

References

- [1] R. Mateus, S. Neiva, L. Bragança, P. Mendonça, and M. Macieira, “Sustainability assessment of an innovative lightweight building technology for partition walls – Comparison with conventional technologies,” *Build. Environ.*, vol. 67, pp. 147–159, Sep. 2013, doi: 10.1016/j.buildenv.2013.05.012.
- [2] W. A. Al-Awsh, N. A. A. Qasem, O. S. B. Al-Amoudi, and M. A. Al-Osta, “Experimental and numerical investigation on innovative masonry walls for industrial and residential buildings,” *Appl. Energy*, vol. 276, p. 115496, Oct. 2020, doi: 10.1016/j.apenergy.2020.115496.
- [3] Q. Wang and C. Zhang, “Fire Safety Analysis of Building Partition Wall Engineering,” *Procedia Eng.*, vol. 211, pp. 747–754, 2018, doi: 10.1016/j.proeng.2017.12.071.
- [4] S. Yoon, D. Song, J. Kim, and H. Lim, “Stack-driven infiltration and heating load differences by floor in high-rise residential buildings,” *Build. Environ.*, vol. 157, pp. 366–379, Jun. 2019, doi: 10.1016/j.buildenv.2019.05.006.
- [5] M. K. Hassan, K. Singh, and R. Kumar, “Experimental Study on Prefabricated Lightweight Composite Wall Panels under Flexural Loading,” *J. Civ. Eng. Constr.*, vol. 9, no. 4, Art. no. 4, Nov. 2020, doi: 10.32732/jceec.2020.9.4.215.
- [6] R. Broun and G. F. Menzies, “Life Cycle Energy and Environmental Analysis of Partition Wall Systems in the UK,” *Procedia Eng.*, vol. 21, pp. 864–873, Jan. 2011, doi: 10.1016/j.proeng.2011.11.2088.
- [7] G. A. O. Davies, D. Hitchings, T. Besant, A. Clarke, and C. Morgan, “Compression after impact strength of composite sandwich panels,” *Compos. Struct.*, vol. 63, no. 1, pp. 1–9, Jan. 2004, doi: 10.1016/S0263-8223(03)00119-3.
- [8] N. Soares, J. J. Costa, A. R. Gaspar, and P. Santos, “Review of passive PCM latent heat thermal energy storage systems towards buildings’ energy efficiency,” *Energy Build.*, vol. 59, pp. 82–103, Apr. 2013, doi: 10.1016/j.enbuild.2012.12.042.

- [9] R. Mateus, S. Neiva, L. Bragança, P. Mendonça, and M. Macieira, “Sustainability assessment of an innovative lightweight building technology for partition walls – Comparison with conventional technologies,” *Build. Environ.*, vol. 67, pp. 147–159, Sep. 2013, doi: 10.1016/j.buildenv.2013.05.012.
- [10] F. C. Hahn, M. L. Macht, and D. A. Fletcher, “Polythene Physical and Chemical Properties,” May 01, 2002. <https://pubs.acs.org/doi/pdf/10.1021/ie50426a010> (accessed Oct. 15, 2020).
- [11] G. Das and S. Biswas, “Effect of fiber parameters on physical, mechanical and water absorption behaviour of coir fiber–epoxy composites,” *J. Reinf. Plast. Compos.*, vol. 35, no. 8, pp. 644–653, Apr. 2016, doi: 10.1177/0731684415626594.
- [12] M. J. Shenton and G. C. Stevens, “Surface modification of polymer surfaces: atmospheric plasma versus vacuum plasma treatments,” *J. Phys. Appl. Phys.*, vol. 34, no. 18, pp. 2761–2768, Sep. 2001, doi: 10.1088/0022-3727/34/18/308.
- [13] S. Biswas, S. Kindo, and A. Patnaik, “Effect of fiber length on mechanical behavior of coir fiber reinforced epoxy composites,” *Fibers Polym.*, vol. 12, no. 1, pp. 73–78, Feb. 2011, doi: 10.1007/s12221-011-0073-9.
- [14] A. G. Adeniyi, D. V. Onifade, J. O. Ighalo, and A. S. Adeoye, “A review of coir fiber reinforced polymer composites,” *Compos. Part B Eng.*, vol. 176, p. 107305, Nov. 2019, doi: 10.1016/j.compositesb.2019.107305.
- [15] J. Guo, X. Luo, S. Tan, O. A. Ogunseitan, and Z. Xu, “Thermal degradation and pollutant emission from waste printed circuit boards mounted with electronic components,” *J. Hazard. Mater.*, vol. 382, p. 121038, Jan. 2020, doi: 10.1016/j.jhazmat.2019.121038.
- [16] O. Guven, K. Gökdağ, B. Jovanović, and A. Kideys, “Microplastic litter composition of the Turkish territorial waters of the Mediterranean Sea, and its occurrence in the gastrointestinal tract of fish,” *Environ. Pollut.*, vol. 223, Jan. 2017, doi: 10.1016/j.envpol.2017.01.025.

- [17] M. I. Jakhro, A. R. Raisani, G. M. Panezai, S. Parveen, M. Naseem, and G. A. Bhuro, "INFLUENCE OF SALINE WATER ON THE SURVIVAL, GROWTH AND DEVELOPMENT OF CHIKU (ACHRAS ZAPOTA L.) SAPLINGS," p. 7.
- [18] H. Galabada, H. Galkanda, P. D. Dharmaratne, and R. U. Halwatura, "Investigation of Mechanical Properties of Mud Concrete with Coconut Fiber Reinforcement," in *2020 Moratuwa Engineering Research Conference (MERCCon)*, Jul. 2020, pp. 102–106. doi: 10.1109/MERCCon50084.2020.9185220.
- [19] H. S. Ramaswamy, B. M. Ahuja, and S. Krishnamoorthy, "Behaviour of concrete reinforced with jute, coir and bamboo fibres," *Int. J. Cem. Compos. Lightweight Concr.*, vol. 5, no. 1, pp. 3–13, 1983.
- [20] K. Rohit and S. Dixit, "A Review - Future Aspect of Natural Fiber Reinforced Composite," *Polym. Renew. Resour.*, vol. 7, no. 2, pp. 43–59, May 2016, doi: 10.1177/204124791600700202.
- [21] S. M.S, S. K. Marikkannan, E. V, M. Vanmathi, R. Sasikumar, and N. L, "Investigation of Mechanical and Electrical Properties of Kevlar/E-Glass and Basalt/E-Glass Reinforced Hybrid Composites," *Int. J. Mech. Prod. Eng. Res. Dev.*, vol. 8, May 2018, doi: 10.24247/ijmperdjun201863.
- [22] V. Chauhan, T. Kärki, and J. Varis, "Review of natural fiber-reinforced engineering plastic composites, their applications in the transportation sector and processing techniques," *J. Thermoplast. Compos. Mater.*, p. 089270571988909, Nov. 2019, doi: 10.1177/0892705719889095.
- [23] D. Verma, P. C. Gope, A. Shandilya, A. Gupta, and M. K. Maheshwari, "Coir Fibre Reinforcement and Application in Polymer Composites: A Review," p. 15, 2013.
- [24] C. R. Rejeesh and K. K. Saju, "Methods and materials for reducing flammability behaviour of coir fibre based Composite Boards: A Review," *Mater. Today Proc.*, vol. 4, no. 9, pp. 9399–9407, Jan. 2017, doi: 10.1016/j.matpr.2017.06.193.

