

Kolluru V Subramaniam

List of Publications by Year in descending order

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133
papers

3,178
citations

136885

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197736

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136
all docs

136
docs citations

136
times ranked

1859
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Investigation and Fracture Analysis of Debonding between Concrete and FRP Sheets. Journal of Engineering Mechanics - ASCE, 2006, 132, 914-923.	1.6	171
2	Width effect in the interface fracture during shear debonding of FRP sheets from concrete. Engineering Fracture Mechanics, 2007, 74, 578-594.	2.0	119
3	Experimental determination of FRP-concrete cohesive interface properties under fatigue loading. Composite Structures, 2012, 94, 1288-1296.	3.1	104
4	Crack Propagation in Flexural Fatigue of Concrete. Journal of Engineering Mechanics - ASCE, 2000, 126, 891-898.	1.6	98
5	Investigation of sub-critical fatigue crack growth in FRP/concrete cohesive interface using digital image analysis. Composites Part B: Engineering, 2013, 51, 35-43.	5.9	86
6	Direct determination of cohesive stress transfer during debonding of FRP from concrete. Composite Structures, 2010, 93, 184-192.	3.1	82
7	Quantitative XRD study of amorphous phase in alkali activated low calcium siliceous fly ash. Construction and Building Materials, 2016, 124, 139-147.	3.2	82
8	An investigation of microstructure evolution in cement paste through setting using ultrasonic and rheological measurements. Cement and Concrete Research, 2010, 40, 33-44.	4.6	80
9	Freeze-thaw degradation of FRP-concrete interface: Impact on cohesive fracture response. Engineering Fracture Mechanics, 2008, 75, 3924-3940.	2.0	78
10	FRP-Masonry Debonding: Numerical and Experimental Study of the Role of Mortar Joints. Journal of Composites for Construction, 2012, 16, 581-589.	1.7	78
11	Influence of Ultrafine Fly Ash on the Early Age Response and the Shrinkage Cracking Potential of Concrete. Journal of Materials in Civil Engineering, 2005, 17, 45-53.	1.3	77
12	Determining Elastic Properties of Concrete Using Vibrational Resonance Frequencies of Standard Test Cylinders. Cement, Concrete and Aggregates, 2000, 22, 81-89.	0.1	67
13	Investigation of steel corrosion in cracked concrete: Evaluation of macrocell and microcell rates using Tafel polarization response. Corrosion Science, 2010, 52, 2725-2735.	3.0	62
14	Experimental evaluation of load-induced damage in concrete from distributed microcracks to localized cracking on electro-mechanical impedance response of bonded PZT. Construction and Building Materials, 2016, 105, 536-544.	3.2	60
15	Production and characterization of low-energy Portland composite cement from post-industrial waste. Journal of Cleaner Production, 2019, 239, 118024.	4.6	59
16	Blast response simulation of an elastic structure: Evaluation of the fluid-structure interaction effect. International Journal of Impact Engineering, 2009, 36, 965-974.	2.4	55
17	An Understanding of the Width Effect in FRP-Concrete Debonding. Strain, 2011, 47, 127-137.	1.4	55
18	Evaluation of sodium content and sodium hydroxide molarity on compressive strength of alkali activated low-calcium fly ash. Cement and Concrete Composites, 2017, 81, 122-132.	4.6	52

