

## List of scientific papers

A. List of the maximum 10 works considered by the candidate to be the most relevant:

1. Chereches, Ioan Aurel, Iulia Diana Arion, Iulia C. Muresan, and Ferenc Gaspar. 2023. "Study of the Effects of the COVID-19 Pandemic on Air Quality: A Case Study in Cluj-Napoca, Romania" *Sustainability* 15, no. 3: 2549. <https://doi.org/10.3390/su15032549>
2. Mariasiu, Florin, Ioan Aurel Chereches, and Horia Raboca. 2023. "Statistical Analysis of the Interdependence between the Technical and Functional Parameters of Electric Vehicles in the European Market" *Energies* 16, no. 7: 2974. <https://doi.org/10.3390/en16072974>
3. Muresan, Iulia C., Rezhn Harun, Felix H. Arion, Anca Monica Brata, Ioan Aurel Chereches, Gabriela O. Chiciudean, Diana E. Dumitras, Camelia F. Oroian, and Olivia Paula Tirpe. 2021. "Consumers' Attitude towards Sustainable Food Consumption during the COVID-19 Pandemic in Romania" *Agriculture* 11, no. 11: 1050. <https://doi.org/10.3390/agriculture11111050>
4. Chereches, I.A.; Petean, I.; Paltinean, G.A.; Mocanu, A.; Muresan, L.; Arghir, G.; Tomoiaga-Cotisel, M. Airborne Particles pollution in Dej City. *Stud. UBB Chem.* 2018, 63, 159–166
5. Rusu, T.; Duda, B.M.; Moraru, P.I.; Bogdan, I.; Szajdak, L.W.; Pop, A.L. Maxim, M.A.; Chereches, I.A.; AGROTECHNICAL CHARACTERIZATION OF LANDS FROM THE SOMESAN PLATEAU FOR AGRICULTURAL SUSTAINABILITY, ", SCIENTIFIC PAPERS-SERIES A-AGRONOMY, UNIV AGRICULTURAL SCIENCES & VETERINARY MEDICINE BUCHAREST Volume 62, 155-165, 2019
6. Rusu, T.; Bogdan, I.; Szajdak, L.W.; Moraru, P.I.; Pop, A.I.; Andriuca, V.; Cojocaru, O.; Chereches, I.A.; Fitiu, A.; Pop, H. "EVOLUTION OF THERMAL AND HYDRIC REGIME OF SOILS FROM THE TRANSILVANIAN PLAIN DURING 2008-2014", SCIENTIFIC PAPERS-SERIES A-AGRONOMY, UNIV AGRICULTURAL SCIENCES & VETERINARY MEDICINE BUCHAREST Volume 60, 150-160, 2017
7. Mocan, B.; Fulea, M.; Murar, M.; Chereches, I.A.; Marian, S.; ROBOTIC CELL CUSTOMIZATION USING AUGMENTED REALITY, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, TECHNICAL UNIV CLUJ-NAPOCA, FAC MACHINE BUILDING DEPT SYSTEMS ENG, Volume 64, 4, 725-732, 2021
8. Chereches, I.A.; Dulescu, C.; Lakatos, G.D.; Vidican, I.; Bejan, M.; State of stress determination in a water drinker by numerical and experimental methods, KEY ENGINEERING MATERIALS, TRANS TECH PUBLICATIONS LTD, Volume 601, DOI10.4028/www.scientific.net/KEM.601.45, 2014
9. Cherecheș, I.A.; Borzan, A.I.; Băldean, D.L.; Contribution of developing advanced engineering methods in interdisciplinary studying the piston rings from 1.6 spark ignited Ford engine at Technical University of Cluj-Napoca, INTERNATIONAL CONGRESS OF AUTOMOTIVE AND TRANSPORT ENGINEERING - MOBILITY ENGINEERING AND ENVIRONMENT (CAR2017), IOP Conference Series-Materials Science and Engineering, Volume252, 2017, DOI10.1088/1757-899X/252/1/012072
10. Chereches, I.A.; Bejan, M.; DETERMINATION OF CASTING RESIDUAL STRESSES, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS

