

DAFTAR PUSTAKA

- Abas, M., Salah, B., Khalid, dkk. (2020). Experimental investigation and statistical evaluation of optimized cutting process parameters and cutting conditions to minimize cutting forces and shape deviations in al6026-t9. *Materials*, 13(19), 1–21. <https://doi.org/10.3390/ma13194327>
- Abdallah, A. A. (2020). How can lean manufacturing lead the manufacturing sector during health pandemics such as COVID 19: A multi response optimization framework. *Computers, Materials and Continua*, 66(2), 1397–1410. <https://doi.org/10.32604/cmc.2020.013733>
- Abebe, R., & Gopal, M. (2023). Exploring the effects of vibration on surface roughness during CNC face milling on aluminum 6061-T6 using sound chatter. *Materials Today: Proceedings*, 90, 43–49.
- Al Maajid, A., Haryono, E., Aldyanto, F., dkk. (2020). Desain, Proses Pembuatan, Analisis Kekuatan Mekanik Dan Pengaruh Temperatur Pada Desain Mold Aluminium Tipe Gravity Berbahan Baku Besi Tuang Kelabu. *IMDeC*, 2.
- Ali, M., Ratlamwala, T. A. H., dkk. (2022). Machining of Carbon Steel under Aqueous Environment: Investigations into Some Performance Measures. *Coatings*, 12(8). <https://doi.org/10.3390/coatings12081203>
- Allam, T. S., & Sumbodo, W. (2020). Pengaruh Laju Pemakanan dan Kedalaman Pemakanan Pada Proses Cnc Turning Terhadap Tingkat Kekasaran Permukaan Baja ST 60. *Jurnal Kompetensi Teknik*, 12.
- Anggoro, P. W., Bawono, B., Jamari, J., dkk. (2021). Advanced design and manufacturing of custom orthotics insoles based on hybrid Taguchi-response surface method. *Heliyon*, 7(3). <https://doi.org/10.1016/j.heliyon.2021.e06481>
- Anggoro, P. W., Purharyono, Y., dkk. (2022). Optimisation of cutting parameters of new material orthotic insole using a Taguchi and response surface methodology approach. *Alexandria Engineering Journal*, 61(5), 3613–3632. <https://doi.org/10.1016/j.aej.2021.08.083>
- Ariff, Z. M., Afolabi, L. O., Salmazo, L. O., dkk. (2020). Effectiveness of microwave processing approach and green blowing agents usage in foaming natural rubber. *Journal of Materials Research and Technology*, 9(5), 9929–9940. <https://doi.org/10.1016/j.jmrt.2020.06.096>
- Atmaja, D. H. (2024). *Pengaruh Holding Time Dan Massa Karbon Terhadap Kekerasan Baja Karbon Rendah Aisi 1020 Pada Proses Pack Carburizing*. Universitas Islam Sumatera Utara.
- Aziz, M., & Saraswati, R. (2022). Optimalisasi Parameter Mesin CNC Milling 3 Axis terhadap Waktu Produksi dengan Menggunakan Response Surface Methodology. *Formosa Journal of Applied Sciences*, 1(4), 293–304. <https://doi.org/10.55927/fjas.v1i4.1089>
- Baharuddin, M. H., Rashid, A. M. A., Abdullah, N. N. A. A., dkk. (2024). Patient-Specific Design of Prosthesis for Below Knee Amputee Analysis Between

Different Gait. *INTERNATIONAL JOURNAL OF INTEGRATED ENGINEERING*, 16(5), 214–223.