- [25] H. Syed, R. Nerella, and S. R. C. Madduru, "Role of coconut coir fiber in concrete," *Mater. Today Proc.*, vol. 27, pp. 1104–1110, Jan. 2020, doi: 10.1016/j.matpr.2020.01.477.
- [26] S. A. Hussain, "Mechanical properties of green coconut fiber reinforced hdpe polymer composite," *Int. J. Eng. Sci. Technol.*, vol. 3, no. 11, p. 12, 2011.
- [27] D. S. Mintonoro, W. K. Widigdo, and A. Juniwati, "Application of Coconut Fibres as Outer Eco-insulation to Control Solar Heat Radiation on Horizontal Concrete Slab Rooftop," *Procedia Eng.*, vol. 125, pp. 765–772, Jan. 2015, doi: 10.1016/j.proeng.2015.11.129.
- [28] P. Lertwattanakul and A. Suntijitto, "Properties of natural fiber cement materials containing coconut coir and oil palm fibers for residential building applications," *Constr. Build. Mater.*, vol. 94, pp. 664–669, 2015.
- [29] S. Mahzan, A. A. Zaidi, M. I. Ghazali, N. Arsat, and M. N. M. Hatta, "Mechanical properties of medium density fibreboard composites material using recycled rubber and coconut coir," *Int. J. Integr. Eng.*, vol. 2, no. 1, 2010.
- [30] D. O. Obada *et al.*, "Effect of variation in frequencies on the viscoelastic properties of coir and coconut husk powder reinforced polymer composites," *J. King Saud Univ. - Eng. Sci.*, vol. 32, no. 2, pp. 148–157, Feb. 2020, doi: 10.1016/j.jksues.2018.10.001.
- [31] C. Yu and Y. Lee, "Housing requirements for a ageing society," *Indoor Built Environ.*, vol. 26, no. 4, pp. 441–446, Apr. 2017, doi: 10.1177/1420326X17704285.
- [32] D. Myers, J. Pitkin, and J. Park, "Estimation of housing needs amid population growth and change," *Hous. Policy Debate*, vol. 13, pp. 567–596, Jan. 2002, doi: 10.1080/10511482.2002.9521455.
- [33] R. Yadav, B.-C. Chen, H. Yuan, and R. Adhikari, *Comparative Analysis of Reinforced Concrete Buildings and Concrete Filled Steel Tube Buildings in Nepal*. 2016.

- [34] M. R. B. Naidu and D. S. D. Bhole, “Seismic Analysis of Multi-Storied Building and Critical Study of its Foundations,” vol. 2, no. 10, p. 8.
- [35] A. M. Odeh and H. T. Battaineh, “Causes of construction delay: traditional contracts,” *Int. J. Proj. Manag.*, vol. 20, no. 1, pp. 67–73, Jan. 2002, doi: 10.1016/S0263-7863(00)00037-5.
- [36] A. Sattainathan Sharma, R. Anjughap Priya, R. Thirugnanam, and P. Rathna Priya, “Comparative Study on Multi-storey Structure of R.C.C and Composite Material,” *Indian J. Sci. Technol.*, vol. 9, no. 2, Jan. 2016, doi: 10.17485/ijst/2016/v9i2/86363.
- [37] E. Valero, A. Forster, F. Bosché, E. Hyslop, L. Wilson, and A. Turmel, “Automated defect detection and classification in ashlar masonry walls using machine learning,” *Autom. Constr.*, vol. 106, p. 102846, Oct. 2019, doi: 10.1016/j.autcon.2019.102846.
- [38] F. R. Arooz and R. U. Halwatura, “Mud-concrete block (MCB): mix design & durability characteristics,” *Case Stud. Constr. Mater.*, vol. 8, pp. 39–50, Jun. 2018, doi: 10.1016/j.cscm.2017.12.004.
- [39] F. R. Arooz, T. D. Babilegedara, and R. U. Halwatura, “Effect of aggregate percentage on compressive strength of self-compacting in-situ cast Mud - Concrete load bearing walls,” in *2017 Moratuwa Engineering Research Conference (MERCon)*, May 2017, pp. 271–276. doi: 10.1109/MERCon.2017.7980494.
- [40] T. Adekunle and T. Odeyale, “Innovative and sustainable local material in traditional African architecture ? Socio cultural dimension,” in *Structural Analysis of Historic Construction: Preserving Safety and Significance*, E. Fodde, Ed. CRC Press, 2008, pp. 991–998. doi: 10.1201/9781439828229.ch113.
- [41] C. W. Isaac, M. Pawelczyk, and S. Wrona, “Comparative Study of Sound Transmission Losses of Sandwich Composite Double Panel Walls,” *Appl. Sci.*, vol. 10, no. 4, p. 1543, Feb. 2020, doi: 10.3390/app10041543.
- [42] S. Selçuk, K. Saim, and K. Zerrin, “Evaluation of Precast Exterior Panel Walls (Used in Tunnel Formwork Applications) in Terms of Environmental Quality,”

- Int. Conf. Civ. Archit. Eng.*, vol. 8, no. 8, pp. 1–11, May 2010, doi: 10.21608/iccae.2010.45072.
- [43] M. E. Arslan, B. Aykanat, M. A. Ayyıldız, S. Subaşı, and M. Maraşlı, “Effects of basalt and glass fiber composites usage for strengthening on the cyclic behavior of brick infill walls,” *J. Build. Eng.*, vol. 52, p. 104405, Jul. 2022, doi: 10.1016/j.jobe.2022.104405.
- [44] P. L. N. Fernando, M. T. R. Jayasinghe, and C. Jayasinghe, “Structural feasibility of Expanded Polystyrene (EPS) based lightweight concrete sandwich wall panels,” *Constr. Build. Mater.*, vol. 139, pp. 45–51, May 2017, doi: 10.1016/j.conbuildmat.2017.02.027.
- [45] G. Boscato, T. D. Mora, F. Peron, S. Russo, and P. Romagnoni, “A new concrete-glulam prefabricated composite wall system: Thermal behavior, life cycle assessment and structural response,” *J. Build. Eng.*, vol. 19, pp. 384–401, Sep. 2018, doi: 10.1016/j.jobe.2018.05.027.
- [46] V. Birman and G. A. Kardomateas, “Review of current trends in research and applications of sandwich structures,” *Compos. Part B Eng.*, vol. 142, pp. 221–240, Jun. 2018, doi: 10.1016/j.compositesb.2018.01.027.
- [47] A. Eyvazian *et al.*, “Mechanical behavior of resin pin-reinforced composite sandwich panels under quasi-static indentation and three-point bending loading conditions,” *J. Sandw. Struct. Mater.*, vol. 23, no. 6, pp. 2127–2145, Sep. 2021, doi: 10.1177/1099636220909752.
- [48] J. Marx and A. Rabiei, “Tensile properties of composite metal foam and composite metal foam core sandwich panels,” *J. Sandw. Struct. Mater.*, vol. 23, no. 8, pp. 3773–3793, Nov. 2021, doi: 10.1177/1099636220942880.
- [49] J.-B. Bai, D. Chen, J.-J. Xiong, and C.-H. Dong, “A semi-analytical model for predicting nonlinear tensile behaviour of corrugated flexible composite skin,” *Compos. Part B Eng.*, vol. 168, pp. 312–319, Jul. 2019, doi: 10.1016/j.compositesb.2019.01.053.

