

DAFTAR PUSTAKA

- Adi, R. K., Das, S., & Muflikhun, M. A. (2022a). Design and analysis of filament winding machine for cylinder manufacturing process using glass fiber composite. *Materials Today: Proceedings*, 66, 2904–2907. <https://doi.org/10.1016/j.matpr.2022.06.555>
- Adi, R. K., Das, S., & Muflikhun, M. A. (2022b). Design and analysis of filament winding machine for cylinder manufacturing process using glass fiber composite. *Materials Today: Proceedings*.
- Aktaş, C., Acar, E., Güler, M. A., & Altın, M. (2022). An investigation of the crashworthiness performance and optimization of tetra-chiral and reentrant crash boxes. *Mechanics Based Design of Structures and Machines*, 0(0), 1–24. <https://doi.org/10.1080/15397734.2022.2075382>
- Al-fatlawi, A., Jármai, K., & Kovács, G. (2021). Optimal design of a fiber-reinforced plastic composite sandwich structure for the base plate of aircraft pallets in order to reduce weight. *Polymers*, 13(5). <https://doi.org/10.3390/polym13050834>
- Ali, H. T., Akrami, R., Fotouhi, S., Bodaghi, M., Saeedifar, M., Yusuf, M., & Fotouhi, M. (2021). Fiber reinforced polymer composites in bridge industry. *Structures*, 30(February), 774–785. <https://doi.org/10.1016/j.istruc.2020.12.092>
- Ashothaman, A., Sudha, J., & Senthilkumar, N. (2021). A comprehensive review on biodegradable polylactic acid polymer matrix composite material reinforced with synthetic and natural fibers. *Materials Today: Proceedings*, xxxx. <https://doi.org/10.1016/j.matpr.2021.07.047>
- ASTM. (2000). *Standard Test Method for Transverse Compressive Properties of Hoop Wound Polymer Matrix Composite Cylinders* (Vol. 08).
- Bai, J. (2013). *Advanced Fibre Reinforced Polymer (FRP) Composites for Structural Applications*. Woodhead Publishing Limited.
- Bakar, M. S. A., Salit, M. S., Yusoff, M. Z. M., Zainudin, E. S., & Ya, H. H.

- (2020). The crashworthiness performance of stacking sequence on filament wound hybrid composite energy absorption tube subjected to quasi-static compression load. *Journal of Materials Research and Technology*, 9(1), 654–666.
- Baroutaji, A., Sajjia, M., & Olabi, A. G. (2017). On the crashworthiness performance of thin-walled energy absorbers: Recent advances and future developments. *Thin-Walled Structures*, 118(May), 137–163. <https://doi.org/10.1016/j.tws.2017.05.018>
- Bisagni, C., Di Pietro, G., Frascini, L., & Terletti, D. (2005). Progressive crushing of fiber-reinforced composite structural components of a Formula One racing car. *Composite Structures*, 68(4), 491–503. <https://doi.org/10.1016/j.compstruct.2004.04.015>
- Boria, S. (2016). Lightweight Design and Crash Analysis of Composites. In *Lightweight Composite Structures in Transport: Design, Manufacturing, Analysis and Performance*. Elsevier Ltd. <https://doi.org/10.1016/B978-1-78242-325-6.00013-X>
- Boria, S., Scattina, A., & Belingardi, G. (2015). Axial energy absorption of CFRP truncated cones. *Composite Structures*, 130, 18–28. <https://doi.org/10.1016/j.compstruct.2015.04.026>
- Camanho, P. P., & Hallett, S. (2015). Numerical Modelling of Failure in Advanced Composite Materials. In *Woodhead Publishing*. Woodhead Publishing Limited.
- Chiu, L. N. S., Falzon, B. G., Ruan, D., Xu, S., Thomson, R. S., Chen, B., & Yan, W. (2015). Crush responses of composite cylinder under quasi-static and dynamic loading. *Composite Structures*, 131, 90–98.
- Çuvalci, H., Erbay, K., & İpek, H. (2014). Investigation of the Effect of Glass Fiber Content on the Mechanical Properties of Cast Polyamide. *Arabian Journal for Science and Engineering*, 39(12), 9049–9056. <https://doi.org/10.1007/s13369-014-1409-8>
- Dasari, S., Lohani, S., Sumit Dash, S., Omprakash Fulmali, A., Kumar Prusty, R., & Chandra Ray, B. (2021). A novel study of flexural behavior of short glass