#	ARTICLE	IF	CITATIONS
19	Embedded PZT Sensor for Monitoring Mechanical Impedance of Hydrating Cementitious Materials. <i>Journal of Nondestructive Evaluation</i> , 2017, 36, 1.	1.1	52
20	Confinement of Masonry Columns with PBO FRCC Composites. <i>Key Engineering Materials</i> , 0, 624, 644-651.	0.4	46
21	Experimental investigation on blast response of cellular concrete. <i>International Journal of Impact Engineering</i> , 2016, 96, 105-115.	2.4	45
22	Influence of processing temperature on the reaction product and strength gain in alkali-activated fly ash. <i>Cement and Concrete Composites</i> , 2019, 95, 10-18.	4.6	42
23	Nondestructive measurement of concrete strength gain by an ultrasonic wave reflection method. <i>Materials and Structures/Materiaux Et Constructions</i> , 2003, 36, 507-514.	1.3	42
24	Experimental investigation of compressive failure in masonry brick assemblages made with soft brick. <i>Materials and Structures/Materiaux Et Constructions</i> , 2017, 50, 1.	1.3	41
25	Rheological characterization of low-calcium fly ash suspensions in alkaline silicate colloidal solutions for geopolymer concrete production. <i>Journal of Cleaner Production</i> , 2019, 234, 690-701.	4.6	41
26	Monitoring the setting behavior of cementitious materials using one-sided ultrasonic measurements. <i>Cement and Concrete Research</i> , 2005, 35, 850-857.	4.6	39
27	Embedded smart PZT-based sensor for internal damage detection in concrete under applied compression. <i>Measurement: Journal of the International Measurement Confederation</i> , 2020, 163, 108018.	2.5	38
28	New Directions in Concrete Health Monitoring Technology. <i>Journal of Engineering Mechanics - ASCE</i> , 2000, 126, 754-760.	1.6	35
29	Stress transmission in porous materials impacted by shock waves. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	35
30	Experimental investigation of crack propagation and post-cracking behaviour in macrosynthetic fibre reinforced concrete. <i>Magazine of Concrete Research</i> , 2017, 69, 467-478.	0.9	34
31	Analysis for multi-linear stress-crack opening cohesive relationship: Application to macro-synthetic fiber reinforced concrete. <i>Engineering Fracture Mechanics</i> , 2017, 169, 128-145.	2.0	34
32	Ultrasonic monitoring of capillary porosity and elastic properties in hydrating cement paste. <i>Cement and Concrete Composites</i> , 2011, 33, 389-401.	4.6	33
33	Quantitative XRD Analysis of Binary Blends of Siliceous Fly Ash and Hydrated Cement. <i>Journal of Materials in Civil Engineering</i> , 2016, 28, .	1.3	33
34	Ultrasonic measurement of viscoelastic shear modulus development in hydrating cement paste. <i>Ultrasonics</i> , 2010, 50, 726-738.	2.1	32
35	Early-age tensile constitutive relationships for steel and polypropylene fiber reinforced concrete. <i>Engineering Fracture Mechanics</i> , 2021, 244, 107556.	2.0	31
36	Ultrasonic assessment of early-age changes in the material properties of cementitious materials. <i>Materials and Structures/Materiaux Et Constructions</i> , 2007, 40, 301-309.	1.3	30

