

Domeniul: Mine, Petrol și Gaze

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

Candidat: Conf. dr. ing. ANDRAȘ ANDREI

LISTA DE LUCRĂRI

A) LUCRĂRI RELEVANTE PENTRU REALIZĂRILE PROFESIONALE PROPRII (MAXIM 10 LUCRĂRI)

1. **TEZA DE ABILITARE: ANDRAȘ, A.** Studiul de studii universitare de doctorat Mine, petrol și gaze prin OMEC nr. 4000/20.04.2023.
2. 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>
3. 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>
4. **ANDRAȘ, A.**; Radu, S.M.; Brînaș, 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-record/WOS:000738459300001?SID=C1IS3QLxFLomRxWzhVR>
5. Radu, S.M., Popescu, F.D., **ANDRAȘ, A.**, Andraș, I., Brînaș, 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>
6. Brînaș, I., **ANDRAȘ, A.**, Radu, S.M., Popescu, F.D., Andraș, 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>
7. Popescu, F. D., Radu, S. M., **ANDRAȘ, A.**, Brînaș, 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>
8. **ANDRAȘ, A.**, Brînaș, 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>
9. Popescu, F.D.; Radu, S.M.; Kotwica, K.; **ANDRAȘ, A.**; Kertesz (Brînaș), 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>
10. Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ, A.**, Kertesz Ildiko, *Transport si instalatii miniere*, Editura Universitas, Petroșani, ISBN 978-973-741-587-5, (281 p.) 2018.

B) TEZA DE DOCTORAT

TDI. 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. 381/27.11.2016 Seria E nr. 0007654, confirmat prin Ordinul M.E.C. nr. 3824/03.05.2006.

C) TEZA DE ABILITARE

TAI. 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.

DI LUCRĂRI CARE PUN ÎN EVIDENȚĂ CONTRIBUTIA ȘTIINȚIFICĂ:

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

- 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.** Tomuș 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 Zarządzania W Górnictwie*. 9-16 pp, Akademia Gorniczo-Hutnicza. Krakow 2017, ISBN 978-83-930353-7-3
- CS.4.** Radu, S.M, **ANDRAȘ, A.**, Prip, I, Ionișescu, 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 skal zwięzłych*. Krakow, 2015. Pag. 52-59, Akademia Górnictwo-Hutnicza.. Krakow, ISBN 978-83-930353-5-9
- CS.5.** **ANDRAȘ, A.**, Andraș, I., Kovacs, J, Tomuș. O.B., *Artificial Intelligence, Mechatronics and robotics in Mining Equipment Development*, *Monografia Problemy transportu i przeróbki w górnictwie. Modelowanie procesów*. Krakow, 2015. Pag. 134-149, Akademia Górnictwo-Hutnicza.. Krakow, 2015, ISBN 978-83-930353-9-7
- CS.6.** Kovacs, J, Andraș, I., **ANDRAȘ, A.**, Tomuș. 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 skal zwięzłych*. Krakow, 2013. Pag. 9-16, Akademia Górnictwo-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 și simularea procesului de dislocare utilizând 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 circulație - accidentologie*, Editura Universitas, Petroșani, 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 și instalații miniere*, Editura Universitas, Petroșani, ISBN 978-973-741-587-5, (281 p.) 2018.
- CM.8.** Radu Sorin Mihai, Popescu Florin Dumitru, **ANDRAȘ ANDREI**, Kertesz Ildiko, *Transport și instalații 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.)

