# Abdollah Shafieezadeh

List of Publications by Year
in descending order

| 100 papers | 2,082 citations | 257450 24 h-index | 276875 41 g-index |
|---|---|---|---|
| 102 all docs | 102 docs citations | 102 times ranked | 1285 citing authors |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 1 | REAK: Reliability analysis through Error rate-based Adaptive Kriging. Reliability Engineering and System Safety, 2019, 182, 33-45. | 8.9 | 119 |
| 2 | Scenario-based resilience assessment framework for critical infrastructure systems: Case study for seismic resilience of seaports. Reliability Engineering and System Safety, 2014, 132, 207-219. | 8.9 | 117 |
| 3 | Optimal intensity measures for probabilistic seismic demand modeling of extended pile-shaft-supported bridges in liquefied and laterally spreading ground. Bulletin of Earthquake Engineering, 2018, 16, 229-257. | 4.1 | 116 |
| 4 | Age-Dependent Fragility Models of Utility Wood Poles in Power Distribution Networks Against Extreme Wind Hazards. IEEE Transactions on Power Delivery, 2014, 29, 131-139. | 4.3 | 114 |
| 5 | ESC: an efficient error-based stopping criterion for kriging-based reliability analysis methods. Structural and Multidisciplinary Optimization, 2019, 59, 1621-1637. | 3.5 | 100 |
| 6 | Statistical models for shear strength of RC beam–column joints using machine–learning techniques. Earthquake Engineering and Structural Dynamics, 2014, 43, 2075-2095. | 4.4 | 83 |
| 7 | Fractional order intensity measures for probabilistic seismic demand modeling applied to highway bridges. Earthquake Engineering and Structural Dynamics, 2012, 41, 391-409. | 4.4 | 79 |
| 8 | Intelligent hurricane resilience enhancement of power distribution systems via deep reinforcement learning. Applied Energy, 2021, 285, 116355. | 10.1 | 74 |
| 9 | A Decision Framework for Managing Risk to Airports from Terrorist Attack. Risk Analysis, 2015, 35, 292-306. | 2.7 | 56 |
| 10 | Optimal Life-Cycle Resilience Enhancement of Aging Power Distribution Systems: A MINLP-Based Preventive Maintenance Planning. IEEE Access, 2020, 8, 22324-22334. | 4.2 | 54 |
| 11 | Damage assessment of older highway bridges subjected to three-dimensional ground motions: Characterization of shear–axial force interaction on seismic fragilities. Engineering Structures, 2015, 87, 47-57. | 5.3 | 49 |
| 12 | Machine Learning for Risk and Resilience Assessment in Structural Engineering: Progress and Future Trends. Journal of Structural Engineering, 2022, 148, . | 3.4 | 48 |
| 13 | Optimal EDPs for Post-Earthquake Damage Assessment of Extended Pile-Shaft–Supported Bridges Subjected to Transverse Spreading. Earthquake Spectra, 2019, 35, 1367-1396. | 3.1 | 46 |
| 14 | Seismic Performance of Pile-Supported Wharf Structures considering Soil-Structure Interaction in Liquefied Soil. Earthquake Spectra, 2012, 28, 729-757. | 3.1 | 41 |
| 15 | Multi-dimensional wind fragility functions for wood utility poles. Engineering Structures, 2019, 183, 937-948. | 5.3 | 36 |
| 16 | Seismic response prediction and variable importance analysis of extended pile-shaft-supported bridges against lateral spreading: Exploring optimized machine learning models. Engineering Structures, 2021, 236, 112142. | 5.3 | 36 |
| 17 | Three-Dimensional Wharf Response to Far-Field and Impulsive Near-Field Ground Motions in Liquefiable Soils. Journal of Structural Engineering, 2013, 139, 1395-1407. | 3.4 | 33 |
| 18 | On confidence intervals for failure probability estimates in Kriging-based reliability analysis. Reliability Engineering and System Safety, 2020, 196, 106758. | 8.9 | 28 |

