

# Ahmed Elgamal

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

124 papers	3,159 citations	31 h-index	53 g-index
137 ext. papers	3,781 ext. citations	2.9 avg, IF	5.25 L-index

#	Paper	IF	Citations
124	Seismic response of the Eureka Channel Bridge-Foundation system. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2022</b> , 152, 107015	3.5	
123	Seismic response of helical pile groups from shake table experiments. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2022</b> , 152, 107008	3.5	2
122	Shake Table Testing: A High-Resolution Vertical Accelerometer Array for Tracking Shear Wave Velocity. <i>Geotechnical Testing Journal</i> , <b>2021</b> , 44, 20190066	1.3	2
121	Liquefaction-induced lateral load on pile group of wharf system in a sloping stratum: A centrifuge shake-table investigation. <i>Ocean Engineering</i> , <b>2021</b> , 242, 110119	3.9	2
120	Asymmetric input motion for accumulation of lateral ground deformation in laminar container shake table testing. <i>Canadian Geotechnical Journal</i> , <b>2021</b> , 58, 210-223	3.2	
119	Large-Scale Shake Table Tests on a Shallow Foundation in Liquefiable Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2021</b> , 147, 04020152	3.4	3
118	Seismic performance evaluation of a pile-supported wharf system at two seismic hazard levels. <i>Ocean Engineering</i> , <b>2021</b> , 219, 108333	3.9	2
117	Nonlinear Seismic Response of Ground-Structure Systems: Developments and Challenges. <i>Lecture Notes in Civil Engineering</i> , <b>2021</b> , 46-61	0.3	
116	An experimental evaluation of helical piles as a liquefaction-induced building settlement mitigation measure. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2021</b> , 151, 106994	3.5	1
115	Three-Dimensional Bridge-Ground Liquefaction-Induced Deformations. <i>Lecture Notes in Civil Engineering</i> , <b>2021</b> , 645-652	0.3	
114	Three-Dimensional Seismic Response of a Large Embedded Structure and Induced Earth Pressure. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2020</b> , 146, 04020025	3.4	1
113	Three-Dimensional Modeling of Strain-Softening Soil Response for Seismic-Loading Applications. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2020</b> , 146, 04020053	3.4	4
112	Numerical Simulations of LEAP Dynamic Centrifuge Model Tests for Response of Liquefiable Sloping Ground <b>2020</b> , 521-544		1
111	Seismic performance assessment of a pile-supported wharf retrofitted with different slope strengthening strategies. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2020</b> , 129, 105903	3.5	4
110	Aspects of bridge-ground seismic response and liquefaction-induced deformations. <i>Earthquake Engineering and Structural Dynamics</i> , <b>2020</b> , 49, 375-393	4	6
109	Evaluation of Seismic Soil-Structure Interaction of Full-Scale Grouped Helical Piles in Dense Sand. <i>International Journal of Geomechanics</i> , <b>2020</b> , 20, 04020228	3.1	5
108	Numerical simulations of LEAP centrifuge tests for seismic response of liquefiable sloping ground. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2020</b> , 139, 106378	3.5	3

