

Chee-Kiong Soh

List of Publications by Year in descending order

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75
papers

3,206
citations

147726

31
h-index

155592

55
g-index

79
all docs

79
docs citations

79
times ranked

1715
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Health Monitoring by Piezo-Impedance Transducers. I: Modeling. Journal of Aerospace Engineering, 2004, 17, 154-165.	0.8	273
2	Structural impedance based damage diagnosis by piezo-transducers. Earthquake Engineering and Structural Dynamics, 2003, 32, 1897-1916.	2.5	175
3	Application of Electromechanical Impedance Technique for Engineering Structures: Review and Future Issues. Journal of Intelligent Material Systems and Structures, 2010, 21, 41-59.	1.4	170
4	Calibration of piezo-impedance transducers for strength prediction and damage assessment of concrete. Smart Materials and Structures, 2005, 14, 671-684.	1.8	155
5	Development of a broadband nonlinear two-degree-of-freedom piezoelectric energy harvester. Journal of Intelligent Material Systems and Structures, 2014, 25, 1875-1889.	1.4	138
6	Structural Health Monitoring by Piezo-Impedance Transducers. II: Applications. Journal of Aerospace Engineering, 2004, 17, 166-175.	0.8	130
7	Fuzzy Controlled Genetic Algorithm Search for Shape-Optimization. Journal of Computing in Civil Engineering, 1996, 10, 143-150.	2.5	118
8	Structural identification and damage diagnosis using self-sensing piezo-impedance transducers. Smart Materials and Structures, 2006, 15, 987-995.	1.8	115
9	Practical issues related to the application of the electromechanical impedance technique in the structural health monitoring of civil structures: I. Experiment. Smart Materials and Structures, 2008, 17, 035008.	1.8	98
10	A Reusable PZT Transducer for Monitoring Initial Hydration and Structural Health of Concrete. Sensors, 2010, 10, 5193-5208.	2.1	97
11	Applications of structural health monitoring technology in Asia. Structural Health Monitoring, 2017, 16, 324-346.	4.3	90
12	Influence of loading on the electromechanical admittance of piezoceramic transducers. Smart Materials and Structures, 2007, 16, 1888-1897.	1.8	81
13	Effect of varying axial load under fixed boundary condition on admittance signatures of electromechanical impedance technique. Journal of Intelligent Material Systems and Structures, 2012, 23, 815-826.	1.4	79
14	Non-destructive concrete strength evaluation using smart piezoelectric transducer—a comparative study. Smart Materials and Structures, 2016, 25, 085021.	1.8	75
15	Three-Dimensional Electromechanical Impedance Model. I: Formulation of Directional Sum Impedance. Journal of Aerospace Engineering, 2007, 20, 53-62.	0.8	70
16	Generic Impedance-Based Model for Structure-Piezoceramic Interacting System. Journal of Aerospace Engineering, 2005, 18, 93-101.	0.8	67
17	Melatonin and health: an umbrella review of health outcomes and biological mechanisms of action. BMC Medicine, 2018, 16, 18.	2.3	65
18	Psycho-biological factors associated with underground spaces: What can the new era of cognitive neuroscience offer to their study?. Tunnelling and Underground Space Technology, 2016, 55, 118-134.	3.0	58

