Sai K Vanapalli

List of Publications by Year
in descending order

115	3,059	147801	197818
papers	citations	31 h-index	49 g-index

118	118	118	1522
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Prediction of soil-water characteristic curves using two artificial intelligence (AI) models and AI aid design method for sands. Canadian Geotechnical Journal, 2022, 59, 129-143.	2.8	10
2	The Measurement of Unfrozen Water Content and SFCC of a Coarse-Grained Volcanic Soil. Journal of Testing and Evaluation, 2022, 50, 3183-3207.	0.7	3
3	Effects of cyclic freezing and thawing on the shear behaviors of an expansive soil under a wide range of stress levels. Environmental Earth Sciences, 2022, 81, 1.	2.7	14
4	Three-dimensional modeling of the mechanical behavior of a single pile in unsaturated expansive soils during infiltration. Computers and Geotechnics, 2022, 145, 104696.	4.7	6
5	Analysis of Excavation Support Systems Considering the Influence of Saturated and Unsaturated Soil Conditions. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2022, 148, .	3.0	3
6	Modified Shear Displacement Method for Analysis of Piles in Unsaturated Expansive Soils Considering Influence of Environmental Factors. International Journal of Geomechanics, 2022, 22, .	2.7	4
7	Foundation bearing capacity estimation on unsaturated soil slope under transient flow condition using slip line method. Computers and Geotechnics, 2022, 148, 104804.	4.7	10
8	Performance of polypropylene textile encased stone columns. Geotextiles and Geomembranes, 2021, 49, 222-242.	4.6	13
9	Influence of freeze-thaw cycles on microstructure and hydraulic conductivity of saline intact loess. Cold Regions Science and Technology, 2021, 181, 103183.	3.5	62
10	Pile behavior modeling in unsaturated expansive soils. , 2021, , 393-427.		2
11	Simple Approaches for the Design of Shallow and Deep Foundations for Unsaturated Soils II: Numerical Techniques. Indian Geotechnical Journal, 2021, 51, 115-126.	1.4	4
12	Simple Approaches for the Design of Shallow and Deep Foundations for Unsaturated Soils I: Theoretical and Experimental Studies. Indian Geotechnical Journal, 2021, 51, 97-114.	1.4	11
13	Freeze-thaw and wetting-drying effects on the hydromechanical behavior of a stabilized expansive soil. Construction and Building Materials, 2021, 275, 122162.	7.2	41
14	Relationship between Shear Velocities Recorded by Microtremor Observations and Seismic Cone Penetration Test Results. Indonesian Journal of Science and Technology, 2021, 6, 315-336.	1.5	2
15	Simulation of progressive shear failure in railway foundation. Transportation Geotechnics, 2021, 29, 100550.	4.5	4
16	Mechanical behavior of a floating model pile in unsaturated expansive soil associated with water infiltration: Laboratory investigations and numerical simulations. Soils and Foundations, 2021, 61, 929-943.	3.1	10
17	Analytical and numerical methods for prediction of the bearing capacity of shallow foundations in unsaturated soils. Soils and Rocks, 2021, 44, 1-18.	0.5	3
18	A novel modeling method for the bimodal soil-water characteristic curve. Computers and Geotechnics, 2021, 138, 104318.	4.7	13

