DAFTAR PUSTAKA

Al Rashid, A., & Koç, M. (2024). Additive manufacturing for sustainability, circularity and zero-waste: 3DP products from waste plastic bottles. *Composites Part C: Open Access*, *14*, 100463. https://doi.org/10.1016/J.JCOMC.2024.100463

Amirudin, A., Inoue, C., & Grause, G. (2023). Rethinking Waste Management in Indonesia Using Public-Private Partnership Framework: A Case Study of Akhmad Amirudin PET Bottle Waste Management. *Nature Environment and Pollution Technology*, *22*(1), 29–38. https://doi.org/10.46488/NEPT.2023.v22i01.003

Arrigo, R., Battegazzore, D., Bernagozzi, G., Cravero, F., Ribero Pedraza, D. N., & Frache, A. (2022). Recycled PP for 3D Printing: Material and Processing Optimization through Design of Experiment. *Applied Sciences*, *12*(21), 10840. https://doi.org/10.3390/app122110840

Bałazińska, M., Kruczek, M., & Bondaruk, J. (2021). The environmental impact of various forms of waste PET bottle management. *International Journal of Sustainable Development & World Ecology*, *28*(5), 473–480. https://doi.org/10.1080/13504509.2020.1865473

Budiyantoro, C., Rochardjo, H. S. B., & Nugroho, G. (2020). Effects of Processing Variables of Extrusion–Pultrusion Method on the Impregnation Quality of Thermoplastic Composite Filaments. *Polymers*, *12*(12), 2833. https://doi.org/10.3390/polym12122833

Cao, F., Wang, L., Zheng, R., Guo, L., Chen, Y., & Qian, X. (2022). Research and progress of chemical depolymerization of waste PET and high-value application of its depolymerization products. *RSC Advances*, *12*(49), 31564–31576. https://doi.org/10.1039/D2RA06499E

Chen, J., Peng, B., Liu, Y., & Yang, Z. (2014). Obtaining optimal membership functions using fuzzy-based Taguchi method. *2014 International Conference on Fuzzy Theory and Its Applications (IFUZZY2014)*, 82–86. https://doi.org/10.1109/iFUZZY.2014.7091237

Chen, W. T., Merrett, H. C., Liu, S.-S., Fauzia, N., & Liem, F. N. (2022). A Decade of Value Engineering in Construction Projects. *Advances in Civil Engineering*, *2022*(1). https://doi.org/10.1155/2022/2324277

Esya Abinda, A., Rollastin, B., & Pristiansyah, P. (2025). Pengaruh Suhu Mesin Pembuat Filamen 3D Printing Dari Kemasan Mineral Terhadap hasil Filamen Menggunakan Uji Tarik. *Jurnal Inovasi Teknologi Terapan*, *3*(2), 544–551. https://doi.org/10.33504/jitt.v3i2.329

Garud, S. S., Karimi, I. A., & Kraft, M. (2017). Design of computer experiments: A review. *Computers & Chemical Engineering*, *106*, 71–95. https://doi.org/10.1016/J.COMPCHEMENG.2017.05.010

Güldane, M. (2023). Optimizing foam quality characteristics of model food using Taguchi-based fuzzy logic method. *Journal of Food Process Engineering*, *46*(8). https://doi.org/10.1111/jfpe.14384

Hamzaçebi, C. (2021). Taguchi Method as a Robust Design Tool. In *Quality Control - Intelligent Manufacturing, Robust Design and Charts*. IntechOpen. https://doi.org/10.5772/intechopen.94908

Hartig, S., Hildebrandt, L., Fette, M., Meyer, T., Musienko, E., Redlich, T., & Wulfsberg, J. (2022). Process parameter determination for small recycling plants for the production of filament for FFF printing using the Taguchi method. *Progress in Additive Manufacturing*, *7*(1), 87–97. https://doi.org/10.1007/s40964-021-00218-x

Herianto, Atsani, S. I., & Mastrisiswadi, H. (2020). Recycled Polypropylene Filament for 3D Printer: Extrusion Process Parameter Optimization. *IOP Conference Series: Materials Science and Engineering*, *722*(1), 012022. https://doi.org/10.1088/1757-899X/722/1/012022

