

DAFTAR PUSTAKA

- [1] Y. R. B. Sitompul, “Resiko Jenis Pekerjaan Dengan Kejadian Carpal Tunnel Syndrome (Cts),” *J. Ilm. WIDYA*, vol. Volum 5 No, pp. 1–7, 2019.
- [2] D. R. Emril, I. Zakaria, and M. Amrya, “Agreement between high-resolution ultrasound and electro-physiological examinations for diagnosis of carpal tunnel syndrome in the Indonesian population,” *Front. Neurol.*, vol. 10, no. AUG, pp. 1–6, 2019, doi: 10.3389/fneur.2019.00888.
- [3] M. Naufal, Hansen, and Ghozali, “Jurnal Ilmu Kesehatan Masyarakat,” *J. Ilmu Kesehat. Masy.*, vol. 10, no. 1, pp. 25–37, 2023.
- [4] S. F. M. Duncan and R. Kakinoki, “Carpal Tunnel Syndrome and Related Median Neuropathies: Challenges and Complications,” *Carpal Tunn. Syndr. Relat. Median Neuropathies Challenges Complicat.*, pp. 1–315, 2017, doi: 10.1007/978-3-319-57010-5.
- [5] J. E. Tulipan and A. M. Ilyas, “Carpal tunnel syndrome surgery: What you should know,” *Plast. Reconstr. Surg. - Glob. Open*, vol. 8, no. 3, p. e2692, 2020, doi: 10.1097/GOX.0000000000002692.
- [6] A. F. Spielman, S. Sankaranarayanan, P. Skowronski, A. S. Lessard, and Z. Panthaki, “Recurrent and persistent carpal tunnel syndrome: ‘Triple-therapy approach,’” *J. Orthop.*, vol. 22, no. September, pp. 431–435, 2020, doi: 10.1016/j.jor.2020.09.003.
- [7] A. Altermatt *et al.*, “Design and construction of an innovative brain phantom prototype for MRI,” *Magn. Reson. Med.*, vol. 81, no. 2, pp. 1165–1171, 2019, doi: 10.1002/mrm.27464.
- [8] A. Tejo-Otero, P. Lustig-Gainza, F. Fenollosa-Artés, A. Valls, L. Krauel, and I. Buj-Corral, “3D printed soft surgical planning prototype for a biliary tract rhabdomyosarcoma,” *J. Mech. Behav. Biomed. Mater.*, vol. 109, 2020, doi: 10.1016/j.jmbbm.2020.103844.
- [9] E. B. Petcu, R. Midha, E. McColl, A. Popa-Wagner, T. V. Chirila, and P. D. Dalton, “3D printing strategies for peripheral nerve regeneration,” *Biofabrication*, vol. 10, no. 3, 2018, doi: 10.1088/1758-5090/aaaf50.
- [10] M. S. Mattus, T. B. Ralph, S. M. Pieta Keller, A. L. Waltz, and M. T. Bramlet, “Creation of Patient-Specific Silicone Cardiac Models with