#	ARTICLE	IF	CITATIONS
37	Formulation of alkali-activated fly ash-slag binders for 3D concrete printing. Cement and Concrete Composites, 2021, 119, 103983.	4.6	30
38	Analysis of Scaling and Instability in FRP-Concrete Shear Debonding for Beam-Strengthening Applications. Journal of Engineering Mechanics - ASCE, 2007, 133, 58-65.	1.6	29
39	Dynamic compaction of foam under blast loading considering fluid-structure interaction effects. International Journal of Impact Engineering, 2012, 50, 29-39.	2.4	29
40	Understanding the coupled electromechanical response of a PZT patch attached to concrete: Influence of substrate size. Measurement: Journal of the International Measurement Confederation, 2018, 124, 505-514.	2.5	29
41	Sensing of damage and substrate stress in concrete using electro-mechanical impedance measurements of bonded PZT patches. Smart Materials and Structures, 2016, 25, 095011.	1.8	28
42	Failure Mechanism of Concrete under Fatigue Compressive Load. Journal of Materials in Civil Engineering, 2004, 16, 566-572.	1.3	27
43	Investigation of the Interface Fracture during Debonding between FRP and Masonry. Advances in Structural Engineering, 2009, 12, 731-743.	1.2	27
44	Evaluation of Crack Propagation and Post-cracking Hinge-type Behavior in the Flexural Response of Steel Fiber Reinforced Concrete. International Journal of Concrete Structures and Materials, 2017, 11, 365-375.	1.4	27
45	Effect of active components on strength development in alkali-activated low calcium fly ash cements. Journal of Sustainable Cement-Based Materials, 2019, 8, 1-19.	1.7	26
46	Blast Furnace Slag Hydration in an Alkaline Medium: Influence of Sodium Content and Sodium Hydroxide Molarity. Journal of Materials in Civil Engineering, 2020, 32, .	1.3	26
47	Embedded PZT sensors for monitoring formation and crack opening in concrete structures. Measurement: Journal of the International Measurement Confederation, 2021, 182, 109698.	2.5	26
48	Investigation on the roles of solution-based alkali and silica in activated low-calcium fly ash and slag blends. Cement and Concrete Composites, 2021, 123, 104175.	4.6	26
49	Study on the influences of silica and sodium in the alkali-activation of ground granulated blast furnace slag. Construction and Building Materials, 2020, 257, 119514.	3.2	26
50	Investigation of the local response of the steel-concrete interface for corrosion measurement. Corrosion Science, 2009, 51, 1976-1984.	3.0	25
51	Application of Nondestructive Evaluation to Subway Tunnel Systems. Transportation Research Record, 2003, 1845, 127-135.	1.0	23
52	Embedded electrical impedance-based PZT sensor for monitoring hydrating concrete: development and evaluation. Smart Materials and Structures, 2020, 29, 055038.	1.8	22
53	Influence of Early Temperature Rise on Movements and Stress Development in Concrete Decks. Journal of Bridge Engineering, 2010, 15, 108-116.	1.4	21
54	Multi-linear stress-crack separation relationship for steel fiber reinforced concrete: Analytical framework and experimental evaluation. Theoretical and Applied Fracture Mechanics, 2018, 93, 33-43.	2.1	21

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55	PZT sensor array for local and distributed measurements of localized cracking in concrete. <i>Smart Materials and Structures</i> , 2018, 27, 075049.	1.8	21
56	Review of Ultrasonic Wave Reflection Applied to Early-Age Concrete and Cementitious Materials. <i>Journal of Nondestructive Evaluation</i> , 2015, 34, 1.	1.1	20
57	Quantitative phase analysis of slag hydrating in an alkaline environment. <i>Journal of Applied Crystallography</i> , 2020, 53, 424-434.	1.9	20
58	Investigation of the dilatant behavior of cracks in the shear response of steel fiber reinforced concrete beams. <i>Engineering Structures</i> , 2017, 152, 832-842.	2.6	19
59	Method for Direct Determination of Glassy Phase Dissolution in Hydrating Fly Ash-Cement System Using X-ray Diffraction. <i>Journal of the American Ceramic Society</i> , 2017, 100, 403-412.	1.9	19
60	Fatigue Fracture of Concrete Subjected to Biaxial Stresses in the Tensile C-T Region. <i>Journal of Engineering Mechanics - ASCE</i> , 2002, 128, 668-676.	1.6	18
61	Moving shocks through metallic grids: their interaction and potential for blast wave mitigation. <i>Shock Waves</i> , 2007, 16, 455-466.	1.0	18
62	Dissolution of the glassy phase in low-calcium fly ash during alkaline activation. <i>Advances in Cement Research</i> , 2018, 30, 313-322.	0.7	18
63	Smart embedded PZT sensor for in-situ elastic property and vibration measurements in concrete. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 173, 108629.	2.5	18
64	Testing Concrete in Torsion: Instability Analysis and Experiments. <i>Journal of Engineering Mechanics - ASCE</i> , 1998, 124, 1258-1268.	1.6	17
65	Using Ultrasound to Monitor Stiffening Process of Concrete with Admixtures. <i>ACI Materials Journal</i> , 2000, 97, .	0.3	17
66	Biaxial tension fatigue response of concrete. <i>Cement and Concrete Composites</i> , 2003, 25, 617-623.	4.6	16
67	Improvements in fracture behavior and shear capacity of fiber reinforced normal and self consolidating concrete: A comparative study. <i>Construction and Building Materials</i> , 2018, 189, 205-217.	3.2	16
68	An evaluation of yield and Maxwell fluid behaviors of fly ash suspensions in alkali-silicate solutions. <i>Materials and Structures/Materiaux Et Constructions</i> , 2019, 52, 1.	1.3	16
69	Stress and damage localization monitoring in fiber-reinforced concrete using surface-mounted PZT sensors. <i>Measurement Science and Technology</i> , 2020, 31, 024004.	1.4	16
70	Study of particle packing and paste rheology in alkali activated mixtures to meet the rheology demands of 3D Concrete Printing. <i>Cement and Concrete Composites</i> , 2022, 131, 104581.	4.6	16
71	Direct decomposition X-ray diffraction method for amorphous phase quantification and glassy phase determination in binary blends of siliceous fly ash and hydrated cement. <i>Journal of Sustainable Cement-Based Materials</i> , 2017, 6, 111-125.	1.7	14
72	Influence of variation in the local interface fracture properties on shear debonding of CFRP composite from concrete. <i>Journal of Adhesion Science and Technology</i> , 2017, 31, 2202-2218.	1.4	14