- Risi.1.** 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.2.** Radu, S.M.; Popescu, F.D.; **ANDRAȘ, A.**; Virag, Z.; Brinaș, 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.3.** 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.4.** Popescu, F.D.; Radu, S.M.; **ANDRAȘ, A.**; Brinaș, 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.5.** **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-record/WOS:000738459300001?SID=C11S3QLxFLomRxWzhVR>
- Risi.6.** Brinaș, I., **ANDRAȘ, A.**, Radu, S.M., Popescu, F.D., Andraș, 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>
- Risi.7.** **ANDRAȘ, A.**, Brinaș, 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.8.** Radu, S.M., Popescu, F.D., **ANDRAȘ, A.**, Andraș, I., Brinaș, 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.9.** Popescu, F. D., Radu, S. M., **ANDRAȘ, A.**, Brinaș, 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.10.** Popescu, F.D., Radu, S.M., **ANDRAȘ, A.**, Brinaș, 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.11.** Peter, E., **ANDRAȘ, 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.12.** Kotwica, K., Suffner, H., **ANDRAȘ, 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.13.** Popescu, F.D.; **ANDRAȘ, A.**; Kertesz (Brinaș), 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.14.** Popescu, F.D.; Radu, S.M.; Kotwica, K.; **ANDRAȘ, A.**; Kertesz (Brinaș), 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.15.** 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.16.** 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.17.** 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/MATECCONF/201929004007. <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000569367700057>
- Risi.18.** 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.19.** Irimie S.I., Radu S.M., Petrelean 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.20.** Stela Dinescu, **Andrei ANDRAŞ, A.** *analysis of Winning Performance of Shearer Loader Cutter Head using Modeling*, Proceedings of the 2nd WSEAS International Conference on ENGINEERING MECHANICS, STRUCTURES and ENGINEERING GEOLOGY (EMEGE '09), Rodos, Greece, July 22-24, 2009, ISSN: 1790-2769, Pages: 145-148. **WOS:000276584000021.** <https://www-webofscience-com.am.e-nformation.ro/wos/woscc/full-record/WOS:000276584000021>

Alte reviste de specialitate din fluxul internațional principal (BDI)

- Rsi.1.** Măceşaru (Lăpăduşi), I.C., Popescu, F.D., **ANDRAŞ, 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.2.** Popescu, F. D., **ANDRAŞ, A.**, Brînaş, 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.3.** **ANDRAŞ, A.**, Popescu, F. D., Brînaş, 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.4.** **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.5.** **ANDRAŞ, 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.6.** Popescu, F.D., **ANDRAŞ, A.**, Danciu, C., Brînaş, 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=HRiETAEEAAA&sortby=pubdate&citation_for_view=HRiETAEEAAA:dshw04ExmUIC
- Rsi.7.** **ANDRAŞ, A.**; Andraş, 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.8.** **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.9.** 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>
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F) LUCRĂRI CARE PUN ÎN EVIDENȚĂ ACTIVITATEA DE CERCETARE:

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

- 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 - POCU/320/6/21/ 122773,** Cod 122773 (DINAMIC - optimizarea ofertelor de studii din învățământ terțiar universitar și non-universitar tehnic în sprijinul angajabilității)
- P4. 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)
- P5. Membru în echipă - Grant Nr.45/SGU/NC/I din 23.11. 2017** (Studentii – Prezentul și Viitorul văii Jiului)
- P6. 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
- P7. 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
- P8. Membru în echipă - Materiale metalice cu structuri compozite utilizabile in atmosfera potențial explozivă GRANT 849** CEEX-M1-C2- 3607, 2006-2008
- P9. 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.
- P10. 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.
- P11. Membru în echipă - Tehnologie eficientă de exploatare mecanizată a carbunelui cu banc subminat la minele din Valea** Jiului aliniată la performanțele înregistrate 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 - Contract de cercetare nr. 5/12.04.2016 - Majorarea eficienței energetice prin elaborarea, analiza și** optimizarea instalațiilor energetice din cadrul SC ASVJ SA Petroșani

- F2. 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
- F3. 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
- F4. Membru în echipă** - Retehnologizarea fluxurilor de transport de la unitățile miniere din cadrul CNH SA, Contract 142 ASL/2007 Compania Națională a Huilei Petroșani
- F5. Membru în echipă** - Studiul posibilităților de creștere a performanțelor în exploatarea 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.
- F6. 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).
- F7. 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.
- F8. 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).

31.07.2023

ÎNTOCMIT,

Conf. habil. dr. ing. ANDRAȘ, A.ndrei

