

# Shihui Shen

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

66

papers

1,328

citations

22

h-index

35

g-index

67

ext. papers

1,597

ext. citations

3.4

avg, IF

4.9

L-index

#	Paper	IF	Citations
66	Comparison and Evaluation of Different Test Methods and Models for Determining Zero Shear Viscosity of Asphalt Binder. <i>Journal of Testing and Evaluation</i> , <b>2022</b> , 50, 20210260	1	
65	In-Situ Modulus Determination Using Dispersion Curves Developed From the Deflection-Time History Data. <i>IEEE Transactions on Intelligent Transportation Systems</i> , <b>2022</b> , 1-10	6.1	
64	Monitoring Particle Movement under Compaction using SmartRock Sensor: A Case Study of Granular Base Layer Compaction. <i>Transportation Geotechnics</i> , <b>2022</b> , 34, 100764	4	0
63	Characterization of the fatigue behavior of asphalt mixture under full support using a Wheel-tracking Device. <i>Construction and Building Materials</i> , <b>2021</b> , 277, 122326	6.7	1
62	Investigation of Field Rut Depth of Asphalt Pavements Using Hamburg Wheel Tracking Test. <i>Journal of Transportation Engineering Part B: Pavements</i> , <b>2021</b> , 147, 04020091	1.4	0
61	Estimation of the Vehicle Speed Using Cross-Correlation Algorithms and MEMS Wireless Sensors. <i>Sensors</i> , <b>2021</b> , 21,	3.8	8
60	Real-Time and Efficient Traffic Information Acquisition via Pavement Vibration IoT Monitoring System. <i>Sensors</i> , <b>2021</b> , 21,	3.8	4
59	Virgin Binder Determination for High RAP Content Mixture Design. <i>Journal of Materials in Civil Engineering</i> , <b>2021</b> , 33, 04021112	3	0
58	Environmental impact evaluation and long-term rutting resistance performance of warm mix asphalt technologies. <i>Journal of Cleaner Production</i> , <b>2021</b> , 278, 123938	10.3	7
57	Estimation of Vehicle Speed from Pavement Stress Responses Using Wireless Sensors. <i>Journal of Transportation Engineering Part B: Pavements</i> , <b>2021</b> , 147, 04021028	1.4	2
56	Evaluation of the correlations between laboratory measured material properties with field cracking performance for asphalt pavement. <i>Construction and Building Materials</i> , <b>2021</b> , 301, 124126	6.7	2
55	Characterization of In Situ Modulus of Asphalt Pavement and Its Relation to Cracking Performance Using SASW Method. <i>Journal of Transportation Engineering Part B: Pavements</i> , <b>2020</b> , 146, 04020039	1.4	3
54	Packing Theory and Volumetrics-Based Aggregate Gradation Design Method. <i>Journal of Materials in Civil Engineering</i> , <b>2020</b> , 32, 04020110	3	29
53	Laboratory Validation of Surface-Initiated Transverse Cracking of Asphalt Pavement. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 1002	2.6	0
52	Performance Characterization of Semi-Flexible Composite Mixture. <i>Materials</i> , <b>2020</b> , 13,	3.5	10
51	Quantitative Assessment of the Pavement Modulus and Surface Crack using the Rayleigh Wave Dispersion Curve. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 259-269	1.7	3
50	Blending Efficiency and Effective Styrene Butadiene Rubber Concentration of Micro-Surfacing Mixtures with Reclaimed Asphalt Pavement. <i>Transportation Research Record</i> , <b>2020</b> , 2674, 47-58	1.7	0