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73	Numerical simulation of soft brick unreinforced masonry walls subjected to lateral loads. Cogent Engineering, 2018, 5, 1551503.	1.1	12
74	Cohesive stress transfer and shear capacity enhancements in hybrid steel and macro-polypropylene fiber reinforced concrete. Theoretical and Applied Fracture Mechanics, 2019, 103, 102250.	2.1	12
75	Rheology control of alkali-activated fly ash with nano clay for cellular geopolymer application. Construction and Building Materials, 2021, 283, 122687.	3.2	12
76	Identification of Early-Age Cracking in Concrete Bridge Decks. Journal of Performance of Constructed Facilities, 2016, 30, 04016054.	1.0	10
77	Shear behavior of steel fiber reinforced concrete using full-field displacements from digital image correlation. MATEC Web of Conferences, 2017, 120, 04003.	0.1	10
78	Porosity and pore structure control in cellular geopolymer using rheology and surface tension modifiers. Construction and Building Materials, 2022, 323, 126600.	3.2	9
79	Monitoring Fatigue Damage In Concrete. Materials Research Society Symposia Proceedings, 1997, 503, 151.	0.1	8
80	Early age monitoring of cement mortar using embedded piezoelectric sensors. , 2016, , .		8
81	Monitoring of Concrete Cylinders With and Without Steel Fibers Under Compression Using Piezo-Ceramic Smart Aggregates. Journal of Nondestructive Evaluation, 2016, 35, 1.	1.1	8
82	Influence of Steel Fibers on Fracture Energy and Shear Behavior of SCC. Journal of Materials in Civil Engineering, 2018, 30, .	1.3	8
83	Cohesive-frictional interface fracture behavior in soft-brick masonry: experimental investigation and theoretical development. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	1.3	7
84	Efficiency of steel fibers in shear resistance of reinforced concrete beams without stirrups at different moment-to-shear ratios. Engineering Structures, 2019, 188, 249-260.	2.6	7
85	Evaluation of Total Reactive Oxide Ratios and Working Solution Ratios on Strength Development in Fly Ash-Based Geopolymers. Journal of Materials in Civil Engineering, 2020, 32, .	1.3	7
86	Shear Behavior of Slender and Non-Slender Steel Fiber-Reinforced Concrete Beams. ACI Structural Journal, 2019, 116, .	0.3	7
87	In situ embedded PZT sensor for monitoring 3D concrete printing: application in alkali-activated fly ash-slag geopolymers. Smart Materials and Structures, 2021, 30, 125024.	1.8	7
88	Evaluation of seismic displacement demand for unreinforced masonry shear walls. Cogent Engineering, 2018, 5, 1480189.	1.1	6
89	Influence of cohesive stresses on shear capacity of reinforced SFRC beams without stirrups: A discrete crack approach. Engineering Fracture Mechanics, 2019, 206, 218-232.	2.0	6
90	Cohesive stress and fiber pullout behavior in fracture response of concrete with steel and macropolypropylene hybrid fiber blends. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 3042-3055.	1.7	6

