cold Start Process of CI Engines Fueled with Biodiesel, Research Journal of Agricultural Science, 42(1), 630-635, ISSN 2066-1843 (indexata BDI: CABI, Uilrich's, Copernicus, CNCIS B+).
24. **Mariașiu, F.,** Socea, D. (2009) The Determination Of Soil Compaction Level Due To Agricultural Machinery's Traffic, Journal of Scientific Society of Power Machines -Tractors and Power Machines, 14(1), 70-75, Novi Sad, Serbia, ISSN 0354-9496 (indexata in SCindex).
25. **Mariașiu, F.,** Moldovanu, D. (2009) The Management Concept For Agricultural And Food Industry Machinery Design Using Systemic Indicators", Journal of Scientific Society of Power Machines -Tractors and Power Machines, 14(1), 93-98, Novi Sad, Serbia, ISSN 0354-9496 (indexata in SCindex).

❖ **Prim autor a 24 de articole și coautor a 36 de articole științifice publicate în volumele sau prezentate în cadrul unor manifestări științifice indexate național și/sau internațional**

#### ❖ Teza de doctorat

**Mariașiu, Florin** – „Contribuții la modelarea injecției cu forma camerei de ardere pentru optimizarea ciclului funcțional al motorului cu aprindere prin comprimare”, conducător științific prof. univ. dr. Nicolae Bațaga . Titlul de *doctor în inginerie mecanica* a fost confirmat în baza OMEC nr. 3896/24.04.2003.

#### ❖ Teza de abilitare

**Mariașiu, Florin** – „Researches on possibilities to improve biofuel's use in internal combustion engines fuelling”, Universitatea Tehnică din Cluj-Napoca, Cluj-Napoca, 18.09.2015. Titlul de *abilitare în Inginerie mecanica* a fost confirmat în baza OMECS nr. 5318/29.09.2015.

#### ❖ Brevete de invenție

1. Brevet de invenție nr. **RO 128768-B1/30.06.2016** cu titlul „Dispozitiv de reducere a viscozității uleiurilor de ungere, la pornirea la temperaturi ambientale scăzute a motoarelor cu ardere internă” autori: Mariașiu, F., Varga, B., Deac T.,
2. Brevet de invenție nr. **RO 127032-B1/30.05.2018** cu titlul „Dispozitiv de pornire la rece a motoarelor cu ardere internă alimentate cu biodiesel” autori: Mariașiu, F., Burnete, N., Varga, B

#### ❖ Cereri brevete de invenție

1. Cerere brevet de invenție nr. **OSIM A/00703/2019** cu titlul “Dispozitiv de control activ al managementului termic al unei baterii ce echipază un vehicul electric”, autori: Varga, B.O., Mariașiu F., Buidin T.I.C.
2. Cerere brevet de invenție nr. **OSIM A/00403/2021** cu titlul “Dispozitiv automat de management termic al unei baterii ce echipază un vehicul electric”, autori: Mariașiu F., Buidin T.I.C.
3. Cerere brevet de invenție nr. **OSIM A/00448/2019** cu titlul “Dispozitiv pasiv de realizare a managementului termic al unei baterii ce echipază un vehicul electric”, autori: Mariașiu F., Varga, B.O.
4. Cerere brevet de invenție nr. **OSIM A/00449/2019** cu titlul “Dispozitiv pasiv de ventilare a unei baterii ce echipază un vehicul electric”, autori: Mariașiu F., Varga, B.O.
5. Cerere brevet de invenție nr. **OSIM A/00714/2020** cu titlul “Dispozitiv aerodinamic amplasat posterior destinat semiremorcilor de transport rigide”, autori: Mariașiu F., Scurtu L., Varga B.O.
6. Cerere brevet de invenție nr. **OSIM A/00716/2020** cu titlul “Dispozitiv aerodinamic amplasat superior destinat semiremorcilor de transport rigide”, autori: Mariașiu F., Scurtu L., Varga B.O.
7. Cerere brevet de invenție nr. **OSIM A/00448/2019** cu titlul “Dispozitiv pasiv de realizare a managementului termic al unei baterii ce echipază un vehicul electric”, autori: Mariașiu F., Varga, B.O.
8. Cerere brevet de invenție nr. **A2010 00418/10.05.2010** cu titlul „Metodă de schimbare a treptelor de viteze la o cutie de viteze automată” autori: Varga, B., Brânzas, P., Rus, I., Burnete, N., Mariașiu, F.
9. Cerere brevet de invenție **RO 131509-A0 (nr. A 00407/02.06.2016)** cu titlul „Metoda de alimentare multicombustibil