Huan, X., Jagalur, J., & Marzouk, Y. (2024). Optimal experimental design: Formulations and computations. *Acta Numerica*, *33*, 715–840. https://doi.org/10.1017/S0962492924000023

Hughes, S. W. (2006). Measuring liquid density using Archimedes' principle. *Physics Education*, *41*(5), 445. https://doi.org/10.1088/0031-9120/41/5/011

Ikeagwuani, C. C., & Nwonu, D. C. (2022). Application of fuzzy logic and grey based Taguchi approach for additives optimization in expansive soil treatment. *Road Materials and Pavement Design*, *23*(4), 849–873. https://doi.org/10.1080/14680629.2020.1847726

Khairuddin, S. H., Hasan, M. H., Hashmani, M. A., & Azam, M. H. (2021). Generating Clustering-Based Interval Fuzzy Type-2 Triangular and Trapezoidal Membership Functions: A Structured Literature Review. *Symmetry*, *13*(2), 239. https://doi.org/10.3390/sym13020239

Latko-Durałek, P., Dydek, K., & Boczkowska, A. (2019). Thermal, Rheological and Mechanical Properties of PETG/rPETG Blends. *Journal of Polymers and the Environment*, *27*(11), 2600–2606. https://doi.org/10.1007/s10924-019-01544-6

Lee, B. C. Y., Mahtab, M. S., Neo, T. H., Farooqi, I. H., & Khursheed, A. (2022). A comprehensive review of Design of experiment (DOE) for water and

wastewater treatment application - Key concepts, methodology and contextualized application. *Journal of Water Process Engineering*, *47*, 102673. https://doi.org/10.1016/J.JWPE.2022.102673

Meraj, M., Ku, P. X., Choo, H. L., & Aung, P. P. (2024). Design and Development of an Automated PET Plastic Bottle 3D Printer Filament Making Machine. *Journal of Physics: Conference Series*, *2923*(1), 012005. https://doi.org/10.1088/1742-6596/2923/1/012005

Mitra, A. (2011). The Taguchi method. *Wiley Interdisciplinary Reviews: Computational Statistics*, *3*(5), 472–480. https://doi.org/10.1002/WICS.169;PAGE:STRING:ARTICLE/CHAPTER

Nikam, M., Pawar, P., Patil, Ajinkya, Patil, Anuj, Mokal, K., & Jadhav, S. (2024). Sustainable fabrication of 3D printing filament from recycled PET plastic. *Materials Today: Proceedings*, *103*, 115–125. https://doi.org/10.1016/J.MATPR.2023.08.205

Padhi, S. K., Sahu, R. K., Mahapatra, S. S., Das, H. C., Sood, A. K., Patro, B., & Mondal, A. K. (2017). Optimization of fused deposition modeling process parameters using a fuzzy inference system coupled with Taguchi philosophy. *Advances in Manufacturing 2017 5:3*, *5*(3), 231–242. https://doi.org/10.1007/S40436-017-0187-4

Panowicz, R., Konarzewski, M., Durejko, T., Szala, M., Łazińska, M., Czerwińska, M., & Prasuła, P. (2021). Properties of Polyethylene Terephthalate (PET) after Thermo-Oxidative Aging. *Materials*, *14*(14), 3833. https://doi.org/10.3390/ma14143833

Pasuryan Muhammad, D., Doni Widodo, R., & Irfan Nuryanta, M. (2025). Pengaruh Infill Patern dan Layer Layerthickness terhadap Kekuatan Impact, Bending, dan Densitas menggunakan Filamen dari Botol Plastik Bekas Influence of Infill Pattern and Layer Layerthickness on Impact Strength, Flexural Strength, and Density of Filaments Made from Recycled Plastic Bottles. *Jurnal Kajian Ilmiah Dan Teknologi Teknik Mesin*, *10*(1), 2541–3562. https://doi.org/10.32528/jp.v10i1.3756

