

# Eshan Dave

## List of Publications by Year in descending order

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89  
papers

1,250  
citations

394286

19  
h-index

454834

30  
g-index

107  
all docs

107  
docs citations

107  
times ranked

776  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of Recycled Asphalt Pavement Amounts on Low-Temperature Cracking Performance of Asphalt Mixtures Using Acoustic Emissions. Transportation Research Record, 2011, 2208, 64-71.	1.0	112
2	Comprehensive evaluation of low-temperature fracture indices for asphalt mixtures. Road Materials and Pavement Design, 2017, 18, 467-490.	2.0	73
3	Nominal property based predictive models for asphalt mixture complex modulus (dynamic modulus) $T_j$ ETQq1 1 0.784314 $\text{rgBT} / \text{Over}$	3.2	54
4	Thermal reflective cracking of asphalt concrete overlays. International Journal of Pavement Engineering, 2010, 11, 477-488.	2.2	52
5	Synthesis of standards and procedures for specimen preparation and in-field evaluation of cold-recycled asphalt mixtures. Road Materials and Pavement Design, 2014, 15, 272-299.	2.0	52
6	IIIITC $\hat{\alpha}^{\text{c}}$ low-temperature cracking model for asphalt pavements. Road Materials and Pavement Design, 2013, 14, 57-78.	2.0	39
7	Flexible pavement thermal cracking performance sensitivity to fracture energy variation of asphalt mixtures. Road Materials and Pavement Design, 2015, 16, 423-441.	2.0	36
8	Characterization of embrittlement temperature of asphalt materials through implementation of acoustic emission technique. Construction and Building Materials, 2016, 111, 147-152.	3.2	33
9	Impact of Aging on the Viscoelastic Properties and Cracking Behavior of Asphalt Mixtures. Transportation Research Record, 2019, 2673, 406-415.	1.0	33
10	Seasonal and Long-Term Changes to Pavement Life Caused by Rising Temperatures from Climate Change. Transportation Research Record, 2019, 2673, 267-278.	1.0	32
11	Recommendation of RILEM TC 264 RAP on the evaluation of asphalt recycling agents for hot mix asphalt. Materials and Structures/Materiaux Et Constructions, 2022, 55, 1.	1.3	31
12	Prediction of phase angles from dynamic modulus data and implications for cracking performance evaluation. Road Materials and Pavement Design, 2017, 18, 491-513.	2.0	27
13	Cohesive zone fracture modelling of asphalt pavements with applications to design of high-performance asphalt overlays. International Journal of Pavement Engineering, 2018, 19, 319-337.	2.2	27
14	Evaluation of Viscoelastic and Fracture Properties of Asphalt Mixtures with Long-Term Laboratory Conditioning. Transportation Research Record, 2018, 2672, 503-513.	1.0	26
15	Fatigue and Thermal Cracking Analysis of Asphalt Mixtures Using Continuum-Damage and Cohesive-Zone Models. Journal of Transportation Engineering Part B: Pavements, 2018, 144, 04018040.	0.8	25
16	A Framework for Introducing Climate-Change Adaptation in Pavement Management. Sustainability, 2019, 11, 4382.	1.6	25
17	Influence of the Cohesive Zone Model Shape Parameter on Asphalt Concrete Fracture Behavior. AIP Conference Proceedings, 2008, , .	0.3	21
18	Development of a rate-dependent cumulative work and instantaneous power-based asphalt cracking performance index. Road Materials and Pavement Design, 2019, 20, S315-S331.	2.0	21