- [50] R. A. W. Mines, C. M. Worrall, and A. G. Gibson, “Low velocity perforation behaviour of polymer composite sandwich panels,” *Int. J. Impact Eng.*, vol. 21, no. 10, pp. 855–879, Nov. 1998, doi: 10.1016/S0734-743X(98)00037-2.
- [51] A. Kicińska-Jakubowska, E. Bogacz, and M. Zimniewska, “Review of Natural Fibers. Part I—Vegetable Fibers,” *J. Nat. Fibers*, vol. 9, no. 3, pp. 150–167, Jul. 2012, doi: 10.1080/15440478.2012.703370.
- [52] K. Rohit and S. Dixit, “A Review - Future Aspect of Natural Fiber Reinforced Composite,” *Polym. Renew. Resour.*, vol. 7, no. 2, pp. 43–59, May 2016, doi: 10.1177/204124791600700202.
- [53] N. A. George and R. Vinayakrishnan, “Photoacoustic evaluation of the thermal diffusivity of coconut shell,” *J. Phys. Condens. Matter*, vol. 14, no. 17, pp. 4509–4513, May 2002, doi: 10.1088/0953-8984/14/17/321.
- [54] A. K. Mohanty, M. Misra, L. T. Drzal, M. Misra, and L. T. Drzal, *Natural Fibers, Biopolymers, and Biocomposites*. CRC Press, 2005. doi: 10.1201/9780203508206.
- [55] P. Sathish, R. Kesavan, and N. Mahaviradhan, “Coconut fiber reinforced composites: a review.,” *Int. J. Res. Appl. Sci. Eng. Technol.*, vol. 5, no. 3, pp. 171–172, 2017.
- [56] A. K. Mohanty, M. Misra, and L. T. Drzal, *Natural Fibers, Biopolymers, and Biocomposites*. CRC Press, 2005.
- [57] Y. Li, Y.-W. Mai, and L. Ye, “Sisal fibre and its composites: a review of recent developments,” *Compos. Sci. Technol.*, vol. 60, no. 11, pp. 2037–2055, Aug. 2000, doi: 10.1016/S0266-3538(00)00101-9.
- [58] N. Ayrlmis, S. Jarusombuti, V. Fueangvivat, P. Bauchongkol, and R. H. White, “Coir fiber reinforced polypropylene composite panel for automotive interior applications,” *Fibers Polym.*, vol. 12, no. 7, pp. 919–926, Oct. 2011, doi: 10.1007/s12221-011-0919-1.
- [59] Universiti Sains Malaysia and A. A. Owodunni, “Flame-retardant properties of particleboard made from coconut fibre using modified potato starch as a binder,”

J. Phys. Sci., vol. 31, no. 3, pp. 129–143, Nov. 2020, doi: 10.21315/jps2020.31.3.10.

- [60] M. Brahmakumar, C. Pavithran, and R. Pillai, “Coconut fibre reinforced polyethylene composites: effect of natural waxy surface layer of the fibre on fibre/matrix interfacial bonding and strength of composites,” *Compos. Sci. Technol.*, vol. 65, no. 3–4, pp. 563–569, Mar. 2005, doi: 10.1016/j.compscitech.2004.09.020.
- [61] N. J. Rodríguez *et al.*, “Assessment of coconut fibre insulation characteristics and its use to modulate temperatures in concrete slabs with the aid of a finite element methodology,” *Energy Build.*, vol. 43, no. 6, pp. 1264–1272, Jun. 2011, doi: 10.1016/j.enbuild.2011.01.005.
- [62] Ö. Andiç-Çakir, M. Sarikanat, H. B. Tüfekçi, C. Demirci, and Ü. H. Erdoğan, “Physical and mechanical properties of randomly oriented coir fiber–cementitious composites,” *Compos. Part B Eng.*, vol. 61, pp. 49–54, May 2014, doi: 10.1016/j.compositesb.2014.01.029.
- [63] P. Paramasivam, G. K. Nathan, and N. C. Das Gupta, “Coconut fibre reinforced corrugated slabs,” *Int. J. Cem. Compos. Lightweight Concr.*, vol. 6, no. 1, pp. 19–27, Feb. 1984, doi: 10.1016/0262-5075(84)90056-3.
- [64] K. G. Satyanarayana, K. Sukumaran, P. S. Mukherjee, C. Pavithran, and S. G. K. Pillai, “Natural fibre-polymer composites,” *Cem. Concr. Compos.*, vol. 12, no. 2, pp. 117–136, Jan. 1990, doi: 10.1016/0958-9465(90)90049-4.
- [65] M. Ali, “Coconut Fibre – Versatile Material and Its applications in engineering.”
- [66] K. Kochova, F. Gauvin, K. Schollbach, and H. J. H. Brouwers, “Using alternative waste coir fibres as a reinforcement in cement-fibre composites,” *Constr. Build. Mater.*, vol. 231, p. 117121, Jan. 2020, doi: 10.1016/j.conbuildmat.2019.117121.
- [67] K. Joseph, S. Thomas, and C. Pavithran, “Effect of chemical treatment on the tensile properties of short sisal fibre-reinforced polyethylene composites,”

- Polymer*, vol. 37, no. 23, pp. 5139–5149, Nov. 1996, doi: 10.1016/0032-3861(96)00144-9.
- [68] N. M. S, S. S. P, and P. P. R, “Assessment of Marine Debris and Plastic Polymer Types Along the Panvel Creek, Navi Mumbai, West Coast of India,” *Int. J. Zool. Investig.*, vol. 7, no. 1, Jun. 2021, doi: 10.33745/ijzi.2021.v07i01.023.
- [69] A. M. Peterson, R. E. Jensen, and G. R. Palmese, “Room-Temperature Healing of a Thermosetting Polymer Using the Diels–Alder Reaction,” *ACS Appl. Mater. Interfaces*, vol. 2, no. 4, pp. 1141–1149, Apr. 2010, doi: 10.1021/am9009378.
- [70] V. K. Thakur and M. K. Thakur, “Processing and characterization of natural cellulose fibers/thermoset polymer composites,” *Carbohydr. Polym.*, vol. 109, pp. 102–117, Aug. 2014, doi: 10.1016/j.carbpol.2014.03.039.
- [71] W. Post, A. Susa, R. Blaauw, K. Molenveld, and R. J. I. Knoop, “A Review on the Potential and Limitations of Recyclable Thermosets for Structural Applications,” *Polym. Rev.*, vol. 60, no. 2, pp. 359–388, Apr. 2020, doi: 10.1080/15583724.2019.1673406.
- [72] S. Kumar, A. Manna, and R. Dang, “A review on applications of natural Fiber-Reinforced composites (NFRCs),” *Mater. Today Proc.*, vol. 50, pp. 1632–1636, Jan. 2022, doi: 10.1016/j.matpr.2021.09.131.
- [73] L. Yan, N. Chouw, L. Huang, and B. Kasal, “Effect of alkali treatment on microstructure and mechanical properties of coir fibres, coir fibre reinforced-polymer composites and reinforced-cementitious composites,” *Constr. Build. Mater.*, vol. 112, pp. 168–182, Jun. 2016, doi: 10.1016/j.conbuildmat.2016.02.182.
- [74] T. H. Nam, S. Ogihara, N. H. Tung, and S. Kobayashi, “Effect of alkali treatment on interfacial and mechanical properties of coir fiber reinforced poly(butylene succinate) biodegradable composites,” *Compos. Part B Eng.*, vol. 42, no. 6, pp. 1648–1656, Sep. 2011, doi: 10.1016/j.compositesb.2011.04.001.

