

DAFTAR PUSTAKA

- Ahmed, G. H., Askandar, N. H., & Jumaa, G. B. (2022). A review of largescale 3DCP: Material characteristics, mix design, printing process, and reinforcement strategies. *Structures*, 43(June), 508–532. <https://doi.org/10.1016/j.istruc.2022.06.068>
- Al-Chaar, G. K., & Kozych, A. (2021). Flexural Behavior of 3D printed Concrete Beam with Fiber Reinforcement. *Journal of Construction Research*, 2(2). <https://doi.org/10.30564/jcr.v2i2.2823>
- American Society for Testing and Material. (2002). *ASTM C 109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2-in. or [50-mm] Cube Specimens)*.
- American Society for Testing and Material. (2008a). *ASTM C 230 - Standard Specification for Flow Table for Use in Tests of Hydraulic Cement*. www.astm.org,
- American Society for Testing and Material. (2008b). *ASTM C 1116 - Fiber Reinforced Concrete*.
- American Society for Testing and Material. (2013). *ASTM C 1437 - Test Method for Flow of Hydraulic Cement Mortar*. ASTM International. <https://doi.org/10.1520/C1437>
- American Society for Testing and Material. (2014). *ASTM C 469 - Test Method for Static Modulus of Elasticity and Poissons Ratio of Concrete in Compression*. ASTM International. https://doi.org/10.1520/C0469_C0469M-14
- Aramburu, A., Calderon-Uriszar-Aldaca, I., & Puente, I. (2022). 3D printing effect on the compressive strength of concrete structures. *Construction and Building Materials*, 354. <https://doi.org/10.1016/j.conbuildmat.2022.129108>
- Ardha, Y. K., Satyarno, I., & Marliyani, G. I. (2025). Probabilistic Seismic Hazard Analysis Assessment in Cianjur Following the Mw 5.6, 2022 Earthquake. *Journal of the Civil Engineering Forum*, 11(3), 245–256. <https://doi.org/10.22146/jcef.18988>

- Babaremi, A. J., Kolawole, J. T., Miah, M. J., Paul, S. C., & Panda, B. (2021). A concise review on interlayer bond strength in 3d concrete printing. Dalam *Sustainability (Switzerland)* (Vol. 13, Nomor 13). MDPI AG. <https://doi.org/10.3390/su13137137>
- Badan Standardisasi Nasional. (2011). *SNI 1974-2011 Cara uji kuat tekan beton dengan benda uji silinder*. www.bsn.go.id
- Badan Standardisasi Nasional. (2012). *SNI 7656:2012 - Tata cara pemilihan campuran untuk beton normal*. www.bsn.go.id
- Bai, M., Xiao, J., Wu, Y., & Ding, T. (2024). Experimental and numerical study on the flexural behavior of 3D-printed composite beams with U-shaped ECC formwork. *Engineering Structures*, 312. <https://doi.org/10.1016/j.engstruct.2024.118225>
- Budiman, F., Halim, A., Chandra, J., & Pudjisuryadi, P. (2023). Flexural and Shear Behavior of 3D Printed Reinforced Concrete Beams: An Experimental Study. *Civil Engineering Dimension*, 25(1), 1–9. <https://doi.org/10.9744/ced.25.1.1-9>
- Buswell, R. A., Leal de Silva, W. R., Jones, S. Z., & Dirrenberger, J. (2018). 3D printing using concrete extrusion: A roadmap for research. Dalam *Cement and Concrete Research* (Vol. 112, hlm. 37–49). Elsevier Ltd. <https://doi.org/10.1016/j.cemconres.2018.05.006>
- Ding, T., Qu, C., & Guo, D. (2025). Thermal and mechanical properties of 3D printed functionally graded Concrete: Utilizing fibres and recycled aggregates as gradient components. *Journal of Building Engineering*, 111. <https://doi.org/10.1016/j.jobbe.2025.113144>
- Fiqhunissa, A. E., Satyarno, I., Setiawan, A. F., Kadir, M. A. A., & Darmawan, M. F. (2024). Seismic Performance Evaluation of Irregular Auditorium Building based on ASCE 41-23. *Journal of the Civil Engineering Forum*, 10(3), 299–314. <https://doi.org/10.22146/jcef.13306>
- FIRST DRAFT STANDARD FOR AUTOMATED CONSTRUCTION TECHNOLOGY FOR 3D PRINTING WALLS-202X i 202X ICC® Standard for Automated Construction Technology for 3D Printing Walls (ICC 1500-202X)*. (t.t.).

