

Morteza Esmaeili

List of Publications by Year in descending order

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104
papers

1,777
citations

304743
22
h-index

361022
35
g-index

104
all docs

104
docs citations

104
times ranked

1043
citing authors

#	ARTICLE	IF	CITATIONS
1	Laboratory study on the effect of polypropylene fiber on durability, and physical and mechanical characteristic of concrete for application in sleepers. Construction and Building Materials, 2013, 44, 411-418.	7.2	198
2	Experimental assessment of cyclic behavior of sand-fouled ballast mixed with tire derived aggregates. Soil Dynamics and Earthquake Engineering, 2017, 98, 1-11.	3.8	79
3	Effect of combined carbonation and chloride ion ingress by an accelerated test method on microscopic and mechanical properties of concrete. Construction and Building Materials, 2014, 58, 138-146.	7.2	63
4	Influence of Tire-Derived Aggregates on the Properties of Railway Ballast Material. Journal of Materials in Civil Engineering, 2017, 29, .	2.9	63
5	Laboratory and field investigation of the effect of geogrid-reinforced ballast on railway track lateral resistance. Geotextiles and Geomembranes, 2017, 45, 23-33.	4.6	59
6	Investigation of rail irregularity effects on wheel/rail dynamic force in slab track: Comparison of two and three dimensional models. Journal of Sound and Vibration, 2016, 374, 228-244.	3.9	52
7	Experimental comparison of the lateral resistance of tracks with steel slag ballast and limestone ballast materials. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2017, 231, 175-184.	2.0	46
8	DEM analysis of railway track lateral resistance. Soils and Foundations, 2017, 57, 587-602.	3.1	40
9	Investigating the effect of geogrid on stabilization of high railway embankments. Soils and Foundations, 2018, 58, 319-332.	3.1	39
10	Experimental and Numerical Study of Micropiles to Reinforce High Railway Embankments. International Journal of Geomechanics, 2013, 13, 729-744.	2.7	38
11	Normal and shear resistance of longitudinal contact surfaces of segmental tunnel linings. International Journal of Rock Mechanics and Minings Sciences, 2015, 77, 328-338.	5.8	38
12	Experimental investigation on loading pattern of railway concrete slabs. Construction and Building Materials, 2017, 153, 481-495.	7.2	37
13	Dynamic Interaction of Vehicle and Discontinuous Slab Track Considering Nonlinear Hertz Contact Model. Journal of Transportation Engineering, 2016, 142, .	0.9	34
14	Effect of sand-fouled ballast on train-induced vibration. International Journal of Pavement Engineering, 2014, 15, 635-644.	4.4	32
15	An Accelerated Test Method of Simultaneous Carbonation and Chloride Ion Ingress: Durability of Silica Fume Concrete in Severe Environments. Advances in Materials Science and Engineering, 2016, 2016, 1-12.	1.8	32
16	Experimental study on dynamic properties of railway ballast mixed with tire derived aggregate by modal shaker test. Advances in Mechanical Engineering, 2016, 8, 168781401664024.	1.6	30
17	Investigating the Influence of Auxiliary Rails on Dynamic Behavior of Railway Transition Zone by a 3D Train-Track Interaction Model. Latin American Journal of Solids and Structures, 2017, 14, 2000-2018.	1.0	27
18	Effects of vibration in desert area caused by moving trains. Journal of Modern Transportation, 2012, 20, 16-23.	2.5	26

