# Ahmed Elgamal

List of Publications by Year
in descending order

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Version: 2024-02-01

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|---|---|---|---|
| 129 papers | 4,438 citations | 101496 36 h-index | 114418 63 g-index |
| 137 all docs | 137 docs citations | 137 times ranked | 2055 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Computational Model for Cyclic Mobility and Associated Shear Deformation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2003, 129, 1119-1127. | 1.5 | 358 |
| 2 | Modeling of cyclic mobility in saturated cohesionless soils. International Journal of Plasticity, 2003, 19, 883-905. | 4.1 | 333 |
| 3 | Computational modeling of cyclic mobility and post-liquefaction site response. Soil Dynamics and Earthquake Engineering, 2002, 22, 259-271. | 1.9 | 280 |
| 4 | Three-Dimensional Seismic Response of Humboldt Bay Bridge-Foundation-Ground System. Journal of Structural Engineering, 2008, 134, 1165-1176. | 1.7 | 169 |
| 5 | Stone columns as liquefaction countermeasure in non-plastic silty soils. Soil Dynamics and Earthquake Engineering, 2003, 23, 571-584. | 1.9 | 157 |
| 6 | Mitigation of liquefaction and associated ground deformations by stone columns. Engineering Geology, 2004, 72, 275-291. | 2.9 | 140 |
| 7 | Influence of Permeability on Liquefaction-Induced Shear Deformation. Journal of Engineering Mechanics - ASCE, 2002, 128, 720-729. | 1.6 | 126 |
| 8 | Mitigation of Liquefaction-Induced Lateral Deformation in a Sloping Stratum: Three-dimensional Numerical Simulation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2009, 135, 1672-1682. | 1.5 | 118 |
| 9 | Two-Dimensional Nonlinear Earthquake Response Analysis of a Bridge-Foundation-Ground System. Earthquake Spectra, 2008, 24, 343-386. | 1.6 | 117 |
| 10 | International Benchmark on Numerical Simulations for 1D, Nonlinear Site Response (PRENOLIN): Verification Phase Based on Canonical Cases. Bulletin of the Seismological Society of America, 2016, 106, 2112-2135. | 1.1 | 91 |
| 11 | Sensor Network for Structural Health Monitoring of a Highway Bridge. Journal of Computing in Civil Engineering, 2010, 24, 11-24. | 2.5 | 90 |
| 12 | Experimental and Numerical Seismic Response of a 65 kW Wind Turbine. Journal of Earthquake Engineering, 2009, 13, 1172-1190. | 1.4 | 89 |
| 13 | Dynamic Response of Saturated Dense Sand in Laminated Centrifuge Container. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2005, 131, 598-609. | 1.5 | 85 |
| 14 | VERTICAL EARTHQUAKE GROUND MOTION RECORDS: AN OVERVIEW. Journal of Earthquake Engineering, 2004, 8, 663-697. | 1.4 | 83 |
| 15 | Seismic performance of a pile-supported wharf: Three-dimensional finite element simulation. Soil Dynamics and Earthquake Engineering, 2017, 95, 167-179. | 1.9 | 75 |
| 16 | Dynamic Testing of Alfred Zampa Memorial Bridge. Journal of Structural Engineering, 2008, 134, 1006-1015. | 1.7 | 72 |
| 17 | System Identification of Alfred Zampa Memorial Bridge Using Dynamic Field Test Data. Journal of Structural Engineering, 2009, 135, 54-66. | 1.7 | 72 |
| 18 | Pile and Pile-Group Response to Liquefaction-Induced Lateral Spreading in Four Large-Scale Shake-Table Experiments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, . | 1.5 | 71 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A 3D model for earthquake-induced liquefaction triggering and post-liquefaction response. Soil Dynamics and Earthquake Engineering, 2018, 110, 43-52. | 1.9 | 65 |
| 20 | Large-Scale Passive Earth Pressure Load-Displacement Tests and Numerical Simulation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2010, 136, 1634-1643. | 1.5 | 64 |
| 21 | Finite element response sensitivity analysis of multi-yield-surface J2 plasticity model by direct differentiation method. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 2272-2285. | 3.4 | 58 |
| 22 | Large-Scale Numerical Modeling in Geotechnical Earthquake Engineering. International Journal of Geomechanics, 2011, 11, 490-503. | 1.3 | 58 |
| 23 | Modal Identification Study of Vincent Thomas Bridge Using Simulated Windâ€Induced Ambient Vibration Data. Computer-Aided Civil and Infrastructure Engineering, 2008, 23, 373-388. | 6.3 | 54 |
| 24 | Centrifuge and Large-Scale Modeling of Seismic Pore Pressures in Sands: Cyclic Strain Interpretation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1215-1234. | 1.5 | 54 |
| 25 | Numerical Study of Shear Stress Distribution for Discrete Columns in Liquefiable Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2014, 140, . | 1.5 | 54 |
| 26 | NUMERICAL ANALYSIS OF EMBANKMENT FOUNDATION LIQUEFACTION COUNTERMEASURES. Journal of Earthquake Engineering, 2002, 6, 447-471. | 1.4 | 51 |
| 27 | Liquefaction-Induced Lateral Load on Pile in a Medium D<sub>r</sub>Sand Layer. Journal of Earthquake Engineering, 2009, 13, 916-938. | 1.4 | 50 |
| 28 | Numerical study on ground improvement for liquefaction mitigation using stone columns encased with geosynthetics. Geotextiles and Geomembranes, 2015, 43, 190-195. | 2.3 | 50 |
| 29 | Shake table testing and numerical simulation of a utilityâ€scale wind turbine including operational effects. Wind Energy, 2014, 17, 997-1016. | 1.9 | 49 |
| 30 | LIQUEFACTION-INDUCED SETTLEMENT OF SHALLOW FOUNDATIONS AND REMEDIATION: 3D NUMERICAL SIMULATION. Journal of Earthquake Engineering, 2005, 9, 17-45. | 1.4 | 45 |
| 31 | Mechanics of Lateral Spreading Observed in a Full-Scale Shake Test. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2011, 137, 115-129. | 1.5 | 44 |
| 32 | Dense Granular Columns in Liquefiable Ground. I: Shear Reinforcement and Cyclic Stress Ratio Reduction. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, . | 1.5 | 44 |
| 33 | Micromechanical Aspects of Liquefaction-Induced Lateral Spreading. International Journal of Geomechanics, 2010, 10, 190-201. | 1.3 | 43 |
| 34 | Multi-surface Cyclic Plasticity Sand Model with Lode Angle Effect. Geotechnical and Geological Engineering, 2008, 26, 335-348. | 0.8 | 41 |
| 35 | Substructure Vibration NARX Neural Network Approach for Statistical Damage Inference. Journal of Engineering Mechanics - ASCE, 2013, 139, 737-747. | 1.6 | 40 |
| 36 | Shake table lateral earth pressure testing with dense c-Ï• backfill. Soil Dynamics and Earthquake Engineering, 2015, 71, 13-26. | 1.9 | 38 |

