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Gradul didactic: **conferențiar**

Instituția unde este titular: **Universitatea “Babeș-Bolyai” din Cluj-Napoca**

Facultatea de inginerie

Departamentul: **Școala Doctorală de Inginerie**

L I S T A

lucrărilor științifice în domeniul disciplinelor din postul didactic

A. Teza de doctorat

Cercetări privind reducerea vibrațiilor în funcționarea reductoarelor cu roți dințate cilindrice, Universitatea „Eftimie Murgu” din Reșița, conducător științific: prof. univ. dr. ing. Ion VELA, susținută public în iulie 2009

B. Cărți și capitole în cărți publicate în ultimii 10 ani

1. **Korka Zoltan Iosif**, *Performance improvement of mechanical components by precWoSon coatings*, capitol în: J. Zbitou, C. I. Pruncu, A. Errkik (Ed's): *Recent developments in electrical and mechanical engineering*, IGI Global, Hershey PA, USA, 2020, ISBN-13: 978-1-799-80117-7, pag. 430- 454, (DOI: 10.4018/978-1-7998-0117-7.ch016)
2. **Korka Zoltan Iosif**, *PrecWoSon coatings*, capitol în: Gupta K. (Ed.): *Micro and precWoSon manufacturing*. Engineering Materials. Springer, Cham, 2018, ISBN 978-3-319-68800-8, pag. 165- 193
3. **Korka Zoltan Iosif**, *Desen tehnic. Aplicații practice*, Editura Eftimie Murgu, Reșița, 2015, ISBN 978-606-631-057-4, 173 pagini
4. **Korka Zoltan Iosif**, *Mașini-unelte. Construcție și cinematică*, Editura Eftimie Murgu, Reșița, 2014, ISBN 978-606-631-042-0, 239 pagini
5. **Korka Zoltan Iosif**, *Bazele aşchierii și generării suprafețelor*, Editura Universității „Eftimie Murgu” Reșița, 2013, ISBN 978-606-631-030-7, 285 pagini
6. **Korka Zoltan Iosif**, *Bazele aşchierii și generării suprafețelor*, Îndrumător de laborator, Tipografia Universității „Eftimie Murgu” Reșița, 2012, 92 pagini

C. Lucrări indexate WoS/BDI publicate în ultimii 10 ani

1. Pau T.D., **Korka Z.I.**, Nedelcu D., Hrimiuc C., *Assessing the Meshing for Windage Power Loss Simulations of an Orthogonal Face Gear*, *Machines* **2025**, 13 (5), 341, **lucrare cotate WoS (FI 2,5)**
2. Miclosina C.O., Coca P., Popovici G., **Korka Z.I.** *Management of CAD-CAM turning operations*, *Robotica & Management*, **2025**, 30 (1), pp. 63-66, **lucrare indexată BDI (Erih+)**
3. Timofte S., **Korka Z.I.**, Geroacs A., Komjaty A., Bulzan F., *Dynamic Computation of an Innovative Device for Reducing Reaction Torque*, *Computation* **2024** 12 (11), 219, **lucrare cotate WoS (FI 1,9)**
4. Timofte S., Miclosina C.O., Cojocar V., Geroacs A., **Korka Z.I.**, *Inertial Propulsion of a Mobile Platform Driven by Two Eccentric Bodies*, *Applied Sciences* 13 (17), 9511, **2023**, **lucrare cotate WoS (FI 2,7)**