- Applications in Pre-surgical Plans and Hands-on Training,” *J. Vis. Exp.*, vol. 2022, no. 180, pp. 1–18, 2022, doi: 10.3791/62805.
- [11] J. Maier, M. Weiherer, M. Huber, and C. Palm, “Optically tracked and 3D printed haptic phantom hand for surgical training system,” *Quant. Imaging Med. Surg.*, vol. 10, no. 2, pp. 340–355, 2020, doi: 10.21037/qims.2019.12.03.
- [12] F. Sato *et al.*, “Development of human hand phantom containing radiophotoluminescence material,” *Radiat. Meas.*, vol. 85, pp. 18–25, 2016, doi: 10.1016/j.radmeas.2015.12.006.
- [13] E. Maneas *et al.*, “Anatomically realistic ultrasound phantoms using gel wax with 3D printed moulds,” *Phys. Med. Biol.*, vol. 63, no. 1, 2018, doi: 10.1088/1361-6560/aa9e2c.
- [14] G. Palareti *et al.*, “Comparison between different D-Dimer cutoff values to assess the individual risk of recurrent venous thromboembolism: Analysis of results obtained in the DULCIS study,” *Int. J. Lab. Hematol.*, vol. 38, no. 1, pp. 42–49, 2016, doi: 10.1111/ijlh.12426.
- [15] N. I. Niebuhr *et al.*, “Technical Note: Radiological properties of tissue surrogates used in a multimodality deformable pelvic phantom for MR-guided radiotherapy,” *Med. Phys.*, vol. 43, no. 2, pp. 908–916, 2016, doi: 10.1118/1.4939874.
- [16] A. Farzan, S. Borandeh, and J. Seppälä, “Conductive polyurethane/PEGylated graphene oxide composite for 3D-printed nerve guidance conduits,” *Eur. Polym. J.*, vol. 167, no. January, 2022, doi: 10.1016/j.eurpolymj.2022.111068.
- [17] A. Tejo-Otero, A. Colly, E. J. Courtial, F. Fenollosa-Artés, I. Buj-Corral, and C. A. Marquette, “Soft-tissue-mimicking using silicones for the manufacturing of soft phantoms by fresh 3D printing,” *Rapid Prototyp. J.*, vol. 28, no. 2, pp. 285–296, 2022, doi: 10.1108/RPJ-04-2021-0079.
- [18] D. D. Wang *et al.*, “3D Printing, Computational Modeling, and Artificial Intelligence for Structural Heart Disease,” *JACC Cardiovasc. Imaging*, vol. 14, no. 1, pp. 41–60, 2021, doi: 10.1016/j.jcmg.2019.12.022.
- [19] D. Hong, S. Moon, J. B. Seo, and N. Kim, “Development of a patient-

- specific chest computed tomography imaging phantom with realistic lung lesions using silicone casting and three-dimensional printing,” *Sci. Rep.*, vol. 13, no. 1, pp. 1–9, 2023, doi: 10.1038/s41598-023-31142-5.
- [20] D. P. G. Nilsson *et al.*, “Patient-specific brain arteries molded as a flexible phantom model using 3D printed water-soluble resin,” *Sci. Rep.*, vol. 12, no. 1, pp. 1–9, 2022, doi: 10.1038/s41598-022-14279-7.
- [21] G. Rotem and A. Arami, “Carpal Tunnel Syndrome,” *Isr. Med. Assoc. J.*, vol. 25, no. 7, pp. 507–510, 2023, doi: 10.37824/jkqh.v10i2.2022.388.
- [22] B. M. Huisstede, J. van den Brink, M. S. Randsdorp, S. J. Geelen, and B. W. Koes, “Effectiveness of Surgical and Postsurgical Interventions for Carpal Tunnel Syndrome—A Systematic Review,” *Arch. Phys. Med. Rehabil.*, vol. 99, no. 8, pp. 1660-1680.e21, 2018, doi: 10.1016/j.apmr.2017.04.024.
- [23] H. Rudolph, R. G. Luthardt, and M. R. Graf, “„Computer aided design/computer aided manufacturing“,” *Freie Zahnarzt*, vol. 59, no. 7–8, pp. 62–72, 2015, doi: 10.1007/s12614-015-5448-7.
- [24] D. Djuhana and A. D. Yulianto, “Plate Mold dengan Software Simulasi (Solidworks 3D),” *J. Tech. Eng.*, vol. 3, no. 2, pp. 6–16, 2020, [Online]. Available: <http://openjournal.unpam.ac.id/index.php/Piston/article/view/7222>
- [25] A. A. PRABOWO, “Halaman judul 2020,” pp. 1–24, 2020.
- [26] J. H. Sinaga, “Pembuatan Desain Core dan Cavity Mangkuk Plastik Menggunakan Software Solidworks,” *Skripsi*, vol., no., pp. 1–50, 2019.
- [27] M. T. Vasques, M. Mori, and D. C. Laganá, “Three-dimensional printing of occlusal devices for temporomandibular disorders by using a free CAD software program: A technical report,” *J. Prosthet. Dent.*, vol. 123, no. 2, pp. 232–235, 2020, doi: 10.1016/j.prosdent.2018.12.017.
- [28] S. hadi Pratama, “Rancang Bangun Alat Peraga Operasi Bibir Sumbing,” 2022.
- [29] Mohammad Noviansyah, “Pengenalan Dasar Matlab,” *Pengenalan Dasar Matlab*, 2019.
- [30] P. A. G. Morais, “Development of a patient-specific phantom model,”

2015.

