

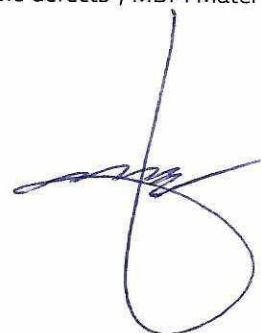
LISTA LUCRĂRILOR PUBLICATE

Conf. dr. ing. RADU Dorin

Candidat la funcția de
Decan al Facultății de Construcții
pentru perioada
2024-2029

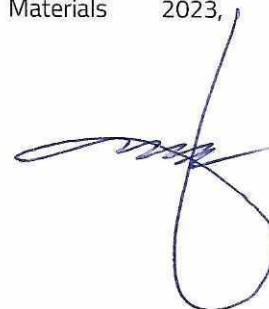
A.1. Articole publicate în reviste indexate WoS cu factor de impact - cuartila Q1

1. Sedmak A., Radu D., Arandelović M., Sedmak S., Băncilă R., Residual life assessment of the historical road riveted bridges, *Martie* 2024, Vol. 299, *Engineering Fracture Mechanics*, Elsevier Journal <https://doi.org/10.1016/j.engfracmech.2024.109960>
2. Arandelović M., Branislav D., Sedmak S., Radu D., Petrovic A., Dikic S, Sedmak A., Failure analysis of welded joints with multiple defects by extended Finite Element Method and Engineering Critical Analysis, *Engineering Failure Analysis*, Elsevier Journal, 2024 <https://doi.org/10.1016/j.engfailanal.2024.108176>
3. Kovačević M, Hadzima-Nyarko M, Grubeša IN, Radu D, Lozančić S. Application of Artificial Intelligence Methods for Predicting the Compressive Strength of Green Concretes with Rice Husk Ash. *Mathematics*. 2024; 12(1):66. <https://doi.org/10.3390/math12010066>
4. Arora, H.C., Bhushan, B., Kumar, A., Prashant Kumar, Marijana Hadzima Nyarko, Radu D. et al. Ensemble learning based compressive strength prediction of concrete structures through real-time non-destructive testing. *Sci Rep* 14, 1824 (2024), Springer Nature, <https://doi.org/10.1038/s41598-024-52046-y>
5. Waqar A., Khan M.B., Afzal M.T., Radu D, Gălățanu T.F., Cazacu C.E., Dodo Y., Althoey F., Almujiabah H.R., Investigating the synergistic effects of carbon fiber and silica fume on concrete strength and eco-efficiency, *Case Studies in Construction Materials*, Springer Nature Volume 20, 2024, ISSN 2214-5095, <https://doi.org/10.1016/j.cscm.2024.e02967>.
6. Kovačević, M.; Jabbarian Amiri, B.; Lozančić, S.; Hadzima-Nyarko, M.; Radu, D.; Nyarko, E.K. Application of Machine Learning in Modeling the Relationship between Catchment Attributes and Instream Water Quality in Data-Scarce Regions. *Toxics* 2023, 11, 996. <https://doi.org/10.3390/toxics11120996>
7. Bheel N, Bashar S.M, Ahmed A.M., Shafiq N, Radu, D, Effect of graphene oxide as a nanomaterial on the bond behaviour of engineered cementitious composites by applying RSM modelling and optimization, *Journal of Materials Research and Technology*, Elsevier, Volume 26, 2023, Pages 1484-1507, ISSN 2238-7854, <https://doi.org/10.1016/j.jmrt.2023.07.278>.
8. Kumar, A., Arora, H.C., Kapoor, N.R. Radu D, et al. Machine learning intelligence to assess the shear capacity of corroded reinforced concrete beams. *Sci Rep* 13, 2857 (2023). <https://doi.org/10.1038/s41598-023-30037-9>
9. Radu D., Sedmak A., Sedmak S., Wei L. „Engineering critical assessment of steel shell structure elements welded joints under high cycle fatigue”, 2020 *Engineering Failure Analysis*, Elsevier 10.1016/j.engfailanal.2020.104578
10. Arandelović M., Sedmak S, Jovičić R, Perković S, Burzić Z., Radu D., Radaković Z, „Numerical and experimental investigation of fracture behaviour of welded joints with multiple defects”, *MDPI Materials* 2021 <https://www.mdpi.com/1996-1944/14/17/4832>



A.2. Articole publicate în reviste indexate WoS cu factor de impact - cuartila Q2