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19	Investigating the effect of nailed sleepers on increasing the lateral resistance of ballasted track. Computers and Geotechnics, 2016, 71, 1-11.	4.7	26
20	Investigating the Optimized Open V-Shaped Trench Performance in Reduction of Train-Induced Ground Vibrations. International Journal of Geomechanics, 2014, 14, .	2.7	25
21	A field investigation into the effect of under sleeper pads on the reduction of railway-induced ground-borne vibrations. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 999-1005.	2.0	25
22	A numerical investigation on the lateral resistance of frictional sleepers in ballasted railway tracks. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 440-449.	2.0	24
23	Finite element method simulation of explosive compaction in saturated loose sandy soils. Soil Dynamics and Earthquake Engineering, 2019, 116, 446-459.	3.8	24
24	Tire-derived aggregate layer performance in railway bridges as a novel impact absorber: Numerical and field study. Structural Control and Health Monitoring, 2019, 26, e2444.	4.0	23
25	Influence of uneven rail irregularities on the dynamic response of the railway track using a three-dimensional model of the vehicle-track system. Vehicle System Dynamics, 2015, 53, 88-111.	3.7	22
26	Mechanical behavior of embankments overlying on loose subgrade stabilized by deep mixed columns. Journal of Rock Mechanics and Geotechnical Engineering, 2016, 8, 651-659.	8.1	22
27	Experimental assessment of dynamic lateral resistance of railway concrete sleeper. Soil Dynamics and Earthquake Engineering, 2016, 82, 40-54.	3.8	22
28	Experimental and numerical investigation of the dynamic behavior of ballasted track containing ballast mixed with TDA. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 297-314.	2.0	22
29	Effect of deconstructed tire under sleeper pad on railway ballast degradation under cyclic loading. Soil Dynamics and Earthquake Engineering, 2020, 136, 106265.	3.8	21
30	Dynamic response of double beam rested on stochastic foundation under harmonic moving load. International Journal for Numerical and Analytical Methods in Geomechanics, 2014, 38, 572-592.	3.3	19
31	A case study of dynamic behaviour of short span concrete slab bridge reinforced by tire-derived aggregates as sub-ballast. International Journal of Rail Transportation, 2020, 8, 80-98.	2.7	19
32	Evaluation of humped slab track performance in desert railways. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2011, 225, 566-573.	2.0	18
33	Investigating Seismic Behavior of Ballasted Railway Track in Earthquake Excitation Using Finite-Element Model in Three-Dimensional Space. Journal of Transportation Engineering, 2013, 139, 697-708.	0.9	18
34	Numerical investigation of the effectiveness of a step-shaped trench in reducing train-induced vibrations. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 298-306.	2.0	18
35	Vertical load distribution in ballasted railway tracks with steel slag and limestone ballasts. International Journal of Pavement Engineering, 2019, 20, 1065-1072.	4.4	18
36	Laboratory investigation on the behavior of ballast stabilized with bitumen-cement mortar. Construction and Building Materials, 2020, 245, 118389.	7.2	18

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37	An investigation into the use of asphalt layers to control stress and strain levels in railway track foundations. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2014, 228, 182-193.	2.0	17
38	<i>In situ</i> impact testing of a light-rail ballasted track with tyre-derived aggregate subballast layer. International Journal of Pavement Engineering, 2016, 17, 176-188.	4.4	17
39	Minimum depth of soil cover above long-span soil-steel railway bridges. International Journal of Advanced Structural Engineering, 2013, 5, 7.	1.3	16
40	Effect of Moisture on Performance of Mixture of Sand-Fouled Ballast and Tire-Derived Aggregates under Cyclic Loading. Journal of Materials in Civil Engineering, 2019, 31, .	2.9	16
41	Field study using additional rails and an approach slab as a transition zone from slab track to the ballasted track. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 970-978.	2.0	15
42	A Review of Different Aspects of Applying Asphalt and Bituminous Mixes under a Railway Track. Materials, 2021, 14, 169.	2.9	15
43	Railway embankments stabilization by tied back-to-back system. Computers and Geotechnics, 2015, 67, 110-120.	4.7	14
44	An Efficient Algorithm for Nonlinear Analysis of Vehicle/Track Interaction Problems. International Journal of Structural Stability and Dynamics, 2016, 16, 1550040.	2.4	14
45	Field investigation on the lateral resistance of railway tracks including hot mix asphalt layer. Road Materials and Pavement Design, 2018, 19, 154-166.	4.0	14
46	Vehicle/track dynamic interaction considering developed railway substructure models. Structural Engineering and Mechanics, 2017, 61, 775-784.	1.0	14
47	3D dynamic model of the railway wagon to obtain the wheel-rail forces under track irregularities. Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics, 2015, 229, 357-369.	0.8	13
48	A new field investigation on the lateral and longitudinal resistance of ballasted track. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 2138-2148.	2.0	12
49	Effect of mother rock strength on rubber-coated ballast (RCB) deterioration. Construction and Building Materials, 2022, 316, 126106.	7.2	12
50	The improvement of the dynamic behavior of railway bridge transition zone using furnace slag reinforcement: A numerical and experimental study. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2022, 236, 362-374.	2.0	11
51	Efficiency of micro piles in reinforcing embankments. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2014, 167, 122-134.	1.0	10
52	Effects of train bogie patterns on the mechanical performance of ballasted railway tracks with unsupported sleepers. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2018, 232, 238-248.	2.0	10
53	Influence of tire-derived aggregates mixed with ballast on ground-borne vibrations. Journal of Modern Transportation, 2019, 27, 355-363.	2.5	10
54	Effect of rock strength on the degradation of ballast equipped with under sleeper pad. Construction and Building Materials, 2022, 321, 126413.	7.2	10