| # | Article | IF | Citations |
|---|---------|-----|-----------|
| 19 | Real-time high-fidelity reliability updating with equality information using adaptive Kriging. Reliability Engineering and System Safety, 2020, 195, 106735. | 8.9 | 27 |
| 20 | Fractional Order Filter Enhanced LQR for Seismic Protection of Civil Structures. Journal of Computational and Nonlinear Dynamics, 2008, 3, . | 1.2 | 26 |
| 21 | Multiple hazard incidents lifecycle cost assessment of structural systems considering state‐dependent repair times and fragility curves. Earthquake Engineering and Structural Dynamics, 2016, 45, 2327-2347. | 4.4 | 26 |
| 22 | Exploring Passive and Active Metamodeling-Based Reliability Analysis Methods for Soil Slopes: A New Approach to Active Training. International Journal of Geomechanics, 2020, 20, . | 2.7 | 26 |
| 23 | Error Quantification and Control for Adaptive Kriging-Based Reliability Updating with Equality Information. Reliability Engineering and System Safety, 2021, 207, 107323. | 8.9 | 26 |
| 24 | Simulation-free reliability analysis with active learning and Physics-Informed Neural Network. Reliability Engineering and System Safety, 2022, 226, 108716. | 8.9 | 25 |
| 25 | A high-fidelity computational investigation of buried concrete sewer pipes exposed to truckloads and corrosion deterioration. Engineering Structures, 2020, 221, 111043. | 5.3 | 24 |
| 26 | Soil–pile–structure interaction simulations in liquefiable soils via dynamic macroelements: Formulation and validation. Soil Dynamics and Earthquake Engineering, 2013, 47, 92-107. | 3.8 | 23 |
| 27 | Highly efficient Bayesian updating using metamodels: An adaptive Kriging-based approach. Structural Safety, 2020, 84, 101915. | 5.3 | 23 |
| 28 | Fractional order optimal intensity measures for probabilistic seismic demand modeling of extended pile-shaft-supported bridges in liquefiable and laterally spreading ground. Soil Dynamics and Earthquake Engineering, 2019, 120, 301-315. | 3.8 | 22 |
| 29 | Adaptive network reliability analysis: Methodology and applications to power grid. Reliability Engineering and System Safety, 2021, 216, 107973. | 8.9 | 22 |
| 30 | Effects of Adjacent Spans and Correlated Failure Events on System-Level Hurricane Reliability of Power Distribution Lines. IEEE Transactions on Power Delivery, 2018, 33, 2305-2314. | 4.3 | 21 |
| 31 | A posteriori optimal intensity measures for probabilistic seismic demand modeling. Bulletin of Earthquake Engineering, 2019, 17, 681-706. | 4.1 | 20 |
| 32 | Effect of modelling complexities on extreme wind hazard performance of steel lattice transmission towers. Structure and Infrastructure Engineering, 2020, 16, 898-915. | 3.7 | 20 |
| 33 | Value of information analysis in non-stationary stochastic decision environments: A reliability-assisted POMDP approach. Reliability Engineering and System Safety, 2022, 217, 108034. | 8.9 | 20 |
| 34 | An equivalent boundary model for effects of adjacent spans on wind reliability of wood utility poles in overhead distribution lines. Engineering Structures, 2016, 128, 441-452. | 5.3 | 19 |
| 35 | Bayesian calibration of multi-response systems via multivariate Kriging: Methodology and geological and geotechnical case studies. Engineering Geology, 2019, 260, 105248. | 6.3 | 19 |
| 36 | Influence of intensity measure selection on simulation-based regional seismic risk assessment. Earthquake Spectra, 2020, 36, 647-672. | 3.1 | 19 |

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| 37 | System reliability-based seismic collapse assessment of steel moment frames using incremental dynamic analysis and Bayesian probability network. Engineering Structures, 2016, 118, 274-286. | 5.3 | 18 |