107	Damping characteristics of full-scale grouped helical piles in dense sands subjected to small and large shaking events. <i>Canadian Geotechnical Journal</i> , <b>2020</b> , 57, 801-814	3.2	7
106	In-situ Ambient Vibration Study of a 900-kw Wind Turbine. <i>Journal of Earthquake Engineering</i> , <b>2019</b> , 1-221.8		1
105	Seismic fragility analysis of pile-supported wharves with the influence of soil permeability. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2019</b> , 122, 211-227	3.5	17
104	Large Scale Liquefaction-Induced Lateral Spreading Shake Table Testing at the University of California San Diego <b>2019</b> ,		1
103	Using Stone Columns to Mitigate Lateral Deformation in Uniform and Stratified Liquefiable Soil Strata. <i>International Journal of Geomechanics</i> , <b>2019</b> , 19, 04019026	3.1	12
102	Pile and Pile-Group Response to Liquefaction-Induced Lateral Spreading in Four Large-Scale Shake-Table Experiments. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2019</b> , 145, 04019080	3.4	31
101	Large Scale Geotechnical Shake Table Testing at the University of California San Diego. <i>Sustainable Civil Infrastructures</i> , <b>2019</b> , 101-113	0.2	0
100	Seismic performance of helical piles in dry sand from large-scale shaking table tests. <i>Geotechnique</i> , <b>2019</b> , 69, 1071-1085	3.4	14
99	Response of A 850 KW Wind Turbine Including Soil-Structure Interaction During Seismic Excitation. <i>Sustainable Civil Infrastructures</i> , <b>2019</b> , 114-125	0.2	
98	Assessment of the Samoa Channel Bridge-foundation seismic response. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2018</b> , 108, 150-159	3.5	2
97	A 3D model for earthquake-induced liquefaction triggering and post-liquefaction response. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2018</b> , 110, 43-52	3.5	33
96	Settlement Induced during CFA Pile Installation in Egyptian Nile Valley Region: Case Study <b>2018</b> ,		1
95	PRENOLIN: International Benchmark on 1D Nonlinear Site-Response Analysis/Validation Phase Exercise. <i>Bulletin of the Seismological Society of America</i> , <b>2018</b> ,	2.3	18
94	Lateral spreading near deep foundations and influence of soil permeability. <i>Canadian Geotechnical Journal</i> , <b>2017</b> , 54, 846-861	3.2	9
93	Seismic performance of a pile-supported wharf: Three-dimensional finite element simulation. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2017</b> , 95, 167-179	3.5	43
92	Recorded seismic response of the Samoa Channel Bridge-foundation system and adjacent downhole array. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2017</b> , 92, 358-376	3.5	6
91	Sustainability Metrics for Performance-Based Seismic Bridge Response. <i>Journal of Structural Engineering</i> , <b>2016</b> , 142,	3	10
90	BIM-based Damage Estimation of Buildings under Earthquake Loading Condition. <i>Procedia Engineering</i> , <b>2016</b> , 145, 1051-1058		26

89	Dense Granular Columns in Liquefiable Ground. I: Shear Reinforcement and Cyclic Stress Ratio Reduction. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2016</b> , 142, 04016023	3-4	27
88	Dense Granular Columns in Liquefiable Ground. II: Effects on Deformations. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2016</b> , 142, 04016024	3-4	16
87	International Benchmark on Numerical Simulations for 1D, Nonlinear Site Response (PRENOLIN): Verification Phase Based on Canonical Cases. <i>Bulletin of the Seismological Society of America</i> , <b>2016</b> , 106, 2112-2135	2-3	68
86	Numerical study on ground improvement for liquefaction mitigation using stone columns encased with geosynthetics. <i>Geotextiles and Geomembranes</i> , <b>2015</b> , 43, 190-195	5-2	36
85	Response Spectra at Liquefaction Sites during Shallow Crustal Earthquakes. <i>Earthquake Spectra</i> , <b>2015</b> , 31, 2325-2349	3-4	10
84	Shake table lateral earth pressure testing with dense c-? backfill. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2015</b> , 71, 13-26	3-5	25
83	Flexural Tests and Associated Study of a Full-Scale 65-kW Wind Turbine Tower. <i>Journal of Structural Engineering</i> , <b>2014</b> , 140, 04013110	3	13
82	Full-Scale Seismic Test of MSE Retaining Wall at UCSD <b>2014</b> ,		4
81	Development of web-based science portal for large-scale computing collaboration in earthquake engineering. <i>Concurrency Computation Practice and Experience</i> , <b>2014</b> , 26, 2907-2916	1-4	1
80	Shake table testing and numerical simulation of a utility-scale wind turbine including operational effects. <i>Wind Energy</i> , <b>2014</b> , 17, 997-1016	3-4	39
79	Numerical Study of Shear Stress Distribution for Discrete Columns in Liquefiable Soils. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2014</b> , 140, 04013034	3-4	40
78	Large Soil Confinement Box for Seismic Performance Testing of Geo-Structures. <i>Geotechnical Testing Journal</i> , <b>2014</b> , 38, 20140034	1-3	2
77	Seismic Response of a Large-Scale Highway Interchange System. <i>Geotechnical, Geological and Earthquake Engineering</i> , <b>2014</b> , 223-240	0-2	1
76	Lateral Load on a Large Pile Group: A 3D Finite Element Model <b>2013</b> ,		1
75	Substructure Vibration NARX Neural Network Approach for Statistical Damage Inference. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2013</b> , 139, 737-747	2-4	31
74	Design of DSM Grids for Liquefaction Remediation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2013</b> , 139, 1923-1933	3-4	10
73	Seismic Testing Program for Large-Scale MSE Retaining Walls at UCSD <b>2013</b> ,		1
72	Shear Stress-Strain Curves Based on the G/G max Logic: A Procedure for Strength Compatibility <b>2013</b> ,		6

