Freek Bos

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5585955/publications.pdf

Version: 2024-02-01

38 papers	4,280 citations	304701 22 h-index	361001 35 g-index
40 all docs	40 docs citations	40 times ranked	1225 citing authors

#	Article	IF	Citations
1	Additive manufacturing of concrete in construction: potentials and challenges of 3D concrete printing. Virtual and Physical Prototyping, 2016, 11, 209-225.	10.4	718
2	Early age mechanical behaviour of 3D printed concrete: Numerical modelling and experimental testing. Cement and Concrete Research, 2018, 106, 103-116.	11.0	499
3	Hardened properties of 3D printed concrete: The influence of process parameters on interlayer adhesion. Cement and Concrete Research, 2019, 119, 132-140.	11.0	369
4	Digital Concrete: A Review. Cement and Concrete Research, 2019, 123, 105780.	11.0	310
5	Extrusion-based additive manufacturing with cement-based materials â€“ Production steps, processes, and their underlying physics: A review. Cement and Concrete Research, 2020, 132, 106037.	11.0	297
6	Rethinking reinforcement for digital fabrication with concrete. Cement and Concrete Research, 2018, 112, 111-121.	11.0	257
7	Design of a 3D printed concrete bridge by testing. Virtual and Physical Prototyping, 2018, 13, 222-236.	10.4	234
8	Experimental Exploration of Metal Cable as Reinforcement in 3D Printed Concrete. Materials, 2017, 10, 1314.	2.9	164
9	On the emergence of 3D printable Engineered, Strain Hardening Cementitious Composites (ECC/SHCC). Cement and Concrete Research, 2020, 132, 106038.	11.0	154
10	A process classification framework for defining and describing Digital Fabrication with Concrete. Cement and Concrete Research, 2020, 134, 106068.	11.0	138
11	Triaxial compression testing on early age concrete for numerical analysis of 3D concrete printing. Cement and Concrete Composites, 2019, 104, 103344.	10.7	128
12	Ductility of 3D printed concrete reinforced with short straight steel fibers. Virtual and Physical Prototyping, 2019, 14, 160-174.	10.4	120
13	Opportunities and challenges for structural engineering of digitally fabricated concrete. Cement and Concrete Research, 2020, 133, 106079.	11.0	117
14	An approach to develop printable strain hardening cementitious composites. Materials and Design, 2019, 169, 107651.	7.0	102
15	Integrating reinforcement in digital fabrication with concrete: A review and classification framework. Cement and Concrete Composites, 2021, 119, 103964.	10.7	101
16	Correlation between destructive compression tests and non-destructive ultrasonic measurements on early age 3D printed concrete. Construction and Building Materials, 2018, 181, 447-454.	7.2	80
17	The realities of additively manufactured concrete structures in practice. Cement and Concrete Research, 2022, 156, 106746.	11.0	79
18	3D Printing Concrete on temporary surfaces: The design and fabrication of a concrete shell structure. Automation in Construction, 2018, 94, 395-404.	9.8	54

#	Article	IF	Citations
19	Juxtaposing fresh material characterisation methods for buildability assessment of 3D printable cementitious mortars. Cement and Concrete Composites, 2021, 120, 104024.	10.7	49
20	3D Printing Concrete with Reinforcement. , 2018, , 2484-2493.		47
21	A roadmap for quality control of hardening and hardened printed concrete. Cement and Concrete Research, 2022, 157, 106800.	11.0	43
22	Mechanical Behavior of Printed Strain Hardening Cementitious Composites. Materials, 2020, 13, 2253.	2.9	33
23	On-demand additive manufacturing of functionally graded concrete. Virtual and Physical Prototyping, 2020, 15, 194-210.	10.4	27
24	Design and analyses of printable strain hardening cementitious composites with optimized particle size distribution. Construction and Building Materials, 2022, 324, 126411.	7.2	24
25	A Real-Time Height Measurement and Feedback System for 3D Concrete Printing. , 2018, , 2474-2483.		20
26	Large Scale Testing of Digitally Fabricated Concrete (DFC) Elements. RILEM Bookseries, 2019, , 129-147.	0.4	19
27	Bending and Pull-Out Tests on a Novel Screw Type Reinforcement for Extrusion-Based 3D Printed Concrete. RILEM Bookseries, 2020, , 632-645.	0.4	18
28	Bond of Reinforcement Cable in 3D Printed Concrete. RILEM Bookseries, 2020, , 584-600.	0.4	15
29	Complex Architecture in Printed Concrete: The Case of the Innsbruck University 350th Anniversary Pavilion COHESION. RILEM Bookseries, 2020, , 1116-1127.	0.4	11
30	Digital Fabrication with Cement-Based Materials: Process Classification and Case Studies. RILEM State-of-the-Art Reports, 2022, , 11-48.	0.7	10
31	A Framework for Large-Scale Structural Applications of 3D Printed Concrete: the Case of a 29 m Bridge in the Netherlands. , 0, 1, 5-19.		7
32	Digital Fabrication with Cement-Based Materials: Underlying Physics. RILEM State-of-the-Art Reports, 2022, , 49-98.	0.7	5
33	Quality Assessment of Printable Strain Hardening Cementitious Composites Manufactured in Two Different Printing Facilities. RILEM Bookseries, 2020, , 824-838.	0.4	4
34	Edge strength of core drilled and waterjet cut holes in architectural glass. Glass Structures and Engineering, 2021, 6, 131-145.	1.7	3
35	Structural Design and Testing of Digitally Manufactured Concrete Structures. RILEM State-of-the-Art Reports, 2022, , 187-222.	0.7	3
36	Robotically Placed Reinforcement Using the Automated Screwing Device â€“ An Application Perspective for 3D Concrete Printing. RILEM Bookseries, 2022, , 417-423.	0.4	3

#	Article	IF	Citations
37	The influence of material temperature on the in-print strength and stability of a 3D print mortar. , 2019, , 425-430.		2
38	3D Concrete Printing - Free Form Geometries with Improved Ductility and Strength. RILEM Bookseries, 2020, , 741-756.	0.4	2