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| 37 | BIM-based Damage Estimation of Buildings under Earthquake Loading Condition. Procedia Engineering, 2016, 145, 1051-1058. | 1.2 | 38 |
| 38 | Study of Time-Domain Techniques for Modal Parameter Identification of a Long Suspension Bridge with Dense Sensor Arrays. Journal of Engineering Mechanics - ASCE, 2009, 135, 669-683. | 1.6 | 37 |
| 39 | Performance-based earthquake assessment of bridge systems including ground-foundation interaction. Soil Dynamics and Earthquake Engineering, 2012, 42, 184-196. | 1.9 | 37 |
| 40 | Application of unconstrained optimization and sensitivity analysis to calibration of a soil constitutive model. International Journal for Numerical and Analytical Methods in Geomechanics, 2003, 27, 1277-1297. | 1.7 | 35 |
| 41 | Earth Dam on Liquefiable Foundation and Remediation: Numerical Simulation of Centrifuge Experiments. Journal of Engineering Mechanics - ASCE, 2004, 130, 1168-1176. | 1.6 | 34 |
| 42 | A web-based platform for computer simulation of seismic ground response. Advances in Engineering Software, 2004, 35, 249-259. | 1.8 | 34 |
| 43 | Design of DSM Grids for Liquefaction Remediation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1923-1933. | 1.5 | 30 |
| 44 | Seismic performance of helical piles in dry sand from large-scale shaking table tests. Geotechnique, 2019, 69, 1071-1085. | 2.2 | 29 |
| 45 | Parallel finite element modeling of earthquake ground response and liquefaction. Earthquake Engineering and Engineering Vibration, 2004, 3, 23-37. | 1.1 | 27 |
| 46 | Shake Table Testing of a Utility-Scale Wind Turbine. Journal of Engineering Mechanics - ASCE, 2012, 138, 900-909. | 1.6 | 27 |
| 47 | Consistent tangent moduli for multi-yield-surface J2 plasticity model. Computational Mechanics, 2011, 48, 97-120. | 2.2 | 26 |
| 48 | PRENOLIN: International Benchmark on 1D Nonlinear Siteâ€Response Analysisâ€”Validation Phase Exercise. Bulletin of the Seismological Society of America, 2018, , . | 1.1 | 26 |
| 49 | Seismic fragility analysis of pile-supported wharves with the influence of soil permeability. Soil Dynamics and Earthquake Engineering, 2019, 122, 211-227. | 1.9 | 26 |
| 50 | Liquefaction-induced lateral load on pile group of wharf system in a sloping stratum: A centrifuge shake-table investigation. Ocean Engineering, 2021, 242, 110119. | 1.9 | 26 |
| 51 | Dense Granular Columns in Liquefiable Ground. II: Effects on Deformations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2016, 142, . | 1.5 | 22 |
| 52 | Aspects of bridgeâ€ground seismic response and liquefactionâ€induced deformations. Earthquake Engineering and Structural Dynamics, 2020, 49, 375-393. | 2.5 | 21 |
| 53 | ParCYCLIC: finite element modelling of earthquake liquefaction response on parallel computers. International Journal for Numerical and Analytical Methods in Geomechanics, 2004, 28, 1207-1232. | 1.7 | 20 |
| 54 | Real-time nondestructive structural health monitoring using support vector machines and wavelets. , 2005, , . | | 20 |