- [75] S. Biswas, S. Kindo, and A. Patnaik, "Effect of fiber length on mechanical behavior of coir fiber reinforced epoxy composites," *Fibers Polym.*, vol. 12, no. 1, pp. 73–78, Feb. 2011, doi: 10.1007/s12221-011-0073-9.
- [76] V. G. Geethamma, R. Joseph, and S. Thomas, "Short coir fiber-reinforced natural rubber composites: Effects of fiber length, orientation, and alkali treatment," *J. Appl. Polym. Sci.*, vol. 55, no. 4, pp. 583–594, 1995, doi: 10.1002/app.1995.070550405.
- [77] "Survey on Partition Walls Commonly Used in Hong Kong and estimation of the heat release rates (100 %.pdf."
- [78] K. Aghaee and M. Foroughi, "Mechanical Properties of Lightweight Concrete Partition with a Core of Textile Waste," *Adv. Civ. Eng.*, vol. 2013, pp. 1–7, 2013, doi: 10.1155/2013/482310.
- [79] M. Kippel, C. Leyder, A. Frangi, and M. Fontana, "Fire Tests on Loaded Cross-laminated Timber Wall and Floor Elements," *Fire Saf. Sci.*, vol. 11, pp. 626–639, 2014, doi: 10.3801/IAFSS.FSS.11-626.
- [80] D. Gawatre, K. M, G. D, S. Karle, and M. Haris, "Review Paper on Thermocol Sandwich Concrete Bricks," vol. 13, pp. 272–276, Jan. 2020.
- [81] O. Faruk, A. K. Bledzki, H.-P. Fink, and M. Sain, "Biocomposites reinforced with natural fibers: 2000–2010," *Prog. Polym. Sci.*, vol. 37, no. 11, pp. 1552–1596, Nov. 2012, doi: 10.1016/j.progpolymsci.2012.04.003.
- [82] "A comprehensive review on material selection for polymer matrix composites subjected to impact load | Elsevier Enhanced Reader." <https://reader.elsevier.com/reader/sd/pii/S2214914720300556?token=FBF05740B714B45A738862563B1311249BEEFB3D4A50382DDE75DFDD96F485492A41C8528C426C8BA276F72D47B5C4D3> (accessed Apr. 21, 2020).
- [83] L. Yan, B. Kasal, and L. Huang, "A review of recent research on the use of cellulosic fibres, their fibre fabric reinforced cementitious, geo-polymer and polymer composites in civil engineering," *Compos. Part B Eng.*, vol. 92, pp. 94–132, May 2016, doi: 10.1016/j.compositesb.2016.02.002.

- [84] P. J. Herrera-Franco and A. Valadez-González, “Mechanical properties of continuous natural fibre-reinforced polymer composites,” *Compos. Part Appl. Sci. Manuf.*, vol. 35, no. 3, pp. 339–345, Mar. 2004, doi: 10.1016/j.compositesa.2003.09.012.
- [85] V. Barbosa, E. C. Ramires, I. A. T. Razera, and E. Frollini, “Biobased composites from tannin–phenolic polymers reinforced with coir fibers,” *Ind. Crops Prod.*, vol. 32, no. 3, pp. 305–312, Nov. 2010, doi: 10.1016/j.indcrop.2010.05.007.
- [86] H. Syed, R. Nerella, and S. R. C. Madduru, “Role of coconut coir fiber in concrete,” *Mater. Today Proc.*, p. S2214785320305824, Feb. 2020, doi: 10.1016/j.matpr.2020.01.477.
- [87] A. E. E. Putra, I. Renreng, H. Arsyad, and B. Bakri, “Investigating the effects of liquid-plasma treatment on tensile strength of coir fibers and interfacial fiber-matrix adhesion of composites,” *Compos. Part B Eng.*, vol. 183, p. 107722, Feb. 2020, doi: 10.1016/j.compositesb.2019.107722.
- [88] C.-L. Hwang, V.-A. Tran, J.-W. Hong, and Y.-C. Hsieh, “Effects of short coconut fiber on the mechanical properties, plastic cracking behavior, and impact resistance of cementitious composites,” *Constr. Build. Mater.*, vol. 127, pp. 984–992, Nov. 2016, doi: 10.1016/j.conbuildmat.2016.09.118.
- [89] K. P. Marimuthu, S. M. Kumar, V. R. Kumar, and H. K. Govindaraju, “Characterization of Mechanical Properties of Epoxy Reinforced with Glass Fiber and Coconut Fiber,” *Mater. Today Proc.*, vol. 16, pp. 661–667, 2019, doi: 10.1016/j.matpr.2019.05.143.
- [90] D. Verma and P. C. Gope, “The use of coir/coconut fibers as reinforcements in composites,” in *Biofiber Reinforcements in Composite Materials*, Elsevier, 2015, pp. 285–319. doi: 10.1533/9781782421276.3.285.
- [91] N. Mathura and D. Cree, “Characterization and mechanical property of Trinidad coir fibers,” *J. Appl. Polym. Sci.*, vol. 133, no. 29, Aug. 2016, doi: 10.1002/app.43692.

- [92] M. Ho *et al.*, “Critical factors on manufacturing processes of natural fibre composites,” *Compos. Part B Eng.*, vol. 43, no. 8, pp. 3549–3562, Dec. 2012, doi: 10.1016/j.compositesb.2011.10.001.
- [93] M. G. Lomelí-Ramírez, R. R. Anda, K. G. Satyanarayana, G. I. B. de Muniz, and S. Iwakiri, “Comparative Study of the Characteristics of Green and Brown Coconut Fibers for the Development of Green Composites,” *BioResources*, vol. 13, no. 1, pp. 1637–1660, Jan. 2018.
- [94] A. Widnyana, I. Rian, I. W. Surata, and T. Nindhia, “Tensile Properties of coconut Coir single fiber with alkali treatment and reinforcement effect on unsaturated polyester polymer,” *Mater. Today Proc.*, vol. 22, pp. 300–305, Jan. 2020, doi: 10.1016/j.matpr.2019.08.155.
- [95] K. M. M. Rao and K. M. Rao, “Extraction and tensile properties of natural fibers: Vakka, date and bamboo,” *Compos. Struct.*, vol. 77, no. 3, pp. 288–295, Feb. 2007, doi: 10.1016/j.compstruct.2005.07.023.
- [96] V. S. Sreenivasan, S. Somasundaram, D. Ravindran, V. Manikandan, and R. Narayanasamy, “Microstructural, physico-chemical and mechanical characterisation of Sansevieria cylindrica fibres – An exploratory investigation,” *Mater. Des.*, vol. 32, no. 1, pp. 453–461, Jan. 2011, doi: 10.1016/j.matdes.2010.06.004.
- [97] S. C. Chin, K. F. Tee, F. S. Tong, H. R. Ong, and J. Gim bun, “Thermal and mechanical properties of bamboo fiber reinforced composites,” *Mater. Today Commun.*, vol. 23, p. 100876, Jun. 2020, doi: 10.1016/j.mtcomm.2019.100876.
- [98] A. N, M. Ç. EngiN, T. W. Hong, Ka. T, and A. R. G, “Physical, Chemical, Morphological and Thermal Characterization of Natural Fibers,” *TEKSTİL VE KONFEKSİYON*, Sep. 2019, doi: 10.32710/tekstilvekonfeksiyon.375784.
- [99] D. Ravindran, V. Manikandan, and R. Narayanasamy, “Microstructural, physico-chemical and mechanical characterisation of Sansevieria cylindrica fibres – An exploratory investigation,” *Mater. Des.*, vol. 32, no. 1, pp. 453–461, Jan. 2011, doi: 10.1016/j.matdes.2010.06.004.