- fibers as secondary reinforcements in GFRP composite. *Materials Today: Proceedings*, xxxx, 3–7. <https://doi.org/10.1016/j.matpr.2021.07.161>
- DeStefano, V., Khan, S., & Tabada, A. (2020). Applications of PLA in modern medicine. *Engineered Regeneration*, 1(September), 76–87. <https://doi.org/10.1016/j.engreg.2020.08.002>
- Diniardi, E., Mahmud, K. H., Basri, H., & Ramadhan, A. I. (2019). Analysis of the Tensile Strength of Composite Material from Fiber Bags. *Journal of Applied Science and Advanced Technology*.
- Dixit, S., Goel, R., Dubey, A., Shivhare, P. R., & Bhalavi, T. (2017). Natural fibre reinforced polymer composite materials - A review. *Polymers from Renewable Resources*, 8(2), 71–78. <https://doi.org/10.1177/204124791700800203>
- Eggers, F., Almeida, J. H. S., Azevedo, C. B., & Amico, S. C. (2019). Mechanical response of filament wound composite rings under tension and compression. *Polymer Testing*, 78(June), 105951. <https://doi.org/10.1016/j.polymertesting.2019.105951>
- Ejaz, M., Azad, M. M., Shah, A. U. R., Afaq, S. K., & Song, J. il. (2020). Mechanical and Biodegradable Properties of Jute/Flax Reinforced PLA Composites. *Fibers and Polymers*, 21(11), 2635–2641. <https://doi.org/10.1007/s12221-020-1370-y>
- Farhood, N. H., Karuppanan, S., Ya, H. H., & Sultan, M. T. H. (2021). Experimental investigation on the effects of glass fiber hybridization on the low-velocity impact response of filament-wound carbon-based composite pipes. *Polymers and Polymer Composites*, 29(7), 829–841. <https://doi.org/10.1177/0967391120938181>
- Ge, C., Gao, Q., & Wang, L. (2018). Theoretical and numerical analysis of crashworthiness of elliptical thin-walled tube. *International Journal of Mechanical Sciences*, 148, 467–474. <https://doi.org/10.1016/j.ijmecsci.2018.09.008>
- Gholizadeh, S. (2019). a Review of Impact Behaviour in Composite Materials. *International Journal of Mechanical and Production Engineering*, 7, 2321–

2071.

- Gupta, N., Vishwakarma, A., Jain, A. K., & Asokan, P. (2019). Fully bio-degradable jute fabric reinforced polylactic acid composite for architectural application. *AIP Conference Proceedings*, 2158(September). <https://doi.org/10.1063/1.5127160>
- Heimbs, S., Strobl, F., Middendorf, P., & Guimard, J. M. (2010). Composite crash absorber for aircraft fuselage applications. *WIT Transactions on the Built Environment*, 113(July), 3–14. <https://doi.org/10.2495/SU100011>
- Hodzic, D., & Pandzic, A. (2019). Influence of carbon fibers on mechanical properties of materials in fdm technology. *Annals of DAAAM and Proceedings of the International DAAAM Symposium*, 30(1), 334–342. <https://doi.org/10.2507/30th.daaam.proceedings.044>
- Hu, D., Wang, Y., Song, B., & Wang, Y. (2018). Energy absorption characteristics of a foam-filled tri-tube under axial quasi-static loading: experiment and numerical simulation. *International Journal of Crashworthiness*, 23(4), 417–432. <https://doi.org/10.1080/13588265.2017.1331494>
- Ilyas, R. A., Zuhri, M. Y. M., Aisyah, H. A., Asyraf, M. R. M., & Hassan, S. A. (2022). *Natural Fiber-Reinforced Polylactic Acid , Polylactic Acid*.
- İşmal, Ö. E., & Paul, R. (2017). Composite textiles in high-performance apparel. In *High-Performance Apparel: Materials, Development, and Applications*. <https://doi.org/10.1016/B978-0-08-100904-8.00019-5>
- Ivanova, N., Gugleva, V., Dobрева, M., Pehlivanov, I., Stefanov, S., & Andonova, V. (2016). Introduction to Composite Materials. *Intech, i(tourism)*, 13.
- Jawaid, M., Thariq, M., & Saba, N. (2019a). *Durability and Life Prediction in Biocomposites, Fibre-reinforced Composites and Hybrid Composites*. Woodhead Publishing Limited.
- Jawaid, M., Thariq, M., & Saba, N. (2019b). *Failure Analysis in Biocomposites, Fibre-Reinforced Composites and Hybrid Composites* (1st ed.). Woodhead Publishing Limited.
- Kalhor, R., & Case, S. W. (2015). The effect of FRP thickness on energy