- BAL, B. C., MENGELOĞLU, F., AKÇAKAYA, E., dkk. (2022). Effects of Cutter Parameters on Surface Roughness of Fiberboard and Energy Consumption of CNC Machine. *Kastamonu Üniversitesi Orman Fakültesi Dergisi*, 22(3), 264–272. <https://doi.org/10.17475/kastorman.1215347>
- Balan, G. S., Balasundaram, R., Chellamuthu, K., dkk. (2022). Flame Resistance Characteristics of Woven Jute Fiber Reinforced Fly Ash Filled Polymer Composite. *Journal of Nanomaterials*, 2022. <https://doi.org/10.1155/2022/9704980>
- Bawono, B., Anggoro, P. W., Tauviqirrahman, M., dkk. (2019). *Optimization Parameters Tooling Design to Increase the Surface Quality of Orthotic Insole Shoes using the Taguchi Approach and Surface Response Methods*. www.sciencedirect.com
- Brackx, B., Van Damme, M., Matthys, A., dkk. (2013). Passive ankle-foot prosthesis prototype with extended push-off. *International Journal of Advanced Robotic Systems*, 10. <https://doi.org/10.5772/55170>
- Cardoso, S. M., Ribeiro, M. M., Silva, D. S., dkk. (2024). Increased virtual resolution for sub-pixel displacement algorithm optimization in digital image correlation for AISI 1020 steel. *Journal of Materials Research and Technology*, 33, 4206–4214. <https://doi.org/10.1016/j.jmrt.2024.10.116>
- Chauhan, S., trehan, R., & Singh, R. P. (2024). Classification of surface roughness for CNC face milling of Inconel 625 superalloy utilizing cutting force signal features with SVM and ANN. *Materials Today: Proceedings*, 113, 9–18.
- Chehade, M. H., Sylla, A., Diallo, A. R., dkk. (2024). Manufacturing time estimation for offer pricing: A machine learning application in a French metallurgy industry. *Engineering Applications of Artificial Intelligence*, 137(109089).
- Chen, H. L., Li, T., Liang, Y., dkk. (2017). Experimental study of temperature distribution in rubber material during microwave heating and vulcanization process. *Heat and Mass Transfer/Waerme- Und Stoffuebertragung*, 53(3), 1051–1060. <https://doi.org/10.1007/s00231-016-1877-3>
- Dewangan, S., Mainwal, N., Khandelwal, M., dkk. (2022). Performance analysis of heat treated AISI 1020 steel samples on the basis of various destructive mechanical testing and microstructural behaviour. *Australian Journal of Mechanical Engineering*, 20(1), 74–87. <https://doi.org/10.1080/14484846.2019.1664212>
- El-Gaddar, A., Azab, A., & Baki, M. F. (2024). Batch-Sizing and Machinability Data Systems for Milling Operations_ An Optimal Sustainable Cost of Quality Approach. *Manufacturing Letters*, 41, 19–30.
- Emzain, Z. F., Amrullah, U. S., & Mufarrih, AM. (2020). Desain dan Analisis Elemen Hingga Model Prosthetic Ankle-Foot. *Jurnal Infotekmesin*, 11(02).
- Fahrizal, F., Yudo, E., & Anggry, A. (2021). Optimasi Kekasaran Permukaan Baja SKD11 pada Proses CNC Milling dengan Menggunakan Metode Taguchi. *Jurnal Syntax Admiration*, 2(7), 1237–1244. <https://doi.org/10.46799/jsa.v2i7.262>

- Feldhausen, T., Paramanathan, M., Heineman, J., dkk. (2023). Hybrid Manufacturing of Conformal Cooling Channels for Tooling. *Journal of Manufacturing and Materials Processing*, 7(2). <https://doi.org/10.3390/jmmp7020074>
- Fitrianto, T. R., & Dharmastiti, R. (2023). Perancangan Produk Kaki Prostetik Bawah Lutut Berdasarkan Berbagai Kriteria Pengguna Usia 15-64 Tahun. *Jurnal Kreatif: Desain Produk Industri Dan Arsitektur*, 11, 63–73.
- Fiyana, R. H., Lubis, M. P. D., & Dewanto, H. A. (2023). Pengaruh Rasio Penggunaan Pasir Baru dengan Pasir Bekas Terhadap Kadar Abu / Lost on Ignition (LOI) dan Kekuatan Tarik Pasir pada Cetakan Pasir Kering. *SPECTA Journal of Technology*, 7(1). <https://doi.org/10.35718/specta.v7i1.241>
- Gunaraj, L., Paul, S., Jazeel, M., dkk. (2023). Optimization of Cutting Parameters for Hard Boring of AISI 4340 Steel Using Signal-to-Noise Ratio, Grey Relation Analysis and Analysis of Variance. *Periodica Polytechnica Mechanical Engineering*, 67(4), 259–269. <https://doi.org/10.3311/PPme.21729>
- Guo, G. (2022). Investigation on surface roughness of injection molded polypropylene parts with 3D optical metrology. *International Journal on Interactive Design and Manufacturing*, 16(1), 17–23. <https://doi.org/10.1007/s12008-021-00796-8>
- Halimah, P., & Ekawati, Y. (2020). Penerapan Metode Taguchi untuk Meningkatkan Kualitas Bata Ringan pada UD. XY Malang. *JIEMS (Journal of Industrial Engineering and Management Systems)*, 13(1). <https://doi.org/10.30813/jiems.v13i1.1694>
- Hamamci, M., & Topal, E. S. (2015). Consideration of Step-Over Ratio in Optimization of Cutting Parameters for Surface Roughness During High Speed Machining. In *Journal of the Balkan Tribological Association* (Vol. 21, Issue 4).
- Hanafiah, M. A., Aziz, A. A., & Yusoff, A. R. (2021). *Influence of Cutting Parameters to Surface Area Roughness in Dimple Machining Using Milling Process*. 18(3).
- Handoyo, Y. (2022). Variasi Cutting Speed dan Depth of cut Terhadap Tingkat Kekasaran Permukaan Mold Baja STAVAX ESR. In *Jurnal Ilmiah Teknik Mesin* (Vol. 10, Issue 1). <http://ejournal.unismabekasi.ac.id>
- Hendra, Saputra, Y., Putri, dkk. (2022). Perbandingan pembuatan produk menggunakan simulasi program CNC dan CNC Milling. *METAL: Jurnal Sistem Mekanik Dan Termal*, 6(1), 53. <https://doi.org/10.25077/metal.6.1.53-59.2022>
- Hurtado, O. J. Z., Tiralongo, V. C. D. G., & Aguirre, M. C. C. (2017). Effect of surface hardness and roughness produced by turning on the torsion mechanical properties of annealed aisi 1020 steel. *Revista Facultad De Ingeniería Universidad De Antioquia*, 84, 55–59.
- Hussain, A., Sharif, A., Siddiqi, M. U. R., dkk. (2024). Deform 3D Simulation and Experimental Study in Machining of AISI 1020 Mild Steel. *Journal of Engineering (United Kingdom)*, 2024. <https://doi.org/10.1155/2024/9085919>
- Ibrahim, M. A., Kai, H., & Mukhtar Usman, M. (2020). Application of CAD/CAM in the Design of Machining Process and Tooling Devices for Flange Tube. *Jurnal Kejuruteraan*, 32(1), 17–23. [https://doi.org/10.17576/jkukm-2020-32\(1\)-03](https://doi.org/10.17576/jkukm-2020-32(1)-03)