#	Article	IF	Citations
19	Model for predicting the variation of shear stress in unsaturated soils during strain-softening. Canadian Geotechnical Journal, 2021, 58, 1513-1526.	2.8	4
20	Prediction of the nonlinear behavior of laterally loaded piles in unsaturated soils. Computers and Geotechnics, 2021, 140, 104480.	4.7	9
21	Change in pore-size distribution of collapsible loess due to loading and inundating. Acta Geotechnica, 2020, 15, 1081-1094.	5.7	60
22	Coupling elasto-plastic behaviour of unsaturated soils with piecewise linear large-strain consolidation. Geotechnique, 2020, 70, 518-537.	4.0	15
23	Water flow in unsaturated soils subjected to multiple infiltration events. Canadian Geotechnical Journal, 2020, 57, 366-376.	2.8	16
24	Advances in the modeling of the soilâ€“water characteristic curve using pore-scale analysis. Computers and Geotechnics, 2020, 127, 103766.	4.7	21
25	Effect of freezeâ€“thaw cycling on the soilâ€freezing characteristic curve of five Canadian soils. Vadose Zone Journal, 2020, 19, e20039.	2.2	24
26	Characterizing and modeling the pore-size distribution evolution of a compacted loess during consolidation and shearing. Journal of Soils and Sediments, 2020, 20, 2855-2867.	3.0	21
27	A Novel Experimental Technique to Investigate Soilâ€“Pipeline Interaction under Axial Loading in Saturated and Unsaturated Sands. Geotechnical Testing Journal, 2020, 43, 70-93.	1.0	1
28	Water percolation in a thick unsaturated loess layer considering the groundâ€atmosphere interaction. Hydrological Processes, 2019, 33, 794-802.	2.6	25
29	Simple Approaches for Modeling Hysteretic Soil Water Retention Behavior. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	12
30	Comparison of Soilâ€Freezing and Soilâ€Water Characteristic Curves of Two Canadian Soils. Vadose Zone Journal, 2019, 18, 1-14.	2.2	31
31	The resilient moduli of five Canadian soils under wetting and freeze-thaw conditions and their estimation by using an artificial neural network model. Cold Regions Science and Technology, 2019, 168, 102894.	3.5	25
32	The role of wetting-induced expansion of unsaturated soils in potential shallow landslides. Japanese Geotechnical Society Special Publication, 2019, 7, 148-153.	0.2	0
33	Comparison of the bearing capacity of an unsaturated soil obtained from the experiments, a semi-empirical model, and numerical simulations. Japanese Geotechnical Society Special Publication, 2019, 7, 471-479.	0.2	0
34	Experimental Investigation of Single Model Pile and Pile Group Behavior in Saturated and Unsaturated Sand. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2019, 145, .	3.0	28
35	Wetting-induced collapse behavior associated with infiltration: A case study. Engineering Geology, 2019, 258, 105146.	6.3	36
36	Modelling virgin compression line of compacted unsaturated soils. Acta Geotechnica, 2019, 14, 1991-2006.	5.7	10

#	Article	IF	Citations
37	Prediction of lateral swelling pressure behind retaining structure with expansive soil as backfill. Soils and Foundations, 2019, 59, 176-195.	3.1	14
38	Microstructural evolution of loess soils from the Loess Plateau of China. Catena, 2019, 173, 276-288.	5.0	129
39	Load displacement analysis of a single pile in an unsaturated expansive soil. Computers and Geotechnics, 2019, 106, 83-98.	4.7	24
40	Axial forceâ€“displacement behaviour of a buried pipeline in saturated and unsaturated sand. Geotechnique, 2019, 69, 986-1003.	4.0	6
41	Evolution of pore-size distribution of intact loess and remolded loess due to consolidation. Journal of Soils and Sediments, 2019, 19, 1226-1238.	3.0	79
42	Numerical investigation of soilâ€“pipeline system behavior nearby unsupported excavation in saturated and unsaturated glacial till. Canadian Geotechnical Journal, 2019, 56, 69-88.	2.8	12
43	Modeling the stress versus settlement behavior of shallow foundations in unsaturated cohesive soils extending the modified total stress approach. Soils and Foundations, 2018, 58, 382-397.	3.1	40
44	Predicting volumetric behavior of compacted clays during compression. Applied Clay Science, 2018, 156, 116-125.	5.2	9
45	Discussion of â€œFrom saturated to unsaturated conditions and vice versaâ€•by MartÃ-Lloret-Cabot, Simon J. Wheeler, Jubert A. Pineda, Enrique Romero, and Daichao Sheng (https://doi.org/10.1007/s11440-017-0577-6). Acta Geotechnica, 2018, 13, 489-491.	5.7	1
46	Water infiltration characteristics in loess associated with irrigation activities and its influence on the slope stability in Heifangtai loess highland, China. Engineering Geology, 2018, 234, 27-37.	6.3	82
47	Model for predicting tensile strength of unsaturated cohesionless soils. Canadian Geotechnical Journal, 2018, 55, 1313-1333.	2.8	34
48	Closure to â€œInfluence of Lateral Swelling Pressure on the Geotechnical Infrastructure in Expansive Soilsâ€•by Yunlong Liu and Sai K. Vanapalli. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2018, 144, 07018016.	3.0	0
49	Simulating Hydraulic and Mechanical Responses of Unsaturated Expansive Soil Slope to Rainfall: Case Study. International Journal of Geomechanics, 2018, 18, .	2.7	26
50	Electro-osmotic consolidation of marine hydraulically filled sludge ground using electrically conductive wick drain combined with automated power supply. Marine Georesources and Geotechnology, 2018, 36, 100-107.	2.1	12
51	Prediction of resilient modulus of frozen unbound road materials using soil-freezing characteristic curve. Canadian Geotechnical Journal, 2018, 55, 1200-1207.	2.8	13
52	Prediction of the wetting-induced collapse behaviour using the soil-water characteristic curve. Journal of Asian Earth Sciences, 2018, 151, 259-268.	2.3	37
53	Characterizing cyclic and static moduli and strength of compacted pavement subgrade soils considering moisture variation. Soils and Foundations, 2018, 58, 1187-1199.	3.1	20
54	Effect of montmorillonite content and sodium chloride solution on the residual swelling pressure of an expansive clay. Environmental Earth Sciences, 2018, 77, 1.	2.7	19

