

Universitatea din Petroșani
Facultatea de Inginerie Mecanică și Electrică
Departamentul: Inginerie Mecanică, Industrială și Transporturi

Domeniul: Mine, Petrol și Gaze

Comisia CNATDCU: Inginerie Geologică, Inginerie Geodezică, Mine, Petrol și Gaze

Candidat: Prof. univ. dr. habil. ing. ANDRAȘ ANDREI

LISTA DE LUCRĂRI

A) TEZA DE DOCTORAT

TD1. Studii privind perfecționarea metodologiei de proiectare a echipamentelor pentru industria extractivă, Universitatea din Petroșani, Conducător științific: Prof. univ. dr. ing. Koronka Ferenc, Diploma de Doctor nr. 381/27.11.2006 Seria E nr. 0007654, confirmat prin Ordinul M.E.C. nr. 3824/03.05.2006. Susținere publică a tezei: 27.01.2006

B) TEZA DE ABILITARE

TA1. Cercetări și rezultate în modelarea și simularea echipamentelor din industria minieră, Universitatea din Petroșani, Atestat de abilitare în domeniul de studii universitare de doctorat Mine, petrol și gaze prin OMEC nr. 4000/20.04.2023.

C. ARTICOLE ÎN EXTENSO PUBLICATE

Reviste de specialitate de circulație internațională recunoscute (cotate ISI) și volume conferințe indexate ISI

- Risi.1.** Popescu, F.D.; ANDRAȘ, A.; Radu, S.M.; Brinas, I.; Iladie, C.-M. *Numerical Investigation of Slope Stability of the Waste Dumps from Romanian Lignite Open-pit Mines using the Shear Strength Reduction Method*. APPLIED SCIENCES 2024, 14(21), 9875, **I.F.: 2.5, Q1**, <https://doi.org/10.3390/app14219875>, **WOS: publicată 29 October 2024 ÎN CURS DE INDEXARE.**
- Risi.2.** ANDRAȘ, A.; Popescu, F.D.; Radu, S.M.; Păsculescu, D.; Brinas, I.; Radu, M.A.; Peagu, D. *Numerical Simulation and Modeling of Mechano–Electro–Thermal Behavior of Electrical Contact Using COMSOL Multiphysics*. APPLIED SCIENCES 2024, 14, 10, 4026, **I.F.: 2.7, Q2**, DOI: 10.3390/app14104026, **WOS: .** <https://www.webofscience.com/wos/woscc/full-record/WOS:>
- Risi.3.** Popescu, F.D.; Radu, S.M.; ANDRAȘ, A.; Brinas, I.; Marita, M.O.; Radu, M.A.; Brinas, C.L. *Stability Assessment of the Dam of a Tailings Pond Using Computer Modeling-Case Study: Coroiesti, Romania*. APPLIED SCIENCES 2024, 14, 1, 268, **I.F.: 2.7, Q2**, DOI: 10.3390/app14010268, **WOS: 001139312400001**. <https://www.webofscience.com/wos/woscc/full-record/WOS:001139312400001>
- Risi.4.** Popescu, F.D.; Danciu, C.-G.; Andras, A.; Brinas, I.; Radu, S.M.; Neaga, M.A. *DETERMINATION OF LIGNITE SHEAR STRENGTH ALONG AN IMPOSED PLANE BY SIMULATION AND MODELLING USING FDEM*. Acta Technica Napocensis Series-Applied Mathematics Mechanics and Engineering, Volume: 66, Issue: 4, Pages: 457-464, Published: NOV 2023, ISSN: 1221-5872. **I.F. 0,1, Q4, WOS:001236162800003**. <https://1d10qrh6p-y-https-www-webofscience-com.z-e-nformation.ro/wos/woscc/full-record/WOS:001236162800003>
- Risi.5.** Alexandru, T.G.; Alexandru, A.; Popescu, F.D.; ANDRAȘ, A. *The Development of an Energy Efficient Temperature Controller for Residential Use and Its Generalization Based on LSTM*. SENSORS 2023, 23, 1, 453, **I.F. 3.847, Q2**, DOI: 10.3390/s23010453, **WOS:000909162300001**. <https://1d10q2xej-y-https-www-webofscience-com.z-e-nformation.ro/wos/woscc/full-record/WOS:000909162300001>
- Risi.6.** Radu, S.M.; Popescu, F.D.; ANDRAȘ, A.; Virag, Z.; Brinas, I.; Draica, M.-I. *A Thermo-Mechanical Stress Based Fatigue Life Evaluation of a Mine Hoist Drum Brake System Using COMSOL Multiphysics*. MATERIALS 2022, 15, 19, 6558, **I.F.: 3.748, Q1**, DOI: 10.3390/ma15196558, **WOS:000867025600001**. <https://www.webofscience.com/wos/woscc/full-record/WOS:000867025600001>
- Risi.7.** Brinaș, I.; ANDRAȘ, A.; Radu, S.M.; Popescu, F.D.; Tomuș, O.B.; Manițiu, D. *INVESTIGATION OF CABIN VIBRATION EXPOSURE IN A BUCKET-WHEEL EXCAVATOR (BWE) DURING PERMANENT EXCAVATION REGIME WITH COMPUTER SIMULATION*. Acta Technica Napocensis Series-Applied Mathematics Mechanics and Engineering, Volume: 65, Issue: 2, Pages: 205-210, Published: JUN 2022, ISSN: 1221-5872. **WOS:000838236300010**. <https://1d10q2xej-y-https-www-webofscience-com.z-e-nformation.ro/wos/woscc/full-record/WOS:000838236300010>
- Risi.8.** Popescu, F.D.; Radu, S.M.; ANDRAȘ, A.; Brinas, I.; Budilica, D.I.; Popescu V. *Comparative Analysis of Mine Shaft Hoisting Systems' Brake Temperature Using Finite Element Analysis (FEA)*. MATERIALS 2022, 15, 9, 3363, **I.F.: 3.748, Q1**, DOI: 10.3390/ma15093363. **WOS:000800732600001**. <https://www.webofscience.com/wos/woscc/full-record/WOS:000800732600001>
- Risi.9.** ANDRAȘ, A.; Radu, S.M.; Brinaș, I.; Popescu, F.D.; Budilică, D.I.; Korozsi, E.B. *Prediction of Material Failure Time for a Bucket Wheel Excavator Boom Using Computer Simulation*. Materials 2021, 14, 7897. **I.F. 3.623 Q1** DOI: 10.3390/ma14247897. **WOS:000738459300001**. <https://www.webofscience.com/wos/woscc/full->