B. Doctoral thesis:

CONTRIBUTIONS REGARDING THE MODELING, OPTIMIZATION AND CONSTRUCTION OF THE WATER DRINKERS USED IN ANIMAL HUSBANDRY – Technical University of Cluj-Napoca, 2013

C. Patents of invention:

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D. Books and chapters in books:

1. Cherecheș I.A.; Hălălai, D.E.; *Inginerie și Legislație de Mediu*, Editura MEGA, Cluj-Napoca, 2022, eISBN 978-606-020-486-2
2. Cherecheș, I.A.; *Tehnologia Prelucrării Produselor Alimentare- Lucrări de laborator*, Editura MEGA, Cluj-Napoca, 2022, eISBN 978-606-020-487-9
3. Cherecheș, I.A.; Ivan, I.; Bejan, M.; *Elemente de ingineria mediului*, Editura MEGA, Cluj-Napoca, 2015, ISBN 978-606-543-680-0
4. Bejan, M., Mihaela Simion, Cherecheș I., A., Lakatos Gh., D., Vidican I., *Compendii din rezistența materialelor Vol. 1 și II*, Editura AGIR București, Editura MEGA Cluj-Napoca, 2013, ISBN 978-973-720-468-4

E. Articles published in journals:

1. Chereches, Ioan Aurel, Iulia Diana Arion, Iulia C. Muresan, and Ferenc Gaspar. 2023. "Study of the Effects of the COVID-19 Pandemic on Air Quality: A Case Study in Cluj-Napoca, Romania" *Sustainability* 15, no. 3: 2549. <https://doi.org/10.3390/su15032549>
2. Mariasiu, Florin, Ioan Aurel Chereches, and Horia Raboca. 2023. "Statistical Analysis of the Interdependence between the Technical and Functional Parameters of Electric Vehicles in the European Market" *Energies* 16, no. 7: 2974. <https://doi.org/10.3390/en16072974>
3. Muresan, Iulia C., Rezhon Harun, Felix H. Arion, Anca Monica Brata, Ioan Aurel Chereches, Gabriela O. Chiciudean, Diana E. Dumitras, Camelia F. Oroian, and Olivia Paula Tirpe. 2021. "Consumers' Attitude towards Sustainable Food Consumption during the COVID-19 Pandemic in Romania" *Agriculture* 11, no. 11: 1050. <https://doi.org/10.3390/agriculture11111050>
4. Mocan, B.; Fulea, M.; Murar, M.; Chereches, I.A.; Marian, S.; *ROBOTIC CELL CUSTOMIZATION USING AUGMENTED REALITY, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, TECHNICAL UNIV CLUJ-NAPOCA, FAC MACHINE BUILDING DEPT SYSTEMS ENG, Volume 64, 4, 725-732, 2021*
5. Rusu, T.; Duda, B.M.; Moraru, P.I.; Bogdan, I.; Szajdak, L.W.; Pop, A.L. Maxim, M.A.; Chereches, I.A.; *AGROTECHNICAL CHARACTERIZATION OF LANDS FROM THE SOMESAN PLATEAU FOR AGRICULTURAL SUSTAINABILITY, ”, SCIENTIFIC*