Payal, H., Maheshwari, S., Bharti, P. S., & Sharma, S. K. (2019). Multi-objective optimisation of electrical discharge machining for Inconel 825 using Taguchi-fuzzy approach. *International Journal of Information Technology*, *11*(1), 97–105. https://doi.org/10.1007/s41870-018-0102-7

Prasad, G., Arunav, H., Dwight, S., Ghosh, M. B., Jayadev, A., & Nair, D. I. (2024). Advancing Sustainable Practices in Additive Manufacturing: A Comprehensive Review on Material Waste Recyclability. *Sustainability 2024, Vol. 16, Page 10246*, *16*(23), 10246. https://doi.org/10.3390/SU162310246

Quinlan, H. E., Hasan, T., Jaddou, J., & Hart, A. J. (2017). Industrial and Consumer Uses of Additive Manufacturing: A Discussion of Capabilities, Trajectories, and Challenges. *Journal of Industrial Ecology*, *21*(S1). https://doi.org/10.1111/jiec.12609

Rahman, I., & Gandasasmita, A. E. (2024). *Environmental impact analysis of polyethylene terephthalate plastic recycling process using life-cycle assessment*. 050015. https://doi.org/10.1063/5.0144971

Ranteliling, C. I., Misrianto, & Andivas, M. (2025). ANALISIS LEBAR POTONGAN BOTOL PLASTIK IDEAL PADA PEMBUATAN FILAMEN PET MENGGUNAKAN MESIN 3D PULTRUSION HIKU TECH. *Jurnal Ilmiah Teknik Industri*, *13*(1), 41–54. https://doi.org/10.24912/JITIUNTAR.V13I1.31490

Refat, M., Maertens, R., Weiss, P., Henning, F., Schulze, V., & Liebig, W. V. (2025). Investigation of the Influence of Manufacturing on Filament Production and Its Impact on Additive Manufactured Structures. *Polymers*, *17*(5), 651. https://doi.org/10.3390/polym17050651

Ror, C. K., Negi, S., & Mishra, V. (2023). Development and characterization of sustainable 3D printing filaments using post-consumer recycled PET: processing and characterization. *Journal of Polymer Research*, *30*(9), 1–11. https://doi.org/10.1007/S10965-023-03742-2/METRICS

Sadollah, A. (2018). Introductory Chapter: Which Membership Function is Appropriate in Fuzzy System? In *Fuzzy Logic Based in Optimization Methods and Control Systems and its Applications*. InTech. https://doi.org/10.5772/intechopen.79552

Sahu, J. K., Sahu, R. K., Katiyar, J. K., & Kiran, P. S. (2023). Optimisation of process parameters for dimensional stability in FDM. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*. https://doi.org/10.1177/09544089231206800;SUBPAGE:STRING:ABSTRACT;WEBSITE:WEBSITE:SAGE;REQUESTEDJOURNAL:JOURNAL:PIEA;WGROUP:STRING:PUBLICATION

Sun, X., Shi, Z., & Zhu, J. (2021). Multiobjective Design Optimization of an IPMSM for EVs Based on Fuzzy Method and Sequential Taguchi Method. *IEEE Transactions on Industrial Electronics*, *68*(11), 10592–10600. https://doi.org/10.1109/TIE.2020.3031534

Tanash, M., Al Athamneh, R., Bani Hani, D., Rababah, M., & Albataineh, Z. (2022). A PDCA Framework towards a Multi-Response Optimization of Process

Parameters Based on Taguchi-Fuzzy Model. *Processes*, *10*(9), 1894. https://doi.org/10.3390/pr10091894

Tipboonsri, P., Pramoonmak, S., Uawongsuwan, P., & Memon, A. (2023). Optimization of Thermoplastic Pultrusion Parameters of Jute and Glass Fiber-Reinforced Polypropylene Composite. *Polymers*, *16*(1), 83. https://doi.org/10.3390/polym16010083

Toghan, A., Alduaij, O. K., Sanad, M. M. S., & Elessawy, N. A. (2024). Scalable Engineering of 3D Printing Filaments Derived from Recycling of Plastic Drinking Water Bottle and Glass Waste. *Polymers 2024, Vol. 16, Page 3195*, *16*(22), 3195. https://doi.org/10.3390/POLYM16223195