- Ikubanni, P. P., Adeleke, A. A., Agboola, O. O., dkk. (2022). Present and Future Impacts of Computer-Aided Design/ Computer-Aided Manufacturing (CAD/CAM). *Journal Europeen Des Systemes Automatises*, 55(3), 349–357. <https://doi.org/10.18280/jesa.550307>
- Iqbal, M., Umardani, Y., & Suprihanto, A. (2021). Perancangan Desain Cetakan Injection Molding Untuk Pembuatan Insole Sepatu Berbahan Silicone Rubber. In *Jurnal Teknik Mesin S-1* (Vol. 9, Issue 3).
- Islam, M. A., Kamarrudin, N. S., Ijaz, M. F., dkk. (2024). Soft material drilling: A thermo-mechanical analysis of polyurethane foam for biomimetic bone scaffolds and optimization of process parameters using Taguchi method. *Heliyon*, 10(17). <https://doi.org/10.1016/j.heliyon.2024.e37465>
- Kang, J., Martelli, D., Vashita, V., dkk. (2017). Robot-driven downward pelvic pull to improve crouch gait in children with cerebral palsy. *Science Robotics*, 2(8), 1–12.
- Khraisat, W., & Abu Jadayil, W. (2024). Qualitative study of carbides in liquid phase sintered M3:2 high speed steel. *Heliyon*, 10(13). <https://doi.org/10.1016/j.heliyon.2024.e33925>
- Kirsch, B., Lange, A., Altherr, N., dkk. (2024). Influence of constant feed per tooth via spindle speed adaption on groove quality in micro milling. *Procedia CIRP*, 123, 458–463. <https://doi.org/10.1016/j.procir.2024.05.080>
- Kumar, J., Singh, S., Tripathi, S., dkk. (2022). Design and fabrication of 3-axis CNC milling machine using additive manufacturing. *Materials Today: Proceedings*, 68, 2443–2451. <https://doi.org/10.1016/j.matpr.2022.09.145>
- Luis Pérez, C. J. (2021). On the application of a design of experiments along with an anfis and a desirability function to model response variables. *Symmetry*, 13(5). <https://doi.org/10.3390/sym13050897>
- Mahendra, A., Yudo, E., & Kurniawan, Z. (2023). Analisis Pengaruh Nilai Parameter Proses Pemesinan Milling Terhadap Kekasaran Permukaan Almunium 7075. *Jurnal Inovasi Teknologi Terapan*, 01(2).
- Marimon, X., Mengual, I., López-de-Celis, C., dkk. (2024). Kinematic Analysis of Human Gait in Healthy Young Adults Using IMU Sensors: Exploring Relevant Machine Learning Features for Clinical Applications. *Bioengineering*, 11(2). <https://doi.org/10.3390/bioengineering11020105>
- Marinković, V. (2021). Some Applications of a Novel Desirability Function in Simultaneous Optimization of Multiple Responses. *FME Transactions*, 49(3), 534–548. <https://doi.org/10.5937/fme2103534M>
- Moussa, Z., Ghoniem, A. A., Elsayed, A., dkk. (2022). Innovative binary sorption of Cobalt (II) and methylene blue by Sargassum latifolium using Taguchi and hybrid artificial neural network paradigms. *Scientific Reports*, 12(1). <https://doi.org/10.1038/s41598-022-22662-7>
- Nalbant, M., Gökkaya, H., & Sur, G. (2007). Application of Taguchi method in the optimization of cutting parameters for surface roughness in turning. *Materials and Design*, 28(4), 1379–1385. <https://doi.org/10.1016/j.matdes.2006.01.008>