- Formisano, A., & Vaiano, G. (2021). Combined Energy-Seismic Retrofit of Existing Historical Masonry Buildings: The Novel “DUO System” Coating System Applied to a Case Study. *Heritage*, 4(4), 4629–4646. <https://doi.org/10.3390/heritage4040255>
- Guan, J., Wang, L., Huang, Y., Ma, G., & Tao, Y. (2024). Evaluation of the Performance of Reinforced Concrete Beams with 3D-Printed Permanent Formwork. *Journal of Intelligent Construction*, 2(4), 1–17. <https://doi.org/10.26599/jic.2024.9180030>
- Holt, C., Edwards, L., Keyte, L., Moghaddam, F., & Townsend, B. (2019). Construction 3D Printing. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 349–370). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00017-8>
- Jay G. Sanjayan, Ali Nazari, & Behzad Nematollahi. (2019). *3D Concrete Printing Technology Construction and Building Applications*.
- Kazemian, A., Yuan, X., Meier, R., & Khoshnevis, B. (2019). Performance-Based Testing of Portland Cement Concrete for Construction-Scale 3D Printing. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 13–35). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00002-6>
- Kim, T. K., Oh, S., Lee, J., Dong, W. J., Mak, B., Choi, S., & Shim, C. S. (2025). Effects of 3D-printed concrete permanent formwork on the flexural behavior of reinforced concrete beams: Experimental and analytical investigations. *Case Studies in Construction Materials*, 22. <https://doi.org/10.1016/j.cscm.2025.e04802>
- L.Delatte. (2009). *Failure, Distress, and Repair of Concrete Structures*. Woodhead Pub. ; Maney Pub. ; CRC Press.
- Lee, H., Kim, J. H. J., Moon, J. H., Kim, W. W., & Seo, E. A. (2019). Evaluation of the mechanical properties of a 3D-printed mortar. *Materials*, 12(24). <https://doi.org/10.3390/ma12244104>
- Li, Z., Wang, L., & Ma, G. (2019). Method for the Enhancement of Buildability and Bending Resistance of Three-Dimensional-Printable Tailing Mortar. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 161–180). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00008-7>