PAPERS-SERIES A-AGRONOMY, UNIV AGRICULTURAL SCIENCES & VETERINARY MEDICINE BUCHAREST Volume 62, 155-165, 2019

6. Chereches, I.A.; Petean, I.; Paltinean, G.A.; Mocanu, A.; Muresan, L.; Arghir, G.; Tomoiaga-Cotisel, M. Airborne Particles pollution in Dej City. *Stud. UBB Chem.* 2018, 63, 159–166
7. Rusu, T.; Bogdan, I.; Szajdak, L.W.; Moraru, P.I.; Pop, A.I.; Andriuca, V.; Cojocaru, O.; Chereches, I.A.; Fitiu, A.; Pop, H. “EVOLUTION OF THERMAL AND HYDRIC REGIME OF SOILS FROM THE TRANSILVANIAN PLAIN DURING 2008-2014”, SCIENTIFIC PAPERS-SERIES A-AGRONOMY, UNIV AGRICULTURAL SCIENCES & VETERINARY MEDICINE BUCHAREST Volume 60, 150-160, 2017
8. Chereches, I.A.; Bejan, M.; DETERMINATION OF CASTING RESIDUAL STRESSES, ACTA TECHNICA NAPOCENSIS SERIES-APPLIED MATHEMATICS MECHANICS AND ENGINEERING, TECHNICAL UNIV CLUJ-NAPOCA, FAC MACHINE BUILDING DEPT SYSTEMS ENG, Vol. 55, Issue I, 2012
9. Lakatos, Gh., D., Chereches, I., A., Vidican, I., Bejan, M. Reducerea impactului asupra mediului în procedeul de acoperire prin zincare termică. Fluxul tehnologic utilizat în prezent, Buletinul AGIR, Supliment 2/2012, Educație, cercetare, progres tehnologic, An XVII, ISSN 2247-3548, pag. 31-35
10. Lakatos, Gh., D., Chereches, I., A., Vidican, I., Bejan, M. Reducerea impactului asupra mediului în procedeul de acoperire prin zincare termică. Reciclarea deșeurilor obținute, Buletinul AGIR, Supliment 2/2012, Educație, cercetare, progres tehnologic, An XVII, ISSN 2247-3548, pag. 36-40,
11. Vidican, I., Lakatos, Gh., D., Chereches, I., A., Bejan, M. Changing coil springs characteristics by shot hardening and galvanizing, Acta Technica Napocensis, vol.55, IssueI, 2012, Technical University of Cluj-Napoca, pag. 273-278

F. Publications in international conference proceedings:

1. Chereches, I.A.; Borzan, A.I.; Baldean, D.L.; Applied Digital Research to the Piston Rings from the Ford Focus Variant, Science and Management of Automotive and Transportation Engineering – SMAT 2019
2. Chereches, I.A.; Borzan, A.I.; Baldean, D.L.; Researching the applied engineering protocol to implement a program for monitoring air quality management and carbon-footprint for future green vehicles in urban area, AMMA - The International Congress of Automotive and Transport Engineering, AMMA 2018
3. Moldovan, A.S.; Baldean, D.L.; Chereches, I.A.; Fehete, L.; Borzan, A.I.; Gaspar, F.; Analiza aspectelor practice privitoare la managementul energetic în cazul unor simptome specifice pentru sistemul de pornire de la Toyota Avensis, vol 33, Editura AGIR, București, 2018, ISSN 2067-7138
4. Gáspár, F.; Kocsis, L.B.; Cherecheș, I.A.; Eficiența unui sistem termo solar în contextul economic actual. Caz particular; vol 31, Editura AGIR, București, 2017, ISSN 2067-7138
5. Moldovanu, D.; Gaspar, F.; Chereches, I.A.; Studii privind evoluția unor indicatori ai calității aerului, afectați de traficul auto în municipiul CLUJ NAPOCA, vol 32, Editura AGIR, București, 2017, ISSN 2067-7138
6. Chereches, I.A.; Baldean, D.L.; Analiza determinărilor experimentale ale uzurii pistoanelor M.A.S. de la Ford Focus, vol 32, Editura AGIR, București, 2017, ISSN 2067-7138