11. Waqar, A.; Othman, I.; Hayat, S.; Radu, D.; Khan, M.B.; Galatanu, T.F.; Almujiabah, H.R.; Hadzima-Nyarko, M.; Benjeddou, O. Building Information Modeling—Empowering Construction Projects with End-to-End Life Cycle Management. *Buildings* 2023, 13, 2041. <https://doi.org/10.3390/buildings13082041>
12. Waqar, A.; Othman, I.; Radu, D.; Ali, Z.; Almujiabah, H.; Hadzima-Nyarko, M.; Khan, M.B. Modeling the Relation between Building Information Modeling and the Success of Construction Projects: A Structural-Equation-Modeling Approach. *Appl. Sci.* 2023, 13, 9018. <https://doi.org/10.3390/app13159018>
13. Belbachir, A.; Benanane, A.; Ouazir, A.; Harrat, Z.R.; Hadzima-Nyarko, M.; Radu, D.; Işık, E.; Louhibi, Z.S.M.; Amziane, S. Enhancing the Seismic Response of Residential RC Buildings with an Innovative Base Isolation Technique. *Sustainability* 2023, 15, 11624. <https://doi.org/10.3390/su151511624>
14. Sedmak, A.; Doncheva, E.; Medjo, B.; Rakin, M.; Milosevic, N.; Radu, D. Crack Size and Undermatching Effects on Fracture Behavior of a Welded Joint. *Materials* 2023, 16, 4858. <https://doi.org/10.3390/ma16134858>
15. Dojčinović, M.; Prokić Cvetković, R.; Sedmak, A.; Popović, O.; Cvetković, I.; Radu, D. Effect of Shielding Gas Arc Welding Process on Cavitation Resistance of Welded Joints of AlMg4.5Mn Alloy. *Materials* 2023, 16, 4781. <https://doi.org/10.3390/ma16134781>
16. Tahir, H.; Khan, M.B.; Shafiq, N.; Radu, D.; Nyarko, M.H.; Waqar, A.; Almujiabah, H.R.; Benjeddou, O. Optimisation of Mechanical Characteristics of Alkali-Resistant Glass Fibre Concrete towards Sustainable Construction. *Sustainability* 2023, 15, 11147. <https://doi.org/10.3390/su151411147>
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18. Işık, M.F.; Avcil, F.; Harirchian, E.; Bülbül, M.A.; Hadzima-Nyarko, M.; Işık, E.; İzol, R.; Radu, D. A Hybrid Artificial Neural Network—Particle Swarm Optimization Algorithm Model for the Determination of Target Displacements in Mid-Rise Regular Reinforced-Concrete Buildings. *Sustainability* 2023, 15, 9715. <https://doi.org/10.3390/su15129715>
19. Harrat, Z.R.; Chatbi, M.; Krour, B.; Hadzima-Nyarko, M.; Radu, D.; Amziane, S.; Bachir Bouiadjra, M. Modeling the Thermoelastic Bending of Ferric Oxide (Fe₂O₃) Nanoparticles-Enhanced RC Slabs. *Materials* 2023, 16, 3043. <https://doi.org/10.3390/ma16083043>
20. Khan, M.B.; Waqar, A.; Bheel, N.; Shafiq, N.; Hamah Sor, N.; Radu, D.; Benjeddou, O. Optimization of Fresh and Mechanical Characteristics of Carbon Fiber-Reinforced Concrete Composites Using Response Surface Technique. *Buildings* 2023, 13, 852. <https://doi.org/10.3390/buildings13040852>
21. Latifi, R.; Hadzima-Nyarko, M.; Radu, D.; Rouhi, R. A Brief Overview on Crack Patterns, Repair and Strengthening of Historical Masonry Structures. *Materials* 2023, 16, 1882. <https://doi.org/10.3390/ma16051882>



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23. Radu D., Gălățanu T.F., Sedmak S., „Butt welded joints assessment after fire exposure” Engineering Failure Analysis, 2019, ISSN 1350-6307, DOI 10.1016/j.engfailanal.2019.08.010 (ISI Journal - IF: 2.203)

24. Radu D., Sedmak A., Băncilă R., “Determining the crack acceptability în the welded joints of a wind loaded cylindrical steel shell structure”, Engineering Failure Analysis, 2018, ISSN 1350-6307, DOI 10.1016/j.engfailanal.2018.04.032 (ISI Journal - IF: 2.157)

A.3. Articole publicate în reviste cotate ISI WoS cu factor de impact (Third quartile Q3)