#	ARTICLE	IF	CITATIONS
19	Comparison of asphalt mixture specimen fabrication methods and binder tests for cracking evaluation of field mixtures. Road Materials and Pavement Design, 2019, 20, 1059-1075.	2.0	21
20	Correlating Laboratory Conditioning with Field Aging for Asphalt using Rheological Parameters. Transportation Research Record, 2020, 2674, 393-404.	1.0	20
21	Viscoelastic Functionally Graded Finite-Element Method Using Correspondence Principle. Journal of Materials in Civil Engineering, 2011, 23, 39-48.	1.3	19
22	Asphalt mix fracture energy based reflective cracking performance criteria for overlay mix selection and design for pavements in cold climates. Construction and Building Materials, 2019, 211, 1025-1033.	3.2	19
23	Comparison and correlation of asphalt binder and mixture cracking parameters incorporating the aging effect. Construction and Building Materials, 2021, 301, 124075.	3.2	19
24	Effect of Mix Design Variables on Thermal Cracking Performance Parameters of Asphalt Mixtures. Transportation Research Record, 2018, 2672, 471-480.	1.0	17
25	Life Cycle Costs Analysis of Reclaimed Asphalt Pavement (RAP) Under Future Climate. Sustainability, 2019, 11, 5414.	1.6	16
26	Mixture-based rheological evaluation tool for cracking in asphalt pavements. Road Materials and Pavement Design, 2019, 20, S299-S314.	2.0	16
27	Evaluation of the cracking and aging susceptibility of asphalt mixtures using viscoelastic properties and master curve parameters. Journal of Traffic and Transportation Engineering (English Edition), 2022, 9, 106-119.	2.0	16
28	Low Temperature Cracking Prediction with Consideration of Temperature Dependent Bulk and Fracture Properties. Road Materials and Pavement Design, 2010, 11, 33-59.	2.0	15
29	Effects of Mix Design and Fracture Energy on Transverse Cracking Performance of Asphalt Pavements in Minnesota. Transportation Research Record, 2016, 2576, 40-50.	1.0	15
30	Compact tension test for fracture characterization of thin bonded asphalt overlay systems at low temperature. Materials and Structures/Materiaux Et Constructions, 2012, 45, 1207-1220.	1.3	14
31	Cracking resistance of thin-bonded overlays using fracture test, numerical simulations and early field performance. International Journal of Pavement Engineering, 2013, 14, 540-552.	2.2	14
32	Recommendation of RILEM TC237-SIB on cohesion test of recycled asphalt. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	13
33	Recommendation of RILEM TC237-SIB: protocol for characterization of recycled asphalt (RA) materials for pavement applications. Materials and Structures/Materiaux Et Constructions, 2018, 51, 1.	1.3	13
34	Development of a rheology-based mixture aging model for asphalt material cracking performance evaluation. Materials and Structures/Materiaux Et Constructions, 2021, 54, 1.	1.3	13
35	Calculation of particle heating times of reclaimed asphalt pavement material. Road Materials and Pavement Design, 2014, 15, 721-732.	2.0	12
36	Cold Recycling of Reclaimed Asphalt Pavements. RILEM State-of-the-Art Reports, 2018, , 239-296.	0.3	12