#	ARTICLE	IF	CITATIONS
19	Fatigue life estimation of a 1D aluminum beam under mode-I loading using the electromechanical impedance technique. <i>Smart Materials and Structures</i> , 2011, 20, 125001.	1.8	56
20	A novel electromechanical impedance-based model for strength development monitoring of cementitious materials. <i>Structural Health Monitoring</i> , 2018, 17, 902-918.	4.3	54
21	Monitoring damage propagation using PZT impedance transducers. <i>Smart Materials and Structures</i> , 2009, 18, 045003.	1.8	51
22	Electro-Mechanical Impedance (EMI)-Based Incipient Crack Monitoring and Critical Crack Identification of Beam Structures. <i>Research in Nondestructive Evaluation</i> , 2014, 25, 82-98.	0.5	51
23	Three-Dimensional Electromechanical Impedance Model for Multiple Piezoceramic Transducers-Structure Interaction. <i>Journal of Aerospace Engineering</i> , 2008, 21, 35-44.	0.8	49
24	Working in underground spaces: Architectural parameters, perceptions and thermal comfort measurements. <i>Tunnelling and Underground Space Technology</i> , 2018, 71, 428-439.	3.0	49
25	Monitoring of concrete curing using the electromechanical impedance technique: review and path forward. <i>Structural Health Monitoring</i> , 2021, 20, 604-636.	4.3	45
26	Towards more accurate numerical modeling of impedance based high frequency harmonic vibration. <i>Smart Materials and Structures</i> , 2014, 23, 035017.	1.8	43
27	Investigating the performance of "Smart Probe"-based indirect EMI technique for strength development monitoring of cementitious materials " Modelling and parametric study. <i>Construction and Building Materials</i> , 2018, 172, 134-152.	3.2	36
28	Review of the potential health effects of light and environmental exposures in underground workplaces. <i>Tunnelling and Underground Space Technology</i> , 2019, 84, 201-209.	3.0	36
29	Social aspects of working in underground spaces. <i>Tunnelling and Underground Space Technology</i> , 2016, 55, 135-145.	3.0	35
30	Prevalence of sick building syndrome and its association with perceived indoor environmental quality in an Asian multi-ethnic working population. <i>Building and Environment</i> , 2019, 166, 106420.	3.0	34
31	Practical issues related to the application of piezoelectric based wave propagation technique in monitoring of concrete curing. <i>Construction and Building Materials</i> , 2017, 152, 506-519.	3.2	32
32	Parametric study and modeling of PZT based wave propagation technique related to practical issues in monitoring of concrete curing. <i>Construction and Building Materials</i> , 2018, 176, 519-530.	3.2	29
33	A Psychosocial Approach to Understanding Underground Spaces. <i>Frontiers in Psychology</i> , 2017, 8, 452.	1.1	27
34	Prevalence of and factors associated with poor sleep quality and short sleep in a working population in Singapore. <i>Sleep Health</i> , 2020, 6, 277-287.	1.3	26
35	Load monitoring using a calibrated piezo diaphragm based impedance strain sensor and wireless sensor network in real time. <i>Smart Materials and Structures</i> , 2017, 26, 045036.	1.8	25
36	Assessing the suitability of virtual reality for psychological testing.. <i>Psychological Assessment</i> , 2019, 31, 318-328.	1.2	25

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37	Damage detection and characterization using EMI technique under varying axial load. Smart Structures and Systems, 2013, 11, 349-364.	1.9	24
38	Human-centered Development of Underground work Spaces. Procedia Engineering, 2016, 165, 242-250.	1.2	23
39	Strength development monitoring and dynamic modulus assessment of cementitious materials using EMI-Miniature Prism based technique. Structural Health Monitoring, 2020, 19, 373-389.	4.3	21
40	Associations of perceived indoor environmental quality with stress in the workplace. Indoor Air, 2020, 30, 1166-1177.	2.0	20
41	An evolutionary programming algorithm for continuous global optimization. European Journal of Operational Research, 2006, 168, 354-369.	3.5	18
42	Association between shift work and poor sleep quality in an Asian multi-ethnic working population: A cross-sectional study. PLoS ONE, 2020, 15, e0229693.	1.1	18
43	Prevalence of psychological distress and its association with perceived indoor environmental quality and workplace factors in under and aboveground workplaces. Building and Environment, 2020, 175, 106799.	3.0	18
44	Damage Model Based Reinforced-Concrete Element. Journal of Materials in Civil Engineering, 2003, 15, 371-380.	1.3	17
45	Contactless load monitoring in near-field with surface localized spoof plasmons—A new breed of metamaterials for health of engineering structures. Sensors and Actuators A: Physical, 2016, 244, 156-165.	2.0	17
46	The underground workspaces questionnaire (UWSQ): Investigating public attitudes toward working in underground spaces. Building and Environment, 2019, 153, 28-34.	3.0	16
47	Activity Tracker—Based Metrics as Digital Markers of Cardiometabolic Health: Cross-Sectional Study. JMIR MHealth and UHealth, 2020, 8, e16409.	1.8	16
48	Health Effects of Underground Workspaces cohort: study design and baseline characteristics. Epidemiology and Health, 2019, 41, e2019025.	0.8	16
49	Evaluation of peak-free electromechanical piezo-impedance and electromagnetic contact sensing using metamaterial surface plasmons for load monitoring. Smart Materials and Structures, 2017, 26, 015003.	1.8	14
50	Monitoring the curing process of in-situ concrete with piezoelectric-based techniques — A practical application. Structural Health Monitoring, 2023, 22, 518-539.	4.3	14
51	Integrated Optimization of Control System for Smart Cylindrical Shells Using Modified GA. Journal of Aerospace Engineering, 2006, 19, 68-79.	0.8	13
52	Prevalence of Vitamin D Deficiency and Its Associated Work-Related Factors among Indoor Workers in a Multi-Ethnic Southeast Asian Country. International Journal of Environmental Research and Public Health, 2020, 17, 164.	1.2	13
53	Shear correction for Mindlin type plate and shell elements. International Journal for Numerical Methods in Engineering, 2007, 69, 2789-2806.	1.5	12
54	A Parametric Study on Admittance Signatures of a PZT Transducer Under Free Vibration. Mechanics of Advanced Materials and Structures, 2015, 22, 877-884.	1.5	12