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91	Fatigue Response of Concrete Subjected to Biaxial Stresses in the Compression-Tension Region. ACI Materials Journal, 1999, 96, .	0.3	6
92	Seismic Analysis of Unreinforced Masonry Walls. Journal of Integrated Disaster Risk Management, 2016, 6, 102-115.	0.2	6
93	Studies on rheology and fresh state behavior of fly ash-slag geopolymer binders with silica. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	1.3	6
94	Response of an Elastic Structure Subject to Air Shock Considering Fluid-Structure Interaction. Journal of Aerospace Engineering, 2010, 23, 176-185.	0.8	5
95	Ultrasonic Shear Wave Reflection Method for Direct Determination of Porosity and Shear Modulus in Early-Age Cement Paste and Mortar. Journal of Engineering Mechanics - ASCE, 2016, 142, .	1.6	5
96	Surface Level Synthetic Ground Motions for M7.6 2001 Gujarat Earthquake. Geosciences (Switzerland), 2018, 8, 429.	1.0	5
97	Correlating Peak Ground A/V Ratio with Ground Motion Frequency Content. Lecture Notes in Civil Engineering, 2019, , 69-80.	0.3	5
98	Failure in Clay Brick Masonry with Soft Brick under Compression: Experimental Investigation and Numerical Simulation. Key Engineering Materials, 0, 747, 472-479.	0.4	4
99	Monitoring progressive changes in cementitious materials using embedded piezo-sensors. Proceedings of SPIE, 2017, , .	0.8	3
100	Experimental Investigation and Interface Material Model for the Cohesive Frictional Shear Response of Soft-Brick Masonry under Applied Compression. Journal of Materials in Civil Engineering, 2019, 31, 04019311.	1.3	3
101	Pushover analysis of soft brick unreinforced masonry walls using analytical and numerical approaches. Materials Today: Proceedings, 2020, 28, 420-425.	0.9	3
102	Combined global-local monitoring of hydrating concrete using embedded smart PZT sensors. Materials Today: Proceedings, 2020, 28, 388-395.	0.9	3
103	Damage detection in concrete using surface mounted PZT transducers. Materials Today: Proceedings, 2020, 28, 925-930.	0.9	3
104	A novel method for diagnosing defective PZT-Substrate bonding in electromechanical (EM) impedance technique. Materials Today: Proceedings, 2020, 28, 1005-1012.	0.9	3
105	Extrusion-Based Three-Dimensional Printing Performance of Alkali-Activated Binders. ACI Materials Journal, 2021, , .	0.3	3
106	Experimental Investigation of Blast-Pressure Attenuation by Cellular Concrete. ACI Materials Journal, 2015, 112, .	0.3	3
107	High-Temperature Performance of Low-Calcium Fly Ash-Based Geopolymers. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	3
108	<title>Monitoring crack length in concrete beams using resonance measurements</title>. , 1999, 3586, 129.		2