5. Gillich, GR; Maia, NMM; Wahab; M.A., TufWoS, C.; **Korka, Z.I.**; Gillich, N; Pop, MV, *Damage Detection on a Beam with Multiple Cracks: A Simplified Method Based on Relative Frequency Shifts*, Sensors, 21 (15), **2021**, **lucrare cotată WOS (FI 3,9)**
6. Gerocs, A; Gillich, GR; (...); **Korka, Z.I.**, *A Multibody Inertial Propulsion Drive with Symmetrically Placed Balls Rotating on Eccentric Trajectories*, Symmetry, 12 (9), **2020**, **lucrare cotată WOS (FI 2,7)**
7. Gerocs, A; **Korka, Z.I.**; (...); Nedelcu, D., *The Kinematic and Dynamic Study of an Inertial Propulsion System Based on Rotating Masses*, Acta Polytechnica Hungarica, 17 (6), **2020**, , pp.225-237, **lucrare cotată WOS (FI 1,7)**
8. Gerocs A., **Korka Z. I.**, Biro I., Cojocaru V., *Analytical investigation of an inertial propulsion system using rotating masses*, Journal of Physics: Conference Series 1426 (012031), **2020**, **lucrare indexată BDI (Google Scholar)**
9. **Korka Z.I.**, *Challenges of ethics in current research*, Romanian Journal of Acoustics and Vibration, 17(2), **2020**, pp.84-84, **lucrare cotată WOS (FI 0,4)**
10. Miclosina C. O., Cojocaru V., **Korka Z. I.**, *Analysis of a 6-DOF parallel robot motion simulation*, Journal of Physics: Conference Series 1426 (012003), **2020**, **lucrare indexată BDI (Google Scholar)**
11. Nedelcu D., Gillich G. R., Biro I., **Korka Z. I.**, Gerocs A., *The study of the punching cards mechanism with SolidWorks Motion*, Analls of "Eftimie Murgu" University from Resita 26 (1), **2019**, pp. 181-190, **lucrare indexată BDI (DOAJ)**
12. Miclosina C.O., **Korka Z. I.**, Cojocaru V., *Experimental determination of forces that occur on a workpiece grasped by a pneumatically driven robotic gripper*, Analls of "Eftimie Murgu" University from Resita 26 (1), **2019**, pp. 133-138, **lucrare indexată BDI (DOAJ)**
13. Gerocs A., **Korka Z. I.**, Gillich G. R., *Analytical investigations on the influence of the geometry of an inertial drive on the propulsion force*, Analls of "Eftimie Murgu" University from Resita 26 (1), **2019**, pp. 76-85, **lucrare indexată BDI (DOAJ)**
14. **Korka Z.I.**, Cojocaru V., Miclosina C.O., *Modal - Based Design Optimization of a Gearbox Housing*, Romanian Journal of Acoustics and Vibration 16 (1), **2019**, pp. 58-65, **lucrare cotată WOS (fără FI)**
15. Gillich G.R., Furdui H., Wahab M.A., **Korka Z.I.**, *A robust damage detection method based on multi-modal analysis in variable temperature conditions*, Mechanical Systems and Signal Processing 115 (2019), pp. 361-379, **lucrare cotată WOS (FI= 5,005)**
16. Miclosina C.O., Gogoneata M. A., **Korka Z. I.**, Cojocaru V., *Simulation of a Pneumatically Driven Robotic Gripper Used for Handling Cylindrical Workpieces*, Analls of "Eftimie Murgu" University from Resita, 25 (1), **2018**, pp. 35-42, **lucrare indexată BDI (DOAJ)**
17. Nedeloni L., **Korka Z. I.**, Nedeloni M. D., Conciatu I. L., *Dry Sliding Wear behavior of some Cu and Al Alloys*, Analls of "Eftimie Murgu" University from Resita, 25 (1), **2018**, pp. 69-80, **lucrare indexată BDI (DOAJ)**
18. TufWoS C., Gillich G.R., Vasile O., **Korka Z. I.**, Hamat C. O., *Identification of Delamination in Multilayered Composites*, IOP Conference Series: Materials Science and Engineering 416, 01204, **2018**, **lucrare indexată SCOPUS**
19. Nedeloni L., **Korka Z. I.**, Pascal D. T., Kazamer N., Nedeloni M. D., *Comparative Study on Dry Sliding Wear Resistance of Carbon Steel, Alloyed Steel and Cast Iron*, IOP Conference Series: Materials Science and Engineering 416, 012026, **2018**, **lucrare indexată SCOPUS**
20. Barboni L., Gillich G. R., **Korka Z. I.**, *Assessment of Mass Variation by Vibration-based Methods*, IOP Conference Series: Materials Science and Engineering 416, 012042, **2018**, **lucrare indexată SCOPUS**