71	Centrifuge and Large-Scale Modeling of Seismic Pore Pressures in Sands: Cyclic Strain Interpretation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2013</b> , 139, 1215-1234	3.4	44
70	Performance-based earthquake assessment of bridge systems including ground-foundation interaction. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2012</b> , 42, 184-196	3.5	27
69	A Framework for Performance-Based Earthquake Engineering of Bridge-Abutment Systems <b>2012</b> ,		5
68	Shake Table Testing of a Utility-Scale Wind Turbine. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2012</b> , 138, 900-909	2.4	20
67	Effect of DSM Grids on Shear Stress Distribution in Liquefiable Soil <b>2012</b> ,		4
66	Effect of Discrete Columns on Shear Stress Distribution in Liquefiable Soil <b>2012</b> ,		6
65	Full Scale Testing and Simulation of Seismic Bridge Abutment-Backfill Interaction. <i>Geotechnical, Geological and Earthquake Engineering</i> , <b>2012</b> , 109-127	0.2	1
64	Mechanics of Lateral Spreading Observed in a Full-Scale Shake Test. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2011</b> , 137, 115-129	3.4	31
63	Large-Scale Numerical Modeling in Geotechnical Earthquake Engineering. <i>International Journal of Geomechanics</i> , <b>2011</b> , 11, 490-503	3.1	44
62	Measuring Global Response of a Wind Turbine to Simulated Earthquake Shaking Assisted by Point Tracking Videogrammetry <b>2011</b> ,		2
61	Visualizing 3D Earthquake Simulation Data. <i>Computing in Science and Engineering</i> , <b>2011</b> , 13, 52-63	1.5	3
60	Consistent tangent moduli for multi-yield-surface J2 plasticity model. <i>Computational Mechanics</i> , <b>2011</b> , 48, 97-120	4	19
59	Pushover Analysis of a 53 m High Wind Turbine Tower. <i>Advanced Science Letters</i> , <b>2011</b> , 4, 656-662	0.1	7
58	Large-Scale Passive Earth Pressure Load-Displacement Tests and Numerical Simulation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2010</b> , 136, 1634-1643	3.4	43
57	Sensor Network for Structural Health Monitoring of a Highway Bridge. <i>Journal of Computing in Civil Engineering</i> , <b>2010</b> , 24, 11-24	5	70
56	Micromechanical Aspects of Liquefaction-Induced Lateral Spreading. <i>International Journal of Geomechanics</i> , <b>2010</b> , 10, 190-201	3.1	35
55	Recent trends in geotechnical earthquake engineering experimentation <b>2010</b> , 23-44		
54	A Framework for 3D Finite Element Analysis of Lateral Pile System Response <b>2009</b> ,		9