- [100] A. Bezazi, A. Belaadi, M. Bourchak, F. Scarpa, and K. Boba, “Novel extraction techniques, chemical and mechanical characterisation of *Agave americana* L. natural fibres,” *Compos. Part B Eng.*, vol. 66, pp. 194–203, Nov. 2014, doi: 10.1016/j.compositesb.2014.05.014.
- [101] N. Sgriccia, M. C. Hawley, and M. Misra, “Characterization of natural fiber surfaces and natural fiber composites,” *Compos. Part Appl. Sci. Manuf.*, vol. 39, no. 10, pp. 1632–1637, Oct. 2008, doi: 10.1016/j.compositesa.2008.07.007.
- [102] A. A. M. Moshi, D. Ravindran, S. R. S. Bharathi, S. Indran, S. S. Saravanakumar, and Y. Liu, “Characterization of a new cellulosic natural fiber extracted from the root of *Ficus religiosa* tree,” *Int. J. Biol. Macromol.*, vol. 142, pp. 212–221, Jan. 2020, doi: 10.1016/j.ijbiomac.2019.09.094.
- [103] Y. Liu *et al.*, “Characterization of silane treated and untreated natural cellulosic fibre from corn stalk waste as potential reinforcement in polymer composites,” *Carbohydr. Polym.*, vol. 218, pp. 179–187, Aug. 2019, doi: 10.1016/j.carbpol.2019.04.088.
- [104] A. da Silva Moura, R. Demori, R. M. Leão, C. L. Crescente Frankenberg, and R. M. Campomanes Santana, “The influence of the coconut fiber treated as reinforcement in PHB (polyhydroxybutyrate) composites,” *Mater. Today Commun.*, vol. 18, pp. 191–198, Mar. 2019, doi: 10.1016/j.mtcomm.2018.12.006.
- [105] S. Indran and R. E. Raj, “Characterization of new natural cellulosic fiber from *Cissus quadrangularis* stem,” *Carbohydr. Polym.*, vol. 117, pp. 392–399, Mar. 2015, doi: 10.1016/j.carbpol.2014.09.072.
- [106] K. M. M. Rao and K. M. Rao, “Extraction and tensile properties of natural fibers: Vakka, date and bamboo,” *Compos. Struct.*, vol. 77, no. 3, pp. 288–295, Feb. 2007, doi: 10.1016/j.compstruct.2005.07.023.
- [107] R. Roy, B. K. Sarkar, and N. R. Bose, “Behaviour of E-glass fibre reinforced vinylester resin composites under impact fatigue,” *Bull. Mater. Sci.*, vol. 24, no. 2, pp. 137–142, Apr. 2001, doi: 10.1007/BF02710090.

- [108] J. S. Binoj, R. Edwin Raj, V. S. Sreenivasan, and G. Rexin Thusnavis, “Morphological, physical, mechanical, chemical and thermal characterization of sustainable Indian Areca fruit husk fibers (*Areca Catechu* L.) as potential alternate for hazardous synthetic fibers,” *J. Bionic Eng.*, vol. 13, no. 1, pp. 156–165, Mar. 2016, doi: 10.1016/S1672-6529(14)60170-0.
- [109] S. M.R., S. Siengchin, J. Parameswaranpillai, M. Jawaid, C. I. Pruncu, and A. Khan, “A comprehensive review of techniques for natural fibers as reinforcement in composites: Preparation, processing and characterization,” *Carbohydr. Polym.*, vol. 207, pp. 108–121, Mar. 2019, doi: 10.1016/j.carbpol.2018.11.083.
- [110] J. C. dos Santos, L. Á. de Oliveira, L. M. G. Vieira, V. Mano, R. T. Freire, and T. H. Panzera, “Eco-friendly sodium bicarbonate treatment and its effect on epoxy and polyester coir fibre composites,” *Constr. Build. Mater.*, vol. 211, pp. 427–436, 2019.
- [111] P. G. Baskaran, M. Kathiresan, P. Sentharamaikannan, and S. S. Saravanakumar, “Characterization of New Natural Cellulosic Fiber from the Bark of *Dichrostachys Cinerea*,” *J. Nat. Fibers*, vol. 15, no. 1, pp. 62–68, Jan. 2018, doi: 10.1080/15440478.2017.1304314.
- [112] T. Theivasanthi, F. L. Anne Christma, A. J. Toyin, S. C. B. Gopinath, and R. Ravichandran, “Synthesis and characterization of cotton fiber-based nanocellulose,” *Int. J. Biol. Macromol.*, vol. 109, pp. 832–836, Apr. 2018, doi: 10.1016/j.ijbiomac.2017.11.054.
- [113] N. R. J. Hyness, N. J. Vignesh, P. Sentharamaikannan, S. S. Saravanakumar, and M. R. Sanjay, “Characterization of New Natural Cellulosic Fiber from *Heteropogon Contortus* Plant,” *J. Nat. Fibers*, vol. 15, no. 1, pp. 146–153, Jan. 2018, doi: 10.1080/15440478.2017.1321516.
- [114] K. Mayandi, N. Rajini, P. Pitchipoo, J. T. W. Jappes, and A. V. Rajulu, “Extraction and characterization of new natural lignocellulosic fiber *Cyperus pangorei*,” *Int. J. Polym. Anal. Charact.*, vol. 21, no. 2, pp. 175–183, Feb. 2016, doi: 10.1080/1023666X.2016.1132064.

- [115] A. Al-Khanbashi, K. Al-Kaabi, and A. Hammami, “Date palm fibers as polymeric matrix reinforcement: Fiber characterization,” *Polym. Compos.*, vol. 26, no. 4, pp. 486–497, 2005, doi: 10.1002/pc.20118.
- [116] R. C. Asensio, M. S. A. Moya, J. M. de la Roja, and M. Gómez, “Analytical characterization of polymers used in conservation and restoration by ATR-FTIR spectroscopy.,” *Anal. Bioanal. Chem.*, vol. 395, pp. 2081–2096, 2009.
- [117] S. Bolduc *et al.*, “Banana fiber / low-density polyethylene recycled composites for third world eco-friendly construction applications – Waste for life project Sri Lanka,” *J. Reinf. Plast. Compos.*, vol. 37, no. 21, pp. 1322–1331, 2018, doi: 10.1177/0731684418791756.
- [118] J. Brandon, M. Goldstein, and M. D. Ohman, “Long-term aging and degradation of microplastic particles: Comparing in situ oceanic and experimental weathering patterns.,” *Mar. Pollut. Bull.*, vol. 110, no. 1, pp. 299–308, 2016.
- [119] C. Elanchezhian, B. V. Ramnath, G. Ramakrishnan, M. Rajendrakumar, V. Naveenkumar, and M. K. Saravanakumar, “Review on mechanical properties of natural fiber composites.,” *Mater. Today Proc.*, vol. 5, no. 1, Part 1, pp. 1785–1790, Jan. 2018, doi: 10.1016/j.matpr.2017.11.276.
- [120] G. Das and S. Biswas, “Effect of fiber parameters on physical, mechanical and water absorption behaviour of coir fiber–epoxy composites,” *J. Reinf. Plast. Compos.*, vol. 35, no. 8, pp. 644–653, 2016.
- [121] A. A. Pérez-Fonseca, M. Arellano, D. Rodrigue, R. González-Núñez, and J. R. Robledo-Ortíz, “Effect of coupling agent content and water absorption on the mechanical properties of coir-agave fibers reinforced polyethylene hybrid composites,” *Polym. Compos.*, vol. 37, no. 10, pp. 3015–3024, Oct. 2016, doi: 10.1002/pc.23498.
- [122] M. M. Rahman and M. A. Khan, “Surface treatment of coir (*Cocos nucifera*) fibers and its influence on the fibers’ physico-mechanical properties,” *Compos. Sci. Technol.*, vol. 67, no. 11–12, pp. 2369–2376, Sep. 2007, doi: 10.1016/j.compscitech.2007.01.009.