| 38 | Metamodel-based subset simulation adaptable to target computational capacities: the case for high-dimensional and rare event reliability analysis. Structural and Multidisciplinary Optimization, 2021, 64, 649. | 3.5 | 17 |
| 39 | Adaptive reliability analysis for multi-fidelity models using a collective learning strategy. Structural Safety, 2022, 94, 102141. | 5.3 | 17 |
| 40 | BUAK-AIS: Efficient Bayesian Updating with Active learning Kriging-based Adaptive Importance Sampling. Computer Methods in Applied Mechanics and Engineering, 2022, 391, 114578. | 6.6 | 17 |
| 41 | A Probabilistic Framework for Prioritizing Wood Pole Inspections Given Pole Geospatial Data. IEEE Transactions on Smart Grid, 2015, 6, 973-979. | 9.0 | 16 |
| 42 | A multi-type multi-occurrence hazard lifecycle cost analysis framework for infrastructure management decision making. Engineering Structures, 2018, 167, 504-517. | 5.3 | 16 |
| 43 | Value of Information Analysis via Active Learning and Knowledge Sharing in Error-Controlled Adaptive Kriging. IEEE Access, 2020, 8, 51021-51034. | 4.2 | 16 |
| 44 | Significant variables for leakage and collapse of buried concrete sewer pipes: a global sensitivity analysis via Bayesian additive regression trees and Sobolâ€™ indices. Structure and Infrastructure Engineering, 2021, 17, 676-688. | 3.7 | 16 |
| 45 | A probabilistic framework for correlated seismic downtime and repair cost estimation of geoâ€structures. Earthquake Engineering and Structural Dynamics, 2014, 43, 739-757. | 4.4 | 15 |
| 46 | Mitigation of the seismic response of multi-span bridges using MR dampers: Experimental study of a new SMC-based controller. JVC/Journal of Vibration and Control, 2018, 24, 83-99. | 2.6 | 15 |
| 47 | A riskâ€based life cycle cost strategy for optimal design and evaluation of control methods for nonlinear structures. Earthquake Engineering and Structural Dynamics, 2018, 47, 2297-2314. | 4.4 | 15 |
| 48 | Significant variables affecting the performance of concrete panels impacted by wind-borne projectiles: A global sensitivity analysis. International Journal of Impact Engineering, 2020, 144, 103650. | 5.0 | 15 |
| 49 | A randomized point-based value iteration POMDP enhanced with a counting process technique for optimal management of multi-state multi-element systems. Structural Safety, 2017, 65, 113-125. | 5.3 | 14 |
| 50 | High-Dimensional Reliability Analysis with Error-Guided Active-Learning Probabilistic Support Vector Machine: Application to Wind-Reliability Analysis of Transmission Towers. Journal of Structural Engineering, 2022, 148, . | 3.4 | 13 |
| 51 | Experimental study of the semi-active control of a nonlinear two-span bridge using stochastic optimal polynomial control. Smart Materials and Structures, 2015, 24, 065011. | 3.5 | 12 |
| 52 | FOSID: a fractional order spectrum intensity for probabilistic seismic demand modeling of extended pile-shaft-supported highway bridges under liquefaction and transverse spreading. Bulletin of Earthquake Engineering, 2021, 19, 2531-2559. | 4.1 | 12 |
| 53 | An Adaptive Kriging-Based Approach with Weakly Stationary Random Fields for Soil Slope Reliability Analysis. , 2019, , . | | 11 |
| 54 | Life cycle resilience quantification and enhancement of power distribution systems: A risk-based approach. Structural Safety, 2021, 90, 102075. | 5.3 | 11 |

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| 55 | Parametrized Wind–Surge–Wave Fragility Functions for Wood Utility Poles. Journal of Structural Engineering, 2022, 148, . | 3.4 | 11 |