53	System Identification of Alfred Zampa Memorial Bridge Using Dynamic Field Test Data. <i>Journal of Structural Engineering</i> , <b>2009</b> , 135, 54-66	3	62
52	Finite element response sensitivity analysis of multi-yield-surface J2 plasticity model by direct differentiation method. <i>Computer Methods in Applied Mechanics and Engineering</i> , <b>2009</b> , 198, 2272-2285	5.7	30
51	Study of Time-Domain Techniques for Modal Parameter Identification of a Long Suspension Bridge with Dense Sensor Arrays. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2009</b> , 135, 669-683	2.4	30
50	Liquefaction-Induced Lateral Load on Pile in a Medium Dr Sand Layer. <i>Journal of Earthquake Engineering</i> , <b>2009</b> , 13, 916-938	1.8	35
49	Mitigation of Liquefaction-Induced Lateral Deformation in a Sloping Stratum: Three-dimensional Numerical Simulation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2009</b> , 135, 1672-1682	3.4	89
48	Experimental and Numerical Seismic Response of a 65 kW Wind Turbine. <i>Journal of Earthquake Engineering</i> , <b>2009</b> , 13, 1172-1190	1.8	72
47	Laminar Box System for 1-g Physical Modeling of Liquefaction and Lateral Spreading. <i>Geotechnical Testing Journal</i> , <b>2009</b> , 32, 102154	1.3	3
46	Modal Identification Study of Vincent Thomas Bridge Using Simulated Wind-Induced Ambient Vibration Data. <i>Computer-Aided Civil and Infrastructure Engineering</i> , <b>2008</b> , 23, 373-388	8.4	49
45	Three-Dimensional Seismic Response of Humboldt Bay Bridge-Foundation-Ground System. <i>Journal of Structural Engineering</i> , <b>2008</b> , 134, 1165-1176	3	134
44	Dynamic Testing of Alfred Zampa Memorial Bridge. <i>Journal of Structural Engineering</i> , <b>2008</b> , 134, 1006-1015	3.5	63
43	Two-Dimensional Nonlinear Earthquake Response Analysis of a Bridge-Foundation-Ground System. <i>Earthquake Spectra</i> , <b>2008</b> , 24, 343-386	3.4	86
42	Neural Networks and Principal Components Analysis for Strain-Based Vehicle Classification. <i>Journal of Computing in Civil Engineering</i> , <b>2008</b> , 22, 123-132	5	14
41	NEESit MacBook Accelerometer and Video Sensor Platform (iSeismograph) for education and research <b>2008</b> ,		1
40	Multi-surface Cyclic Plasticity Sand Model with Lode Angle Effect. <i>Geotechnical and Geological Engineering</i> , <b>2008</b> , 26, 335-348	1.5	29
39	Analysis of change in dynamic properties of a frame-resistant test building. <i>Engineering Structures</i> , <b>2008</b> , 30, 183-196	4.7	16
38	Validation of a wireless traffic vibration monitoring system for the Voigt Bridge <b>2008</b> ,		3
37	<b>2007</b> ,		2
36	NEES IT Tools to Advance Earthquake Engineering Research and Practice <b>2007</b> , 1		2