- [31] A. A. SALIMI, “Simulasi Finite Element Analysis (Fea) Dan Fabrikasi Implan Untuk Perbandingan Kinerja Implan Kovensional Dan Custom Cruciate Retaining (Cr) Untuk Penderita Osteoarthritis Berdasarkan Rekonstruksi Data Mri / Ct Scan,” 2023.
- [32] D. K. Sasaki, P. Mcgeachy, J. E. Alpuche, B. Mccurdy, R. Koul, and A. Dubey, “A modern mold room : Meshing 3D surface scanning , digital design , and 3D printing with bolus fabrication,” no. July, pp. 78–85, 2019, doi: 10.1002/acm2.12703.
- [33] T. H. Saputra, Herianto, and H. A. Pamasaria, “ANALISA PENGARUH PEMILIHAN KOMPONEN TERHADAP KETELITIAN DIMENSI DAN KUALITAS PERMUKAAN PRODUK PADA MESIN 3D PRINTING JENIS FDM (FUSED DEPOSITION MODELLING) Tri,” *Semin. Nas. IENACO – 2019*, pp. 208–214, 2019.
- [34] A. Scribante *et al.*, “Properties of CAD/CAM 3D Printing Dental Materials and Their Clinical Applications in Orthodontics: Where Are We Now?,” *Appl. Sci.*, vol. 12, no. 2, 2022, doi: 10.3390/app12020551.
- [35] S. He, S. Feng, A. Nag, N. Afsarimanesh, T. Han, and S. C. Mukhopadhyay, “Recent progress in 3D printed mold-based sensors,” *Sensors (Switzerland)*, vol. 20, no. 3, 2020, doi: 10.3390/s20030703.
- [36] R. P. P.N, “Optimasi Parameter pada 3D Print Resin untuk Menghasilkan Karakteristik Tribologi yang Terbaik menggunakan Metode Taguchi,” *Jur. Tek. Mesin, Fak. Teknol. Ind.*, 2022.
- [37] X. Xu, J. Zhao, M. Wang, L. Wang, and J. Yang, “3D Printed Polyvinyl Alcohol Tablets with Multiple Release Profiles,” *Sci. Rep.*, vol. 9, no. 1, pp. 1–8, 2019, doi: 10.1038/s41598-019-48921-8.
- [38] R. Ardiansyah, “Pengaruh Kekuatan Tarik Filamen Polylactic Acid (Pla) Terhadap Orientasi Sudut Pencetakan Vertikal Sebesar 90°,” 2022.
- [39] K. Sreekumar, B. Bindhu, and K. Veluraja, “Perspectives of polylactic acid from structure to applications,” *Polym. from Renew. Resour.*, vol. 12, no. 1–2, pp. 60–74, 2021, doi: 10.1177/20412479211008773.
- [40] Haryńska-et-al, “haryńska-et-al-2021-pla-potato-thermoplastic-starch-

