

REFERENCES

1. Babin, D., Pižurica, A., Velicki, L., Matic, V., Galić, I., Leventić, H., Zlokolica, V., & Philips, W. (2018). Skeletonization method for vessel delineation of arteriovenous malformation. *Computers in Biology and Medicine*, 93, 93–105. <https://doi.org/10.1016/J.COMPBIOMED.2017.12.011>
2. Baker, W. F., Beghini, L. L., Mazurek, A., Carrion, J., & Beghini, A. (2015). Structural Innovation: Combining Classic Theories with new technologies. *Engineering Journal-American Institute of Steel Construction*, 52(3), 203–217. <https://www.aisc.org/globalassets/aisc/awards/tr-higgins/past-winners/structural-innovation--combining-classic-theories-with-new-technologies.pdf>
3. Bendsøe, M. P. (1989). Optimal shape design as a material distribution problem. *Structural Optimization* 1989 1:4, 1(4), 193–202. <https://doi.org/10.1007/BF01650949>
4. Bendsøe, M. P., & Kikuchi, N. (1988). Generating optimal topologies in structural design using a homogenization method. *Computer Methods in Applied Mechanics and Engineering*, 71(2), 197–224. [https://doi.org/10.1016/0045-7825\(88\)90086-2](https://doi.org/10.1016/0045-7825(88)90086-2)
5. Bendsøe, M. P., & Sigmund, O. (Ole). (2003). *Topology optimization : theory, methods, and applications*. 370.
6. Bertrand, G. (1995). A parallel thinning algorithm for medial surfaces. *Pattern Recognition Letters*, 16(9), 979–986. [https://doi.org/10.1016/0167-8655\(95\)00034-E](https://doi.org/10.1016/0167-8655(95)00034-E)
7. Bruns, T. E., & Tortorelli, D. A. (2001). Topology optimization of non-linear elastic structures and compliant mechanisms. *Computer Methods in Applied Mechanics and Engineering*, 190(26–27), 3443–3459. [https://doi.org/10.1016/S0045-7825\(00\)00278-4](https://doi.org/10.1016/S0045-7825(00)00278-4)

8. Chan, A. S. L., Ae, A. F. R. S., & C~an, A. S. L. (1960). *The design of Michell optimum structures*. <https://reports.aerade.cranfield.ac.uk/handle/1826.2/3883>
9. Cheriet, M., Kharma, N., Liu, C.-L., & Suen, C. Y. (2007). Character Recognition Systems. *Character Recognition Systems*, i–xxxi. https://www.academia.edu/14544466/Character_Recognition_Systems_A_Guide_for_Students_and_Practioners
10. Christensen, P. W., & Klarbring, A. (2008). *An Introduction to Structural Optimization*. www.springer.com/series/6557
11. Dede, T. (2019). Usage of Optimization Techniques in Civil Engineering During the Last Two Decades. *Current Trends in Civil & Structural Engineering*, 2(1). <https://doi.org/10.33552/CTCSE.2019.02.000529>
12. Deng, W., Iyengar, S. S., & Brener, N. E. (2016). A Fast Parallel Thinning Algorithm for the Binary Image Skeletonization: *Http://Dx.Doi.Org/10.1177/109434200001400105*, 14(1), 65–81. <https://doi.org/10.1177/109434200001400105>
13. Fleury, C., & Braibant, V. (1986). Structural optimization: A new dual method using mixed variables. *International Journal for Numerical Methods in Engineering*, 23(3), 409–428. <https://doi.org/10.1002/NME.1620230307>
14. Ghanshyam, G. T., & Dhaval, T. (2014). *Truss Topology Optimization Using Modified Genetic Algorithm* [RK University]. https://www.researchgate.net/publication/281046350_Truss_Topology_Optimization_Using_Modified_Genetic_Algorithm
15. Gilbert, M., & Tyas, A. (2003). Layout optimization of large-scale pin-jointed frames. *Engineering Computations (Swansea, Wales)*, 20(7–8), 1044–1064. <https://doi.org/10.1108/02644400310503017>
16. Gordon, J. E. (1978). Structures or Why things don't fall down. *Structures or Why Things Don't Fall down*. <https://doi.org/10.1007/978-1-4615-9074-3>