Tong, L., & Su, C. (1997). OPTIMIZING MULTI-RESPONSE PROBLEMS IN THE TAGUCHI METHOD BY FUZZY MULTIPLE ATTRIBUTE DECISION MAKING. *Quality and Reliability Engineering International*. https://doi.org/10.1002/(SICI)1099-1638(199701)13:1

Tunçel, O., Tüfekci, K., & Kahya, Ç. (2024). Multi-objective optimization of 3D printing process parameters using gray-based Taguchi for composite PLA parts. *Polymer Composites*, *45*(14), 12870–12884. https://doi.org/10.1002/pc.28674

Ulkir, O., & Akgun, G. (2025). Fuzzy logic and taguchi approach for compressive strength prediction of ABS components fabricated by AM. *Journal of Thermoplastic Composite Materials*. https://doi.org/10.1177/08927057251344197;REQUESTEDJOURNAL:JOURNAL:JTCA;PAGE:STRING:ARTICLE/CHAPTER

Ulkir, O., Akgun, G., & Karadag, A. (2025). Mechanical Behavior Prediction of 3D-Printed PLA/Wood Composites Using Artificial Neural Network and Fuzzy Logic. *Polymers for Advanced Technologies*, *36*(2), e70103. https://doi.org/10.1002/PAT.70103

Van de Voorde, B., Katalagarianakis, A., Huysman, S., Toncheva, A., Raquez, J. M., Duretek, I., Holzer, C., Cardon, L., Bernaerts, K. V., Van Hemelrijck, D., Pyl, L., & Van Vlierberghe, S. (2022). Effect of extrusion and fused filament fabrication processing parameters of recycled poly(ethylene terephthalate) on the crystallinity and mechanical properties. *Additive Manufacturing*, *50*, 102518. https://doi.org/10.1016/J.ADDMA.2021.102518

Veluwenkamp, H., & van den Hoven, J. (2023). Design for values and conceptual engineering. *Ethics and Information Technology*, *25*(1), 2. https://doi.org/10.1007/s10676-022-09675-6

Viora, L., Combeau, M., Pucci, M. F., Perrin, D., Liotier, P.-J., Bouvard, J.-L., & Combeaud, C. (2023). A Comparative Study on Crystallisation for Virgin and Recycled Polyethylene Terephthalate (PET): Multiscale Effects on Physico-Mechanical Properties. *Polymers*, *15*(23), 4613. https://doi.org/10.3390/polym15234613

Wang, M., Zhang, M., Pang, L., Yang, C., Zhang, Y., Hu, J., & Wu, G. (2019). Fabrication of highly durable polysiloxane-zinc oxide (ZnO) coated polyethylene terephthalate (PET) fabric with improved ultraviolet resistance, hydrophobicity, and thermal resistance. *Journal of Colloid and Interface Science*, *537*, 91–100. https://doi.org/10.1016/j.jcis.2018.10.105

Wirantara, R., Syamsiro, M., & Mulyanti, J. (2025). Pemanfaatan Limbah Plastik PET Sebagai Filamen Printer 3D dengan Metode Pultrusi. *Infotekmesin*, *16*(1), 166–174. https://doi.org/10.35970/infotekmesin.v16i1.2467

Yang, H., Rao, P., Simpson, T., Lu, Y., Witherell, P., Nassar, A. R., Reutzel, E., & Kumara, S. (2021). Six-Sigma Quality Management of Additive Manufacturing. *Proceedings of the IEEE*, *109*(4), 347–376. https://doi.org/10.1109/JPROC.2020.3034519

Younis Elfargani, M. S. (2023a). Value Engineering Techniques and its Application in Construction Projects. *Journal of Engineering and Applied Sciences Technology*, 1–6. https://doi.org/10.47363/JEAST/2023(5)171

Younis Elfargani, M. S. (2023b). Value Engineering Techniques and its Application in Construction Projects. *Journal of Engineering and Applied Sciences Technology*, 1–6. https://doi.org/10.47363/JEAST/2023(5)171