- filament-as-a-sustainable-alternative-to-the-conventional-pla.pdf.” 2021.
- [41] M. M. Mille, K. T. Griffin, R. Maass-Moreno, and C. Lee, “Fabrication of a pediatric torso phantom with multiple tissues represented using a dual nozzle thermoplastic 3D printer,” *J. Appl. Clin. Med. Phys.*, vol. 21, no. 11, pp. 226–236, 2020, doi: 10.1002/acm2.13064.
- [42] D. Seprianto, A. Zamheri, A. A. Sani, and N. Y. Mahendra, “Pengaruh Parameter Proses Terhadap Dimensi Casing Gear Dengan Produksi Menggunakan Teknologi 3D Printer Dlp (Digital Light Process),” *J. Poli-Teknologi*, vol. 20, no. 2, 2021, doi: 10.32722/pt.v20i2.3614.
- [43] W. H. Ho, I. J. Tshimanga, M. N. Ngoepe, M. C. Jermy, and P. H. Geoghegan, “Evaluation of a Desktop 3D Printed Rigid Refractive-Indexed-Matched Flow Phantom for PIV Measurements on Cerebral Aneurysms,” *Cardiovasc. Eng. Technol.*, vol. 11, no. 1, pp. 14–23, 2020, doi: 10.1007/s13239-019-00444-z.
- [44] D. Burgos, B. Blumenkopf, A. Afshari, K. Snodderly, and T. J. Pfefer, “Biomimetic tissue phantoms for neurosurgical near-infrared fluorescence imaging,” *Neurophotonics*, vol. 10, no. 01, pp. 1–12, 2023, doi: 10.1117/1.nph.10.1.015007.
- [45] F. Rachmadhani, “Karakterisasi Komposit Silicone Rubber Berpenguat Nanoselulosa Serat Tandan Kosong Kelapa Sawit dan Barium Heksaferrit untuk Aplikasi Penyerap Suara dan Penyerap Radar,” *AL QUDS J. Stud. Alquran dan Hadis*, vol. 3, no. 2, pp. 185–198, 2019, [Online]. Available: <http://journal.iaincurup.ac.id/index.php/alquds/article/view/031>
- [46] A. Al-Jauhari, “Makalah Silikon,” *Dialog*, vol. 44, no. 1, pp. i–Vi, 2021, doi: 10.47655/dialog.v44i1.470.
- [47] A. Pacioni, M. Carbone, C. Freschi, R. Viglialoro, V. Ferrari, and M. Ferrari, “Patient-specific ultrasound liver phantom: materials and fabrication method,” *Int. J. Comput. Assist. Radiol. Surg.*, vol. 10, no. 7, pp. 1065–1075, 2015, doi: 10.1007/s11548-014-1120-y.
- [48] K. Stepniak, A. Ursani, N. Paul, and H. Naguib, “Development of a phantom network for optimization of coronary artery disease imaging using computed tomography,” *Biomed. Phys. Eng. Express*, vol. 5, no. 4, 2019,

doi: 10.1088/2057-1976/ab2696.

- [49] I. A. Tasiekh, “Modifikasi Foglamp Cover Mobil Menggunakan Metode Reverse Engineering LEMBAR PENGESAHAN DOSEN PEMBIMBING Modifikasi Foglamp Cover Mobil Menggunakan Metode Reverse Engineering,” *Jur. Tek. Mesin Fak. Teknol. Ind. Univ. Islam Indones. Yogyakarta*, 2021.
- [50] Y. He *et al.*, “3D-printed breast phantom for multi-purpose and multi-modality imaging,” *Quant. Imaging Med. Surg.*, vol. 9, no. 1, pp. 63–74, 2019, doi: 10.21037/qims.2019.01.05.
- [51] A. J. Cloonan, D. Shahmirzadi, R. X. Li, B. J. Doyle, E. E. Konofagou, and T. M. McGloughlin, “3D-printed tissue-mimicking phantoms for medical imaging and computational validation applications,” *3D Print. Addit. Manuf.*, vol. 1, no. 1, pp. 14–23, 2014, doi: 10.1089/3dp.2013.0010.
- [52] B. Bisighini, P. Di Giovanni, A. Scerrati, F. Trovalusci, and S. Vesco, “Fabrication of Compliant and Transparent Hollow Cerebral Vascular Phantoms for In Vitro Studies Using 3D Printing and Spin–Dip Coating,” *Materials (Basel)*, vol. 16, no. 1, 2023, doi: 10.3390/ma16010166.
- [53] A. Malliori, A. Daskalaki, A. Dermitzakis, and N. Pallikarakis, “Development of Physical Breast Phantoms for X-ray Imaging Employing 3D Printing Techniques,” *Open Med. Imaging J.*, vol. 12, no. 1, pp. 1–10, 2020, doi: 10.2174/1874347102012010001.
- [54] K. Sarjono and A. Chanif, “Pengaruh Las Tahanan Listrik Terhadap Kekuatan Mekanis Pipa Baja Api 5L – X52,” *Sintek*, vol. 52, pp. 13–24, 2009.
- [55] J. Kwon, J. Ock, and N. Kim, “Mimicking the mechanical properties of aortic tissue with pattern-embedded 3d printing for a realistic phantom,” *Materials (Basel)*, vol. 13, no. 21, pp. 1–13, 2020, doi: 10.3390/ma13215042.
- [56] J. Kwon *et al.*, “Modelling and manufacturing of 3D-printed, patient-specific, and anthropomorphic gastric phantoms: a pilot study,” *Sci. Rep.*, vol. 10, no. 1, pp. 1–11, 2020, doi: 10.1038/s41598-020-74110-z.
- [57] E. K. Putra, “Pengaruh Kekuatan Tarik Dan Tekan Pada Bahan Di 3D