17. Haftka, R. T., & Sobieszczanski-Sobieski, J. (2008). Structural Optimization: History. *Encyclopedia of Optimization*, 3834–3836. https://doi.org/10.1007/978-0-387-74759-0_669/COVER
18. He, L., & Gilbert, M. (2015). Rationalization of trusses generated via layout optimization. *Structural and Multidisciplinary Optimization*, 52(4), 677–694. <https://doi.org/10.1007/S00158-015-1260-X>
19. He, L., Gilbert, M., Johnson, T., & Pritchard, T. (2019). Conceptual design of AM components using layout and geometry optimization. *Computers & Mathematics with Applications*, 78(7), 2308–2324. <https://doi.org/10.1016/J.CAMWA.2018.07.012>
20. He, L., Gilbert, M., & Song, X. (2019). A Python script for adaptive layout optimization of trusses. *Structural and Multidisciplinary Optimization*, 60(2), 835–847. <https://doi.org/10.1007/S00158-019-02226-6/FIGURES/10>
21. Herath, S., & Haputhanthri, U. (2021). Topologically optimal design and failure prediction using conditional generative adversarial networks. *International Journal for Numerical Methods in Engineering*, 122(23), 6867–6887. <https://doi.org/10.1002/NME.6814>
22. Kurdi, M. (2015). A Structural Optimization Framework for Multidisciplinary Design. *Journal of Optimization*, 2015, 1–14. <https://doi.org/10.1155/2015/345120>
23. Liu, K., & Tovar, A. (2014). An efficient 3D topology optimization code written in Matlab. *Structural and Multidisciplinary Optimization*, 50(6), 1175–1196. <https://doi.org/10.1007/S00158-014-1107-X/FIGURES/12>
24. Mei, L., & Wang, Q. (2021). Structural Optimization in Civil Engineering: A Literature Review. *Buildings 2021, Vol. 11, Page 66*, 11(2), 66. <https://doi.org/10.3390/BUILDINGS11020066>
25. Michell A. G. M. (1904, November). The limits of economy of material in frame-structures. *Philosophical Magazine*, 8(47), 589–597. <https://doi.org/10.1080/14786440409463229>

26. Ohsaki, M. (2016). Optimization of finite dimensional structures. *Optimization of Finite Dimensional Structures*, 1–406. <https://doi.org/10.1201/EBK1439820032>
27. Optim, S. M., Mazurek, A., Baker, W. F., Tort, C., Mazurek, A., Baker, W. F., Tort, · C, & Tort, C. (2011). Geometrical aspects of optimum truss like structures. *Springer*, 43(2), 231–242. <https://doi.org/10.1007/s00158-010-0559-x>
28. Rosenfeld, A. (1975). A characterization of parallel thinning algorithms. *Information and Control*, 29(3), 286–291. [https://doi.org/10.1016/S0019-9958\(75\)90448-9](https://doi.org/10.1016/S0019-9958(75)90448-9)
29. Rozvany, G. I. N. (2008). A critical review of established methods of structural topology optimization. *Structural and Multidisciplinary Optimization 2008 37:3*, 37(3), 217–237. <https://doi.org/10.1007/S00158-007-0217-0>
30. Schoofs, A. J. G. (1993). Structural Optimization History and State-of-the-Art. *Topics in Applied Mechanics*, 339–345. https://doi.org/10.1007/978-94-011-2090-6_37
31. Sigmund, O. (2007). Morphology-based black and white filters for topology optimization. *Structural and Multidisciplinary Optimization 2007 33:4*, 33(4), 401–424. <https://doi.org/10.1007/S00158-006-0087-X>
32. Sigmund, O. (2014). A 99 line topology optimization code written in Matlab. *Structural and Multidisciplinary Optimization 2001 21:2*, 21(2), 120–127. <https://doi.org/10.1007/S001580050176>
33. Sigmund, O., & Maute, K. (2013). Topology optimization approaches: A comparative review. *Structural and Multidisciplinary Optimization*, 48(6), 1031–1055. <https://doi.org/10.1007/S00158-013-0978-6>
34. Smith, C. J., Gilbert, M., Todd, I., & Derguti, F. (2016). Application of layout optimization to the design of additively manufactured metallic components. *Structural and Multidisciplinary Optimization*, 54(5), 1297–1313. <https://doi.org/10.1007/S00158-016-1426-1/TABLES/7>