- [123] Amandeep Singh, "CHARACTERIZATION AND MECHANICAL ANALYSIS OF CHEMICALLY TREATED COIR FIBRE-POLYESTER COMPOSITES," 2013, doi: 10.13140/RG.2.2.16740.27522.
- [124] L. S. Kuburi *et al.*, "Effects of Coir Fiber Loading on the Physio-mechanical and Morphological Properties of Coconut Shell Powder Filled Low Density Polyethylene Composites," *Procedia Manuf.*, vol. 7, pp. 138–144, 2017, doi: 10.1016/j.promfg.2016.12.036.
- [125] W. D. C. Jr and D. G. Rethwisch, *Callister's Materials Science and Engineering*. John Wiley & Sons, 2020.
- [126] N. M. Abdullah and I. Ahmad, "Potential of using polyester reinforced coconut fiber composites derived from recycling polyethylene terephthalate (PET) waste," *Fibers Polym.*, vol. 14, no. 4, pp. 584–590, Apr. 2013, doi: 10.1007/s12221-013-0584-7.
- [127] J. Chen and N. Chouw, "Effect of the interface condition on the bond between flax FRP tube and coconut fibre reinforced concrete composites," *Constr. Build. Mater.*, vol. 167, pp. 597–604, Apr. 2018, doi: 10.1016/j.conbuildmat.2018.01.152.
- [128] R. M. N. Arib, S. M. Sapuan, M. M. H. M. Ahmad, M. T. Paridah, and H. M. D. K. Zaman, "Mechanical properties of pineapple leaf fibre reinforced polypropylene composites," *Mater. Des.*, vol. 27, no. 5, pp. 391–396, Jan. 2006, doi: 10.1016/j.matdes.2004.11.009.
- [129] G. L. E. Prasad, B. S. K. Gowda, and R. Velmurugan, "A Study on Impact Strength Characteristics of Coir Polyester Composites," *Procedia Eng.*, vol. 173, pp. 771–777, 2017, doi: 10.1016/j.proeng.2016.12.091.
- [130] G. Das and S. Biswas, "Effect of fiber parameters on physical, mechanical and water absorption behaviour of coir fiber–epoxy composites," *J. Reinf. Plast. Compos.*, vol. 35, no. 8, pp. 644–653, Apr. 2016, doi: 10.1177/0731684415626594.

- [131] N. Venkateshwaran, A. Elaya Perumal, and D. Arunsundaranayagam, "Fiber surface treatment and its effect on mechanical and visco-elastic behaviour of banana/epoxy composite," *Mater. Des.*, vol. 47, pp. 151–159, May 2013, doi: 10.1016/j.matdes.2012.12.001.
- [132] V. Narayanan, A. Elayaperumal, and M. Jagatheeshwaran, "Effect of fiber length and fiber content on mechanical properties of banana fiber/epoxy composite," *J. Reinf. Plast. Compos.*, vol. 30, pp. 1621–1627, Oct. 2011, doi: 10.1177/0731684411426810.
- [133] T. Alsaeed, B. F. Yousif, and H. Ku, "The potential of using date palm fibres as reinforcement for polymeric composites," *Mater. Des.*, vol. 43, pp. 177–184, Jan. 2013, doi: 10.1016/j.matdes.2012.06.061.
- [134] S. Biswas, S. Kindo, and A. Patnaik, "Effect of fiber length on mechanical behavior of coir fiber reinforced epoxy composites," *Fibers Polym.*, vol. 12, no. 1, pp. 73–78, Feb. 2011, doi: 10.1007/s12221-011-0073-9.
- [135] L. Mwaikambo and M. Ansell, "The effect of chemical treatment on the properties of hemp, sisal, jute and kapok for composite reinforcement," *Macromol. Mater. Eng.*, vol. 272, pp. 108–116, Dec. 1999, doi: 10.1002/(SICI)1522-9505(19991201)272:1%3C108::AID-APMC108%3E3.0.CO;2-9.
- [136] S. Misra, M. Misra, S. S. Tripathy, S. K. Nayak, and A. K. Mohanty, "The influence of chemical surface modification on the performance of sisal-polyester biocomposites," *Polym. Compos.*, vol. 23, no. 2, pp. 164–170, 2002, doi: 10.1002/pc.10422.
- [137] M. M. Kabir, H. Wang, K. T. Lau, and F. Cardona, "Chemical treatments on plant-based natural fibre reinforced polymer composites: An overview," *Compos. Part B Eng.*, vol. 43, no. 7, pp. 2883–2892, Oct. 2012, doi: 10.1016/j.compositesb.2012.04.053.
- [138] E. Canedo, L. Carvalho, S. Farias Neto, and A. Lima, "Moisture Transport Process in Vegetable Fiber Composites: Theory and Analysis for Technological Applications," 2013, pp. 37–62. doi: 10.1007/978-3-642-37469-2_2.

- [139] A. Ab, A. Rashdi, S. Sapuan, K. Abdan, M. Mohamad, and M. M. H. Megat Ahmad, "Water Absorption Behaviour of Kenaf Reinforced Unsaturated Polyester Composites and Its Influence on Their Mechanical Properties," *Pertanika J. Sci. Technol.*, vol. 18, Jul. 2010.
- [140] S. Zakaria and L. Kok Poh, "Polystyrene-Benzoylated Efb Reinforced Composites," *Polym.-Plast. Technol. Eng.*, vol. 41, no. 5, pp. 951–962, Jan. 2002, doi: 10.1081/PPT-120014397.
- [141] A. Ramezani Kakroodi, Y. Kazemi, and D. Rodrigue, "Mechanical, rheological, morphological and water absorption properties of maleated polyethylene/hemp composites: Effect of ground tire rubber addition," *Compos. Part B Eng.*, vol. 51, pp. 337–344, Aug. 2013, doi: 10.1016/j.compositesb.2013.03.032.
- [142] A. Pandian, M. Vairavan, W. J. Jebbas Thangaiah, and M. Uthayakumar, "Effect of Moisture Absorption Behavior on Mechanical Properties of Basalt Fibre Reinforced Polymer Matrix Composites," *J. Compos.*, vol. 2014, pp. 1–8, Mar. 2014, doi: 10.1155/2014/587980.
- [143] M. K. Gupta and R. K. Srivastava, "Mechanical, thermal and water absorption properties of hybrid sisal/jute fiber reinforced polymer composite," *INDIAN J ENG MATER SCI*, p. 8, 2016.
- [144] M. A. H. Alharbi, S. Hirai, H. A. Tuan, S. Akioka, and W. Shoji, "Effects of chemical composition, mild alkaline pretreatment and particle size on mechanical, thermal, and structural properties of binderless lignocellulosic biopolymers prepared by hot-pressing raw microfibrillated Phoenix dactylifera and Cocos nucifera fibers and leaves," *Polym. Test.*, vol. 84, p. 106384, Apr. 2020, doi: 10.1016/j.polymertesting.2020.106384.
- [145] W. Z. W. Zahari, R. N. R. L. Badri, H. Ardyananta, D. Kurniawan, and F. M. Nor, "Mechanical Properties and Water Absorption Behavior of Polypropylene / Ijuk Fiber Composite by Using Silane Treatment," *Procedia Manuf.*, vol. 2, pp. 573–578, 2015, doi: 10.1016/j.promfg.2015.07.099.