- Nosaka, M., Tsujioka, K., Matsuo, Y., dkk. (2021). Effect of the Microstructures on Vulcanized Rubber Frictions. *Langmuir*, 37(21), 6459–6467.
- Nugraha, A., Saputro, F. R. T., & Kurniawan, A. (2023). Optimasi Parameter Strategi Pemotongan 2d Contour Cnc Milling Terhadap Kekasaran Permukaan Dan Kebulatan Dengan Metode Taguchi dan ANOVA. *AL JAZARI: JURNAL ILMIAH TEKNIK MESIN*, 8(1). <https://doi.org/10.31602/al-jazari.v8i1.10470>
- Nugrahanto, I., Gunawan, H., & Chen, H. (2023). *Innovative Approaches to Sustainable CNC Machining: A Machine Learning Perspective on Energy Optimization*. <https://doi.org/10.20944/preprints202312.2036.v1>
- Poornesh, M., Bhat, S., Gijo, E. V., dkk. (2022). Multi-Response Modelling and Optimisation of Mechanical Properties of Al-Si Alloy Using Mixture Design of Experiment Approach. *Processes*, 10(11). <https://doi.org/10.3390/pr10112246>
- Purbonogroho, H. D. A., Suprihanto, A., & Haryadi, G. D. (2023). Analisis Metode Pengelasan Smaw Terhadap Laju Korosi Dan Nilai Kekerasan Pada Baja Karbon Rendah AISI 1020. *Jurnal Teknik Mesin S-I*, 11, 227–234.
- Qazi, M. I., Abas, M., Khan, R., dkk. (2021). Experimental investigation and multi-response optimization of machinability of AA5005H34 using composite desirability coupled with PCA. *Metals*, 11(2), 1–24. <https://doi.org/10.3390/met11020235>
- Rachman, F., Aditya, L., Sidi, P., dkk. (2024). Optimasi Parameter Mesin Laser Tube Cutting Terhadap Laju Pemotongan Menggunakan Taguchi. *Seminar Nasional Maritim Sains Teknologi Terapan (MASTER)*, 9(1).
- Salsabila, A. T., & Naziyah, N. (2022). Analisis Asuhan Keperawatan Dengan Intervensi Penggunaan Polyurethane Foam Sebagai Balutan Primer Pada Fase Proliferasi Pada Tn. M Dan Ny. R Dengan Diagnosa Medis Diabetic Foot Ulcer Di Wocare Center Bogor Jawa Barat. *JURNAL KREATIVITAS PENGABDIAN KEPADA MASYARAKAT (PKM)*, 5(12), 4440–4451.
- Sanaye, S., & Farvizi, A. (2024). Optimizing a vertical axis wind turbine with helical blades: Application of 3D CFD and Taguchi method. *Energy Reports*, 12, 2527–2547. <https://doi.org/10.1016/j.egy.2024.08.059>
- Sasaki, K., Pinitlertsakun, J., Rattanakoch, J., dkk. (2017). The development and testing of a modified natural rubber CR solid ankle–cushion heel prosthetic foot for developing countries. *Journal of Rehabilitation and Assistive Technologies Engineering*, 4, 205566831771297. <https://doi.org/10.1177/2055668317712978>
- Sekhar, B. R., Nayak, R. K., Rout, S. R., dkk. (2020). Wear characteristic of TiC coated AISI 1020 mild steel fabricated by TIG cladding method. *Material Today: Proceedings*, 26, 3288–3291.
- Setyono, B., Setyono, G., Pratama, S., dkk. (2020). Pengaruh Kecepatan Potong Dan Kedalaman Potong Terhadap Kekasaran Permukaan Baja ST60, Aluminium, Dan Polyethylene Pada Mesin CNC Turning Fanuc Oi Mate TC VT15L Type PU 2A. *Seminar Nasional Sains Dan Teknologi Terapan VIII*, 247.