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55	Numerical investigation of the effects of unsupported railway sleepers on train-induced environmental vibrations. Journal of Low Frequency Noise Vibration and Active Control, 2017, 36, 160-176.	2.9	9
56	Application of data mining techniques for the investigation of track geometry and stiffness variation. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2020, 234, 439-453.	2.0	9
57	Numerical investigation into the effect of ballast properties on buckling of continuously welded rail (CWR). Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2021, 235, 866-875.	2.0	9
58	Some Aspects of Support Stiffness Effects on Dynamic Ballasted Railway Tracks. Periodica Polytechnica: Civil Engineering, 2016, , 427-436.	0.6	8
59	Investigating the mechanical performance of contact point in bolted segments by laboratory tests. European Journal of Environmental and Civil Engineering, 2017, 21, 148-171.	2.1	8
60	A new degradation model for life cycle assessment of railway ballast materials. Construction and Building Materials, 2021, 270, 121437.	7.2	8
61	Evaluation of Deep Soil Mixing Efficiency in Stabilizing Loose Sandy Soils Using Laboratory Tests. Geotechnical Testing Journal, 2014, 37, 20130099.	1.0	8
62	Discrete element method analysis of lateral resistance of different sleepers under different support conditions. Construction and Building Materials, 2022, 327, 126915.	7.2	8
63	Investigation of the Optimum Height of Railway Embankments during Earthquake Based on Their Stability in Liquefaction. Journal of Earthquake Engineering, 2019, 23, 882-908.	2.5	7
64	Numerical investigation of railway transition zones stiffened with auxiliary rails. Proceedings of the Institution of Civil Engineers: Transport, 2020, 173, 299-308.	0.6	7
65	Effects of train operational parameters on ground-borne vibrations induced by twin metro tunnels. International Journal of Rail Transportation, 2021, 9, 144-156.	2.7	7
66	Effect of foundation shape and properties of the adjacent buildings on the railway-induced vibrations. Asian Journal of Civil Engineering, 2020, 21, 1095-1108.	1.6	7
67	Numerical and field investigations of track dynamic behavior caused by light and heavy railway vehicles. Journal of Theoretical and Applied Mechanics, 0, , 871.	0.5	7
68	Substructure Nonlinear Effects on Sleeper Design Pressure in Heavy Haul Railway Tracks. Journal of Transportation Engineering, 2011, 137, 656-664.	0.9	6
69	Reducing Slab Track Vibrations by Using Asphalt Concrete in the Substructure. , 2016, , .		6
70	Ground-Borne Vibrations Caused by Unsupported Railway Sleepers in Ballasted Tracks. Procedia Engineering, 2017, 199, 2645-2650.	1.2	6
71	Experimental assessment of geotextile serviceability lifetime as ballasted railway filter focusing on clogging phenomenon. Construction and Building Materials, 2019, 211, 675-687.	7.2	6
72	Influence of geocell on bearing capacity and settlement of railway embankments: an experimental study. Geomechanics and Geoengineering, 2022, 17, 630-646.	1.8	6