- absorption of metal-FRP square tubes subjected to axial compressive loading. *Composite Structures*, 130, 44–50.
<https://doi.org/10.1016/j.compstruct.2015.04.009>
- Karnoub, A., Antypas, I., Dyachenko, A., & Savostina, T. (2019). Buckling resistance of cylinders made of textile composite material. *IOP Conference Series: Earth and Environmental Science*, 403(1).
<https://doi.org/10.1088/1755-1315/403/1/012162>
- Kim, J.-S., Yoon, H.-J., & Shin, K.-B. (2011). A study on crushing behaviors of composite circular tubes with different reinforcing fibers. *International Journal of Impact Engineering*, 38(4), 198–207.
- Kuznetsov, A., Telichev, I., & Wu, C. Q. (2016). Effect of Thin-walled Tube Geometry on Its Crashworthiness Performance. *International LS-DYNA Users Conference*, 1–12.
- Lalit, R., Mayank, P., & Ankur, K. (2018). Natural fibers and biopolymers characterization: A future potential composite material. *Strojnický Casopis*, 68(1), 33–50. <https://doi.org/10.2478/scjme-2018-0004>
- Li, Z., Yu, Q., Zhao, X., Yu, M., Shi, P., & Yan, C. (2017). Crashworthiness and lightweight optimization to applied multiple materials and foam-filled front end structure of auto-body. *Advances in Mechanical Engineering*, 9(8), 1–21.
<https://doi.org/10.1177/1687814017702806>
- Liu, X., Wang, T., Chow, L. C., Yang, M., & Mitchell, J. W. (2014). Effects of inorganic fillers on the thermal and mechanical properties of poly(lactic acid). *International Journal of Polymer Science*, 2014.
<https://doi.org/10.1155/2014/827028>
- Magri, A. El, El Mabrouk, K., Vaudreuil, S., & Touhami, M. E. (2021). Mechanical properties of CF-reinforced PLA parts manufactured by fused deposition modeling. *Journal of Thermoplastic Composite Materials*, 34(5), 581–595. <https://doi.org/10.1177/0892705719847244>
- Mallick, P. K. (2007). Fibre-reinforced composites materials, manufacturing and design. In *Composites* (3rd ed.). [https://doi.org/10.1016/0010-4361\(89\)90651-4](https://doi.org/10.1016/0010-4361(89)90651-4)

- Maqsood, N., & Rimašauskas, M. (2021). Characterization of carbon fiber reinforced PLA composites manufactured by fused deposition modeling. *Composites Part C: Open Access*, 4(November 2020). <https://doi.org/10.1016/j.jcomc.2021.100112>
- Matos, H., Kishore, S., Salazar, C., & Shukla, A. (2020). Buckling, vibration, and energy solutions for underwater composite cylinders. *Composite Structures*, 244(March), 112282. <https://doi.org/10.1016/j.compstruct.2020.112282>
- Mbituyimana, B., Liu, L., Ye, W., Ode Boni, B. O., Zhang, K., Chen, J., Thomas, S., Vasilievich, R. V., Shi, Z., & Yang, G. (2021). Bacterial Cellulose-Based Composites for Biomedical and Cosmetic Applications: Research Progress and Existing Products. *Carbohydrate Polymers*, 273(May), 118565. <https://doi.org/10.1016/j.carbpol.2021.118565>
- Misri, S. (2015). Torsional behaviour of filament wound kenaf yarn fibre reinforced unsaturated polyester composite hollow shafts. *Materials and Design*, 65, 953–960. <https://doi.org/10.1016/j.matdes.2014.09.073>
- Mohammadi, S., Yousefi, M., & Khazaei, M. (2021). A review on composite patch repairs and the most important parameters affecting its efficiency and durability. *Journal of Reinforced Plastics and Composites*, 40(1–2), 3–15. <https://doi.org/10.1177/0731684420941602>
- Mustafa, N. S., Omer, M. A. A., Garlnabi, M. E. M., Ismail, H. A., & Ch, C. H. (2016). *Reviewing of General Polymer Types , Properties and Application in Medical Field*. 5(8), 212–221. <https://doi.org/10.21275/ART2016772>
- Mutasher, S., Mir-Nasiri, N., & Lin, L. C. (2012). Small-scale filament winding machine for producing fiber composite products. *Journal of Engineering Science and Technology*, 7(2), 156–168.
- Özbek, Ö., Bozkurt, Ö. Y., & Erklığ, A. (2019). An experimental study on intraply fiber hybridization of filament wound composite pipes subjected to quasi-static compression loading. *Polymer Testing*, 79, 106082.
- Pacheco-Torgal, F., Labrincha, J. A., Leonelli, C., Palomo, A., & Chindaprasirt, P. (2015). *Handbook of Alkali-activated Cements, Mortars and Concretes*. Woodhead Publishing Limited.