a motoarelor cu ardere internă cu aerosoli produși prin ultrasonare din biocombustibili pe baza de alcooli” autori: Baldean D., Mariașiu F., Burnete N.V.

#### ❖ Cărți publicate (edituri internaționale și naționale acreditate CNCIS)

1. **Mariașiu, F.** – „*Sisteme moderne de injecție*”, Editura Sincron, Cluj-Napoca 2000, ISBN 973-9234-39-9.
2. **Mariașiu, F.** – „*Modelarea injecției de combustibil*”, Editura Sincron, Cluj-Napoca 2001, ISBN 973-9234-44-5.
3. **Mariașiu, F.** – „*Motorul Diesel contemporan. Procese. Construcție. Elemente de calcul*”, Editura Sincron, colecția Didactica, Cluj-Napoca, 2005, ISBN 973-9234-59-3.
4. Burnete, N., Naghiu, Al., Rus, I., Chintoan, M., **Mariașiu, F.**, Varga, B., Ilarie, I., Roman, C., Abraham, B., Pitl, G., Deac, T., Vlad, N., Naghiu, L., Ispas, N., Rakosi, E., Mihon, L., Neag, L., Nicola, S. – „*Motoare Diesel și biocombustibili pentru transportul urban*”, Editura Mediamira, Cluj-Napoca, 2008, ISBN 978-973-713-217-8.
5. **Mariașiu, F.** – „*Marketing aplicat în piața auto*”, Editura Risoprint, colecția Oeconomica, Cluj-Napoca, 2012, ISBN 978-973-53-0884-1.
6. **Mariașiu F**, Varga B.O. – „*Attitudes towards sustainable road transports (Consumer's surveys)*”, Lambert Academic Publishing, 2013, ISBN 978-3-659-48340-0.
7. **Mariașiu, F.**, Iclodean, C. – „*Managementul motoarelor cu ardere internă*”, Editura Risoprint, Cluj-Napoca, 2013, ISBN 978-973-53-1004-2.
8. Varga B, **Mariașiu F**, Moldovanu D, Iclodean C – “*Electric and Plug-In Hybrid Vehicles – Advanced Simulation Methodologies*”, Springer Verlag, ISBN 978-3-319-18638-2, 524 pg., 2015.
9. **Mariașiu, F.**, Iclodean, C. – „*Aplicații numerice în simularea proceselor motoarelor cu ardere internă*”(îndrumător de laborator), Editura UTPress, Cluj-Napoca, 2016, 145 pg., ISBN 978-606-737-154-3.
10. Varga B, Iclodean C, **Mariașiu F**, - “*Electric and Hybrid Buses for Urban Transport-Energy Efficiency Strategies*”, Springer Verlag, ISBN 978-3-319-41248-1, 314 pg., 2016.
11. Varga, B.O., Moldovanu D., **Mariașiu, F.**, Iclodean C.D., - “*Electric Vehicle – Chapter: Simulation in the Loop of Electric Vehicle*”s, 1-22 pg., edit. Mohamed Amine Fakhfakh, Intech Open Publishing, 2016, ISBN: 978-953-51-4819-7.

#### ❖ 7 articole publicate în reviste de specialitate (Biodiesel Magazin)

Prof.dr.habil. ing. Florin MARIAȘIU