7. Jovrea, L.D.; Baldean, D.L.; Chereches, I.A.; Borzan, A.I.; Studiul aspectelor semiologice privind hidraulica sistemului de injecție în diagnosticarea motorului 1.8 TDCI de la Ford Focus, vol 32, Editura AGIR, București, 2017, ISSN 2067-7138
8. Chereches, I.A.; Baldean, D.L.; Cercetarea experimentală a fenomenologiei consumului de ulei și mixtiunii agentului de răcire cu lubrifiantul la motorul cu aprindere prin scânteie 1.6 FYDD de pe Ford Focus, vol 32, Editura AGIR, București, 2017, ISSN 2067-7138
9. Ardelean, A.; Chereches, I.A.; Considerații despre producția de porumb și calculul bilanțului energetic al acestei culturi, vol 32, Editura AGIR, București, 2017, ISSN 2067-7138
10. Cherecheș, I.A.; Borzan, A.I.; Băldean, D.L.; Contribution of developing advanced engineering methods in interdisciplinary studying the piston rings from 1.6 spark ignited Ford engine at Technical University of Cluj-Napoca, INTERNATIONAL CONGRESS OF AUTOMOTIVE AND TRANSPORT ENGINEERING - MOBILITY ENGINEERING AND ENVIRONMENT (CAR2017), IOP Conference Series-Materials Science and Engineering, Volume252, 2017, DOI10.1088/1757-899X/252/1/012072
11. Crișan, M.A.; Băldean, D.L.; Cherecheș, I.A.; Borzan, A.; Pal, T.; Contributions to applied research of kinematic-phenomenological aspects of piston-rings for compression ignited engine used in agriculture and automotive industry, Editura AGIR, București, 2017, ISSN 2067-7138
12. Iuga, P., I., Cîrțica, M., Cherecheș, I., A., Analiză cuplată, fluent flow – static structural, ȘTIINȚĂ ȘI INGINERIE, vol. 27, Editura AGIR, București, 2015, ISSN 2067-7138, pag. 527-532
13. Vidican, I.; Chereches, I.A.; Pisla, M.; Bejan, M.; Considerații și calcule asupra cazanelor locomotivelor cu abur Partea I-a, Editura AGIR, București, 2015, ISSN 2067-7138
14. Vidican, I.; Chereches, I.A.; Pisla, M.; Bejan, M.; Considerații și calcule asupra cazanelor locomotivelor cu abur Partea a II-a, Editura AGIR, București, 2015, ISSN 2067-7138
15. Chereches, I.A.; Dudescu, C.; Lakatos, G.D.; Vidican, I.; Bejan, M.; State of stress determination in a water drinker by numerical and experimental methods, KEY ENGINEERING MATERIALS, TRANS TECH PUBLICATIONS LTD, Volume 601, DOI10.4028/www.scientific.net/KEM.601.45, 2014
16. Cherecheș, I., A., Bejan, M. Analiza numerică a tensiunilor remanente dintr-o piesă turnată ȘTIINȚĂ ȘI INGINERIE, vol. 23, Editura AGIR, București, 2013, ISSN 2067-7138, pag. 419-424
17. Cherecheș, I., A., Dudescu, M., C., Bejan, M. Analiza experimentală a tensiunilor remanente dintr-o piesă turnată, ȘTIINȚĂ ȘI INGINERIE, vol. 23, Editura AGIR, București, 2013, ISSN 2067-7138, pag. 425-432
18. Cherecheș, I., A., Bejan, M. Analiza statică a tensiunilor și deformațiilor într-o adăpătoare utilizată în zootehnie, Buletinul AGIR, nr. 1/2013, An XVIII, ianuarie-martie, ISSN 2247-3548, pag. 17-21
19. Cherecheș, I., A., Bejan, M. Evoluția tensiunilor remanente – Partea I, Știință și Inginerie, An XII, vol. 21/2012, Editura AGIR, București, 2012, ISSN 2067-7138, pag. 699-706
20. Cherecheș, I., A., Bejan, M. Evoluția tensiunilor remanente – Partea a II-a, Știință și Inginerie, An XII, vol. 21/2012, Editura AGIR, București, 2012, ISSN 2067-7138, pag. 707-712;

