

# Ahmadreza Hedayat

## List of Publications by Year in descending order

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Version: 2024-02-01

62  
papers

1,596  
citations

279798

23  
h-index

315739

38  
g-index

71  
all docs

71  
docs citations

71  
times ranked

911  
citing authors

#	ARTICLE	IF	CITATIONS
1	Applying various hybrid intelligent systems to evaluate and predict slope stability under static and dynamic conditions. <i>Soft Computing</i> , 2019, 23, 5913-5929.	3.6	151
2	Analytical solution for the excavation of circular tunnels in a visco-elastic Burger's material under hydrostatic stress field. <i>Tunnelling and Underground Space Technology</i> , 2010, 25, 297-304.	6.2	133
3	Application of deep neural networks in predicting the penetration rate of tunnel boring machines. <i>Bulletin of Engineering Geology and the Environment</i> , 2019, 78, 6347-6360.	3.5	108
4	Post-yield Strength and Dilatancy Evolution Across the Brittle-Ductile Transition in Indiana Limestone. <i>Rock Mechanics and Rock Engineering</i> , 2017, 50, 1691-1710.	5.4	66
5	Developing a new intelligent technique to predict overbreak in tunnels using an artificial bee colony-based ANN. <i>Environmental Earth Sciences</i> , 2019, 78, 1.	2.7	63
6	The use of new intelligent techniques in designing retaining walls. <i>Engineering With Computers</i> , 2020, 36, 283-294.	6.1	61
7	Precursors to the shear failure of rock discontinuities. <i>Geophysical Research Letters</i> , 2014, 41, 5467-5475.	4.0	58
8	Practical Risk Assessment of Ground Vibrations Resulting from Blasting, Using Gene Expression Programming and Monte Carlo Simulation Techniques. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 472.	2.5	50
9	A new hybrid method for predicting ripping production in different weathering zones through in situ tests. <i>Measurement: Journal of the International Measurement Confederation</i> , 2019, 147, 106826.	5.0	42
10	Experimental investigation of multi-scale strain-field heterogeneity in rocks. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2020, 127, 104212.	5.8	41
11	Void detection in two-component annulus grout behind a pre-cast segmental tunnel liner using Ground Penetrating Radar. <i>Tunnelling and Underground Space Technology</i> , 2019, 83, 381-392.	6.2	38
12	On the incorporation of class F fly-ash to enhance the geopolymerization effects and splitting tensile strength of the gold mine tailings-based geopolymer. <i>Construction and Building Materials</i> , 2021, 308, 125112.	7.2	35
13	Scale-Size Dependency of Intact Rock under Point-Load and Indirect Tensile Brazilian Testing. <i>International Journal of Geomechanics</i> , 2018, 18, .	2.7	34
14	Ultrasonic investigation of granular materials subjected to compression and crushing. <i>Ultrasonics</i> , 2018, 87, 112-125.	3.9	33
15	Damage evaluation and deformation behavior of mine tailing-based Geopolymer under uniaxial cyclic compression. <i>Ceramics International</i> , 2021, 47, 10773-10785.	4.8	33
16	Geophysical Signatures of Shear-Induced Damage and Frictional Processes on Rock Joints. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 1143-1160.	3.4	32
17	Determination of tensile strength of concrete using a novel apparatus. <i>Construction and Building Materials</i> , 2018, 166, 817-832.	7.2	30
18	Evaluation of an Ultrasonic Method for Damage Characterization of Brittle Rocks. <i>Rock Mechanics and Rock Engineering</i> , 2020, 53, 2077-2094.	5.4	28

#	ARTICLE	IF	CITATIONS
19	Estimation of the mode I fracture toughness and evaluations on the strain behaviors of the compacted mine tailings from full-field displacement fields via digital image correlation. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 114, 103014.	4.7	28
20	Fracture properties of the gold mine tailings-based geopolymer under mode I loading condition through semi-circular bend tests with digital image correlation. <i>Theoretical and Applied Fracture Mechanics</i> , 2021, 116, 103116.	4.7	28
21	Multi-Modal Monitoring of Slip Along Frictional Discontinuities. <i>Rock Mechanics and Rock Engineering</i> , 2014, 47, 1575-1587.	5.4	27
22	Experimental and Numerical Investigation of the Center-Cracked Horseshoe Disk Method for Determining the Mode I Fracture Toughness of Rock-Like Material. <i>Rock Mechanics and Rock Engineering</i> , 2018, 51, 173-185.	5.4	27
23	Specimen size effects on the mechanical behaviors and failure patterns of the mine tailings-based geopolymer under uniaxial compression. <i>Construction and Building Materials</i> , 2021, 281, 122525.	7.2	25
24	Experimental and Numerical Study of Shear Fracture in Brittle Materials with Interference of Initial Double Cracks. <i>Acta Mechanica Solida Sinica</i> , 2016, 29, 555-566.	1.9	24
25	Effect of contact surface area on frictional behaviour of dry and saturated rock joints. <i>Journal of Structural Geology</i> , 2020, 135, 104044.	2.3	23
26	Suggesting a new testing device for determination of tensile strength of concrete. <i>Structural Engineering and Mechanics</i> , 2016, 60, 939-952.	1.0	23
27	Investigation of static/dynamic moduli and plastic response of shale specimens. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 110, 231-245.	5.8	22
28	The Elasto-Plastic Response of Deep Tunnels with Damaged Zone and Gravity Effects. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 5123-5135.	5.4	22
29	Damage monitoring in rock specimens with pre-existing flaws by non-linear ultrasonic waves and digital image correlation. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2021, 142, 104758.	5.8	22
30	Crack evolution in the Brazilian disks of the mine tailings-based geopolymers measured from digital image correlations: An experimental investigation considering the effects of class F fly ash additions. <i>Ceramics International</i> , 2021, 47, 32382-32396.	4.8	22
31	Evolution of tensile and shear cracking in crystalline rocks under compression. <i>Theoretical and Applied Fracture Mechanics</i> , 2022, 118, 103254.	4.7	22
32	Experimental studies on the durability and leaching properties of alkali-activated tailings subjected to different environmental conditions. <i>Cement and Concrete Composites</i> , 2022, 130, 104531.	10.7	21
33	Face stability of slurry-driven shield with permeable filter cake. <i>Tunnelling and Underground Space Technology</i> , 2021, 111, 103841.	6.2	20
34	Detection and Quantification of Slip Along Non-Uniform Frictional Discontinuities Using Digital Image Correlation. <i>Geotechnical Testing Journal</i> , 2014, 37, 20130141.	1.0	20
35	Time-Dependent Behavior of the Tunnels in Squeezing Ground: An Experimental Study. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 1755-1777.	5.4	17
36	Experimental Relationship Between Compressional Wave Attenuation and Surface Strains in Brittle Rock. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 5770-5793.	3.4	16