- Risi.10.** Brînaş, I., ANDRAŞ, A., Radu, S.M., Popescu, F.D., Andraş, I., Marc, B.I., Cioclu, A.R. *Determination of the Bucket Wheel Drive Power by Computer Modeling Based on Specific Energy Consumption and Cutting Geometry*. *Energies*, 2021, 14(3), 3892. **I.F. 3,004 Q3**. DOI:10.3390/en14133892. **WOS:000671317100001**. [https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000671317100001](https://www.webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000671317100001)
- Risi.11.** ANDRAŞ, A., Brînaş, I., Radu, S.M., Popescu, F.D., Popescu, V., Budilica, D.I. *INVESTIGATION OF THE THERMAL BEHAVIOUR FOR THE DISC-PAD ASSEMBLY OF A MINE HOIST BRAKE USING COMSOL MULTIPHYSICS*. *Acta Technica Napocensis Series-Applied Mathematics Mechanics and Engineering*, Volume: 64, Issue: 2, Pages: 227-234, Published: JUN 2021, ISSN: 1221-5872. **WOS: 000684576900004**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000684576900004>
- Risi.12.** Radu, S.M., Popescu, F.D., ANDRAŞ, A., Andraş, I., Brînaş, I., Valceanu, F. *NUMERICAL ANALYSIS OF FATIGUE FOR THE ASSESSMENT OF REMAINING SERVICE LIFE OF THE ERC 1400-30/7 BUCKET WHEEL EXCAVATOR*. *Proceedings Of The Romanian Academy Series A-Mathematics Physics Technical Sciences Information Science*, 2021, 22 (2), 143-152. **I.F. 1,523 Q3**. **WOS: 000667515100005**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000667515100005>
- Risi.13.** Popescu, F. D., Radu, S. M., ANDRAŞ, A., Brînaş, I. *Numerical Modeling of Mine Hoist Disc Brake Temperature for Safer Operation*. *Sustainability*, 2021, 13(5), 2874. **I.F. 3,251 Q2**. **WOS:000628676400001**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000628676400001>
- Risi.14.** Popescu, F.D., Radu, S.M., ANDRAŞ, A., Brînaş, I., Marita, M.O., Rebedea, N.I., *The modal analysis, using simulation and modelling, of the boom of the ERC-1400 bucket-wheel excavator during operation*. *Acta Technica Napocensis Series-Applied Mathematics Mechanics and Engineering*, Volume: 63, Issue: 4, Pages: 353-362, Published: NOV 2020, ISSN: 1221-5872. **WOS: 000606612500002**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000606612500002>
- Risi.15.** Peter, E., ANDRAŞ, A. *The Representational Space of the Jiu Valley: Space Perceived Through Direct Experience*. *Postmodern Openings*, 2020, 11(3), 129-144. **WOS:000577502200007**. DOI: 10.18662/po/11.3/203. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000577502200007>
- Risi.16.** Kotwica, K., Suffner, H., ANDRAŞ, A. *Trenchless Execution of Microtunnels for Municipal Infrastructure in Urbanized Site – Conception of a New Solution*, *Management Systems in Production Engineering*, 2020, 28(4), 276-282. **WOS:000562281600009**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000562281600009>
- Risi.17.** Popescu, F.D.; ANDRAŞ, A.; Kertesz (Brînaş), I., *Determination of the Operating Power of the Rotor of the ERC-1400 Type Bucket Wheel Excavator Using Numerical Methods*. *Acta Technica Napocensis Series-Applied Mathematics Mechanics and Engineering*, Volume: 63, Issue: 2, Pages: 137-142, Published: JUN 2020, ISSN: 1221-5872. **WOS:000550992100004**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000550992100004>
- Risi.18.** Popescu, F.D.; Radu, S.M.; Kotwica, K.; ANDRAŞ, A.; Kertesz (Brînaş), I. *Simulation of the Time Response of the ERC 1400-30/7 Bucket Wheel Excavator's Boom during the Excavation Process*. *Sustainability*. 2019, 11 (16), 4357. **I.F. 2,592 Q2**. DOI:10.3390/su11164357. **WOS:000484472500101**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000484472500101>
- Risi.19.** Radu, SM; Popescu, FD; Andras, A; Brinas, IK; Tomus, OB , *Increasing the quality of the well drilling process by finite element analysis of the drilling fluid flow parameters*, *QUALITY-ACCESS TO SUCCESS*, Vol. 20, pp. 359-364, 2019, ISSN: 1582-2559. **WOS:000459686300063**. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000459686300063>
- Risi.20.** Tomuş, O.B.; ANDRAŞ, A.; Jula, D.; Dinescu, S., *Aspects relating to the reliability calculation of the cutting-teeth mounted on the bucket wheel excavators used in lignite mining*. *MATEC Web Conf.*, 290 (2019) 01020. **WOS:000569367700020**. DOI: 10.1051/mateconf/201929001020. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000569367700020>
- Risi.21.** Popescu, F.D.; Radu, S.M.; ANDRAŞ, A.; Kertesz (Brînaş), I., *A grafo-numeric method of determination of the operation power of the rotor of EsRc-1400 bucket wheel excavator using computer simulation in SolidWorks*. *MATEC Web Conf.*, 290 (2019) 04007. **WOS:000569367700057**. DOI: 10.1051/MATECONF/201929004007. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000569367700057>
- Risi.22.** Tomuş, O.B., ANDRAŞ, A., Magyari, M., *Study on the reliability of the underground conveyor belt system installed at Vulcan Mine, the Jiu Valley Basin in Romania*, *The 8th International Conference on Manufacturing Science and Education MSE*, 7 – 9 June 2017, *MATEC Web Conf.* Volume 121, 2017, Sibiu, Romania, ISSN 2559-2963, ISSN-L 2559-2963, pp. 115-122. **WOS:000435283800117**. DOI: 10.1051/mateconf/201712110005 <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000435283800117>
- Risi.23.** Irime S.I., Radu S.M., Petrilean D.C., ANDRAŞ, A., *Reducing the environmental impact of a gas operated cogeneration installation*, *The 8th International Conference on Manufacturing Science and Education MSE*, 7 – 9 June 2017, *MATEC Web Conf.* Volume 121, 2017, Sibiu, Romania, ISSN 2559-2963, ISSN-L 2559-2963, pp. 876-884. **WOS:000435283800117**. DOI: 10.1051/mateconf/201712101016. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000435283800117>
- Risi.24.** Stela Dinescu, Andrei ANDRAŞ, A. *analysis of Winning Performance of Shearer Loader Cutter Head using Modeling*,

