

LISTA DE LUCRĂRI

Candidat: MARC I. BOGDAN-IOAN dr. din 2022 / Asistent universitar din 2021

(NUME, inițială și prenume)

(anul) (Titlul didactic/echiv.) (anul)

A) Lucrări relevante pentru realizările profesionale proprii (maxim 10 lucrări)

1. **Bogdan Ioan Marc**, Stela Dinescu, Mihaela Olga Marita, *Simulation and analysis of the kinematics of a single bucket hydraulic excavator during the excavation process*, Annals of the University of Petrosani, Mechanical Engineering, Pag. 71-78, Vol. 23/2021,
https://www.upet.ro/annals/mechanical/pdf/2021/09_Marc_Dinescu_Marita.pdf
2. **Bogdan Ioan Marc**, Stela Dinescu, Daniela-Ioana Budilica (Andrei), *Simulation of the excavation process dynamics of a hydraulic excavator using SolidWorks*, Annals of the University of Petrosani, Mechanical Engineering, Pag. 61-70, Vol. 23/2021
https://www.upet.ro/annals/mechanical/pdf/2021/08_Marc_Dinescu_Budilic%C4%83.pdf
3. Răzvan Bogdan ITU, **BOGDAN IOAN MARC**, *ASPECTS REGARDING DETERMINATION OF ARTICULATED BAR STRUCTURES OWN VIBRATION CHARACTERISTICS*, Fiability & Durability / Fiabilitate si Durabilitate, 2023, Issue 1, p60-65. 6p.
<https://research.ebsco.com/c/6e2yvh/search/details/pikrcaebez?db=asn>
4. RĂZVAN BOGDAN ITU, MIHAELA TODERAȘ, **BOGDAN IOAN MARC**, *ASPECTS REGARDING REDUCTION OF SLIDING VECTORS*, Annals of the University of Petroșani, Mechanical Engineering, 25 (2023), Pag. 103-112
https://www.upet.ro/annals/mechanical/pdf/2023/10_Itu_3.pdf
5. RĂZVAN BOGDAN ITU, MIREL STOIAN, **BOGDAN IOAN MARC**, *DECOMPOSITION OF THE ACCELERATION VECTOR IN COMPONENTS THAT ARE NOT OTHOGONALS*, Annals of the University of Petroșani, Mechanical Engineering, 26 (2024), Pag. 151-160
https://www.upet.ro/annals/mechanical/pdf/2024/15_Itu_1_Annals_26_2024.pdf
6. Razvan Bogdan Itu, Susana Ecaterina Apostu, Vlad Alexandru Florea, **Bogdan Ioan Marc**, *Calculation of optimal structures made of articulated bars*, Pag 23-26, ANNALS of Faculty Engineering Hunedoara - International Journal of Engineering Tome XX [2022] | Fascicule 4 [November], ISSN 2601 – 2332;
<https://annals.fih.upt.ro/pdf-full/2022/ANNALS-2022-4-02.pdf>
7. Iosif Dumitrescu, Razvan Bogdan Itu, **Bogdan Ioan Marc**, *Design and implementation of a milling machine with numerical control along three axes*, Annals of the Constantin Brancusi, University of Târgu Jiu, Engineering Series, No. 2/2020,
[CÂTEVA ELEMENTE DE DESIGN INGINERESC \(utgjiu.ro\)](https://www.utgjiu.ro)
8. Iosif Dumitrescu, Razvan Bogdan Itu, **Bogdan Ioan Marc**, *Study of constructive improvement of cable winding drums for the lifting mechanism of the bucket holder wheel of ESRC-1400 Excavator*, Annals of the Constantin Brancusi, University of Târgu Jiu, Engineering Series, No. 2/2020;
[CÂTEVA ELEMENTE DE DESIGN INGINERESC \(utgjiu.ro\)](https://www.utgjiu.ro)
9. Alexandra Șoica, Răzvan Bogdan Itu, **Bogdan Ioan Marc**, *Reducing the energy consumption through friendly sun buildings in Jiu Valley region*, Journal of Research & Innovation for Sustainable Society (JRISS), Volume 6, Issue 1, 2024, ISSN: 2668-0416, Thoth Publishing House, DOI: 10.33727/JRISS.2024.1.1:5-9
<https://jriss.4adcr.ro/wp-content/uploads/2024/04/first-page.pdf>
10. GHEORGHE-BOGDAN URDEA, AURELIAN HORIA NICOLA, **BOGDAN IOAN MARC**, *KINEMATIC ANALYSIS OF THE SMA-2 TYPE MECHANISMED SUPPORT USED IN THE JIU VALLEY*, Annals of the University of Petrosani Mechanical Engineering, Volumul 25 (2023), 265-276
https://www.upet.ro/annals/mechanical/pdf/2023/24_Urdea.pdf