35. Svanberg, K. (1987). The method of moving asymptotes—a new method for structural optimization. *International Journal for Numerical Methods in Engineering*, 24(2), 359–373. <https://doi.org/10.1002/NME.1620240207>
36. Tagliasacchi, A., Delame, T., Spagnuolo, M., Amenta, N., & Telea, A. (2016). 3D Skeletons: A State-of-the-Art Report. *Computer Graphics Forum*, 35(2), 573–597. <https://doi.org/10.1111/CGF.12865>
37. Tay, Y. W. D., Panda, B., Paul, S. C., Noor Mohamed, N. A., Tan, M. J., & Leong, K. F. (2017). 3D printing trends in building and construction industry: a review. *Virtual and Physical Prototyping*, 12(3), 261–276. <https://doi.org/10.1080/17452759.2017.1326724>
38. Vlah, D., Žavbi, R., & Vukašinić, N. (2020). Evaluation of Topology Optimization and Generative Design Tools as Support For Conceptual Design. *Proceedings of the Design Society: DESIGN Conference, 1*, 451–460. <https://doi.org/10.1017/DSD.2020.165>
39. West, D. (2001). *Introduction to graph theory*. <https://faculty.math.illinois.edu/~west/igt/igtpref.ps>
40. Wilson, R. J., London New York Reading, E., San Francisco Toronto Don Mills, M., & Sydney Tokyo Singapore Hong Kong Seoul Taipei Cape Town Madrid Mexico City Amsterdam Munich Paris Milan, O. (1979). *Introduction to graph theory*. https://books.google.com/books?hl=en&lr=&id=DRMZwrHKWwMC&oi=fnd&pg=PP9&dq=introduction+to+graph+theory+wilson&ots=L9r5myTm1F&sig=Rbgdh8f_2bvLxdg1nH-vqZ12pM
41. Yan Xiaolong. (2017). *GitHub - Image-Py/sknw: build network from skeleton image (2D-3D)*. GitHub Repository. <https://github.com/Image-Py/sknw>
42. Ye, J., Kyvelou, P., Gilardi, F., Lu, H., Gilbert, M., & Gardner, L. (2021). An End-to-End Framework for the Additive Manufacture of Optimized Tubular Structures. *IEEE Access*, 9, 165476–165489. <https://doi.org/10.1109/ACCESS.2021.3132797>

43. Yin, G., Xiao, X., & Cirak, F. (2020). Topologically robust CAD model generation for structural optimisation. *Computer Methods in Applied Mechanics and Engineering*, 369. <https://doi.org/10.1016/J.CMA.2020.113102>
44. Yossef, M., & Chen, A. (2015). *Applicability and Limitations of 3D Printing for Civil Structures*. http://lib.dr.iastate.edu/ccee_conf/35
45. Zhang, J., Wang, J., Dong, S., Yu, X., & Han, B. (2019). A review of the current progress and application of 3D printed concrete. *Composites Part A: Applied Science and Manufacturing*, 125, 105533. <https://doi.org/10.1016/J.COMPOSITESA.2019.105533>
46. Zhang, T. Y., & Suen, C. Y. (1984). A fast parallel algorithm for thinning digital patterns. *Communications of the ACM*, 27(3), 236–239. <https://doi.org/10.1145/357994.358023>
47. Zhang, X., Xie, Y. M., & Zhou, S. (2022). A nodal-based evolutionary optimization algorithm for frame structures. *Computer-Aided Civil and Infrastructure Engineering*. <https://doi.org/10.1111/MICE.12834>