Alte reviste de specialitate din fluxul internațional principal (BDI)

- Rsi.1.** Kahraman, S.; Ozbek, M.; Rostami, M.; Fener, M.; **Andras, A.**; Popescu, F.D. *Investigating the changes in the strength of carbonate rocks exposed to microwave energy*. Arabian Journal of Geosciences 17 (9), 1-17. doi.org/10.1007/s12517-024-12058-4. <https://link.springer.com/article/10.1007/s12517-024-12058-4>
- Rsi.2.** **ANDREI ANDRAȘ**, F.D. Popescu, I.C. Măceșaru (Lăpăduși), I. Brînaș, *The Study of the Kinematics of the Lifting-Lowering Mechanism of the SMA-2 Powered Roof Support Using Computer Software*, Annals of the University of Petroșani, Mechanical Engineering, 25 (2023), pp.17-32, [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2023/02_Andras.pdf
- Rsi.3.** D. Peagu (Furdui), F.D. Popescu, **ANDREI ANDRAȘ**, *Mechanical Stress Simulation of the Explosion-Proof Encapsulation with Cylindrical Frame*, Annals of the University of Petroșani, Mechanical Engineering, 25 (2023), pp. 161-68, [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2023/15_Peagu.pdf
- Rsi.4.** F.D. Popescu, **ANDREI ANDRAȘ**, M.-I. Draica, I. Brînaș, B.I. Marc, *Computer Modeling of the CA-1 Longwall Shearer Helical Vane Drum with Variable Axial-Radial Pitch*, Annals of the University of Petroșani, Mechanical Engineering, 25 (2023), pp. 183-92, [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2023/18_Popescu.pdf
- Rsi.5.** Măceșaru (Lăpăduși), I.C., Popescu, F.D., **ANDRAȘ, A.** *Stress-Strain Study Of A Powered Roof Support Section Using Numeric Simulation*. Annals of the University of Petrosani Mechanical Engineering. 2022, Vol. 24, pp. 89-100. [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2022/10_Macesanu%20Formatata%20RO.pdf
- Rsi.6.** Popescu, F. D., **ANDRAȘ, A.**, Brînaș, I. *Determination Using FEA Of The Static Stress Of A Mine Hoist Drum After Safety Braking*. Annals of the University of Petrosani Mechanical Engineering. 2022, Vol. 24, pp. 125-140. [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2022/13_Popescu_Andras_Brinas_2.pdf
- Rsi.7.** **ANDRAȘ, A.**, Popescu, F. D., Brînaș, I. *Computerised Analysis Of The Air Resistance For A Forward Moving Vehicle*. Annals of the University of Petrosani Mechanical Engineering. 2022, Vol. 24, pp. 1-12. [Ebsco, Google Scholar, Copernicus, DOAJ] https://www.upet.ro/annals/mechanical/pdf/2022/01_Andras_Popescu_Brinas.pdf
- Rsi.8.** **András, E.** *A bányagépek szerkezeti elemeinek és azok működési folyamatainak modellezése és szimulációja*. Műszaki Tudományos Közlemények, 16, pp. 5-9. (2022) ISSN 2393-1280. <https://doi.org/10.33895/mtk-2022.16.02>
- Rsi.9.** **ANDRAȘ, A.**, Popescu F. *Romanian Carbonate Rocks Cuttability Assessment Using Linear Cutting Tester*. Mining Revue. 27(4), pp. 50-56. (2022) [sciendo, ebsco, google scholar] <https://doi.org/10.2478/minrv-2021-0034>
- Rsi.10.** Popescu, F.D., **ANDRAȘ, A.**, Danciu, C., Brînaș, I., *Uniaxial Compressive Strength (UCS) simulations of Romanian carbonate rocks using the Finite-Discrete Element Method (FDEM)*, XI International Conference “Mining Techniques” TUR 2022 Krynica Zdrój, 20 ÷ 23 September 2022. https://scholar.google.com/citations?view_op=view_citation&hl=en&user=HRiETAEAAAAJ&sortby=pubdate&citation_for_view=HRiETAEAAAAJ:dshw04ExmUIC
- Rsi.11.** **ANDRAȘ, A.**; Andraș, I.; Danciu, C. *Rock excavation efficiency improvement by microwave treatment*. Multidiszciplináris Tudományok, 11(5), pp. 438-449. (2021) [Google scholar] <https://ojs.uni-miskolc.hu/index.php/multi/article/view/895>
- Rsi.12.** **András, E.**, András, E., Kovács, J. *A kőzetjövésztés hatékonyságának növelése mikrohullámú kezeléssel*. XXII Nemzetközi Bányászati, Kohászati és Földtani Konferencia, 2021, 19-24. <https://ojs.emt.ro/index.php/bkf/article/view/526> [Google Scholar]
- Rsi.13.** András, J., Kovács, J., **András, E.**, Kertész, I. and Tomuş, O.B., 2020. *Remaining Lifetime Assessment of Bucket Wheel Excavator's Boom Structure by Using Non-destructive Method*. Acta Materialia Transylvanica, 3(1), pp.10-14. <https://doi.org/10.33924/amt-2020-01-02> <https://content.sciendo.com/view/journals/amt/3/1/article-p10.xml>
- Rsi.14.** Popescu, F.D., **ANDRAȘ, A.** *Research regarding the cuttability of sandstone hard inclusions in the conditions of Romanian lignite open pit mines*. Annals of the University of Petrosani Mechanical Engineering. 2020, Vol. 22, p39-42. 4p. [Ebsco, Google Scholar] https://www.upet.ro/annals/mechanical/pdf/2020/05_Popescu_Andras.pdf
- Rsi.15.** **ANDRAȘ, A.**, Kertész (Brînaș), I., Popescu, F.D., *Comparative study of the projecting distance of pedestrians in frontal collisions with vehicles using computer simulation.*, Annals of the University of Petrosani Mechanical Engineering. Vol. 21 (2019). ISSN 1454-9166 <https://www.upet.ro/annals/mechanical/pdf/2019>
- Rsi.16.** Popescu, F.D., **ANDRAȘ, A.**, Kertész (Brînaș), I., *Determination of the capacity of a continuous transport system using spline type interpolation*, Annals of the University of Petrosani Mechanical Engineering. Vol. 21 (2019). ISSN 1454-9166 <https://www.upet.ro/annals/mechanical/pdf/2019>
- Rsi.17.** FD Popescu, SM Radu, **ANDRAȘ, A.**, IK Brînaș. (2019) *Simulation of the frequency response of the ERC 1400 Bucket Wheel Excavator boom, during the excavation process*, New Trends in Production Engineering 2 (1), 153-167. ISSN: 2545-2843 [Sciendo, Google Scholar]. DOI 10.2478/ntpe-2019-0016