B) Teza(-ele) de doctorat

Marc, B.I., *Cercetări privind studiul prin modelare și simulare a organelor de lucru ale unor mașini miniere de dislocare*, Universitatea din Petroșani, Conducător științific: Prof.univ.habil.dr.ing. Popescu Florin Dumitru, confirmat prin Ordinul M.E.C. nr. 6333/05.12.2022, Calificativul: Foarte bine.

C) Teza(-ele) de abilitare

D) Brevete de invenție și alte titluri de proprietate industrială

E) Cărți și capitole în cărți:

E.1. Cărți /capitole din cărți (monografii, tratate), publicate la edituri de prestigiu din străinătate

E.2. Cărți sau capitole din cărți (monografii, tratate), publicate la edituri din țară, recunoscute de CNCS

1. **Bogdan Ioan Marc**, Razvan Bogdan Itu, *Statică-Lucrări practice de laborator*, Editura Universitas, Petrosani, 2023, ISBN 978-973-741-847-0, 104 pag.
2. **Bogdan Ioan Marc**, *Elemente de mecanică-Note de curs*, Editura Universitas, Petrosani, 2023, ISBN 978-973-741-887-6, 110 pag.
3. Razvan Bogdan Itu, Gheorghe Bogdan Urdea, **Bogdan Ioan Marc**, *Dimensionarea si verificarea instalatiilor de extractie cu ajutorul softului Mathcad*, Editura Universitas, Petrosani, 2024, ISBN 978-973-741-969-9, 446 pag.
4. Florin Tiberiu Iacob-Ridzi, **Bogdan Ioan Marc**, *Proiectarea echipamentelor de proces-Îndrumător de laborator*, Editura Universitas, Petroșani, 2025, ISBN 978-973-741-738-1, 110 pag.

F) Articole /studii in extenso, publicate în reviste din fluxul științific internațional principal

1. Ildiko Brînaș, Andrei Andraș, Sorin Mihai Radu, Florin Dumitru Popescu, Iosif Andraș, **Bogdan Ioan Marc**, Alexandru Robert Cioclu, *Determination of the bucket wheel drive power by computer modeling based on specific energy consumption and cutting geometry*, ENERGIES, Volume14, Issue13, Q3, 2021, WOS:000671317100001; <https://doi.org/10.3390/en14133892>
2. Răzvan-Bogdan Itu, Toderăș Mihaela, **Bogdan Ioan Marc**, Vlad Alexandru Florea, *Calculation of the Technological Forces Transmitted to the Extraction Tower Through Means of the Extraction Pulley*, International Conference on Machine and Industrial Design in Mechanical Engineering(KOD 2024), Springer Nature Switzerland, Pag. 37-46, WOS:001457382100004; https://link.springer.com/chapter/10.1007/978-3-031-80512-7_4

G) Publicații in extenso, apărute în lucrări ale principalelor conferințe internaționale de specialitate

1. Alexandra Stanimirescu Soica, Razvan Bogdan Itu, **Bogdan Ioan Marc**, *The use of aramids and para-aramids in the manufacture of individual protective equipment*, International Symposium on Occupational Health and Safety (SESAM 2023), MATEC Web of Conferences, Vol. 389, 2024; <https://doi.org/10.1051/mateconf/202438900026>
2. **Bogdan Ioan Marc**, Alexandra Stanimirescu Soica, Razvan Bogdan Itu, *Dewatering of waters from surface quarries in the Oltenia basin with the help of horizontal drilling*, Pag. 8, MATEC Web of Conferences 373, 00069 (2022), 10th edition of the International Multidisciplinary Symposium "UNIVERSITARIA SIMPRO 2022" <https://doi.org/10.1051/mateconf/202237300069>