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| 55 | LIQUEFACTION OF OVER-CONSOLIDATED SAND: A CENTRIFUGE INVESTIGATION. Journal of Earthquake Engineering, 2005, 9, 127-150. | 1.4 | 20 |
| 56 | SYSTEM IDENTIFICATION OF LANDFILL SEISMIC RESPONSE. Journal of Earthquake Engineering, 2004, 8, 545-566. | 1.4 | 19 |
| 57 | Using Stone Columns to Mitigate Lateral Deformation in Uniform and Stratified Liquefiable Soil Strata. International Journal of Geomechanics, 2019, 19, . | 1.3 | 18 |
| 58 | Analysis of change in dynamic properties of a frame-resistant test building. Engineering Structures, 2008, 30, 183-196. | 2.6 | 17 |
| 59 | Neural Networks and Principal Components Analysis for Strain-Based Vehicle Classification. Journal of Computing in Civil Engineering, 2008, 22, 123-132. | 2.5 | 17 |
| 60 | Sustainability Metrics for Performance-Based Seismic Bridge Response. Journal of Structural Engineering, 2016, 142, . | 1.7 | 17 |
| 61 | Flexural Tests and Associated Study of a Full-Scale 65-kW Wind Turbine Tower. Journal of Structural Engineering, 2014, 140, . | 1.7 | 16 |
| 62 | Lateral spreading near deep foundations and influence of soil permeability. Canadian Geotechnical Journal, 2017, 54, 846-861. | 1.4 | 16 |
| 63 | A Framework for 3D Finite Element Analysis of Lateral Pile System Response. , 2009, , . | | 15 |
| 64 | Large-Scale Shake Table Tests on a Shallow Foundation in Liquefiable Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2021, 147, . | 1.5 | 15 |
| 65 | Webshaker: Live internet shake-table experiment for education and research. Computer Applications in Engineering Education, 2005, 13, 99-110. | 2.2 | 14 |
| 66 | Response Spectra at Liquefaction Sites during Shallow Crustal Earthquakes. Earthquake Spectra, 2015, 31, 2325-2349. | 1.6 | 13 |
| 67 | Seismic performance assessment of a pile-supported wharf retrofitted with different slope strengthening strategies. Soil Dynamics and Earthquake Engineering, 2020, 129, 105903. | 1.9 | 13 |
| 68 | Laminar Box System for 1-g Physical Modeling of Liquefaction and Lateral Spreading. Geotechnical Testing Journal, 2009, 32, 102154. | 0.5 | 13 |
| 69 | Estimating site-specific strong earthquake motions. Soil Dynamics and Earthquake Engineering, 2004, 24, 199-223. | 1.9 | 12 |
| 70 | Seismic response of helical pile groups from shake table experiments. Soil Dynamics and Earthquake Engineering, 2022, 152, 107008. | 1.9 | 12 |
| 71 | Damping characteristics of full-scale grouped helical piles in dense sands subjected to small and large shaking events. Canadian Geotechnical Journal, 2020, 57, 801-814. | 1.4 | 11 |
| 72 | Pushover Analysis of a 53 m High Wind Turbine Tower. Advanced Science Letters, 2011, 4, 656-662. | 0.2 | 11 |