- Rsi.18.** FD Popescu, SM Radu, K Kotwica, **ANDRAȘ, A.**, IK Brînaș, S Dinescu. (2019) *Vibration analysis of a bucket wheel excavator boom using Rayleigh's damping model*, New Trends in Production Engineering 2 (1), 233-241. ISSN: 2545-2843 [Sciendo, Google Scholar.] DOI 10.2478/ntpe-2019-0024 <https://content.sciendo.com/view/journals/ntpe/2/1/article-p233.xml>
- Rsi.19.** András, J., Kovács, J., **András, E.**, Kertész, I., Tomus, O. B. (2019). *A New Method for the Calculation of Energy and Power Requirements of Bucket Wheel Excavators*. *Műszaki Tudományos Közlemények (Papers On Technical Science)*, 10(1), 15-20. <https://content.sciendo.com/view/journals/mtk/10/1/article-p15.xml>
- Rsi.20.** Florin Dumitru Popescu, Sorin Mihai Radu, **ANDRAȘ, A.**, *Study of functional performance improvements for cutting teeth mounted on bucket wheel excavators operating in Oltenia coal basin – Romania*, Mining – Informatics, Automation and Electrical Engineering, Nr 3 (355) 2018, pp. 7, 16, © Wydawnictwa AGH, Kraków 2018, ISSN 2449-6421 (online) ISSN 2450-7326 (printed) <https://journals.indexcopernicus.com/search/details?id=44891> (Copernicus)
- Rsi.21.** S. M. Radu, F. D. Popescu, **ANDRAȘ, A.**, I. Kertesz Brinas, O. B. Tomus, *Simulation and modelling of the forces acting on the rotor shaft of bwes, in order to improve the quality of the cutting process*, Annals of the University of Petroșani, Mechanical Engineering, Vol. 20 (2018), (XLVII), 2018, ISSN 1454-9166 <https://www.upet.ro/annals/mechanical/>
- Rsi.22.** Kertész (B.), I., **ANDRAȘ, A.**, Popescu, F.D., *Improving The Functional Performances Of The Bucket Wheel Excavators (Bwes) Cutting-Teeth*, Annals of the University of Petroșani, Mechanical Engineering, 19 (2017), pp.71-80, <https://www.upet.ro/annals/mechanical/pdf/Annals-Mechanical-Engineering-2017.pdf>
- Rsi.23.** S.M. Radu, W. Chmielarz, **ANDRAȘ, A.** - *Mining Technological System's Performance Analysis*, Annals of the University of Craiova for Journalism, Communication and Management, Volume 2, 2016, ISSN 2501-3513. [Indexata RePEc, Google Scholar www.aucjc.ro/wp-content/uploads/2016/10/aucjcm-vol-2-2016-56-64.pdf](http://www.aucjc.ro/wp-content/uploads/2016/10/aucjcm-vol-2-2016-56-64.pdf)
- Rsi.24.** Andraș, I., **ANDRAȘ, A.**, Petrelean, D.C. - *Application of the theory of sonics in the design of percussive equipment for rock cutting*, Annals of the University of Petroșani, Mechanical Engineering, Vol. 18 (XLV), 2016, pag. 5-10, ISSN 1454-9166; (revistă categoria B+, cod CNCIS 26; Indexată în Ulrich's Periodicals Directory, EBSCO Publishing Inc., <http://upet.ro/annals/mechanical>)
- Rsi.25.** **ANDRAȘ, A.**, Andraș, I., Radu, S.M. - *Study regarding the bucket-wheel excavators used in hard rock excavations*, Annals of the University of Petroșani, Mechanical Engineering, Vol. 18 (XLV), 2016, pag. 11-22, ISSN 1454-9166; (revistă categoria B+, cod CNCIS 26; Indexată în Ulrich's Periodicals Directory, EBSCO Publishing Inc., Columbia University Libraries, SCIRIUS, Periodicals.ru, Suweco - <http://upet.ro/annals/mechanical>)