- Printer,” *Http://Repository.Umsu.Ac.Id/Xmlui/Handle/123456789/8154*, pp. 4–8, 2019.
- [58] M. Capacity and F. Mesin, “Pusat unggulan teknologi plastik spesifikasi mesin”.
- [59] Arman, “dimana P,” no. mm, p. 2020, 2020.
- [60] A. Wicaksana and T. Rachman, “濟無No Title No Title No Title,” *Angew. Chemie Int. Ed. 6(11)*, 951–952., vol. 3, no. 1, pp. 10–27, 2018, [Online]. Available: <https://medium.com/@arifwicaksanaa/pengertian-use-case-a7e576e1b6bf>
- [61] K. Izdihar, H. R. A. Razak, N. Supion, M. K. A. Karim, N. H. Osman, and M. Norkhairunnisa, “Structural, mechanical, and dielectric properties of polydimethylsiloxane and silicone elastomer for the fabrication of clinical-grade kidney phantom,” *Appl. Sci.*, vol. 11, no. 3, pp. 1–13, 2021, doi: 10.3390/app11031172.
- [62] E. K. O’Brien, D. B. Wayne, K. A. Barsness, W. C. McGaghie, and J. H. Barsuk, “Use of 3D Printing for Medical Education Models in Transplantation Medicine: a Critical Review,” *Curr. Transplant. Reports*, vol. 3, no. 1, pp. 109–119, 2016, doi: 10.1007/s40472-016-0088-7.
- [63] R. Javan, A. L. Ellenbogen, N. Greek, and S. Haji-Momenian, “A prototype assembled 3D-printed phantom of the glenohumeral joint for fluoroscopic-guided shoulder arthrography,” *Skeletal Radiol.*, vol. 48, no. 5, pp. 791–802, 2019, doi: 10.1007/s00256-018-2979-4.
- [64] M. Bahraminasab and F. Farahmand, “State of the art review on design and manufacture of hybrid biomedical materials: Hip and knee prostheses,” *Proc. Inst. Mech. Eng. Part H J. Eng. Med.*, vol. 231, no. 9, pp. 785–813, 2017, doi: 10.1177/0954411917705911.
- [65] L. F. Viera Valencia and D. Garcia Giraldo, “Pembahasan Hasil Uji Tarik,” *Angew. Chemie Int. Ed. 6(11)*, 951–952., vol. 2, pp. 31–42, 2019.
- [66] J. S. Saini, L. Dowling, J. Kennedy, and D. Trimble, “Investigations of the mechanical properties on different print orientations in SLA 3D printed resin,” *Proc. Inst. Mech. Eng. Part C J. Mech. Eng. Sci.*, vol. 234, no. 11, pp. 2279–2293, 2020, doi: 10.1177/0954406220904106.

- [67] J. R. Childe, S. Regal, P. Schimoler, A. Kharlamov, M. C. Miller, and P. Tang, “Fibrin Glue Increases the Tensile Strength of Conduit-Assisted Primary Digital Nerve Repair,” *Hand*, vol. 13, no. 1, pp. 45–49, 2018, doi: 10.1177/1558944717691131.
- [68] T. Yu, C. F. Zhao, P. Li, G. Y. Liu, and M. Luo, “Poly(lactic-co-glycolic acid) conduit for repair of injured sciatic nerve: A mechanical analysis,” *Neural Regen. Res.*, vol. 8, no. 21, pp. 1966–1973, 2013, doi: 10.3969/j.issn.1673-5374.2013.21.005.