- [146] P. Upadhyaya, M. Garg, V. Kumar, and A. K. Nema, "The Effect of Water Absorption on Mechanical Properties of Wood Flour/Wheat Husk Polypropylene Hybrid Composites," vol. 2012, May 2012, doi: 10.4236/msa.2012.35047.
- [147] B. K. Kim, O. H. Kwon, W. H. Park, and D. Cho, "Thermal, mechanical, impact, and water absorption properties of novel silk fibroin fiber reinforced poly(butylene succinate) biocomposites," *Macromol. Res.*, vol. 24, no. 8, pp. 734–740, Aug. 2016, doi: 10.1007/s13233-016-4102-9.
- [148] A. Paul, K. Joseph, and S. Thomas, "Effect of surface treatments on the electrical properties of low-density polyethylene composites reinforced with short sisal fibers," *Compos. Sci. Technol.*, vol. 57, no. 1, pp. 67–79, Jan. 1997, doi: 10.1016/S0266-3538(96)00109-1.
- [149] "Mechanical and Water Absorption Properties of Natural Fibers/Polymer Biocomposites: Polymer-Plastics Technology and Engineering: Vol 49, No 7." <https://www.tandfonline.com/doi/abs/10.1080/03602551003682067> (accessed May 26, 2022).
- [150] G. Kalaprasad *et al.*, "Effect of fibre length and chemical modifications on the tensile properties of intimately mixed short sisal/glass hybrid fibre reinforced low density polyethylene composites," *Polym. Int.*, vol. 53, no. 11, pp. 1624–1638, Nov. 2004, doi: 10.1002/pi.1453.
- [151] M. N. Ichazo, C. Albano, J. González, R. Perera, and M. V. Candal, "Polypropylene/wood flour composites: treatments and properties," *Compos. Struct.*, vol. 54, no. 2, pp. 207–214, Nov. 2001, doi: 10.1016/S0263-8223(01)00089-7.
- [152] X. Li and L. Tabil, "A Study on Flax Fiber-Reinforced Polyethylene Biocomposites," *Appl. Eng. Agric.*, vol. 25, pp. 525–531, Jul. 2009, doi: 10.13031/2013.27454.
- [153] B. Mitra, "Environment Friendly Composite Materials: Biocomposites and Green Composites," *Def. Sci. J.*, vol. 64, no. 3, pp. 244–261, May 2014, doi: 10.14429/dsj.64.7323.

- [154] K. Murali Mohan Rao, K. Mohana Rao, and A. V. Ratna Prasad, "Fabrication and testing of natural fibre composites: Vakka, sisal, bamboo and banana," *Mater. Des.*, vol. 31, no. 1, pp. 508–513, Jan. 2010, doi: 10.1016/j.matdes.2009.06.023.
- [155] Akash, K. V. Sreenivasa Rao, N. S. Venkatesha Gupta, and D. S. Arun kumar, "Mechanical Properties of Sisal/Coir Fiber Reinforced Hybrid Composites Fabricated by Cold Pressing Method," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 149, p. 012092, Sep. 2016, doi: 10.1088/1757-899X/149/1/012092.
- [156] K. Ramanaiah, A. V. Ratna Prasad, and K. Hema Chandra Reddy, "Mechanical, thermophysical and fire properties of sansevieria fiber-reinforced polyester composites," *Mater. Des.*, vol. 49, pp. 986–991, Aug. 2013, doi: 10.1016/j.matdes.2013.02.056.
- [157] M. W. Chai, S. Bickerton, D. Bhattacharyya, and R. Das, "Influence of natural fibre reinforcements on the flammability of bio-derived composite materials," *Compos. Part B Eng.*, vol. 43, no. 7, pp. 2867–2874, Oct. 2012, doi: 10.1016/j.compositesb.2012.04.051.
- [158] ASTM, "Standard Test Method for Water Absorption of Plastics," West Conshohocken, United States, 2010.
- [159] N. Saba, M. Jawaid, and M. T. H. Sultan, "An overview of mechanical and physical testing of composite materials," in *Mechanical and Physical Testing of Biocomposites, Fibre-Reinforced Composites and Hybrid Composites*, Elsevier Ltd, 2019, pp. 1–12. doi: 10.1016/B978-0-08-102292-4.00001-1.
- [160] A. Atiqah, M. Jawaid, M. R. Ishak, and S. M. Sapuan, "Moisture Absorption and Thickness Swelling Behaviour of Sugar Palm Fibre Reinforced Thermoplastic Polyurethane," *Procedia Eng.*, vol. 184, pp. 581–586, 2017, doi: 10.1016/j.proeng.2017.04.142.
- [161] C. A. Echeverria, W. Handoko, F. Pahlevani, and V. Sahajwalla, "Cascading use of textile waste for the advancement of fibre reinforced composites for building applications," *J. Clean. Prod.*, 2018, doi: 10.1016/j.jclepro.2018.10.227.

- [162] Z. Kamble and B. K. Behera, “Mechanical properties and water absorption characteristics of composites reinforced with cotton fibres recovered from textile waste,” *J. Eng. Fibers Fabr.*, vol. 15, pp. 1–8, 2020, doi: 10.1177/1558925020901530.
- [163] T. E. Hamouda *et al.*, “Evaluation of Mechanical and Physical Properties of Hybrid Composites from Food Packaging and Textiles Wastes,” *J. Polym. Environ.*, 2019, doi: 10.1007/s10924-019-01369-3.
- [164] I. Bektas, C. Guler, H. Kalaycioglu, F. Mengeloglu, and M. Nacar, “Manufacture of Particleboards using Sunflower Stalks (*helianthus annuus* l.) And Poplar Wood (*populus alba* L.),” *J. Compos. Mater.*, vol. 39, no. 5, pp. 467–473, 2005, doi: 10.1177/0021998305047098.
- [165] Emily, “Polyester Flammability – How Does It Stand Up To Heat?,” *THE creative folk*, 2022. <https://www.thecreativefolk.com/polyester-flammability/> (accessed Mar. 21, 2022).
- [166] City of Phoenix, “Flammable Fabrics,” *City of Phoenix*, 2021. <https://www.phoenix.gov/fire/safety-information/home/fabrics> (accessed Mar. 21, 2022).
- [167] M. Bar, A. Ramasamy, and A. Das, “Flame Retardant Polymer Composites,” *Fibres Polym.*, vol. 16, pp. 705–717, Nov. 2014, doi: 10.1007/s12221-015-0705-6.
- [168] V. Medri *et al.*, “Production and characterization of lightweight vermiculite/geopolymer-based panels,” *Mater. Des.*, vol. 85, pp. 266–274, Nov. 2015, doi: 10.1016/j.matdes.2015.06.145.
- [169] J. Assaad, E. Chakar, and G.-P. Zéhil, “Testing and modeling the behavior of sandwich lightweight panels against wind and seismic loads,” *Eng. Struct.*, vol. 175, pp. 457–466, Nov. 2018, doi: 10.1016/j.engstruct.2018.08.041.
- [170] S. Darzi, H. Karampour, B. P. Gilbert, and H. Bailleres, “Numerical study on the flexural capacity of ultra-light composite timber sandwich panels,” *Compos.*

Part B Eng., vol. 155, pp. 212–224, Dec. 2018, doi: 10.1016/j.compositesb.2018.08.022.