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37	Evaluation of laboratory ageing procedures on cracking performance of asphalt mixtures. Road Materials and Pavement Design, 2019, 20, S647-S662.	2.0	12
38	Development of new performance indices to evaluate the fatigue properties of asphalt binders with ageing. Road Materials and Pavement Design, 2022, 23, 377-396.	2.0	12
39	Thermal Cracking Prediction Model and Software for Asphalt Pavements. , 2011, , .		10
40	Climate change impacts on flexible pavement design and rehabilitation practices. Road Materials and Pavement Design, 2021, 22, 2098-2112.	2.0	10
41	Exploring master curve parameters to distinguish between mixture variables. Road Materials and Pavement Design, 2019, 20, S812-S826.	2.0	9
42	Recommendation of RILEM TC237-SIB on fragmentation test for recycled asphalt. Materials and Structures/Materiaux Et Constructions, 2019, 52, 1.	1.3	9
43	Suitable Tests and Machine Learning Approach to Predict Moisture Susceptibility of Hot-Mix Asphalt. Journal of Transportation Engineering Part B: Pavements, 2019, 145, 04019030.	0.8	8
44	Development of Complex Modulus-Based Rutting Index Parameter for Asphalt Mixtures. Journal of Transportation Engineering Part B: Pavements, 2020, 146, 04020026.	0.8	8
45	Viscoelastic functionally graded finite element method with recursive time integration and applications to flexible pavements. International Journal for Numerical and Analytical Methods in Geomechanics, 2012, 36, 1194-1219.	1.7	7
46	Realistic Traffic Condition Informed Life Cycle Assessment: Interstate 495 Maintenance and Rehabilitation Case Study. Sustainability, 2019, 11, 3245.	1.6	7
47	Evaluation of Laboratory Performance and Structural Contribution of Cold Recycled Versus Hot Mixed Intermediate and Base Course Asphalt Layers in New Hampshire. Transportation Research Record, 2019, 2673, 467-476.	1.0	7
48	Simulating plant produced material in the laboratory to replicate rheological and fatigue properties. Road Materials and Pavement Design, 2020, 21, 253-261.	2.0	7
49	Asphalt Pavement Aging and Temperature Dependent Properties through a Functionally Graded Viscoelastic Model, Part-I: Development, Implementation and Verification. Materials Science Forum, 2009, 631-632, 47-52.	0.3	6
50	Effect of Aging on the Rheological Properties of Blends of Virgin and Rejuvenated RA Binders. RILEM Bookseries, 2022, , 3-10.	0.2	6
51	Statistical Evaluation of the Effects of Mix Design Properties on Performance Indices of Asphalt Mixtures. Journal of Testing and Evaluation, 2020, 48, 20180903.	0.4	5
52	Comparative Evaluation of Moisture Susceptibility Test Methods for Routine Usage in Asphalt Mixture Design. Journal of Testing and Evaluation, 2020, 48, 88-106.	0.4	5
53	Laboratory Investigation of Factors Affecting the Evolution of Curing in Cold In-Place Recycled Materials. Transportation Research Record, 2022, 2676, 28-40.	1.0	5
54	Performance of High Friction Bridge Deck Overlays in Crash Reduction. Journal of Performance of Constructed Facilities, 2017, 31, .	1.0	4

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55	Comparative evaluation of mechanistic-empirical performance models as a tool for establishing pavement performance specifications. Road Materials and Pavement Design, 2019, 20, 895-913.	2.0	4
56	An Overview of Black Space Evaluation of Performance and Distress Mechanisms in Asphalt Materials. RILEM Bookseries, 2022, , 231-237.	0.2	4
57	Statistical Analysis Framework to Evaluate Asphalt Concrete Overlay Reflective Cracking Performance. Transportation Research Record, 2022, 2676, 132-146.	1.0	4
58	Using mix design information for modelling of fundamental viscoelasticity of asphalt mixtures. Construction and Building Materials, 2022, 329, 127029.	3.2	4
59	Comprehensive Laboratory Evaluation of Recycling Agent Treated Plant-Produced Asphalt Mixtures. Transportation Research Record, 2022, 2676, 620-634.	1.0	4
60	Graded Viscoelastic Approach for Modeling Asphalt Concrete Pavements. AIP Conference Proceedings, 2008, , .	0.3	3
61	Asphalt Pavement Aging and Temperature Dependent Properties through a Functionally Graded Viscoelastic Model, Part-II: Applications. Materials Science Forum, 0, 631-632, 53-58.	0.3	3
62	Moisture Damage Evaluation of Asphalt Mixes that Contain Mining Byproducts. Transportation Research Record, 2013, 2371, 113-120.	1.0	3
63	Mechanisms of cracking: characterisation and modelling. Road Materials and Pavement Design, 2018, 19, 495-495.	2.0	3
64	Evaluation of Viscoelastic Properties and Cracking Behaviour of Asphalt Mixtures with Laboratory Aging. RILEM Bookseries, 2019, , 33-38.	0.2	3
65	Experimental Investigation on Water Loss and Stiffness of CBTM Using Different RA Sources. RILEM Bookseries, 2022, , 11-17.	0.2	3
66	Impact of Nonlinear Elastic Behavior of Foamed Asphalt Stabilized Mixes on Pavement Structural Performance. Journal of Materials in Civil Engineering, 2021, 33, .	1.3	3
67	Black Space Rheological Assessment of Asphalt Material Behavior. Journal of Testing and Evaluation, 2022, 50, 20210205.	0.4	3
68	Developing a prediction model for low-temperature fracture energy of asphalt mixtures using machine learning approach. International Journal of Pavement Engineering, 2023, 24, .	2.2	3
69	Laboratory Evaluation of Partial Depth Patching Materials for Use in Winter Climates. Transportation Research Record, 2015, 2481, 56-64.	1.0	2
70	Performance Evaluation of Coarse-Graded Field Mixtures Using Dynamic Modulus Results Gained from Testing in the Indirect Tension Mode. , 2016, , .		2
71	Accuracy Assessment of Satellite-Based Freeze-Thaw Retrievals on Low-Volume Roads in the United States. Transportation Research Record, 2019, 2673, 756-766.	1.0	2
72	A system dynamics framework for mechanistic analysis of flexible pavement systems under moisture variations. Transportation Geotechnics, 2021, 30, 100619.	2.0	2