- https://www.researchgate.net/publication/269107473_What_is_governance/link/548173090cf22525dcb61443/download%0Ahttp://www.econ.upf.edu/~reynal/Civilwars_12December2010.pdf%0Ahttps://think-asia.org/handle/11540/8282%0Ahttps://www.jstor.org/stable/41857625
- Palanivelu, S., Van Paepegem, W., Degrieck, J., Van Ackeren, J., Kakogiannis, D., Van Hemelrijck, D., Wastiels, J., & Vantomme, J. (2010). Experimental study on the axial crushing behaviour of pultruded composite tubes. *Polymer Testing*, 29(2), 224–234.
- Prastyadi, C. (2017). Pengaruh variasi fraksi volume, temperatur, waktu curing dan post-curing terhadap karakteristik tekan komposit polyester – partikel hollow glass microspheres (Hgm). *Mechanical Engineering Department Faculty of Industrial*, 6(1), 196–200.
- Qaud, N. (2018). Additive manufacturing technologies at Sulzer. In *Sulzer Technical Review* (Vol. 100, Issue 2).
- Qi, Z., Wang, B., Sun, C., Yang, M., Chen, X., Zheng, D., Yao, W., Chen, Y., Cheng, R., & Zhang, Y. (2022). Comparison of Properties of Poly(Lactic Acid) Composites Prepared from Different Components of Corn Straw Fiber. *International Journal of Molecular Sciences*, 23(12). <https://doi.org/10.3390/ijms23126746>
- Quanjin, M. A., M Sahat, I., Mat Rejab, M. R., Abu Hassan, S., Zhang, B., & Merzuki, M. N. M. (2019). The energy-absorbing characteristics of filament wound hybrid carbon fiber-reinforced plastic/polylactic acid tubes with different infill pattern structures. *Journal of Reinforced Plastics and Composites*, 38(23–24), 1067–1088. <https://doi.org/10.1177/0731684419868018>
- Quanjin, M., Rejab, R. M., Zhang, B., & Kumar, N. M. (2019). *Filament Winding Technique: SWOT Analysis and Applied Favorable Factors*. April.
- Rahman, H., Yarali, E., Zolfagharian, A., Serjouei, A., & Bodaghi, M. (2021). Energy absorption and mechanical performance of functionally graded soft–hard lattice structures. *Materials*, 14(6). <https://doi.org/10.3390/ma14061366>
- Reddy Nagavally, R. (2017). Composite Materials-History, Types, Fabrication

- Techniques, Advantages, and Applications. *International Journal of Mechanical And Production Engineering*, 5, 2320–2092.
- Revelo, C. F., Correa, M., Aguilar, C., & Colorado, H. A. (2021). Composite materials made of waste tires and polyurethane resin: A case study of flexible tiles successfully applied in industry. *Case Studies in Construction Materials*, 15(September), e00681. <https://doi.org/10.1016/j.cscm.2021.e00681>
- Sahat, I. M., Bachtiar, D., & Siregar, J. P. (2018). *Design of portable 3-axis filament winding machine with inexpensive control system*. April. <https://doi.org/10.15282/jmes.12.1.2018.15.0309>
- Sajan, S., & Philip Selvaraj, D. (2021). A review on polymer matrix composite materials and their applications. *Materials Today: Proceedings*, xxxx. <https://doi.org/10.1016/j.matpr.2021.08.034>
- Sarfraz, M. S., Hong, H., & Kim, S. S. (2021). Recent developments in the manufacturing technologies of composite components and their cost-effectiveness in the automotive industry: A review study. *Composite Structures*, 266(February), 113864. <https://doi.org/10.1016/j.compstruct.2021.113864>
- Shrigandhi, G. D., & Kothavale, B. S. (2021). Biodegradable composites for filament winding process. *Materials Today: Proceedings*, 42, 2762–2768. <https://doi.org/10.1016/j.matpr.2020.12.718>
- Singh, J. I. P., Singh, S., & Dhawan, V. (2020). Influence of fiber volume fraction and curing temperature on mechanical properties of jute/PLA green composites. *Polymers and Polymer Composites*, 28(4), 273–284. <https://doi.org/10.1177/0967391119872875>
- Sorrentino, L., Marchetti, M., Bellini, C., Delfini, A., & Del Sette, F. (2017). Manufacture of high performance isogrid structure by Robotic Filament Winding. *Composite Structures*, 164, 43–50. <https://doi.org/10.1016/j.compstruct.2016.12.061>
- Sun, G., Li, S., Liu, Q., Li, G., & Li, Q. (2016). Experimental study on crashworthiness of empty/aluminum foam/honeycomb-filled CFRP tubes.