- Rsi.26.** Petrelean D.C., Doșa, I., **ANDRAȘ, A.**, Preda, L. - *Pollutant Variation Estimation According to the Wind Speed and the Mass Flow of the Pollutant for Paroseni Thermal Power Station*, Annals of the University of Petroșani, Mechanical Engineering, Vol. 18 (XLV), 2016, pag. 127-132, ISSN 1454-9166; (revistă categoria B+, cod CNCIS 26; Indexată în Ulrich's Periodicals Directory, EBSCO Publishing Inc., Columbia University Libraries, SCIRIUS, Periodicals.ru, Suweco - <http://upet.ro/annals/mechanical>)
- Rsi.27.** **ANDRAȘ, A.**, Andraș, I. - *Applications of Artificial Intelligence and Mechatronics in Mining Equipment Development*. Annals of the University of Petroșani, Mechanical Engineering, 17 (2015), (XLIV), 2015, pag. 5-20, ISSN 1454-9166; (revistă categoria B+, cod CNCIS 26; Indexată în Ulrich's Periodicals Directory, EBSCO Publishing Inc., Columbia University Libraries, SCIRIUS, Periodicals.ru, Suweco - <http://upet.ro/annals/mechanical>)
- Rsi.28.** Teseleanu G., Radu S.M., **ANDRAȘ, A.**, *Modeling and simulation of coal winning process*, Polish Journal of Management Studies, Volume 10, 2014, Czestochowa University of Technology, pp.189-194, ISSN 2081-7452;
- Rsi.29.** Kovacs, I., Nan, M.S., Andraș, I., Tomuş, O.B., **ANDRAȘ, A.** - *Comparative study of mechanical rock cutting*. Annals of the University of Petroșani, Mechanical Engineering, 14 (2012), (XLI), 2012, pag. 82-87, ISSN 1454-9166; (revistă categoria B+, cod CNCIS 26; Indexată în Ulrich's Periodicals Directory, EBSCO Publishing Inc., Columbia University Libraries, SCIRIUS, <http://upet.ro/annals/mechanical>)
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- Cnf.42.** Dinescu S., **ANDRAȘ, A.**, *Modeling the Coal Wining Equipment for Increase Work Effectiveness and Reduce Energy, Consumption*, XXVIII. microCAD International Multidisciplinary Scientific Conference, Miskolc, Hungary, 10-11 April 2014 ISBN 978-963-358-051-6.
- Cnf.43.** Kovacs, I., Andraş, I., **ANDRAȘ, A.**, Tomuş, O.B. , *Tapasztalatok es kilatasok a szen szereperola a romaniai energetikaban*, 46. Bányagépészeti És Bányavillamossági Konferencia 2013. szept. 26-27. ISBN 978-963-87684-2-1., 2013
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- Cnf.47.** Andraş I., Dinescu S., **ANDRAȘ, A.**, *Computer Aided Simulation of Complex Technological Systems for Coal Extraction*, XXVII. , microCAD International Scientific Conference, Miskolc, Hungary, 2013. ISBN: 978-963-358-018-9
- Cnf.48.** Andras I., Kovacs I., Nan M.S., **ANDRAȘ, A.**, Tomuş O.B., *A szénhez kötött (CBM) és a szénbányászattal összefüggő (CMM) metán hasznosítása, mint környezetbarát technológia, (The Coal Bed And Coal Mine Methane Beneficiation As An Environment-Friendly Technology.)* XIV. Mining, Metallurgy and Geology Conference, Erdélyi Magyar Műszaki Tudományos Társaság. 29 martie - 01 aprilie 2012 Arad, pag. 24-26, ISSN: 1842-9440.
- Cnf.49.** Iosif Andras, Florin Tiberiu Iacob-Ridzi, **ANDRAȘ, A.**, *Artificial Intelligence Based Methods In Modelling Some Mining Equipment Operation* , microCAD 2011, International Scientific Conference Miskolc, 31 march – 01 april 2011, ISBN 978-963-661-966-4.
- Cnf.50.** Jula D., Kovács I., Dumitrescu I., **ANDRAȘ, A.**, Tomuş O.B. - *Upgrading the Boom Positioning Mechanism of Bucket Wheel Excavators Utilized in Romanian Open Pit Lignite Mines*. microCAD 2011, International Scientific Conference Miskolc, 31 march – 01 april 2011, ISBN 978-963-661-925-1 Ö, ISBN 978-963-661-916-9.