- Shi, D. M., Huang, T., Zhang, X. M., dkk. (2021). Real-time monitoring of depth of cut in the multi-axis milling process with ball-end cutter. *Procedia CIRP*, 102, 287–292. <https://doi.org/10.1016/j.procir.2021.09.049>
- Soori, M., & Arezoo, B. (2022). *Cutting Tool Path Modification to Uniform Scallop-Height in Three-Axis Milling Operations*. <https://doi.org/10.21203/rs.3.rs-2137112/v1>
- Sulfiana, E., Setiawan Sukardin, M., Pradana Assagaf, I. A., dkk. (2024). Analisis Kekasaran Permukaan Hasil Permesinan CNC Milling Menggunakan Holder Face Mill dengan Insert SEET12T3-DF. *Majamecha*, 6, 129–137.
- Sumbodo, W., Kriswanto, & Jamari, J. (2021). Simulation and Optimization of Machining Time during Milling AISI P20 Steel. *IOP Conference Series: Earth and Environmental Science*, 700(1). <https://doi.org/10.1088/1755-1315/700/1/012002>
- Tadjuddin, M., Suhaeri, Dirhamsyah, M., Aulia, U., dkk. (2020). The Effect of Spindle Speed and Feed Rate on Hole Diameter of High-Speed Micro-Drilling for Micro-Screen Manufacture. *Defect and Diffusion Forum*, 402 DDF, 125–130. <https://doi.org/10.4028/www.scientific.net/DDF.402.125>
- Taufik, A. (2022). *Uji Kekerasan pada Al-Cu Hasil Pengecoran Metode Die Casting dengan Variasi Temperature Tuang dan Tekanan*.
- Uday, A. V., Kandala, K., Solomon, D. G., dkk. (2022). Advantages of Taguchi Method compared to Response Surface Methodology for achieving the Best Surface Finish in Wire Electrical Discharge Machining (WEDM). *Journal of Mechanical Engineering*, 19(1), 185–199.
- Usman, M. K., & Sanjaya, F. L. (2019). Analisa Pengaruh Variasi Putaran Mesin CNC Milling Mcv-1100 Terhadap Sifat Mekanik Logam Aluminium AA 5052-H112. *Nozzle: Journal Mechanical Engineering*, 8(1).
- Varga, J., İzol, P., Vrabel, M., dkk. (2023). Surface Quality Evaluation in the Milling Process Using a Ball Nose End Mill. *Applied Sciences (Switzerland)*, 13(18). <https://doi.org/10.3390/app131810328>
- Vavruska, P., Bartos, F., Stejskal, M., dkk. (2023). Increasing tool life and machining performance by dynamic spindle speed control along toolpaths for milling complex shape parts. *Journal of Manufacturing Processes*, 99, 283–297. <https://doi.org/10.1016/j.jmapro.2023.04.058>
- Wahyudi, H. (2017). Pengembangan Formula Compound Rubber Dalam Pembuatan Sol Sepatu. In *Jurnal Teknik Mesin (JTM)* (Vol. 06, Issue 1).
- Widodo, B. S., Krisnanda, A. R., & Widi, K. A. (2023). Pemakanan terhadap Kekasaran Permukaan dan Kekerasan Baja AISI 1020 pada Mesin Bubut CNC. *Jurnal Flywheel*, 14(2), 74–81.
- Wu, T., Liu, K., & Tovar, A. (2017). Multiphase topology optimization of lattice injection molds. *Computers & Structures*, 192, 71–82.
- Xing, Y., Guo, X., Shu, G., dkk. (2023). Dynamic Crushing Behavior of Ethylene Vinyl Acetate Copolymer Foam Based on Energy Method. *Polymers*, 15(14). <https://doi.org/10.3390/polym15143016>

- Yadav, D. K., Dixit, N. K., Agarwal, D., dkk. (2022). Optimization of surface roughness by design of experiment techniques during CNC milling machining. *Materials Today: Proceedings*, 52, 1919–1923.
- Yaka, H., Demir, H., & Gök, A. (2017). Optimization of the Cutting Parameters Affecting the Surface Roughness on Free Form Surfaces. In *Nat Sci* (Vol. 35, Issue 2).