21. **Korka Z. I.**, Cojocaru V., Miclosina C. O., *Shape Improvement of a Gearbox Housing Using Modal Analysis*, Romanian Journal of Acoustics and Vibration 15 (1), **2018**, pp. 47-52, **lucrare cotată WOS (fără FI)**
22. Gillich G. R., TufWoS C., **Korka Z.I.**, Hamat C.O., Gillich N., *Automatic detection of L and T shaped cracks in semifinished casting products*, IOP Conference Series: Materials Science and Engineering 393 (1), 012016, **2018**, **lucrare indexată SCOPUS**
23. Gillich G.R., Iancu V., Gillich N., **Korka Z.I.**, Chioncel C.P., Hatiegan C., *Decoupling the structure from the ground motion during earthquakes by employing friction pendulums*, IOP Conference Series: Materials Science and Engineering 294 (1), 012025, **2018**, **lucrare indexată SCOPUS**
24. Gillich E. V., Mocan M., **Korka Z. I.**, Gillich G. R., Hamat C. O., *Real-time assessment of machine performance through the use of an intelligent sensorial system*, IOP Conference Series: Materials Science and Engineering 393 (1), 012082, **2018**, **lucrare indexată SCOPUS**
25. Mocan M., Gillich E.V., Mituletu I.C., **Korka Z.I.**, *An evolutionary sensor approach for self-organizing production chains*, IOP Conference Series: Materials Science and Engineering 294 (1), 012092, **2018**, **lucrare indexată SCOPUS**
26. **Korka Z.I.**, Filip L., Clavac B., Bara A., *An Appraisal of the Sound Field Generated by Helical Gear Pairs with Different Helix Angles, Manufactured by Various Technologies*, Acoustics and Vibration of Mechanical Structures—AVMS-2017, pp. 121-127, **2018**, **lucrare cotată WOS**
27. Gillich G.R., Minda A.A., **Korka Z.I.**, *Precise estimation of the resonant frequencies of mechanical structures involving a pseudo-sinc based technique*, Journal of Engineering Sciences and Innovation , A. Mechanics, Mechanical and Industrial Engineering, Mechatronics, 2(4), **2017**, pp. 37-48, **lucrare indexată BDI**
28. **Korka Z.I.**, Gillich N., *Modal Analysis of Helical Gear Pairs with Various Ratios and Helix Angles*, Romanian Journal of Acoustics and Vibration 14 (2), **2017**, pp. 91-96, **lucrare cotată WOS (fără FI)**
29. Gillich G.R., Stanciu E., **Korka Z.I.**, Praisach Z.I., Hamat C., *Assessing Corrosion Damage from the Natural Frequency Changes*, Romanian Journal of Acoustics and Vibration 14 (2), **2017**, pp. 63-68, **lucrare cotată WOS (fără FI)**
30. Miclosina C.O., **Korka Z.I.**, Cojocaru V., Gogoneata M.A., *Simulation of Grasping Prismatic Workpieces by a Pneumatically Driven 3-Finger Robotic Gripper*, Robotica & Management International Journal, vol. 22, no. 2, pag. 13-16, **2017**, **lucrare indexată BDI (Index Copernicus)**
31. Stanciu E., **Korka Z.I.**, Praisach Z.I., Gillich G.R., *Comparison of computed eigenfrequencies with experimental results for corroded cantilever beams*, The 7th International Conference on Computational Mechanics and Virtual Engineering, COMEC 2017, Braşov, Romania 16-17 november **2017**, pp. 69-73, **lucrare indexată BDI (Google Scholar)**
32. Nedeloni L., **Korka Z.I.**, Nedeloni M., Pauliuc D., *Wear Resistance Assessment of Fluoropolymer Coated Gears*, Analele Universității “Eftimie Murgu” Reșița, Fascicola Inginerie, Anul XXIV Nr. 1, pag. 225-234, **2017**, **lucrare indexată BDI (DOAJ)**
33. Clavac B., **Korka Z.I.**, *Efficiency Investigation on a Helical Gear Transmission*, Analele Universității “Eftimie Murgu” Reșița, Fascicola Inginerie, Anul XXIV Nr. 1, pag. . 55-66, **2017**, **lucrare indexată BDI (DOAJ)**
34. Nitescu C., **Korka Z.I.**, Gillich G.R., *Experimental Procedure to assess Damages of Welded Beams*, Analele Universității “Eftimie Murgu” Reșița, Fascicola Inginerie, Anul XXIV Nr. 1, pag. . 279-286, **2017**, **lucrare indexată BDI (DOAJ)**
35. **Korka Z.I.**, Bara A., Clavac B., Filip L., *Gear Pitting Assessment Using Vibration Signal Analysis*, Romanian Journal of Acoustics and Vibration 14 (1), **2017**, pp. 44-49, **lucrare cotată WOS (fără FI)**