35	A Miniature Tensiometer for Measurement of High Matric Suction <b>2006</b> , 1897		6
34	Parallel Computing for Seismic Geotechnical Applications <b>2006</b> , 1		
33	LIQUEFACTION OF OVER-CONSOLIDATED SAND: A CENTRIFUGE INVESTIGATION. <i>Journal of Earthquake Engineering</i> , <b>2005</b> , 9, 127-150	1.8	15
32	Dynamic Response of Saturated Dense Sand in Laminated Centrifuge Container. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2005</b> , 131, 598-609	3.4	71
31	LIQUEFACTION-INDUCED SETTLEMENT OF SHALLOW FOUNDATIONS AND REMEDIATION: 3D NUMERICAL SIMULATION. <i>Journal of Earthquake Engineering</i> , <b>2005</b> , 9, 17-45	1.8	35
30	Pilot 3D Numerical Simulation of Liquefaction and Countermeasures <b>2005</b> , 1		1
29	Large Scale Simulation and Data Analysis <b>2005</b> , 1		
28	Real-time nondestructive structural health monitoring using support vector machines and wavelets <b>2005</b> ,		12
27	Webshaker: Live internet shake-table experiment for education and research. <i>Computer Applications in Engineering Education</i> , <b>2005</b> , 13, 99-110	1.6	12
26	. <i>Journal of Earthquake Engineering</i> , <b>2005</b> , 9, 17	1.8	1
25	On-Line Educational Shake Table Experiments. <i>Journal of Professional Issues in Engineering Education and Practice</i> , <b>2005</b> , 131, 41-49	0.7	7
24	FORTHCOMING SPECIAL ISSUE SEISMIC LOADING AND GROUND MODIFICATION GUEST EDITOR FOREWORD. <i>Journal of Earthquake Engineering</i> , <b>2005</b> , 9, 585-585	1.8	
23	. <i>Journal of Earthquake Engineering</i> , <b>2004</b> , 8, 663	1.8	6
22	. <i>Journal of Earthquake Engineering</i> , <b>2004</b> , 8, 545	1.8	
21	Earth Dam on Liquefiable Foundation and Remediation: Numerical Simulation of Centrifuge Experiments. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2004</b> , 130, 1168-1176	2.4	30
20	Parallel finite element modeling of earthquake ground response and liquefaction. <i>Earthquake Engineering and Engineering Vibration</i> , <b>2004</b> , 3, 23-37	2	18
19	ParCYCLIC: finite element modelling of earthquake liquefaction response on parallel computers. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2004</b> , 28, 1207-1232	4	13
18	Mitigation of liquefaction and associated ground deformations by stone columns. <i>Engineering Geology</i> , <b>2004</b> , 72, 275-291	6	105



17	Estimating site-specific strong earthquake motions. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2004</b> , 24, 199-223	3.5	10
16	A web-based platform for computer simulation of seismic ground response. <i>Advances in Engineering Software</i> , <b>2004</b> , 35, 249-259	3.6	31
15	SYSTEM IDENTIFICATION OF LANDFILL SEISMIC RESPONSE. <i>Journal of Earthquake Engineering</i> , <b>2004</b> , 8, 545-566	1.8	18
14	VERTICAL EARTHQUAKE GROUND MOTION RECORDS: AN OVERVIEW. <i>Journal of Earthquake Engineering</i> , <b>2004</b> , 8, 663-697	1.8	62
13	Simulation of Earthquake Liquefaction Response on Parallel Computers <b>2004</b> , 1		1
12	Elements of an integrated health monitoring framework <b>2003</b> , 5047, 231		5
11	Application of unconstrained optimization and sensitivity analysis to calibration of a soil constitutive model. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2003</b> , 27, 1277-1297	4	29
10	Stone columns as liquefaction countermeasure in non-plastic silty soils. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2003</b> , 23, 571-584	3.5	123
9	Modeling of cyclic mobility in saturated cohesionless soils. <i>International Journal of Plasticity</i> , <b>2003</b> , 19, 883-905	7.6	241
8	Computational Model for Cyclic Mobility and Associated Shear Deformation. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , <b>2003</b> , 129, 1119-1127	3.4	255
7	Computational modeling of cyclic mobility and post-liquefaction site response. <i>Soil Dynamics and Earthquake Engineering</i> , <b>2002</b> , 22, 259-271	3.5	201
6	. <i>Journal of Earthquake Engineering</i> , <b>2002</b> , 6, 447	1.8	6
5	NUMERICAL ANALYSIS OF EMBANKMENT FOUNDATION LIQUEFACTION COUNTERMEASURES. <i>Journal of Earthquake Engineering</i> , <b>2002</b> , 6, 447-471	1.8	40
4	Influence of Permeability on Liquefaction-Induced Shear Deformation. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2002</b> , 128, 720-729	2.4	95
3	Strong Earthquake Motion Estimates for the UCSB Campus, and Related Response of the Engineering 1 Building		2
2	Estimation of Seismic Load Demand for a Wind Turbine in the Time Domain: Preprint		16
1	Assessment of SSI effects on stiffness of single and grouped helical piles in dry sand from large shake table tests. <i>Bulletin of Earthquake Engineering</i> , 1	3.7	1