- Composite Structures*, 152, 969–993.
<https://doi.org/10.1016/j.compstruct.2016.06.019>
- Sun, Z. (2020). Vibration characteristics of carbon-fiber reinforced composite drive shafts fabricated using filament winding technology. *Composite Structures*, 241. <https://doi.org/10.1016/j.compstruct.2019.111725>
- Torres, J., Cotel, J., Karl, J., & Gordon, A. P. (2015). Mechanical property optimization of FDM PLA in shear with multiple objectives. *Jom*, 67(5), 1183–1193. <https://doi.org/10.1007/s11837-015-1367-y>
- Tripathy, A., Sarangi, S. K., & Panda, R. (2017). Fabrication of functionally graded composite material using powder metallurgy route: An overview. *International Journal of Mechanical and Production Engineering Research and Development*, 7(6), 135–145.
<https://doi.org/10.24247/ijmperdddec201714>
- Vozniak, I., Beloshenko, V., Savchenko, B., & Voznyak, A. (2021). Improvement of mechanical properties of polylactide by equal channel multiple angular extrusion. *Journal of Applied Polymer Science*, 138(4), 1–8.
<https://doi.org/10.1002/app.49720>
- Wang, G., Zhang, D., Wan, G., Li, B., & Zhao, G. (2019a). Glass fiber reinforced PLA composite with enhanced mechanical properties, thermal behavior, and foaming ability. *Polymer*, 181(July).
<https://doi.org/10.1016/j.polymer.2019.121803>
- Wang, G., Zhang, D., Wan, G., Li, B., & Zhao, G. (2019b). Glass fiber reinforced PLA composite with enhanced mechanical properties, thermal behavior, and foaming ability. *Polymer*, 181(September).
<https://doi.org/10.1016/j.polymer.2019.121803>
- Wang, K., Chen, Y., Long, H., Baghani, M., Rao, Y., & Peng, Y. (2021). Hygrothermal aging effects on the mechanical properties of 3D printed composites with different stacking sequence of continuous glass fiber layers. *Polymer Testing*, 100, 107242.
<https://doi.org/10.1016/j.polymertesting.2021.107242>
- Wang, Q., Li, T., Wang, B., Liu, C., Huang, Q., & Ren, M. (2020). Prediction of

- void growth and fiber volume fraction based on filament winding process mechanics. *Composite Structures*, 246(April), 112432.
<https://doi.org/10.1016/j.compstruct.2020.112432>
- Wang, Y., Kong, D., Zhang, Q., Li, W., & Liu, J. (2021). Process parameters and mechanical properties of continuous glass fiber reinforced composites-poly(lactic acid) by fused deposition modeling. *Journal of Reinforced Plastics and Composites*, 40(17–18), 686–698.
<https://doi.org/10.1177/0731684421998017>
- Wong, K. V., & Hernandez, A. (2012). A Review of Additive Manufacturing. *ISRN Mechanical Engineering*, 2012, 1–10.
<https://doi.org/10.5402/2012/208760>
- Xu, J., Ma, Y., Zhang, Q., Sugahara, T., Yang, Y., & Hamada, H. (2016). Crashworthiness of carbon fiber hybrid composite tubes molded by filament winding. *Composite Structures*, 139, 130–140.
- Yang, Z., Peng, H., Wang, W., & Liu, T. (2010). Crystallization behavior of poly(ϵ -caprolactone)/layered double hydroxide nanocomposites. *Journal of Applied Polymer Science*, 116(5), 2658–2667. <https://doi.org/10.1002/app>
- Zha, Y., Ma, Q., Gan, X., Cai, M., & Zhou, T. (2020). Deformation and energy absorption characters of Al-CFRP hybrid tubes under quasi-static radial compression. *Polymer Composites*, 41(11), 4602–4618.
<https://doi.org/10.1002/pc.25737>
- Zhang, X., Zhang, H., Li, D., Xu, H., Huang, Y., Liu, Y., Wu, D., & Sun, J. (2021). Highly thermally conductive and electrically insulating polydimethylsiloxane composites prepared by ultrasonic-assisted forced infiltration for thermal management applications. *Composites Part B: Engineering*, 224(May), 109207.
<https://doi.org/10.1016/j.compositesb.2021.109207>