36. Gillich E.V., Mocan M., Mituletu I.C., **Korka Z.I.**, *Process Monitoring in PrecWoSon Machining using Optical Sensors*, Romanian Journal of Acoustics and Vibration 14 (1), **2017**, pp. 50-53, **lucrare cotată WOS (fără FI)**
37. **Korka Z.I.**, Micloșina C.O., Vladulescu I., *Experimental Investigation on the Detection of Obstacles by a Mobile Robot*, Robotica & Management International Journal, vol. 22, no. 1, pag. 24-27, **2017**, **lucrare indexată BDI (Index Copernicus)**
38. **Korka Z.I.**, Cojocaru V., Gillich N., Miclosina C.O., *Comparative Assessment of Noise Reduction in Helical Gearboxes*, Journal of Vibration Engineering & Technologies 5 (3), pp. 263-268, 2017, **lucrare cotată WOS (FI= 0,259)**
39. Nitescu C., Gillich G.R., Wahab M.A., Manescu T., **Korka Z.I.**, *Damage severity estimation from the global stiffness decrease*, IOP Conf. Series: Journal of Physics 842(1), 012034, **2017**, **lucrare cotată WOS**
40. **Korka Z.I.**, *Reduction of vibration and noise generated by multipoint sources of dynamic contact processes*, Romanian Journal of Acoustics and Vibration 14 (1), **2017**, pag. 2, **lucrare cotată WOS (fără FI)**
41. V. Cojocaru, **Korka Z.I.**, Campian C.V., *The Influence of Pressure Distribution on the Maximum Values of Stress in FEM Analysis of Plain Bearings*, Robotica & Management International Journal, vol. 21, no. 2, pag. 15-17, **2016**, **lucrare indexată BDI (Index Copernicus)**
42. **Korka Z.I.**, Miclosina C.O., Jian D.G., *Experimental Investigation on the Positioning Accuracy of the Translation Module of a 6-DOF Industrial Robot*, Robotica & Management International Journal, vol. 21, no. 2, pag. 18-22, **2016**, **lucrare indexată BDI (Index Copernicus)**
43. Gillich G.R., Tufoi M., **Korka Z.I.**, Stanciu E., Petrica A., *The Relations between Deflection, Stored Energy and Natural Frequencies, with Application in Damage Detection*, Romanian Journal of Acoustics and Vibration 13 (2), **2016**, pag. 87-93, **lucrare cotată WOS (fără FI)**
44. **Korka Z.I.**, Gillich N., Bara A., Filip L., Clavac B., *A comparative assessment of vibration reduction in helical gear pairs*, Romanian Journal of Acoustics and Vibration 13 (2), **2016**, pag. 81-86, **lucrare cotată WOS (fără FI)**
45. Praisach Z.I., Micliuc D.M., Gillich G.R., **Korka Z.I.**, *Natural Frequency Shift of Damaged Circular Plate Clamped all around*, ANNALS of Faculty Engineering Hunedoara – International Journal of Engineering, Tome XIV (2016)-Fascicule 4, pag. 57-62, , **lucrare indexată BDI (Google Scholar)**
46. **Korka Z.I.**, Campian C.V., Balint D., Cojocaru V., Budai A.M., *Evaluation of Hydraulic Loads on the Runner Blades of a Kaplan Turbine using CFD Simulation and Model Test*, Analele Universității “Eftimie Murgu” Reșița, Fascicula Inginerie, Anul XXIII, Nr. 1, pag. . 173-182, **2016**, **lucrare indexată BDI (DOAJ)**
47. Gillich G.R., Maia N., Mituletu I.C., Tufoi M., Iancu V., **Korka Z.**, *A New Approach for Severity Estimation of Transversal Cracks in Multi-layered Beams*, Latin American Journal of Solids and Structure, in press, vol. 13 (2016), **lucrare cotată WOS (FI= 1,272)**
48. Tufoi M., Gillich G.R., Praisach Z.I., **Korka Z.I.**, Hatiegan C., *Modal Analysis of a Butterfly Valve with Different Stiffening Elements*, Romanian Journal of Acoustics and Vibration 13 (1), **2016**, pag. 11-15, **lucrare cotată WOS (fără FI)**

D. Lucrări publicate în ultimii 10 anii în reviste și volume de conferințe cu referenți (neindexate)

- Reviste



E. Brevete obținute în întreaga activitate

1. Gerocs A., **Korka Z.I.**, *Transmisie mecanică pentru reducerea momentului de reacție*, brevet de invenție RO 134352B1, **2023**
2. Gillich G. R., Bîtea C. V., **Korka Z. I.**, *Sistem de prindere a parapetelor de siguranță cu atenuare progresivă a energiei de impact*, brevet de invenție RO 134051B1, **2021**
3. Bîtea C. V., Gillich G. R., **Korka Z. I.**, *Sistem de prindere a parapetelor de protecție cu disipare controlată a energiei la impact*, brevet de invenție RO 132312 B1, **2019**

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