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D). LUCRĂRI CARE PUN ÎN EVIDENȚĂ CONTRIBUȚIA ȘTIINȚIFICĂ:

CĂRȚI SAU CAPITOLE DIN CĂRȚI (MONOGRAFII, TRATATE), PUBLICATE LA EDITURI DE PRESTIGIU DIN STRĂINĂTATE

- CS.1.** Sorin Mihai Radu, Florin Dumitru Popescu, **ANDRAȘ, A.**, Ildiko Kertesz, *Mining Transportation and Equipment*, LAP Lambert Academic Publishing, 2019, ISBN: 978-3-330-34503-4
- CS.2.** Tomuş O.B., Jula D, **ANDRAȘ, A.**, Popescu F., *Study On The Operating Lifetime Of The Break Pads Of The Loadinghauling Machines. - Monografia Problemy Transportu I Przerobki W Gornictwie Modelowanie Procesow*, pag. 247 – 254, Akademia Gorniczo-Hutnicza. Krakow 2017. ISBN 978-83-930353-7-3
- CS.3.** **ANDRAȘ, A.**, I. Andraș, C.A. Alexandru Stoica, *Optimal Design Of Teeth For Bucket Wheel Excavators In View To Increasing The Cutting Efficiency - Monografia Problemy Eksploatacji I Zarzadzania W Gornictwie*. 9-16 pp, Akademia Gorniczo-Hutnicza. Krakow 2017, ISBN 978-83-930353-7-3
- CS.4.** Radu, S.M, **ANDRAȘ, A.**, Prip, I, Ionițescu, N., *An overview of results obtained in the field of water jet and water jet assisted cutting of different rocks and materials, Monografia Nowoczesne metody eksploatacji węgla i skał zwięzłych*. Krakow, 2015. Pag. 52-59, Akademia Gorniczo-Hutnicza.. Krakow, ISBN 978-83-930353-5-9
- CS.5.** **ANDRAȘ, A.**, Andraș, I., Kovacs, J, Tomuş. O.B., *Artificial Intelligence, Mechatronics and robotics in Mining Equipment Development, Monografia Problemy transportu i przerobki w gornictwie. Modelowanie procesow. Krakow, 2015. Pag. 134-149, Akademia Gorniczo-Hutnicza.. Krakow, 2015, ISBN 978-83-930353-9-7*
- CS.6.** Kovacs, J, Andraș, I., **ANDRAȘ, A.**, Tomuş. O.B., *Overview Of The Results Obtained In The Field Of Rock Cutting In Underground And Open Pit Conditions. Monografia Nowoczesne metody eksploatacji węgla i skał zwięzłych*. Krakow, 2013. Pag. 9-16, Akademia Gorniczo-Hutnicza.. Krakow, ISBN 978-83-930353-1-1

CĂRȚI SAU CAPITOLE DIN CĂRȚI (MONOGRAFII, TRATATE), PUBLICATE LA EDITURI DIN ȚARĂ, RECUNOSCUTE DE CNCS

Cursuri/manuale și cărți de specialitate publicate în edituri recunoscute:

- CM.1.** Popescu Florin Dumitru, Radu Sorin Mihai, **ANDRAȘ ANDREI**, Brinas Ildiko, *Infografică, modelare și simulare asistată de calculator*, Editura Universitas, Petroșani, 2020, ISBN 978-973-741-714-5, (388 p.)
- CM.2.** Popescu Florin Dumitru, Radu Sorin Mihai, **ANDRAȘ ANDREI**, Brinas Ildiko, *Infografică, modelare și simulare asistată de calculator*, varianta electronică interactivă, Editura Universitas, Petroșani, 2020, ISBN 978-973-741-715-2, (565 p.)
- CM.3.** Brinas Ildiko, Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ ANDREI**, *Modelarea și simularea procesului de dislocare utilizând excavatoare cu rotor*, Editura Universitas, Petroșani, 2020, ISBN 978-973-741-686-5, (205 p.)
- CM.4.** Brinas Ildiko, Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ ANDREI**, *Modelarea si simularea procesului de dislocare utilizand excavatoare cu rotor – varianta electronică*, Editura Universitas, Petroșani, 2020, ISBN 978-973-741-693-3, (283 p.)
- CM.5.** Dinescu Stela, **ANDRAȘ ANDREI**, *Analiza accidentelor de circulatie - accidentologie*, Editura Universitas, Petrosani, 2019, ISBN 978-973-741-627-8, (212 p.)
- CM.6.** Sorin Mihai Radu, Florin Dumitru Popescu, **ANDRAȘ ANDREI**, Ildiko Kertesz, *Mining Transportation and Equipment*, LAP Lambert Academic Publishing, (2019). ISBN: 978-3-330-34503-4
- CM.7.** Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ ANDREI**, Kertesz Ildiko, *Transport si instalatii miniere*, Editura Universitas, Petroșani, 2018, ISBN 978-973-741-587-5, (281 p.) 2018.
- CM.8.** Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ ANDREI**, Kertesz Ildiko, *Transport si instalatii miniere – varianta electronică, aplicații interactive*, Editura Universitas, Petroșani, 2018, ISBN 978-973-741-588-2, (442 p.)
- CM.9.** **ANDRAȘ ANDREI**, *Ingineria proiectării echipamentelor pentru industria extractivă*, Editura Universitas, Petroșani, ISBN 978-973-741-300-0 (176 p.) 2014.
- CM.10.** **ANDRAȘ ANDREI**, *Instalații de ridicat și transportat*, Editura Universitas Petroșani, 2014 - ISBN 978-973-741-302-4 (165 p.)

Culegeri și îndrumare publicate (în edituri cu isbn)

- CI.1.** **ANDRAȘ ANDREI**, *Instalații de transportat pe cablu. Construcție și calcul* Editura Universitas Petroșani, 2014-ISBN 978-973-741-303-1 (126 p.)
- CI.2.** **ANDRAȘ ANDREI**, *Teoria sistemelor de transport. Exemple de calcul*, Editura Universitas Petroșani, 2012-ISBN 978-973-741-301-7 (218 p.)

E) LUCRĂRI CARE PUN ÎN EVIDENȚĂ ACTIVITATEA DE CERCETARE:

Proiecte de cercetare-dezvoltare-inovare obtinute prin competiție, pe bază de contract/grant, în țară/străinătate

- P1. Manager de proiect.** *Cresterea capacitatii de cercetare a Universitatii Petrosani prin investitii in infrastructuri de tip Cloud si Big Data*, Apel: POC/398/1/1/Dezvoltarea unor rețele de centre CD, coordonate la nivel național și racordate la rețele europene și internaționale de profil și asigurarea accesului cercetătorilor la publicații științifice și baze de date europene și internaționale/1/Dezvoltarea unor rețele de centre CD, coordonate la nivel național și racordate la rețele europene și internaționale de profil și asigurarea accesului cercetătorilor la publicații științifice și baze de date europene și internaționale. **Durată: 24 luni (Septembrie 2021 – Septembrie 2023).** Valoare: 4.978.907,77 lei.
- P2. Director proiect - MIWACUT**, *Investigating The Microwave Assisted Cutting Of Carbonate Rocks. (Studiul taierii asistate cu microunde a rocilor carbonatice)*. Finanțat de UEFISCDI, P3 - Cooperare Europeană și Internațională, Subprogram 3.2, Orizont 2020. Valoare partener Upet: 53.200 Euro (252.168 lei). **Depus în cadrul ERA-NET Cofund on Raw Materials (ERA-MIN 2)** https://www.era-min.eu/sites/default/files/docs/era-min_joint_call_2018_-_list_of_funded_projects_table.pdf.
- P3. Membru în echipă** - PN-III-P2-2.1-PED-2021-1378 / 2022-2024 / Naval emergency shuttle based on textile-reinforced composite for storage and transport of water-petroleum hydrocarbon compound in the event of disasters.
- P4. Membru în echipă** - POCU/320/6/21/ 122773, Cod 122773 (DINAMIC - optimizarea ofertelor de studii din învățământ terțiar universitar și non-universitar tehnic în sprijinul angajabilității)
- P5. Responsabil contract** - *Contract de cercetare științifică Nr.78/11366 din 04.04.2018, , "Plan de mobilitate urbană a Orașului Petrila"*, Contractat prin SEAP, (Valoare încasată august 2018 15.589 lei)
- P6. Membru în echipă** - Grant Nr.45/SKU/NC/I din 23.11. 2017 (Studentii – Prezentul și Viitorul văii Jiului)
- P7. Membru în echipă** - RFCR-CT - 2015-00003 – Horizon 2020 – RFCS 2015-2018 - *Bucket wheel excavators operating under difficult mining conditions including unmineable inclusions and geological structures with excessive mining resistance (BEWEXMIN)*, Valoare totală: 473158 Euro, https://ec.europa.eu/research/industrial_technologies/pdf/rfcs/synopsis_projects_2015.pdf
- P8. Membru în echipă** - *CASC- Cities and Science Communication: Innovative Approaches to Engaging the Public /FP7* Coordination and support actions (Science in Society Priority). http://cordis.europa.eu/project/rcn/91174_en.html
- P9. Membru în echipă** - Materiale metalice cu structuri compozite utilizabile in atmosfera potențial explozivă GRANT 849 CEEX-M1-C2- 3607, 2006-2008
- P10. Membru în echipă** - Reducerea consumurilor electroenergetice și a cheltuielilor de exploatare a excavatoarelor de mare putere prin optimizarea parametrilor regimului de dislocare” grant CNCSIS 13182.
- P11. Membru în echipă** - Asigurarea competitivității și corelarea cu reglementările UE în domeniul prevenirii și combaterii riscurilor formării atmosferelor potențial explozive la minele de cărbune din Valea Jiului, Fazele I, II, III , IV și V, Grant C59-CEEX-II 03/2006, beneficiar Ministerul Educației și Cercetării, 2006-2008.
- P12. Membru în echipă** - Tehnologie eficientă de exploatare mecanizată a carbului cu banc subminat la minele din Valea Jiului aliniata la performantele inregistrate in tarile U.E. Grant 269/29.10. AMCSIT Politehnica Bucuresti, Program Inovare, 2008-2010