3. Razvan Bogdan Itu, **Bogdan Ioan Marc**, *Increasing the elastic properties of gypsum materials by reinforcing with terephthalate polyethylene (PET)*, EURECA-PRO Conference on Responsible Consumption and Production, Pag. 384-394, Springer International Publishing, 2022;
https://link.springer.com/chapter/10.1007/978-3-031-25840-4_44
4. **Bogdan Ioan Marc**, Alexandra Stanimirescu Soica, Sorin Mihai Radu, *The quality of the environment in the Rosia of Jiu quarry as a result of the use of Caterpillar 323D L and 323D LN excavators*, Mai, 2021. 9 th International Multidisciplinary Scientific Symposium " Universitaria Simpro", MATEC Web of Conferences 342, 03011
<https://doi.org/10.1051/mateconf/202134203011>
5. **Bogdan Ioan Marc**, Alexandra (Soica) Stanimirescu, Angela Egri, *Measurements of PM10 particles made in the Rosia of Jiu quarry as a result of the use of Komatsu PC4000-11 hydraulic excavator*, 10th International Symposium on Occupational Health and Safety (SESAM 2021), MATEC Web of Conferences, Volume 354, 2022,
<https://doi.org/10.1051/mateconf/202235400064>
6. **B.I. Marc**, A. (Stanimirescu) Soica, *Monitoring the noise level produced by rotor excavators*, 4rd International Scientific and Technical Internet Conference "Innovative development of resourcesaving technologies and sustainable use of natural resources", Universitas Publishing Petrosani;
https://www.upet.ro/cercetare/manifestari/Ukraine_2021_Book_of_Abstracts.pdf
7. **B. Marc**, A. Stanimirescu, S. Radu, *Monitoring the quality of the environment in the mining units as a result of the modernization of the equipment*, 3rd International Scientific and Technical Internet Conference "Innovative development of resourcesaving technologies and sustainable use of natural resources", Universitas Publishing Petrosani,
https://www.upet.ro/cercetare/manifestari/Krivoi_Rog_2020_Book_of_Abstracts.pdf
8. Răzvan Bogdan ITU, **Bogdan Ioan Marc**, VIBROMECHANICAL DIAGNOSTICS OF MINE HOIST MACHINES, Fiability & Durability / Fiabilitate si Durabilitate, 2024, Vol 33, Issue 1, p62
https://openurl.ebsco.com/EPDB%3Aged%3A11%3A29506331/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Aged%3A180240801&crl=c&link_origin=scholar.google.co.uk
9. Alexandra Soica, Răzvan Bogdan Itu, **Bogdan Ioan Marc**, *Education for sustainability: The role of reuse and conversion concepts for youth*, Journal of Research and Innovation for Sustainable Society (JRISS), Volume 6, Issue 2, 2024 ISSN: 2668-0416 Thoht Publishing House, DOI: 10.33727/JRISS.2024.2.25:227-232
<https://jriiss.4ader.ro/wp-content/uploads/2025/01/25.-Alexandra-Soica-Razvan-Bogdan-Itu-Ioan-Bogdan-Marc-Education-for-sustainability-The-role-of-reuse-and-conversion-concepts-for-youth.pdf>
10. Alexandra Soica, Razvan Bogdan Itu, **Bogdan Ioan Marc**, *ENERGY CONSUMPTION AND AIR POLLUTION IN THE JIU VALLEY: ANALYZING INDUSTRIAL IMPACT AND SUSTAINABLE SOLUTIONS*, Annals of the „Constantin Brancusi” University of Targu Jiu, Engineering Series, No. 3/2024
https://www.utgjiu.ro/rev_ing/pdf/2024-3/01_Soica%20Alexandra.pdf
11. DĂNUȚ GRECEA, AURELIAN HORIA NICOLA, IONELA GRECEA, **BOGDAN IOAN MARC**, GHEORGHE-BOGDAN URDEA, *MODELING AND SIMULATION OF ELECTRIC CARS USING MATLAB-SIMULINK*, Annals of the University of Petroșani, Volumul 25 (2023), 71-80
https://www.upet.ro/annals/mechanical/pdf/2023/07_Grecea_Nicola_Grecea_Marc_Urdea.pdf

H) Proiecte de cercetare-dezvoltare-inovare:

Data 17.07.2025

Semnătura.....

Candidat,

MARC I. BOGDAN-IOAN