| 56 | Time-dependent probabilistic capacity degradation assessment of prestressed concrete piles in marine environment. Structure and Infrastructure Engineering, 2018, 14, 1372-1385. | 3.7 | 10 |
| 57 | Probabilistic Sustainability Assessment of Bridges Subjected to Multi-Occurrence Hazards. , 2019, , . | | 9 |
| 58 | A Physics-Informed Graph Attention-based Approach for Power Flow Analysis. , 2021, , . | | 9 |
| 59 | Confidence intervals for reliability indices using likelihood ratio statistics. Structural Safety, 2012, 38, 48-55. | 5.3 | 8 |
| 60 | A ground motion prediction equation for novel peak ground fractional order response intensity measures. Bulletin of Earthquake Engineering, 2017, 15, 3437-3461. | 4.1 | 8 |
| 61 | Probabilistic Lifecycle Cost Analysis of Levees against Backward Erosion. , 2019, , . | | 8 |
| 62 | Shake table testing and computational investigation of the seismic performance of modularized suspended building systems. Bulletin of Earthquake Engineering, 2020, 18, 5247-5279. | 4.1 | 8 |
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| 64 | Coupled backward erosion piping and slope instability performance model for levees. Transportation Geotechnics, 2020, 24, 100394. | 4.5 | 7 |
| 65 | A quantile-based sequential approach to reliability-based design optimization via error-controlled adaptive Kriging with independent constraint boundary sampling. Structural and Multidisciplinary Optimization, 2021, 63, 2231-2252. | 3.5 | 7 |
| 66 | Reliability–based control algorithms for nonlinear hysteretic systems based on enhanced stochastic averaging of energy envelope. Earthquake Engineering and Structural Dynamics, 2017, 46, 2381-2397. | 4.4 | 6 |
| 67 | Ohio Bridge Condition Index: Multilevel Cost-Based Performance Index for Bridge Systems. Transportation Research Record, 2017, 2612, 152-160. | 1.9 | 6 |
| 68 | A Markovian approach to infrastructure life–cycle analysis: Modeling the interplay of hazard effects and recovery. Earthquake Engineering and Structural Dynamics, 2021, 50, 736-755. | 4.4 | 6 |
| 69 | Shallow-Layer $p$-$y$ Relationships for Micropiles Embedded in Saturated Medium Dense Sand Using Quasi-Static Test. Geotechnical Testing Journal, 2018, 41, 193-206. | 1.0 | 6 |
| 70 | Enhanced stochastic averaging of non-integrable nonlinear systems subjected to stochastic excitations. Soil Dynamics and Earthquake Engineering, 2018, 113, 256-264. | 3.8 | 5 |
| 71 | Implementation and evaluation of coupled discontinuous Galerkin methods for simulating overtopping of flood defenses by storm waves. Advances in Water Resources, 2020, 136, 103501. | 3.8 | 5 |
| 72 | Parameter Estimation of a Fractional Order Soil Constitutive Model Using KiK-Net Downhole Array Data: A Bayesian Updating Approach. , 2020, , . | | 5 |

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| 73 | Temporal global sensitivity analysis of concrete sewer pipes under compounding corrosion and heavy traffic loads. Structure and Infrastructure Engineering, 2023, 19, 1108-1121. | 3.7 | 5 |
| 74 | Updating Bridge Deck Condition Transition Probabilities as New Inspection Data Are Collected: Methodology and Empirical Evaluation. Transportation Research Record, 2018, 2672, 93-102. | 1.9 | 4 |
| 75 | Seismic Response of Pile-Supported Container Wharves. , 2009, , . | | 3 |
| 76 | Fragility Assessment of Wood Poles in Power Distribution Networks against Extreme Wind Hazards. , 2012, , . | | 3 |