- [171] Y. Du, N. Yan, and M. T. Kortschot, “Light-weight honeycomb core sandwich panels containing biofiber-reinforced thermoset polymer composite skins: Fabrication and evaluation,” *Compos. Part B Eng.*, vol. 43, no. 7, pp. 2875–2882, Oct. 2012, doi: 10.1016/j.compositesb.2012.04.052.
- [172] Y. H. Mugahed Amran, R. Alyousef, H. Alabduljabbar, F. Alrshoudi, and R. S. M. Rashid, “Influence of slenderness ratio on the structural performance of lightweight foam concrete composite panel,” *Case Stud. Constr. Mater.*, vol. 10, p. e00226, Jun. 2019, doi: 10.1016/j.cscm.2019.e00226.
- [173] D. Zhang, D. Jiang, Q. Fei, and S. Wu, “Experimental and numerical investigation on indentation and energy absorption of a honeycomb sandwich panel under low-velocity impact,” *Finite Elem. Anal. Des.*, vol. 117–118, pp. 21–30, Sep. 2016, doi: 10.1016/j.finel.2016.04.003.
- [174] W.-S. Chang, E. Ventsel, T. Krauthammer, and J. John, “Bending behavior of corrugated-core sandwich plates,” *Compos. Struct.*, vol. 70, no. 1, pp. 81–89, Aug. 2005, doi: 10.1016/j.compstruct.2004.08.014.
- [175] M. Ma, W. Yao, W. Jiang, W. Jin, Y. Chen, and P. Li, “Fatigue Behavior of Composite Sandwich Panels Under Three Point Bending Load,” *Polym. Test.*, vol. 91, p. 106795, Nov. 2020, doi: 10.1016/j.polymertesting.2020.106795.
- [176] M. Giglio, A. Gilioli, and A. Manes, “Numerical investigation of a three point bending test on sandwich panels with aluminum skins and NomexTM honeycomb core,” *Comput. Mater. Sci.*, vol. 56, pp. 69–78, Apr. 2012, doi: 10.1016/j.commatsci.2012.01.007.
- [177] A. Mostafa, “Numerical analysis on the effect of shear keys pitch on the shear performance of foamed sandwich panels,” *Eng. Struct.*, vol. 101, pp. 216–232, Oct. 2015, doi: 10.1016/j.engstruct.2015.07.010.
- [178] C. Frazão, J. Barros, R. Toledo Filho, S. Ferreira, and D. Gonçalves, “Development of sandwich panels combining Sisal Fiber-Cement Composites and

Fiber-Reinforced Lightweight Concrete,” *Cem. Concr. Compos.*, vol. 86, pp. 206–223, Feb. 2018, doi: 10.1016/j.cemconcomp.2017.11.008.

- [179] R. Emmanuel, “Estimating the environmental suitability of wall materials: preliminary results from Sri Lanka,” *Build. Environ.*, vol. 39, no. 10, pp. 1253–1261, 2004.
- [180] R. Arooz and R. Halwatura, “Life cycle costing and embodied energy analysis of self-compacting in-situ cast mud-concrete load-bearing walling system (MCW) - An innovative earth based walling material application for energy efficient buildings,” presented at the iiSBE Forum of Young Researchers in Sustainable Building, Prague, Czech Republic, Jul. 2019.
- [181] V. Biolek and T. Hanák, “LCC estimation model: A construction material perspective,” *Buildings*, vol. 9, no. 8, p. 182, 2019.
- [182] B. Reza, R. Sadiq, and K. Hewage, “Sustainability assessment of flooring systems in the city of Tehran: An AHP-based life cycle analysis,” *Constr. Build. Mater.*, vol. 25, no. 4, pp. 2053–2066, 2011.
- [183] B. Han, R. Wang, L. Yao, H. Liu, and Z. Wang, “Life cycle assessment of ceramic façade material and its comparative analysis with three other common façade materials,” *J. Clean. Prod.*, vol. 99, pp. 86–93, Jul. 2015, doi: 10.1016/j.jclepro.2015.03.032.
- [184] G. M. Nicoletti, B. Notarnicola, and G. Tassielli, “Comparative Life Cycle Assessment of flooring materials: ceramic versus marble tiles,” *J. Clean. Prod.*, vol. 10, no. 3, pp. 283–296, Jun. 2002, doi: 10.1016/S0959-6526(01)00028-2.
- [185] Ajla Aksamija, “Comparative Analysis of Flooring Materials: Environmental and Economic Performance,” *PERKINS WILL Res. J.*, vol. 02, no. 01, pp. 55–66, 2010.
- [186] K. I. Praseeda, B. V. V. Reddy, and M. Mani, “Embodied energy assessment of building materials in India using process and input–output analysis,” *Energy Build.*, vol. 86, pp. 677–686, Jan. 2015, doi: 10.1016/j.enbuild.2014.10.042.

- [187] D. M. K. W. Dissanayake, C. Jayasinghe, and M. T. R. Jayasinghe, “A comparative embodied energy analysis of a house with recycled expanded polystyrene (EPS) based foam concrete wall panels,” *Energy Build.*, vol. 135, pp. 85–94, Jan. 2017, doi: 10.1016/j.enbuild.2016.11.044.
- [188] J. Nässén, J. Holmberg, A. Wadeskog, and M. Nyman, “Direct and indirect energy use and carbon emissions in the production phase of buildings: An input–output analysis,” *Energy*, vol. 32, no. 9, pp. 1593–1602, Sep. 2007, doi: 10.1016/j.energy.2007.01.002.
- [189] W. P. S. Dias and S. P. Pooliyadda, “Quality based energy contents and carbon coefficients for building materials: A systems approach,” *Energy*, vol. 29, no. 4, pp. 561–580, Mar. 2004, doi: 10.1016/j.energy.2003.10.001.
- [190] R. Fay, G. Treloar, and U. Iyer-Raniga, “Life-cycle energy analysis of buildings: a case study,” *Build. Res. Inf.*, vol. 28, no. 1, pp. 31–41, Jan. 2000, doi: 10.1080/096132100369073.
- [191] R. H. Crawford, “Validation of a hybrid life-cycle inventory analysis method,” *J. Environ. Manage.*, vol. 88, no. 3, pp. 496–506, Aug. 2008, doi: 10.1016/j.jenvman.2007.03.024.
- [192] J. W. Creswell and J. W. Creswell, *Qualitative inquiry & research design: choosing among five approaches*, 2nd ed. Thousand Oaks: Sage Publications, 2007.
- [193] Igor Pietkiewicz and Jonathan A. Smith, “A practical guide to using Interpretative Phenomenological Analysis in qualitative research psychology,” *Czas. Psychol. Psychol. J.*, vol. 20, no. 1, Aug. 2014, doi: 10.14691/CPPJ.20.1.7.
- [194] R. Emmanuel, “Estimating the environmental suitability of wall materials: preliminary results from Sri Lanka,” *Build. Environ.*, vol. 39, no. 10, pp. 1253–1261, Oct. 2004, doi: 10.1016/j.buildenv.2004.02.012.