- Liu, B., Cheng, X. M., Wang, L. G., & Qian, K. (2024). Compressive performance of PVA fiber-reinforced 3D concrete printing permanent formwork composite columns reinforced with BFRP bars. *Journal of Building Engineering*, 98(12), 1–15. <https://doi.org/10.1016/j.jobbe.2024.111174>
- Lombardo, G. (2021). The seismic coat: A sustainable and integrated approach to the retrofit of existing buildings. *Sustainability (Switzerland)*, 13(11). <https://doi.org/10.3390/su13116466>
- Malaeb, Z., AlSakka, F., & Hamzeh, F. (2019). 3D Concrete Printing: Machine Design, Mix Proportioning, and Mix Comparison Between Different Machine Setups. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 115–136). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00006-3>
- Maroszek, M., Rudziewicz, M., Hutyra, A., Dziura, P., & Hebda, M. (2024). Evaluation of 3D Concrete Printing Extrusion Efficiency. *Applied Sciences (Switzerland)*, 14(24). <https://doi.org/10.3390/app142411866>
- Mishra, S. K., Snehal, K., Das, B. B., Chandrasekaran, R., & Barbhuiya, S. (2025). From printing to performance: a review on 3D concrete printing processes, materials, and life cycle assessment. Dalam *Journal of Building Pathology and Rehabilitation* (Vol. 10, Nomor 2). Springer Nature. <https://doi.org/10.1007/s41024-025-00626-4>
- Nair, S. A. O., Tripathi, A., & Neithalath, N. (2021). Examining layer height effects on the flexural and fracture response of plain and fiber-reinforced 3D-printed beams. *Cement and Concrete Composites*, 124. <https://doi.org/10.1016/j.cemconcomp.2021.104254>
- Nam, Y. J., Hwang, Y. K., Park, J. W., & Lim, Y. M. (2019). Fiber-Reinforced Cementitious Composite Design with Controlled Distribution and Orientation of Fibers Using Three-Dimensional Printing Technology. Dalam *3D Concrete Printing Technology* (hlm. 59–72). Elsevier. <https://doi.org/10.1016/b978-0-12-815481-6.00004-x>
- Nerella, V. N., & Mechtcherine, V. (2019). Studying the Printability of Fresh Concrete for Formwork-Free Concrete Onsite 3D Printing Technology (CONPrint3D). Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 333–347). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00016-6>

Newman, John., & Choo, B. S. . (2003). *Advanced concrete technology : constituent materials*. Butterworth-Heinemann.

Nura Isa, M., Buswell, R., Temitope Kolawole, J., Cavalaro, S., Dobrzanski, J., Xu, J., Austin, S., & Author, C. (t.t.). *Flexural behaviour of thin 3D-printed concrete beams reinforced with stainless-steel and AR-glass textile*. Diambil <https://ssrn.com/abstract=6329629>

Pan, Z., Si, D., Tao, J., & Xiao, J. (2023). Compressive behavior of 3D printed concrete with different printing paths and concrete ages. *Case Studies in Construction Materials*, 18. <https://doi.org/10.1016/j.cscm.2023.e01949>

Park, K., Memari, A. M., Hojati, M., Radlińska, A., Duarte, J. P., & Nazarian, S. (2024). Effects of Anisotropic Mechanical Behavior on Nominal Moment Capability of 3D Printed Concrete Beam with Reinforcement. *Buildings*, 14(10). <https://doi.org/10.3390/buildings14103175>

Pham, L. T., Trinh, T. D., Do, Q. T., & Huang, J. Y. (2024). Flexural behavior of printed concrete wide beams with dispersed fibers reinforced. *Research on Engineering Structures and Materials*, 10(2), 727–742. <https://doi.org/10.17515/resm2023.19me0925rs>

Pham, T. L., Trinh, D. T., Nguyen, T. H. T., Do, T. Q., & Nguyen, P. A. (2023). Study on flexural behaviour of printed concrete wide beams using polypropylene fibres. *Ministry of Science and Technology, Vietnam*, 65(4), 48–53. [https://doi.org/10.31276/VJSTE.65\(4\).48-53](https://doi.org/10.31276/VJSTE.65(4).48-53)

Rehman, A. U., & Kim, J. H. (2021). 3d concrete printing: A systematic review of rheology, mix designs, mechanical, microstructural, and durability characteristics. Dalam *Materials* (Vol. 14, Nomor 14). MDPI AG. <https://doi.org/10.3390/ma14143800>

Rushing, T. S., Stynoski, P. B., Barna, L. A., Al-Chaar, G. K., Burroughs, J. F., Shannon, J. D., Kreiger, M. A., & Case, M. P. (2019). Investigation of Concrete Mixtures for Additive Construction. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 137–160). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00007-5>