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55	Evolutionary Programming for Inverse Problems in Civil Engineering. Journal of Computing in Civil Engineering, 2001, 15, 144-150.	2.5	10
56	Examining the Factor Structure of the Pittsburgh Sleep Quality Index in a Multi-Ethnic Working Population in Singapore. International Journal of Environmental Research and Public Health, 2019, 16, 4590.	1.2	10
57	Transitional areas affect perception of workspaces and employee well-being: A study of underground and above-ground workspaces. Building and Environment, 2020, 179, 106840.	3.0	10
58	Three-Dimensional Damage Model for Concrete. I: Theory. Journal of Engineering Mechanics - ASCE, 2008, 134, 72-81.	1.6	7
59	Monitoring of Fatigue in Welded Beams Using Piezoelectric Wafer Based Impedance Technique. Journal of Nondestructive Evaluation, 2013, 33, 124.	1.1	7
60	Application of Metamaterial Surface Plasmon and Waveguide for Robotic-Arm Based Structural Health Monitoring. Journal of Nondestructive Evaluation, 2018, 37, 1.	1.1	7
61	A Multifactorial Approach to Sleep and Its Association with Health-Related Quality of Life in a Multiethnic Asian Working Population: A Cross-Sectional Analysis. International Journal of Environmental Research and Public Health, 2019, 16, 4147.	1.2	6
62	The cubicle deconstructed: Simple visual enclosure improves perseverance. Journal of Environmental Psychology, 2019, 63, 60-73.	2.3	6
63	White- and Blue- collar workers responses™ towards underground workspaces. Tunnelling and Underground Space Technology, 2020, 105, 103526.	3.0	6
64	The importance of air quality for underground spaces: An international survey of public attitudes. Indoor Air, 2021, 31, 2239-2251.	2.0	6
65	A Perspective of Non-Fiber-Optical Metamaterial and Piezoelectric Material Sensing in Automated Structural Health Monitoring. Sensors, 2019, 19, 1490.	2.1	5
66	Identification Of Dynamic Rock Properties Using A Genetic Algorithm. International Journal of Rock Mechanics and Minings Sciences, 2004, 41, 490-495.	2.6	3
67	Hybrid Genetic Programming with Local Search Operators for Dynamic Force Identification. Journal of Computing in Civil Engineering, 2007, 21, 311-320.	2.5	3
68	Employee experiences in underground workplaces: a qualitative investigation. Ergonomics, 2020, 63, 1337-1349.	1.1	3
69	Three-Dimensional Damage Model for Concrete. II: Verification. Journal of Engineering Mechanics - ASCE, 2008, 134, 82-89.	1.6	2
70	Risk Factors for Non-Communicable Diseases at Baseline and Their Short-Term Changes in a Workplace Cohort in Singapore. International Journal of Environmental Research and Public Health, 2019, 16, 4551.	1.2	2
71	Enhancing underground development users™ health through facilities management: a study of the underground metro system in Hong Kong. IOP Conference Series: Earth and Environmental Science, 2021, 703, 012043.	0.2	1
72	Digging Deep: The Effect of Design on the Social Behavior and Attitudes of People Working in Underground Workplaces in Europe. Advances in Intelligent Systems and Computing, 2019, , 791-802.	0.5	1

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73	Closure to "A Displacement Equivalence-Based Damage Model for Brittle Materials, Part I: Theory; Part II: Verification" (2005, ASME J. Appl. Mech., 72, pp. 306-307). Journal of Applied Mechanics, Transactions ASME, 2005, 72, 308-308.	1.1	0
74	Integrating Evolutionary Programming and Electro-Mechanical Impedance Method for Damage Identification. , 2007, , 756.		0
75	Novel non-fiber optical metamaterial waveguide for monitoring canal and pipeline structures. Journal of Civil Structural Health Monitoring, 2019, 9, 369-383.	2.0	0