| 77 | A stochastic averaging-based optimal control method for nonlinear systems: Application to a building with soil-structure interactions. Engineering Structures, 2016, 127, 635-644. | 5.3 | 3 |
| 78 | Resilience Assessment of Distribution Systems Considering the Effect of Hurricanes. , 2018, , . | | 3 |
| 79 | A physics-based approach for predicting time-dependent progression length of backward erosion piping. Canadian Geotechnical Journal, 0, , . | 2.8 | 3 |
| 80 | Resilience of Sewer Networks to Extreme Weather Hazards: Past Experiences and an Assessment Framework. , 2020, , . | | 3 |
| 81 | Hurricane Fragility Assessment of Power Transmission Towers for a New Set of Performance-Based Limit States. Springer Tracts in Civil Engineering, 2022, , 167-188. | 0.5 | 3 |
| 82 | Fragility Models for Container Cargo Wharves. , 2009, , . | | 2 |
| 83 | Demonstration of robust stability and performance of filter-enhanced H2/LQG controllers for a nonlinear structure. Structural Control and Health Monitoring, 2011, 18, 710-720. | 4.0 | 2 |
| 84 | Evolutionary optimization for resilience-based planning for power distribution networks. , 2021, , 47-61. | | 2 |
| 85 | Optimal budgetÂallocation for bridge portfolios with element-level inspection data: a constrained integer linear programming formulation. Structure and Infrastructure Engineering, 2022, 18, 864-878. | 3.7 | 2 |
| 86 | Data-Driven Model for Estimating the Probability of Riverine Levee Breach Due to Overtopping. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, . | 3.0 | 2 |
| 87 | Optimum weighted arithmetic means of peak- and spectral-based intensity measures for probabilistic seismic demand modeling of modularized suspended buildings. Bulletin of Earthquake Engineering, 2022, 20, 5383-5426. | 4.1 | 2 |
| 88 | Systematic Procedures for the Analysis of Agency and User Costs of Bridge Repair Actions. Transportation Research Record, 2018, 2672, 116-126. | 1.9 | 1 |
| 89 | A framework for assessing the effectiveness of resilience enhancement strategies for interdependent infrastructure systems. , 2014, , 573-580. | | 1 |
| 90 | Probabilistic Seismic Demand Analysis of Pile-Supported Transmission Towers on Infinite Slopes: Exploring Machine Learning Models for Optimal Intensity Measures. , 2022, , . | | 1 |

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| 91 | Fractional Order LQR for Optimal Robust Control of a Simple Structure. , 2007, , 1235. | | 0 |
| 92 | Dynamic Interaction Behavior of Pile-Supported Wharves and Container Cranes in Liquefiable Soil Embankments. , 2012, , . | | 0 |
| 93 | Time-Dependent Probabilistic Capacity Assessment of a Prestressed Concrete Pile in a Spatially Varying Corrosive Marine Environment Using Detailed Finite Element Methods. , 2015, , . | | 0 |
| 94 | Waveform-Based Condition Assessments in Civil Engineering. Shock and Vibration, 2016, 2016, 1-1. | 0.6 | 0 |
| 95 | Modeling the Impact of Adjacent Spans in Overhead Distribution Lines on the Wind Response of Utility Poles. , 2016, , . | | 0 |
| 96 | Advanced Materials for Structural Vibration Control. Shock and Vibration, 2018, 2018, 1-1. | 0.6 | 0 |
| 97 | An Integrated Assessment of Seismic Hazard Vulnerability and Resilience of Seaports. , 2019, , . | | 0 |
| 98 | A risk informed decision framework for risk management of infrastructure systems against terrorist attacks. , 2014, , 2731-2738. | | 0 |
| 99 | Characterization of main-shock effects on the aftershock fragility of rigid electrical equipment. , 2014, , 4415-4421. | | 0 |
| 100 | Likelihood-based approaches for confidence interval estimation of reliability indices. , 2014, , 1851-1851. | | 0 |