#	Article	IF	Citations
55	Empirical model for predicting the resilient modulus of frozen unbound road materials using a hyperbolic function. Transportation Geotechnics, 2018, 17, 66-74.	4.5	9
56	Undrained Shear Strength of Unsaturated Soils under Zero or Low Confining Pressures in the Vadose Zone. Vadose Zone Journal, 2018, 17, 1-13.	2.2	16
57	Improving the strength of sandy soils via ureolytic CaCO₃ solidification by <i>Sporosarcina ureae</i>. Biogeosciences, 2018, 15, 4367-4380.	3.3	22
58	Discussion on â€œA new model for capturing void ratio-dependent unfrozen water characteristics curvesâ€•by Q.Y. Mu, C.W.W. Ng, C. Zhou, G.G.D. Zhou, and H.J. Liao. Computers and Geotechnics, 2018, 103, 82-85.	4.7	0
59	Simple Method for Prediction of the Soil Collapse Behavior due to Wetting. International Journal of Geomechanics, 2018, 18, .	2.7	10
60	Experimental and Simple Semiempirical Methods for Interpreting the Axial Load Versus Settlement Behaviors of Single Model Piles in Unsaturated Sands. Geotechnical Testing Journal, 2018, 41, 698-716.	1.0	8
61	Influence of Lateral Swelling Pressure on the Geotechnical Infrastructure in Expansive Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	32
62	Piecewise-Linear Formulation of Coupled Large-Strain Consolidation and Unsaturated Flow. I: Model Development and Implementation. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, 04017018.	3.0	21
63	Piecewise-Linear Formulation of Coupled Large-Strain Consolidation and Unsaturated Flow. II: Testing and Performance. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	13
64	Normalizing Variation of Stiffness and Shear Strength of Compacted Fine-Grained Soils with Moisture Content. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2017, 143, .	3.0	21
65	Integrated approaches for predicting soil-water characteristic curve and resilient modulus of compacted fine-grained subgrade soils. Canadian Geotechnical Journal, 2017, 54, 646-663.	2.8	33
66	Closure to â€œState-of-the-Art: Prediction of Resilient Modulus of Unsaturated Subgrade Soilsâ€•by Zhong Han and Sai K. Vanapalli. International Journal of Geomechanics, 2017, 17, 07017013.	2.7	1
67	Relationship between resilient modulus and suction for compacted subgrade soils. Engineering Geology, 2016, 211, 85-97.	6.3	67
68	Mechanical Behaviour of a Compacted Residual Soil of Gneiss from Brazil under Constant Water Content Condition. Indian Geotechnical Journal, 2016, 46, 299-308.	1.4	5
69	Special Issue on â€œApplication of Mechanics of Unsaturated Soils in Conventional Geotechnical Practiceâ€• Indian Geotechnical Journal, 2016, 46, 207-209.	1.4	1
70	Influence of environmental factors on the wetting front depth: A case study in the Loess Plateau. Engineering Geology, 2016, 214, 1-10.	6.3	49
71	Soilâ€“environment interactions modelling for expansive soils. Environmental Geotechnics, 2016, 3, 178-187.	2.3	15
72	Heave Prediction in a Natural Unsaturated Expansive Soil Deposit Under a Lightly Loaded Structure. Geotechnical and Geological Engineering, 2016, 34, 1181-1192.	1.7	12