25. Jelić, M., Sedmak, A., Folić, B., Sedmak, S., Arandelović, M., Folić, R., Radu, D. Structural integrity analysis of the pre-stressed concrete dome of the Belgrade fair hall 1, Frattura ed Integrità Strutturale, 67 (2024) 337-351

26. Vucetic, F, Dordevic, B, Arandelovic, M, Sedmak, S, Milosevic, N, Radu, D, Jeremic, L, Integrity of Welded Joints made of Alloy NiCr21Mo, STRUCTURAL INTEGRITY AND LIFE-INTEGRITET I VEK KONSTRUKCIJ, Vol23, 2023

27. Radu D., Sedmak A., Simon Sedmak, Momčilo Dunjić „Stress analysis of a steel structure comprising cylindrical shell with billboard tower” – Technical Gazette Vol25/no.2/2018 DOI 10.17559/TV-20160819201538. (ISI Journal - IF: 0.723)

28. Radu D., Feier A., Petzek E., Băncilă R., “Refurbishment of Existing Steel Structures – an Actual Problem”, Periodica Polytechnica Civil Engineering, v. 61, n. 3, p. 621-631, 2017. ISSN 1587-3773, DOI 10.3311/Ppci.9140 (IF 2017 = 0.323)

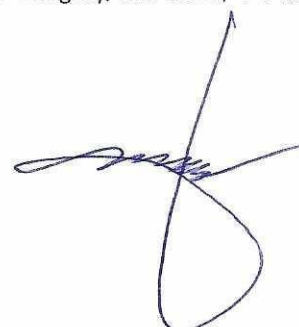
A.4. Articole publicate în volume indexate WoS/ISI Proceedings

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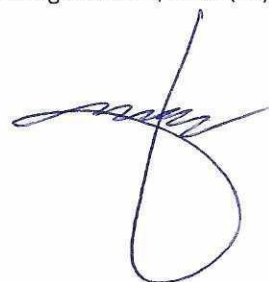
30. Radu D., Gălățanu T.F., Sedmak S. “Structural integrity of butt welded connection after fire exposure”, Procedia Structural Integrity Volume 13, 2018, Pages 1082-1087, DOI: 10.1016/j.prostr.2018.12.227

31. Radu D., Feier A., „Steel antenna towers – from designing to manufacturing optimization”, September 2018 IOP Conference Series Materials Science and Engineering 399(1):012047 DOI: 10.1088/1757-899X/399/1/012047

32. Radu D., A. Sedmak, R. Bancila, “Structural integrity of a wind loaded cylindrical steel shell structure” Procedia Structural Integrity, 2nd International Conference on Structural Integrity, ICSI 2017, 4-7 September 2017, Funchal, Madeira, Portugal, Vol. 5, 2017, pp. 1213-1220

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33. Radu D., Teofil-Florin Galatanu, Daniel Taus, "Fatigue Assessment and Behavior of a Shell Steel Element Welded Joint", Procedia Engineering, Volume 181, 2017, Pag.159-166
<http://www.sciencedirect.com/science/article/pii/S187770581731007X>
34. T.F. Galatanu, C. Cazacu, Radu D., R. Muntean, F.L. Tamas "Numerical study of cold-formed steel bolted joints in pitch-roof portal frame", Pages 135-140, 11th International Conference Interdisciplinarity in Engineering, INTER-ENG 2017, 5-6 October 2017, Tirgu Mures, Romania
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35. Radu D. „ Manufacturing Imperfections importance in Rectangular Hollow Section Welded Joints Behavior” 15th International Multidisciplinary Scientific GeoConference SGEM 2015, Conference Proceedings, ISBN 978-619-7105-33-9 / ISSN 1314-2704, June 18-24, 2015, Book1 Vol. 3, pag. 895-902
36. Popaescu A., Deaconu O., Croitoru G., Radu D., "Existing Large and Thin Concrete Slab Damaged by Multiple Cracks Almost Pierced. Expertise, Diagnosis, Strengthening, Behavior and Control After Execution", High Tech Concrete: Where Technology and Engineering Meet, Proceedings of the 2017 fib Symposium, held in Maastricht, The Netherlands, June 12-14, 2017, Springer International Publishing AG 2018, DOI
https://doi.org/10.1007/978-3-319-59471-2_226
37. Khalid Ahmed Eldwaib, Aleksandar Grbović, Gordana Kastratović, Radu D., Simon Sedmak, FATIGUE LIFE ESTIMATION OF CCT SPECIMEN USING XFEM, STRUCTURAL INTEGRITY AND LIFE, Vol. 17, No 2 (2017), pp. 151-156
38. Simon Sedmak, Miodrag Arsić, Srđan Bošnjak, Zoranka Malešević, Zoran Savić, Radu D., "Effect of locally damaged elbow segments on the integrity and reliability of the heating system" Journal Structural Integrity and Life Vol. 16, No 3 (2016), pp. 167-170
39. Miodrag Arsić, Srđan Bošnjak, Simon Sedmak, Živče Šarkočević, Zoran Savić, Radu D., "Determination of damage and repair methodology for the runner manhole of Kaplan turbine at the hydro power plant "DJERDAP 1", Journal Structural Integrity and Life, Vol.16, No.3 (2016), pp.149-153
40. Radu D. „ Manufacturing Imperfections importance in Rectangular Hollow Section Welded Joints Behavior” 15th International Multidisciplinary Scientific GeoConference SGEM 2015, Conference Proceedings, ISBN 978-619-7105-33-9 / ISSN 1314-2704, June 18-24, 2015, Book1 Vol. 3, pag. 895-902
41. Malita M., Bolduş D., Radu D., Băncilă R., An Efficient Solution for Road Steel Truss Girder Welded Bridges, SGEM 2015, Conference Proceedings, ISBN 978-619-7105-33-9 / ISSN 1314-2704, June 18-24, 2015, Book1 Vol. 3, pag. 37-44
42. Sedmak A., Radu D., - „Truss Beams Welded Joints – Manufacturing Imperfections and Strengthening Solutions”, DIVK Journal Structural Integrity and Life – Vol 14, No.1 (2014) pp.29-34, ISSN 1451-3749
43. Radu D., „Assesment of Steel Joints Behavior”, Journal of Applied Engineering Sciences, Vol.2 (15) Oradea 2012, ISSN 2247-3769