Alte lucrări de cercetare-dezvoltare-contracte cu terți

- F1. Membru în echipă** - Contractul de cercetare științifică universitară nr. 6446 din 07.10.2021. Modelarea și simularea componentelor echipamentelor industriale utilizând tehnologii CAD/CAM/CAE, Acronim: MSCEIT, Valoare 35.000 lei
- F2. Membru în echipă** - contractul de cercetare științifică universitară nr. 4281 din 31.05.2023, Verificarea și optimizarea geometriei taluzurilor prin analiză FDEM utilizând Geomechanica IRAZU. Studiu de caz: carierele de lignit din Bazinul Oltenia, Acronim: VETAF-Geo, Valoare 100.000 lei.
- F3. Membru în echipă** - Contract prestări servicii nr.89/13.07.2022 - Studiul geotehnic – determinarea parametrilor fizico-mecanici și reologici în orizontul XIV al Minei Cantacuzino, în vederea estimării gradului de stabilitate a acestuia. Beneficiar SNS București
- F4. Membru în echipă** - Contract de cercetare nr. 5/12.04.2016 - Majorarea eficienței energetice prin elaborarea, analiza și optimizarea instalațiilor energetice din cadrul SC ASVJ SA Petroșani
- F5. Membru în echipă** - Contract de cercetare nr. 3/14.01.2015, - Intocmire măsurători de performanță și raport tehnic pentru determinarea unor indicatori necesari calificării producției de energie electrică în cogenerare de înaltă eficiență pentru Grupul Energetic nr. 4 de 150 MW din Complexul Energetic Hunedoara SA – Sucursala Electrocentrale Paroșeni (2015). Director contract: Șef lucr.dr.ing. Petrilean Dan Coduț
- F6. Membru în echipă** - Elaborarea și analiza bilanțului energetic complex pentru consumatorii semnificativi din conturul de bilanț aferent secțiilor de producție BCA la punctele de lucru Deva și Oradea, Contr. Nr. 11/15.07.2011 , Beneficiar: SC MACON SRL Deva, Director contract: Șef lucr.dr.ing. Petrilean Dan Coduț
- F7. Membru în echipă** - Retechnologizarea fluxurilor de transport de la unitățile miniere din cadrul CNH SA, Contract 142 ASL/2007 Compania Națională a Huilei Petroșani

- F8. Membru în echipă** - Studiul posibilităților de creștere a performanțelor în exploatare a rotorului excavatoarelor utilizate în carierele S.N.L.Oltenia, ținând seama de caracteristicile la tăiere ale lignitului și rocilor din descoperță. Contract nr. 1170/S/06.12.2006 cu S.N.L.O. Tg-Jiu.
- F9. Membru în echipă** - Cercetări teoretice și experimentale privind creșterea gradului de utilizare a utilajelor de excavatoare în carierele de lignit aparținând S.C. Complexul Energetic Turceni S.A. Contract nr. nr. 1/2006 cu S.C. Complexul Energetic Turceni S.A. (5 faze).
- F10. Membru în echipă** - Cercetări teoretice și experimentale privind îmbunătățirea performanțelor în exploatarea sistemelor de transport continuu la minele din cadrul C.N.H.-S.A. Petroșani. Contract nr. 4/2005 încheiat între Universitatea din Petroșani și Compania Națională a Huilei Petroșani.
- F11. Membru în echipă** - Studiul comportării la tăiere mecanică a rocilor sterile din descoperța stratelor de lignit și a lignitului în carierele aparținând CNL Oltenia în vederea creșterii performanțelor tehnice și economice a extragerii cu ajutorul excavatoarelor cu rotor. Contract nr. 6/2002 cu CNLO Târgu-Jiu (faza 4).

07 Noiembrie 2024

ÎNTOCMIT,

Prof.univ.habil.dr.ing. ANDRAȘ Andrei