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| 73 | On-Line Educational Shake Table Experiments. Journal of Professional Issues in Engineering Education and Practice, 2005, 131, 41-49. | 0.9 | 10 |
| 74 | Effect of Discrete Columns on Shear Stress Distribution in Liquefiable Soil. , 2012, , . | | 10 |
| 75 | Numerical simulations of LEAP centrifuge tests for seismic response of liquefiable sloping ground. Soil Dynamics and Earthquake Engineering, 2020, 139, 106378. | 1.9 | 10 |
| 76 | Three-Dimensional Modeling of Strain-Softening Soil Response for Seismic-Loading Applications. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, . | 1.5 | 10 |
| 77 | Seismic performance evaluation of a pile-supported wharf system at two seismic hazard levels. Ocean Engineering, 2021, 219, 108333. | 1.9 | 10 |
| 78 | An experimental evaluation of helical piles as a liquefaction-induced building settlement mitigation measure. Soil Dynamics and Earthquake Engineering, 2021, 151, 106994. | 1.9 | 10 |
| 79 | Elements of an integrated health monitoring framework. , 2003, 5047, 231. | | 9 |
| 80 | Title is missing!. Journal of Earthquake Engineering, 2004, 8, 663. | 1.4 | 9 |
| 81 | A Framework for Performance-Based Earthquake Engineering of Bridge-Abutment Systems. , 2012, , . | | 9 |
| 82 | Effect of DSM Grids on Shear Stress Distribution in Liquefiable Soil. , 2012, , . | | 8 |
| 83 | Evaluation of Seismic Soilâ€“Structure Interaction of Full-Scale Grouped Helical Piles in Dense Sand. International Journal of Geomechanics, 2020, 20, . | 1.3 | 8 |
| 84 | Shear Stress-Strain Curves Based on the G/G<sub>max</sub>Logic: A Procedure for Strength Compatibility. , 2013, , . | | 7 |
| 85 | Validation of a wireless traffic vibration monitoring system for the Voigt Bridge. , 2008, , . | | 7 |
| 86 | Title is missing!. Journal of Earthquake Engineering, 2002, 6, 447. | 1.4 | 6 |
| 87 | A Miniature Tensiometer for Measurement of High Matric Suction. , 2006, , 1897. | | 6 |
| 88 | Recorded seismic response of the Samoa Channel Bridge-foundation system and adjacent downhole array. Soil Dynamics and Earthquake Engineering, 2017, 92, 358-376. | 1.9 | 6 |
| 89 | Large Soil Confinement Box for Seismic Performance Testing of Geo-Structures. Geotechnical Testing Journal, 2014, 38, 20140034. | 0.5 | 6 |
| 90 | Shake Table Testing: A High-Resolution Vertical Accelerometer Array for Tracking Shear Wave Velocity. Geotechnical Testing Journal, 2021, 44, 1097-1118. | 0.5 | 6 |

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| 91 | Assessment of SSI effects on stiffness of single and grouped helical piles in dry sand from large shake table tests. Bulletin of Earthquake Engineering, 2022, 20, 3077-3116. | 2.3 | 5 |
| 92 | Bridge in Narrow Waterway: Seismic Response and Liquefaction-Induced Deformations. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, . | 1.5 | 5 |
| 93 | Full-Scale Seismic Test of MSE Retaining Wall at UCSD. , 2014, , . | | 4 |
| 94 | Automatic Vehicle Type Classification Using Strain Gauge Sensors. , 2007, , . | | 3 |
| 95 | Visualizing 3D Earthquake Simulation Data. Computing in Science and Engineering, 2011, 13, 52-63. | 1.2 | 3 |
| 96 | Assessment of the Samoa Channel Bridge-foundation seismic response. Soil Dynamics and Earthquake Engineering, 2018, 108, 150-159. | 1.9 | 3 |
| 97 | Large Scale Liquefaction-Induced Lateral Spreading Shake Table Testing at the University of California San Diego. , 2019, , . | | 3 |
| 98 | Asymmetric input motion for accumulation of lateral ground deformation in laminar container shake table testing. Canadian Geotechnical Journal, 2021, 58, 210-223. | 1.4 | 3 |
| 99 | Pilot 3D Numerical Simulation of Liquefaction and Countermeasures. , 2005, , 1. | | 2 |
| 100 | NEES IT Tools to Advance Earthquake Engineering Research and Practice. , 2007, , 1. | | 2 |
| 101 | NEESit MacBook Accelerometer and Video Sensor Platform (iSeismograph) for education and research. , 2008, , . | | 2 |
| 102 | Measuring Global Response of a Wind Turbine to Simulated Earthquake Shaking Assisted by Point Tracking Videogrammetry. , 2011, , . | | 2 |
| 103 | Seismic Testing Program for Large-Scale MSE Retaining Walls at UCSD. , 2013, , . | | 2 |
| 104 | Three-Dimensional Seismic Response of a Large Embedded Structure and Induced Earth Pressure. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2020, 146, . | 1.5 | 2 |
| 105 | Numerical Simulations of LEAP Dynamic Centrifuge Model Tests for Response of Liquefiable Sloping Ground. , 2020, , 521-544. | | 2 |
| 106 | Seismic response of the Eureka Channel Bridge-Foundation system. Soil Dynamics and Earthquake Engineering, 2022, 152, 107015. | 1.9 | 2 |
| 107 | Simulation of Earthquake Liquefaction Response on Parallel Computers. , 2004, , 1. | | 1 |
| 108 | Title is missing!. Journal of Earthquake Engineering, 2005, 9, 17. | 1.4 | 1 |