A.5. Articole publicate volume indexate BDI

Anul 2017

44. Radu D., Galațanu Teofil, "Fracture mechanics critical assessment of the steel structures joints", Conference proceedings" - 5th International Conference Contemporary Achievements în Civil Engineering 2017 , 2017. y., pp. 261-269 DOI:10.14415/konferencijaGFS2017.026

45. Teofil Florin Galatanu, Georgeta Băetu, Christiana Cazacu, Radu D. Radu Muntean, Florin Tamas, "The Study of Butt-Welded Connections after Fire Exposure", Journal Advanced Engineering Forum, Vol. 21, pp. 129-134, 2017 10.4028/www.scientific.net/AEF.21.129

46. Galatanu Teofil Florin, Radu D., "Numerical investigation of the cold formed steel profiles bolted joints", Conference proceedings - 5th International Conference Contemporary Achievements în Civil Engineering 2017, pp. 253-260, DOI:10.14415/konferencijaGFS2017.025

47. Radu D., Sedmak A., Galatanu Teofil, D. Taus- „Fracture Mechanics applied on investigation of the existing lattice structures”, International Scientific Conference CiBV 2017 - Bulletin of the Transilvania University of Brașov, vol.10 (59) Series 1, Special issue No.1, Brașov 2017, ISSN 2065-2127

48. Galatanu Teofil, Radu D., „Aspects regarding the methods of designing buried corrugated steel” , International Scientific Conference CiBV 2017 - Bulletin of the Transilvania University of Brașov, vol.10 (59) Series 1, Special issue No.1, Brașov 2017, ISSN 2065-2127

49. Radu D., T. Galatanu, A. Feier, Z. Varga, "Îmbunătățirea comportării îmbinărilor sudate ale grinzilor cu zăbrele realizate din profile tubulare tip RHS cu tălpi tip HEA", Conferința Asociației de Sudură din România – Iași 2017

Anul 2016

50. Radu D., Sedmak A., "Welding joints failure assessment – Fracture mechanics approach", Bulletin of the Transilvania University of Brașov, Vol.x.-2016, Series I: Engineering Sciences

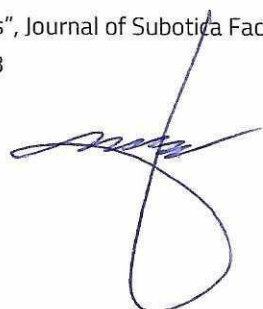
51. Radu D., Galațanu T.F., "Optimization solutions for truss beams welded joints", Journal of Subotica Faculty of Civil Engineering – Conference 2016 - DOI: 10.14415 konferencija GFS 2016.009

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52. Radu D., Galațanu T.F., "Aspects on designing the truss elements welded joints", Transilvania University Press Brașov, Proceedings of The International Scientific Conference CIBv 2015

53. Radu D., Sedmak A., "Design of cylindrical shell steel structures with billboard tower as the case study", Proceedings of The International Scientific Conference TEAM2015 Conference, Belgrade 2015.