#	Article	IF	Citations
73	State-of-the-Art: Prediction of Resilient Modulus of Unsaturated Subgrade Soils. International Journal of Geomechanics, 2016, 16, .	2.7	75
74	Modelling the Mechanical Properties of a Compacted Glacial Till. Indian Geotechnical Journal, 2016, 46, 261-271.	1.4	5
75	Influence of swelling behavior on the stability of an infinite unsaturated expansive soil slope. Computers and Geotechnics, 2016, 76, 154-169.	4.7	62
76	Review of collapse triggering mechanism of collapsible soils due to wetting. Journal of Rock Mechanics and Geotechnical Engineering, 2016, 8, 256-274.	8.1	224
77	Experimental Evaluation of Engineering Properties of GFRP Screw Anchors for Anchoring Applications. Journal of Materials in Civil Engineering, 2016, 28, .	2.9	7
78	Modeling Behavior of Friction Pile in Compacted Glacial Till. International Journal of Geomechanics, 2016, 16, .	2.7	30
79	Prediction of the variation of swelling pressure and one-dimensional heave of expansive soils with respect to suction using the soil-water retention curve as a tool. Canadian Geotechnical Journal, 2016, 53, 1213-1234.	2.8	43
80	Modelling the Load-Settlement Behavior of Model Piles in Unsaturated Sand and Glacial Till. , 2016, , .		4
81	Influence of Poissonâ€™s Ratio on the Stress vs. Settlement Behavior of Shallow Foundations in Unsaturated Fine-Grained Soils. Soils and Rocks, 2016, , 71-79.	0.5	5
82	Prediction of the Resilient Modulus of Unsaturated Base-Course Materials. , 2015, , .		0
83	Settlement behaviour of a soil due to artificial tree roots. Environmental Geotechnics, 2015, 2, 18-25.	2.3	2
84	Review of methods for predicting in situ volume change movement of expansive soil over time. Journal of Rock Mechanics and Geotechnical Engineering, 2015, 7, 73-86.	8.1	43
85	Prediction of the modulus of elasticity of compacted unsaturated expansive soils. International Journal of Geotechnical Engineering, 2015, 9, 163-175.	2.0	12
86	Bearing capacity of shallow foundations in saturated and unsaturated sands from SPTâ€“CPT correlations. International Journal of Geotechnical Engineering, 2015, 9, 2-12.	2.0	5
87	Model for predicting resilient modulus of unsaturated subgrade soil using soil-water characteristic curve. Canadian Geotechnical Journal, 2015, 52, 1605-1619.	2.8	62
88	Using the Continuously Disturbed Line to Estimate the Mechanical Behaviour of Unsaturated Compacted Soils. Geotechnical and Geological Engineering, 2015, 33, 833-840.	1.7	0
89	Hydro-mechanical coupling effect on surficial layer stability of unsaturated expansive soil slopes. Computers and Geotechnics, 2015, 70, 68-82.	4.7	111
90	Semi-empirical Model for Estimating the Small-Strain Shear Modulus of Unsaturated Non-plastic Sandy Soils. Geotechnical and Geological Engineering, 2014, 32, 259-271.	1.7	39