49	Effects of In-Place Volumetric Properties on Field Rutting and Cracking Performance of Asphalt Pavement. <i>Journal of Materials in Civil Engineering</i> , <b>2019</b> , 31, 04019150	3	16
48	Towards smart compaction: Particle movement characteristics from laboratory to the field. <i>Construction and Building Materials</i> , <b>2019</b> , 218, 323-332	6.7	21
47	Simulations of large-scale triaxial shear tests on ballast aggregates using sensing mechanism and real-time (SMART) computing. <i>Computers and Geotechnics</i> , <b>2019</b> , 110, 184-198	4.4	27
46	Field Performance of Foaming Warm Mix Asphalt Pavement. <i>Transportation Research Record</i> , <b>2019</b> , 2673, 281-294	1.7	7
45	Micro-surfacing mixtures with reclaimed asphalt pavement: Mix design and performance evaluation. <i>Construction and Building Materials</i> , <b>2019</b> , 201, 303-313	6.7	13
44	Development of Dynamic ModulusBased Mixture Blending Chart for Asphalt Mixtures with Reclaimed Asphalt Pavement. <i>Journal of Materials in Civil Engineering</i> , <b>2019</b> , 31, 04018382	3	6
43	Field performance of top-down fatigue cracking for warm mix asphalt pavements. <i>International Journal of Pavement Engineering</i> , <b>2019</b> , 20, 33-43	2.6	31
42	Sensing Mechanism and Real-Time Computing for Granular Materials. <i>Journal of Computing in Civil Engineering</i> , <b>2018</b> , 32, 04018023	5	4
41	Characterization of particle movement in Superpave gyratory compactor at meso-scale using SmartRock sensors. <i>Construction and Building Materials</i> , <b>2018</b> , 175, 206-214	6.7	27
40	Comparison of the Relative Long-Term Field Performance among Various Warm Mix Asphalt (WMA) Pavements. <i>Transportation Research Record</i> , <b>2018</b> , 2672, 200-210	1.7	6
39	Case Study: Evaluation of the Effect of Extraction Temperature on WMA Binder Containing Sasobit Additive. <i>Journal of Testing and Evaluation</i> , <b>2018</b> , 46, 20160516	1	3
38	Comparison of Laboratory and Field Asphalt Aging for Polymer-Modified and Warm-Mix Asphalt Binders. <i>Journal of Materials in Civil Engineering</i> , <b>2018</b> , 30, 04018150	3	18
37	Numerical evaluation of surface-initiated cracking in flexible pavement overlays with field observations. <i>Road Materials and Pavement Design</i> , <b>2017</b> , 18, 221-234	2.6	11
36	Prediction Model for Field Rut Depth of Asphalt Pavement Based on Hamburg Wheel Tracking Test Properties. <i>Journal of Materials in Civil Engineering</i> , <b>2017</b> , 29, 04017098	3	22
35	Short-Term Performance and Evolution of Material Properties of Warm- and Hot-Mix Asphalt Pavements: Case Studies. <i>Transportation Research Record</i> , <b>2017</b> , 2631, 39-54	1.7	5
34	Modification of the Hirsch Dynamic Modulus Prediction Model for Asphalt Mixtures. <i>Journal of Materials in Civil Engineering</i> , <b>2017</b> , 29, 04017241	3	10
33	Field-aged asphalt binder performance evaluation for Evotherm warm mix asphalt: Comparisons with hot mix asphalt. <i>Construction and Building Materials</i> , <b>2017</b> , 156, 574-583	6.7	22
32	Predictive quality of the pavement ME design program for field performance of warm mix asphalt pavements. <i>Construction and Building Materials</i> , <b>2017</b> , 131, 400-410	6.7	3