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109	Influence of Temperature and Added Lime on the Glassy Phase Dissolution in Low-calcium Fly ash Binary Blend. <i>Journal of Advanced Concrete Technology</i> , 2016, 14, 614-624.	0.8	2
110	Role of total reactive oxide ratios on strength development in activated fly ash. <i>MATEC Web of Conferences</i> , 2017, 120, 02014.	0.1	2
111	Critical evaluation of rheological behaviour of low-calcium fly ash geopolymer pastes. <i>Advances in Cement Research</i> , 0, , 1-11.	0.7	2
112	Enhanced concrete performance in cracking resistance and chloride penetration using hybrid fiber blends. <i>Materials Today: Proceedings</i> , 2021, 49, 1175-1175.	0.9	2
113	X-ray Diffraction-Based Quantification of Amorphous Phase in Alkali-Activated Blast Furnace Slag. <i>Advances in Civil Engineering Materials</i> , 2021, 10, 333-349.	0.2	2
114	Analytical Model for Cyclic Compressive Behavior of Brick Masonry. <i>ACI Structural Journal</i> , 1995, 92, .	0.3	2
115	Improvement in early-age cracking performance of concrete with hybrid steel-macropolypropylene fiber blends. <i>Materials Today: Proceedings</i> , 2022, 65, 1589-1593.	0.9	2
116	Seismic fragility assessment of load-bearing soft-brick unreinforced masonry piers. <i>Journal of Safety Science and Resilience</i> , 2022, 3, 277-287.	1.3	2
117	One-Dimensional Numerical Framework for Shock Compaction of Cellular Foams. <i>Journal of Aerospace Engineering</i> , 2016, 29, .	0.8	1
118	Behavior of Short Reinforced Concrete Column Elements with Buckling-Resistant Antispring-Clad Reinforcing Bars (BRASR) under Axial Compression. <i>Journal of Structural Engineering</i> , 2020, 146, 04019203.	1.7	1
119	Experimental evaluation and analysis of flexural response of sandwich beam panels with an expanded polystyrene core. <i>Structures</i> , 2021, 33, 3798-3809.	1.7	1
120	Length Effect on Ductility of Concrete in Uniaxial and Flexural Compression. <i>ACI Structural Journal</i> , 2004, 101, .	0.3	1
121	Developing Printable Fly Ash-Slag Geopolymer Binders with Rheology Modification. <i>RILEM Bookseries</i> , 2022, , 93-98.	0.2	1
122	Discussion: "Free Vibrations of Thick Hollow Circular Cylinders From Three-Dimensional Analysis" (So, J., and Lessia, A. W., 1997, <i>ASME J. Vibr. Acoust.</i> , 119, pp. 89-95). <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1998, 120, 637-637.	1.0	0
123	Nondestructive Monitoring of Early Age Concrete. , 2000, , 74.		0
124	Impact of Freeze-Thaw Degradation on FRP-Concrete Interface Fracture. , 2007, , 419-426.		0
125	Experimental Investigation on Granite Masonry Behavior under Compression. , 2009, , .		0
126	Blast Response of Cellular Cement Foams: An Experimental Evaluation. , 2013, , .		0

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127	Ultrasonic Measurement of Evolving Microstructure in Hydrating Mortar. , 2013, , .		0
128	Improved Early-Age Cohesive Stress Response from Hybrid Blends of Micro and Macro Fibers. Materials Science Forum, 0, 1046, 1-7.	0.3	0
129	Cohesive Fracture and Fiber Pullout Responses in Normal and SCC Fiber-Reinforced Concrete. Journal of Engineering Mechanics - ASCE, 2021, 147, 04021109.	1.6	0
130	Experimental Investigation on Debonding Between Masonry and Frp. , 2007, , 699-700.		0
131	Design curves for prestressed concrete rectangular beam sections based on BS 8110. Structural Engineering and Mechanics, 1995, 3, 555-567.	1.0	0
132	Alkali-activated fly ash-blast furnace slag blend rheology: Evaluation of yield and Maxwell responses. Cleaner Engineering and Technology, 2022, 6, 100398.	2.1	0
133	Experimental Investigation on Strengthening of Soft Clay Brick Masonry Columns under Compression with Fiber-Reinforced Inorganic and Organic Matrixes. Key Engineering Materials, 0, 916, 267-274.	0.4	0