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37	Mechanical and fracture behaviors of compacted gold mine tailings by semi-circular bending tests and digital image correlation. <i>Construction and Building Materials</i> , 2021, 306, 124841.	7.2	16
38	Laboratory Determination of Rock Fracture Shear Stiffness Using Seismic Wave Propagation and Digital Image Correlation. <i>Geotechnical Testing Journal</i> , 2017, 40, 20160035.	1.0	15
39	Non-linear ultrasonic monitoring of damage progression in disparate rocks. <i>International Journal of Rock Mechanics and Minings Sciences</i> , 2018, 111, 33-44.	5.8	14
40	Illumination of Damage in Intact Rocks by Ultrasonic Transmissionâ€Reflection and Digital Image Correlation. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB019526.	3.4	13
41	Coupling Taguchi and Response Surface Methodologies for the Efficient Characterization of Jointed Rocksâ€™ Mechanical Properties. <i>Rock Mechanics and Rock Engineering</i> , 2019, 52, 4807-4819.	5.4	12
42	Fracture properties of tailings-based geopolymer incorporated with class F fly ash under mode I loading conditions. <i>Engineering Fracture Mechanics</i> , 2022, 271, 108646.	4.3	9
43	Elasto-plastic analysis in conventional tunnelling excavation. <i>Proceedings of the Institution of Civil Engineers: Geotechnical Engineering</i> , 2010, 163, 37-45.	1.6	8
44	Effect of Gravity of the Plastic Zones on the Behavior of Supports in Very Deep Tunnels Excavated in Rock Masses. <i>International Journal of Geomechanics</i> , 2019, 19, .	2.7	8
45	The influence law of concrete aggregate particle size on acoustic emission wave attenuation. <i>Scientific Reports</i> , 2021, 11, 22685.	3.3	8
46	Flow-induced alterations of ultrasonic signatures and fracture aperture under constant state of stress in a single-fractured rock. <i>Geophysics</i> , 2019, 84, WA115-WA125.	2.6	7
47	Assessment of the Safety Factor Evolution of the Shotcrete Lining for Different Curing Ages. <i>Geotechnical and Geological Engineering</i> , 2019, 37, 5555-5563.	1.7	6
48	Effect of tensile strength of rock on tensile fracture toughness using experimental test and PFC2D simulation. <i>Journal of Mining Science</i> , 2016, 52, 647-661.	0.6	4
49	Analysis of the effects of blast-induced damage zone with attenuating disturbance factor on the ground support interaction. <i>Geomechanics and Geoengineering</i> , 2019, , 1-11.	1.8	3
50	Relating Plastic Potential Function to Experimentally Obtained Dilatancy Observations for Geomaterials with a Confinement-Dependent Dilation Angle. <i>International Journal of Geomechanics</i> , 2019, 19, .	2.7	3
51	Evaluation of Crack Initiation and Damage in Intact Barre Granite Rocks Using Acoustic Emission. , 2020, , .		3
52	Detection of Seismic Precursors in Converted Ultrasonic Waves to Shear Failure of Natural Sandstone Rock Joints. <i>Rock Mechanics and Rock Engineering</i> , 2021, 54, 3611-3627.	5.4	3
53	An Integrated Approach for Evaluation of Linear Cohesive Zone Modelâ€™s Performance in Fracturing of Rocks. <i>Rock Mechanics and Rock Engineering</i> , 0, , 1.	5.4	3
54	Geophysical Waveformâ€™s Frequency Attenuation as a Precursor to Rock Shear Failure. , 2017, , .		2

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55	New Physical Model to Study Tunnels in Squeezing Clay-Rich Rocks. Geotechnical Testing Journal, 2021, 44, 1055-1078.	1.0	2
56	Effect of the Class C Fly Ash on Low-Reactive Gold Mine Tailing Geopolymers. Polymers, 2022, 14, 2809.	4.5	2
57	The Relation between Static Young's Modulus and Dynamic Bulk Modulus of Granular Materials and the Role of Stress History. , 2018, , .		1
58	Physical Modeling of Lined Tunnel in Squeezing Ground Conditions. , 2020, , .		1
59	Microstructure and Dissolution of Aluminosilicate Geopolymers Made from Mine Tailings Source Material. , 2022, , .		1
60	Ultrasonic imaging of microscale processes in quartz gouge during compression and shearing. Journal of Rock Mechanics and Geotechnical Engineering, 2020, 12, 1137-1151.	8.1	0
61	Ultrasonic Investigation of Shear Slip Nucleation in Granular Materials under Variable Normal Stresses. , 2020, , .		0
62	Evaluation of the structural integrity of tunnel liners with two component backfill grout using ground-penetrating radar. , 2020, , .		0