31	Long-Term Field Aging of Warm-Mix and Hot-Mix Asphalt Binders. <i>Transportation Research Record</i> , <b>2017</b> , 2632, 140-149	1.7	15
30	Long-Term Field Transverse Cracking Performance of Warm-Mix Asphalt Pavement and Its Significant Material Property. <i>Transportation Research Record</i> , <b>2016</b> , 2576, 109-120	1.7	9
29	A statistical based framework for predicting field cracking performance of asphalt pavements: Application to top-down cracking prediction. <i>Construction and Building Materials</i> , <b>2016</b> , 116, 226-234	6.7	30
28	Rheological and microstructural properties of foamed epoxy asphalt. <i>Construction and Building Materials</i> , <b>2016</b> , 114, 215-222	6.7	31
27	Long-Term Field Rutting and Moisture Susceptibility Performance of Warm-Mix Asphalt Pavement. <i>Transportation Research Record</i> , <b>2016</b> , 2575, 103-112	1.7	28
26	Investigation of the influence of crack width on healing properties of asphalt binders at multi-scale levels. <i>Construction and Building Materials</i> , <b>2016</b> , 126, 197-205	6.7	36
25	Effects of Aggregate Properties and Concrete Rheology on Stability Robustness of Self-Consolidating Concrete. <i>Journal of Materials in Civil Engineering</i> , <b>2015</b> , 27, 04014159	3	10
24	Development of Predictive Models for Initiation and Propagation of Field Transverse Cracking. <i>Transportation Research Record</i> , <b>2015</b> , 2524, 92-99	1.7	18
23	Viscoelastic-plastic damage model for porous asphalt mixtures: Application to uniaxial compression and freeze-thaw damage. <i>Mechanics of Materials</i> , <b>2014</b> , 70, 67-75	3.3	40
22	Fracture Healing Properties of Asphaltic Material under Controlled Damage. <i>Journal of Materials in Civil Engineering</i> , <b>2014</b> , 26, 275-282	3	18
21	Anisotropic Nonlinear Elastoviscoplastic Model for Rutting of Asphalt Mixtures. <i>Journal of Engineering Mechanics - ASCE</i> , <b>2014</b> , 140, 242-249	2.4	7
20	Fracture and Viscoelastic Properties of Asphalt Binders During Fatigue and Rest Periods. <i>Journal of Testing and Evaluation</i> , <b>2014</b> , 42, 20130030	1	5
19	Local Practice of Assessing Dynamic Modulus Properties for Washington State Mixtures. <i>Transportation Research Record</i> , <b>2013</b> , 2373, 89-99	1.7	4
18	A micromechanical based three-dimensional DEM approach to characterize the complex modulus of asphalt mixtures. <i>Construction and Building Materials</i> , <b>2013</b> , 38, 1089-1096	6.7	29
17	Impact of aggregate packing on dynamic modulus of hot mix asphalt mixtures using three-dimensional discrete element method. <i>Construction and Building Materials</i> , <b>2012</b> , 26, 302-309	6.7	38
16	Pervious concrete with titanium dioxide as a photocatalyst compound for a greener urban road environment. <i>Construction and Building Materials</i> , <b>2012</b> , 35, 874-883	6.7	88
15	Quantification of Cohesive Healing of Asphalt Binder and its Impact Factors Based on Dissipated Energy Analysis. <i>Road Materials and Pavement Design</i> , <b>2011</b> , 12, 525-546	2.6	34
14	Analysis of Aggregate Gradation and Packing for Easy Estimation of Hot-Mix-Asphalt Voids in Mineral Aggregate. <i>Journal of Materials in Civil Engineering</i> , <b>2011</b> , 23, 664-672	3	22

13	Characterize packing of aggregate particles for paving materials: Particle size impact. <i>Construction and Building Materials</i> , <b>2011</b> , 25, 1362-1368	6.7	45
12	Moving load on track with Asphalt trackbed. <i>Vehicle System Dynamics</i> , <b>2010</b> , 48, 737-749	2.8	14
11	Characterization of Fatigue and Healing in Asphalt Binders. <i>Journal of Materials in Civil Engineering</i> , <b>2010</b> , 22, 846-852	3	112
10	Modeling the Effects of Temperature and Loading Rate on Fatigue Property of Asphalt Binder. <i>Journal of Testing and Evaluation</i> , <b>2010</b> , 38, 102806	1	3
9	Evaluation of Fatigue Models of Hot-Mix Asphalt through Laboratory Testing. <i>Transportation Research Record</i> , <b>2009</b> , 2127, 36-42	1.7	33
8	Sandwich Model to Evaluate Railroad Asphalt Trackbed Performance under Moving Loads. <i>Transportation Research Record</i> , <b>2009</b> , 2117, 57-65	1.7	18
7	A Dissipated Energy Approach to Fatigue Evaluation. <i>Road Materials and Pavement Design</i> , <b>2006</b> , 7, 47-62	6.6	107
6	A Dissipated Energy Approach to Fatigue Evaluation. <i>Road Materials and Pavement Design</i> , <b>2006</b> , 7, 47-62	6.6	12
5	Fatigue Endurance Limit for Highway and Airport Pavements. <i>Transportation Research Record</i> , <b>2003</b> , 1832, 131-138	1.7	97
4	Application of the Dissipated Energy Concept in Fatigue Endurance Limit Testing		43
3	Dissipated Energy Approach to Study Hot-Mix Asphalt Healing in Fatigue		56
2	Meso-Scale Kinematic Responses of Asphalt Mixture in Both Field and Laboratory Compaction. <i>Transportation Research Record</i> , 036119812110092	1.7	4
1	Engineered Semi-Flexible Composite Mixture Design and Its Implementation Method at Railroad Bridge Approach. <i>Transportation Research Record</i> , 036119812110049	1.7	0