#	Article	IF	Citations
91	Elasticity moduli of expansive soils from dimensional analysis. Geotechnical Research, 2014, 1, 60-72.	1.4	18
92	Semiempirical Method for Estimation of Pullout Capacity of Grouted Soil Nails in Saturated and Unsaturated Soil Environments. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2013, 139, 1934-1943.	3.0	22
93	Interpretation of the Bearing Capacity of Unsaturated Fine-Grained Soil Using the Modified Effective and the Modified Total Stress Approaches. International Journal of Geomechanics, 2013, 13, 769-778.	2.7	61
94	Shear strength behavior of compacted unsaturated residual soil. International Journal of Geotechnical Engineering, 2013, 7, 1-9.	2.0	12
95	Constitutive modeling approach for estimating1-Dheave with respect to time for expansive soils. International Journal of Geotechnical Engineering, 2013, 7, 199-204.	2.0	45
96	A state-of-the art review of <i>1-D</i> heave prediction methods for expansive soils. International Journal of Geotechnical Engineering, 2012, 6, 15-41.	2.0	49
97	Modelling the applied vertical stress and settlement relationship of shallow foundations in saturated and unsaturated sands. Canadian Geotechnical Journal, 2011, 48, 425-438.	2.8	73
98	Advances in Instrumentation and Monitoring in Geotechnical Engineering. Advances in Civil Engineering, 2011, 2011, 1-2.	0.7	1
99	Experimental investigation of the relationship between the critical state shear strength of unsaturated soils and the soil-water characteristic curve. International Journal of Geotechnical Engineering, 2011, 5, 1-8.	2.0	11
100	A Simple Technique for Estimating Matric Suction of Unsaturated Fine-Grained Soils Using Pocket Penetrometer. , 2011, , .		0
101	A model for predicting the modulus of elasticity of unsaturated soils using the soil-water characteristic curve. International Journal of Geotechnical Engineering, 2010, 4, 425-433.	2.0	44
102	Influence of rain infiltration on the stability of compacted soil slopes. Computers and Geotechnics, 2010, 37, 649-657.	4.7	47
103	Interpretation of the bearing capacity of unsaturated soils extending the effective and the total stress approaches. , 2010, , 1223-1228.		3
104	Integrated Air Trap and Volume Gauge for Axis Translation Systems. Geotechnical Testing Journal, 2010, 33, 102123.	1.0	0
105	Semi-empirical model for the prediction of modulus of elasticity for unsaturated soils. Canadian Geotechnical Journal, 2009, 46, 903-914.	2.8	97
106	Axis Translation and Negative Water Column Techniques for Suction Control. Geotechnical and Geological Engineering, 2008, 26, 645-660.	1.7	70
107	Shear strength characteristics of statically compacted unsaturated kaolin. Canadian Geotechnical Journal, 2008, 45, 910-922.	2.8	14
108	Bearing Capacity of Model Footings in Unsaturated Soils. , 2007, , 483-493.		65

#	Article	IF	Citations
109	A simple air pressure gauge for unsaturated soils. Canadian Geotechnical Journal, 2007, 44, 1013-1018.	2.8	2
110	A modified permeameter for determination of unsaturated coefficient of permeability. Geotechnical and Geological Engineering, 2007, 25, 191-202.	1.7	12
111	Soil-Water Characteristic Curves of Stabilized Expansive Soils. Journal of Geotechnical and Geoenvironmental Engineering - ASCE, 2006, 132, 736-751.	3.0	104
112	Volume Change Behaviors of Expansive Soils Stabilized with Recycled Ashes and Fibers. Journal of Materials in Civil Engineering, 2006, 18, 295-306.	2.9	125
113	Stress-path dependent behavior of a weathered clay crust. Geotechnical and Geological Engineering, 2006, 24, 1481-1509.	1.7	7
114	Prediction of Soilâ€“Water Characteristic Curves of Fine-grained Soils Aided by Artificial Intelligent Models. Indian Geotechnical Journal, 0, , 1.	1.4	0
115	Mechanical Behavior of Piles in Typical Unsaturated Expansive and Collapsible Soils Upon Water Infiltration. Frontiers in Built Environment, 0, 8, .	2.3	1