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| 109 | Reliable information management in a low-cost wireless structural monitoring and control network. , 2007, , . | | 1 |
| 110 | Lateral Load on a Large Pile Group: A 3D Finite Element Model. , 2013, , . | | 1 |
| 111 | Development of web-based science portal for large-scale computing collaboration in earthquake engineering. Concurrency Computation Practice and Experience, 2014, 26, 2907-2916. | 1.4 | 1 |
| 112 | Settlement Induced during CFA Pile Installation in Egyptian Nile Valley Region: Case Study. , 2018, , . | | 1 |
| 113 | In-situ Ambient Vibration Study of a 900-kw Wind Turbine. Journal of Earthquake Engineering, 2021, 25, 2971-2992. | 1.4 | 1 |
| 114 | Seismic Response of a Large-Scale Highway Interchange System. Geotechnical, Geological and Earthquake Engineering, 2014, , 223-240. | 0.1 | 1 |
| 115 | Large Scale Geotechnical Shake Table Testing at the University of California San Diego. Sustainable Civil Infrastructures, 2019, , 101-113. | 0.1 | 1 |
| 116 | Title is missing!. Journal of Earthquake Engineering, 2004, 8, 545. | 1.4 | 0 |
| 117 | Large Scale Simulation and Data Analysis. , 2005, , 1. | | 0 |
| 118 | STONE COLUMNS FOR SEISMIC LIQUEFACTION MITIGATION. , 2005, , . | | 0 |
| 119 | FORTHCOMING SPECIAL ISSUE SEISMIC LOADING AND GROUND MODIFICATION GUEST EDITOR FOREWORD. Journal of Earthquake Engineering, 2005, 9, 585-585. | 1.4 | 0 |
| 120 | Parallel Computing for Seismic Geotechnical Applications. , 2006, , 1. | | 0 |
| 121 | A Framework for 3D Nonlinear Ground-Foundation Analysis. , 2009, , . | | 0 |
| 122 | Recent trends in geotechnical earthquake engineering experimentation. , 2010, , 23-44. | | 0 |
| 123 | Three-Dimensional Finite Element Modeling of Pile and Pile Group System Response. , 2014, , . | | 0 |
| 124 | Carbon Footprint: Liquefaction Effects on a Private Residence. , 2016, , . | | 0 |
| 125 | Effect of Pile Diameter on the Seismic Performance of Pile Foundation. , 2017, , . | | 0 |
| 126 | Response of A 850 KW Wind Turbine Including Soil-Structure Interaction During Seismic Excitation. Sustainable Civil Infrastructures, 2019, , 114-125. | 0.1 | 0 |

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| 127 | Nonlinear Seismic Response of Ground-Structure Systems: Developments and Challenges. Lecture Notes in Civil Engineering, 2021, , 46-61. | 0.3 | 0 |
| 128 | Three-Dimensional Bridge-Ground Liquefaction-Induced Deformations. Lecture Notes in Civil Engineering, 2021, , 645-652. | 0.3 | 0 |
| 129 | Seismically Induced Ground Deformation and Reduction of Impact on Bridge Systems. , 2022, , . | | 0 |