- Sanjayan, J. G., & Nematollahi, B. (2019). 3D Concrete Printing for Construction Applications. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 1–11). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00001-4>
- Satyarno, I. (2011). *Vulnerability of Indonesian Community Houses to Earthquake Disaster*. https://www.researchgate.net/publication/312016904_Vulnerability_of_Indonesian_Community_Houses_to_Earthquake_Disaster
- Satyarno, I., Solehudin, A. P., Meyarto, C., Hadiyatmoko, D., Muhammad, P., & Afnan, R. (2014). Practical method for mix design of cement-based grout. *Procedia Engineering*, 95, 356–365. <https://doi.org/10.1016/j.proeng.2014.12.194>
- Siddika, A., Mamun, M. A. Al, Ferdous, W., Saha, A. K., & Alyousef, R. (2020). 3D-printed concrete: applications, performance, and challenges. Dalam *Journal of Sustainable Cement-Based Materials* (Vol. 9, Nomor 3, hlm. 127–164). Taylor and Francis Ltd. <https://doi.org/10.1080/21650373.2019.1705199>
- Thajeel, M. M., & Balázs, G. L. (2024). 3D Printed Concrete: Fresh and Hardened Properties. *Periodica Polytechnica Civil Engineering*. <https://doi.org/10.3311/ppci.37602>
- Thajeel, M. M., Sólyom, S., & Balázs, G. L. (2024). Impact of Printing Directions and Printing Paths on the Compressive Strength of 3D Printed Concrete. *Epitoanyag - Journal of Silicate Based and Composite Materials*, 76(1), 31–38. <https://doi.org/10.14382/epitoanyag-jsbcm.2024.4>
- Tribowo Kriswinarso. (2023). *Katalog Gempabumi Merusak 1821-2023*.
- Wang, W., Konstantinidis, N., Austin, S. A., Buswell, R. A., Cavalaro, S., & Cecinia, D. (2020). Flexural Behaviour of AR-Glass Textile Reinforced 3D Printed Concrete Beams. Dalam *RILEM Bookseries* (Vol. 28, hlm. 728–737). Springer. https://doi.org/10.1007/978-3-030-49916-7_73
- Wang, X., Dong, E., Jia, Z., Jia, L., Xia, K., Zhang, Z., Chen, Y., Zhang, L., Gao, Y., & Zhang, Y. (2024). Specimen size effect on compressive strength of 3D printed concrete containing coarse aggregate with varying water to binder ratios. *Journal of Building Engineering*, 97. <https://doi.org/10.1016/j.jobbe.2024.110704>



- Weng, Y., Li, M., Tan, M. J., & Qian, S. (2019). Design 3D Printing Cementitious Materials Via Fuller Thompson Theory and Marson-Percy Model. Dalam *3D Concrete Printing Technology: Construction and Building Applications* (hlm. 281–306). Elsevier. <https://doi.org/10.1016/B978-0-12-815481-6.00014-2>
- Yassin, A. M., Hafez, M. A., & Aboelhassan, M. G. (2025). Experimental and Numerical Investigation on the Effect of Different Types of Synthetic Fibers on the Flexure Behavior and Mechanical Properties of 3D Cementitious Composite Printing Provided with Cement CEM II/A-P. *Buildings*, 15(7). <https://doi.org/10.3390/buildings15071201>
- Zeng, J. J., Hu, X., Sun, H. Q., Liu, Y., Chen, W. J., & Zhuge, Y. (2025). Triaxial compressive behavior of 3D printed PE fiber-reinforced ultra-high performance concrete. *Cement and Concrete Composites*, 155(July 2024), 105816. <https://doi.org/10.1016/j.cemconcomp.2024.105816>
- Zhang, C., Nerella, V. N., Krishna, A., Wang, S., Zhang, Y., Mechtcherine, V., & Banthia, N. (2021). Mix design concepts for 3D printable concrete: A review. Dalam *Cement and Concrete Composites* (Vol. 122). Elsevier Ltd. <https://doi.org/10.1016/j.cemconcomp.2021.104155>