54. Radu D., Băncilă R., "Truss beams welded joints strengthening solutions", Journal of Subotica Faculty of Civil Engineering – Conference 2015 - DOI:10.14415 Konferencija GFS 2015.033

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57. Radu D. – „Influence of manufacturing flaws in the truss beams welded joint behaviour”, WSEAS Conference RIMA 2014 – Braşov, ISBN 978-960-474-386-5

Anul 2013

58. Radu D., – „History of the Semi-Rigid Joint Behaviour modeling”, International Scientific Conference CIBv 2013 – Bulletin of the Transilvania University of Braşov, vol.6 (55), Braşov 2013, ISSN 2065-2127

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59. Radu D., „Steel Joints – Component Method Application”, International Scientific Conference CIBv 2012 – Bulletin of the Transilvania University of Braşov, vol.5 (54), Braşov 2012, ISSN 2065-2127

Anul 2010

60. Radu D., Talposi A., „Steel Joints Behavior Evaluation”, Volumul lucrarilor Conferintei Ştiinţifice Internationale CIBv 2010 Braşov, Editura Universitatii Transilvania Braşov

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61. Radu D. „Comportarea la acţiuni seismice a îmbinarilor semi-rigide”, Volumul lucrarilor Conferintei Ştiinţifice Nationale CIBv 2008 Braşov, Editura Universitatii Transilvania Braşov, ISSN 1843-6617

62. Radu D. „Structuri metalice multietajate în contextul mişcărilor seismice”, Volumul lucrarilor Conferintei Ştiinţifice Nationale CIBv 2008 Braşov, Editura Universitatii Transilvania Braşov, ISSN 1843-6617

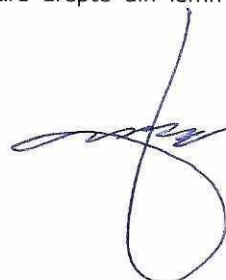
Anul 2006

63. Radu D., Borş I. – „Analiza structurală a ansamblului de clădiri Volkswagen Braşov”, Volumul lucrarilor Conferintei Ştiinţifice Nationale CDM 2006 Braşov, Editura Universitatii Transilvania Braşov

Anul 2005

64. Doşa A, Radu D. – „A Four-Node Plane Elasticity Element Based on the Separation of the Deformation Modes”, Bulletin of the Transilvania University of Braşov, vol.12 (47), Braşov 2005, ISSN 1223-9631

65. Şerbu A., Radu D. – „Analiza structurală a unei reţele spaţiale de bare drepte din lemn”, Revista Construcţiilor anul VI, nr.70, decembrie 2005, pag. 42-45 – ISSN 1582-019X



66. Radu D., Talpoși A., „Considerații privind calculul îmbinărilor rigide rigla-stâlp la structuri metalice”, Volumul lucrărilor Conferinței Științifice Naționale CIBv 2005, Brașov, Editura Universității Transilvania Brașov, ISSN 1843-6617

Anul 2004

67. Radu D., Șerbu A., "Utilizarea programului Robot Millenium în analiza comportării unei structuri spațiale complexe de lemn", Volumul lucrărilor Conferinței Științifice Naționale CIBv 2004, Brașov, Editura Universității Transilvania Brașov, ISSN 1843-6617

A.6. Cărți și capitole de cărți publicate

1. Radu D., "Engineering critical assessment of the steel shell structures", Editura Politehnica Timisoara, 2017, ISBN 978-606-35-0132-6, 312 pag.
2. Popăescu A., Deaconu O., Croitoru G., Radu D., "Existing Large and Thin Concrete Slab Damaged by Multiple Cracks Almost Pierced. Expertise, Diagnosis, Strengthening, Behavior and Control After Execution", High Tech Concrete: Where Technology and Engineering Meet, Proceedings of the 2017 fib Symposium, held in Maastricht, The Netherlands, June 12-14, 2017, Springer International Publishing AG 2018
3. Transformation and Efficiency Enhancement of Public Utilities Systems: Multidimensional Aspects and Perspectives, Chapter: Exploring Disruption Trajectories From COVID-19 on Education and the Impact of Policies: Lessons Learned and Path Forward IGI Global <https://doi.org/10.4018/978-1-6684-7730-4.ch012>

Brașov
06.03.2024

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