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73	Vehicle dynamic interaction with railway track embankment. Proceedings of the Institution of Civil Engineers: Transport, 2014, 167, 15-26.	0.6	5
74	Dynamic response of sleepers in a track with uneven rail irregularities using a 3D vehicle-track model with sleeper beams. Archive of Applied Mechanics, 2015, 85, 1679-1699.	2.2	5
75	Field test investigation and numerical analysis of ballasted track under moving locomotive. Journal of Mechanical Science and Technology, 2016, 30, 1065-1069.	1.5	5
76	Comparison of dynamic lateral resistance of railway concrete, wooden and steel sleepers subjected to impact loading. Road Materials and Pavement Design, 2019, 20, 1779-1806.	4.0	5
77	Numerical evaluation of square arrangement of charges in explosive compaction. Soil Dynamics and Earthquake Engineering, 2020, 130, 106001.	3.8	5
78	Dynamic Train-Track Interactions and Stress Distribution Patterns in Ballasted Track Layers. Journal of Transportation Engineering Part B: Pavements, 2020, 146, 04019042.	1.5	5
79	Laboratory Investigation into the Flexural Behavior of Embedded Concrete Sleepers in Two-Stage Concrete with Preplaced Ballast Aggregate. International Journal of Concrete Structures and Materials, 2022, 16, .	3.2	5
80	Three-dimensional numerical simulation of the geometrical dimension pile group effects on the critical speed of high-speed railway track (Case study: Tehran- Isfahan high speed railway track). Soil Dynamics and Earthquake Engineering, 2022, 156, 107217.	3.8	5
81	Effect of Train Live Load on Railway Bridge Abutments. Journal of Bridge Engineering, 2013, 18, 576-583.	2.9	4
82	An investigation of abrasion and wear characteristics of steel slag and granite ballasts. Proceedings of Institution of Civil Engineers: Construction Materials, 2017, , 1-12.	1.1	4
83	Effects of sleeper support modulus on dynamic behaviour of railway tracks caused by moving wagon. International Journal of Heavy Vehicle Systems, 2017, 24, 277.	0.2	4
84	Experimental investigation of shear strength parameters of ballast encased with geogrid. Construction and Building Materials, 2022, 335, 127491.	7.2	4
85	Effect of Foundation Geometry and Structural Properties of Buildings on Railway-Induced Vibration: An Experimental Modeling. Buildings, 2022, 12, 604.	3.1	4
86	Experimental investigation of the production of sleepers from concrete that contains blast furnace slag. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2016, 230, 77-84.	2.0	3
87	Effect of different contact surfaces between concrete sleeper and ballast on mobilized lateral resistance against impact loads. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2017, 231, 678-689.	2.0	3
88	Investigating the Behavior of Railway Short Panels Under Lateral Impact Loading: A Laboratory Study. Experimental Techniques, 2017, 41, 289-307.	1.5	3
89	Effect of the grouted tied back-to-back system on the stability of railway embankments. International Journal of Physical Modelling in Geotechnics, 2018, 18, 208-224.	0.6	3
90	Laboratory investigation on the effect of microsilica additive on mechanical properties of deep soil mixing columns in loose sandy soils. European Journal of Environmental and Civil Engineering, 2020, 24, 321-335.	2.1	3

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91	Stabilising railway embankments using an integrated tied back-to-back strengthening system. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2017, 170, 26-34.	1.0	2
92	Investigation of sand columns effect on stability of railway embankments overlaid on liquefiable foundations. Journal of Earthquake Engineering, 2020, 24, 845-868.	2.5	2
93	DYNAMIC ANALYSIS OF A COUPLED HIGH-SPEED TRAIN AND BRIDGE SYSTEM SUBJECTED TO SEA WAVE HYDRODYNAMIC LOAD. Latin American Journal of Solids and Structures, 2021, 18, .	1.0	2
94	Assessment of grouting applicability in type C Tehran alluvium. Proceedings of the Institution of Civil Engineers: Ground Improvement, 2015, 168, 162-178.	1.0	1
95	Investigations on Vehicle Interaction with CWR Tracks Considering Some Aspects of Rail Support Modulus. Periodica Polytechnica: Civil Engineering, 0, , .	0.6	1
96	Slope stabilisation of railway embankments over loose subgrades using deep-mixed columns. Proceedings of the Institution of Civil Engineers: Ground Improvement, 0, , 1-30.	1.0	1
97	A comparison between the dynamic and static stiffness of ballasted track: A field study. Geomechanics and Engineering, 2016, 11, 757-769.	0.9	1
98	Investigation and comparison of dynamic interaction models of vehicle-track systems. Journal of Theoretical and Applied Mechanics, 2020, 58, 273-284.	0.5	1
99	The Effects of Admixtures on the Mechanical Behavior of Preplaced Ballast Concrete for Use in Slab Track Systems. International Journal of Pavement Research and Technology, 0, , 1.	2.6	1
100	Effectiveness of grouted layer in the mitigation of subway-induced vibrations. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 2023, 237, 41-54.	2.0	1
101	Closure to "Investigating Seismic Behavior of Ballasted Railway Track in Earthquake Excitation Using Finite-Element Model in Three-Dimensional Space" by Morteza Esmaeili and Hamidreza Heydari Noghabi. Journal of Transportation Engineering, 2014, 140, 07014002.	0.9	0
102	Numerical and in-situ evaluation of explosive compaction effectiveness in railway subgrade improvement. Transportation Geotechnics, 2021, 27, 100475.	4.5	0
103	Effects of sleeper support modulus on dynamic behaviour of railway tracks caused by moving wagon. International Journal of Heavy Vehicle Systems, 2017, 24, 277.	0.2	0
104	Discrete mass modeling for dynamic response of buildings in the vicinity of railway tracks due to train-induced ground vibrations. Scientia Iranica, 2017, 24, 1922-1939.	0.4	0