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73	Sustainable pavement rehabilitation strategy using consequential life cycle assessment. , 2017, , .		2
74	Increasing Precision and Confidence Level in Fracture Energy Measurement by Optimizing the Number of Test Replicates for Disk-Shaped Compact Tension Fracture Test (ASTM D7313). Journal of Testing and Evaluation, 2019, 47, 3309-3321.	0.4	2
75	Effect of aging and temperature on milling-induced stresses and cracks in Hot Mix Asphalt (HMA) pavements. Construction and Building Materials, 2021, 313, 125493.	3.2	2
76	Machine learning techniques to estimate the degree of binder activity of reclaimed asphalt pavement. Materials and Structures/Materiaux Et Constructions, 2022, 55, .	1.3	2
77	Correlating field and laboratory evolution of curing in cold in-place recycled (CIR) materials. Construction and Building Materials, 2022, 345, 128352.	3.2	2
78	Comprehensive Evaluation of Properties and Performance of Asphalt Mixtures with Reactive Isocyanate and Styrene-Butadiene-Styrene-Modified Binders. Journal of Materials in Civil Engineering, 2022, 34, .	1.3	2
79	Micromechanics-Based Interfacial Debonding Model of Functionally Graded Materials. AIP Conference Proceedings, 2008, , .	0.3	1
80	Cracking in Asphalt Materials. RILEM State-of-the-Art Reports, 2018, , 33-102.	0.3	1
81	Development of a Flattened Indirect Tension Test for Asphalt Concrete. Journal of Testing and Evaluation, 2011, 39, 1-8.	0.4	1
82	Performance Evaluation of Pelletized Solid Polymer Modified Asphalt Mixtures. Transportation Research Record, 0, , 036119812210833.	1.0	1
83	13th Conference of the International Society for Asphalt Pavements (ISAP). Road Materials and Pavement Design, 2019, 20, S557-S557.	2.0	0
84	Regionalizing the Quality Assurance Processes in New England Area for Pre-Stressed and Precast Concrete Elements used in Highway Construction. Transportation Research Record, 2019, 2673, 544-553.	1.0	0
85	Effects of Laboratory Compacted Asphalt Mixtures Air-Void Variations on Fracture Properties at Low Temperatures. Advances in Civil Engineering Materials, 2021, 10, 262-275.	0.2	0
86	Assessment of Asphalt Mixture Disk-Shaped Compact Tension Test Indexes for Reflective Cracking Performance. Journal of Testing and Evaluation, 2022, 50, 755-769.	0.4	0
87	Plasticity-Based Method for the Design and Analysis of Cold Recycled Pavement Layers. Journal of Testing and Evaluation, 2022, 50, 20210198.	0.4	0
88	Generalized Methodology to Develop Mechanistically Informed Asphalt Mixture Layer Coefficients for AASHTO 1993 Pavement Design Approach. Transportation Research Record, 2022, 2676, 312-324.	1.0	0
89	Cracking Performance of Lower Asphalt Binder Coarse Hot Mix Asphalt Mixes. RILEM Bookseries, 2016, , 261-267.	0.2	0