

DAFTAR PUSTAKA

- Arthritis Research UK, 2013, Osteoarthritis in General Practice, www.arthritisresearchuk.org online accessed 16 Jun 2019.
- Anguiano-Sanchez, J., Romero, O. M., Siller, H. R., Diaz-Elizondo, J. A., Flores-Villalba, E., and Rodriguez, C. A., 2016, Influence of PEEK Coating on Hip Implant Stress Shielding, *Computational and Mathematical Methods in Medicine*, Article ID 6183679.
- Anjum, Z., Qayyum, F., Khushnood, S., Ahmed, S., and Shah, M., 2015, Prediction of non-propagating fretting fatigue cracks in Ti6Al4V sheet tested under pin-in-dovetail configuration: Experimentation and numerical simulation, *Elsevier Materials and Design*, vol. 87, pp. 750-758.
- Ardra, 2018, Kurva Tegangan Regangan Rekayasa, Nomial Logam, <https://ardra.biz/sain-teknologi/metalurgi/besi-baja-iron-steel/pengujian-sifat-mekanik-bahan-logam/kurva-tegangan-regangan-rekayasa-logam/> online accessed 11 Nov. 2018.
- Atmojo, K. T., dan Sugiyanto, 2011, Prediksi Tegangan Von Mises Femoral Stem Pada Sambungan Tulang Pinggul Buatan Menggunakan Metode Elemen Hingga, *International Repository Universitas Diponegoro*.
- Baharuddin, M.Y., Salleh, SH-Hussain, Zulkifly, A.H., Lee, M.H., Noor, A.M., Harris, A.R.A., Majid, N.A., and Kader, A.S.A, 2014, Design process of cementless femoral stem using a nonlinear three dimensional finite element analysis, *BMC Musculoskeletal Disorders* 15:30.
- Bronshtein, I. N. and Semendyayev, K. A. 1997, *Handbook of Mathematics*, 3rd ed. Springer-Verlag, New York.
- Braileanu, P.I., Crisan, N., and Bou-Said, B., 2018, Custom hip implant design optimization, *ResearchGate*.
- Chethan, K.N., Zuber, M., Bhat N., S., Shenoy B., S., and Kini, C.R., 2019, Static structural analysis of different stem designs used in total hip arthroplasty using finite element method, *Elsevier Heliyon* 5.
- Cho, M., Choi, W.K., and Kim, J.J., 2016, Current concepts of using large femoral heads in total hip arthroplasty, *Hip Pelvis*, vol. 28, no. 3, pp. 134-141.
- Cross, M. B., Revision Total Hip Replacement, <https://orthoinfo.aaos.org/en/treatment/revision-total-hip-replacement>, online accessed 22 Jun 2019.
- Food and Drug Administration of US, 2019, General Information about Hip Implants, <https://www.fda.gov/medical-devices/metal-metal-hip->

- implants/general-information-about-hip-implants, online accessed 22 Jun 2019.
- Gilligan, I., Chandraphak, S., and Mahakkanukrauh, P., 2013, Femoral neck-shaft angle in humans: variation relating to climate, clothing, lifestyle, sex, age, and side, *Journal of Anatomy*, vol. 223, no. 2, pp. 133-151.
- Greaves, G. N., Greer, A. L., Lakes, R. S., and Rouxel, T., 2011, Poisson's Ratio and Modern Materials, *Nature Materials*, vol. 10, pp. 823-837.
- Hadiyat, M.A., 2012, Response-surface dan Taguchi: Sebuah Alternatif atau Kompetisi dalam Optimasi Secara Praktis, *Prosiding Seminar Nasional Industrialisasi Madura*, pp. 3345-3354.
- HealthDirect, 2019, Hip Replacement, <https://www.healthdirect.gov.au/hip-replacement>, online accessed 22 Jun 2019.
- Higa, M., and Mitamura, Y., 2015, Three-dimensional shape optimization of a cemented hip stem and experimental validations, *Journal of Artificial Organs*, no 18, pp.79-85.
- Hollander, M., Wolfe, D.A., Chicken, E., 2014, *Nonparametric Statistical Methods*, John Wiley & Sons, New Jersey
- Indonesian Rheumatology Association, 2014, Rekomendasi Perhimpunan Reumatologi Indonesia untuk Diagnosis dan Penatalaksanaan Osteoarthritis, <http://www.reumatologi.or.id/reurek/download/24> online accessed 22 Jun 2019.
- Janssen, D., Aken, J., Scheerlinck, T., and Verdonschot, N., 2009, Finite element analysis of the effect of cementing concepts on implant stability and cement fatigue failure, *Acta Orthopaedica 2009*, vol. 80, no. 3, pp. 319–324.
- Junnila, M, Laaksonen, I, Eskelinen, A., Pulkkinen, P., Havelin, L. I., Furnes, O., Fenstad, A.M., B Pedersen, A., Overgaard, S., Karrholm, J., Garellick, G., Malchau, H., and Makela, K.T., 2016, Implant Survival of the most common cemented total hip devices from the Nordic Arthroplasty Register Association database, *Acta Orthopaedica 2016*, vol. 87, no. 6, pp. 546–553.
- Li, X., Li, D., Lian, Q., Guo, H., and Jin, Z, 2010, The Effect of Stem Structure on Stress Distribution of a Custom-Made Hip, *Journal of Engineering in Medicine*, vol. 224, no. 768, pp. 1275-1284.
- Mont M.A., Khanuja H. S., Vakil J. J., and Goddard M. S., 2011, Cementless femoral fixation in total hip arthroplasty. *Journal of Bone and Joint Surgery*, vol. 93 no. 500.
- Montgomery, D.C., and Runger, G.C., 2003, *Applied Statistics and Probability for Engineers*, 3rd Ed., John Wiley & Sons, New York
- Minitab Inc., 2000, *Minitab Statistical Software, Release 13.32*, State College, Pennsylvania.

- Pekedis, M., and Yildiz, H., 2011, Comparison of fatigue behaviour of eight different hip stems: a numerical and experimental study, *J. Biomedical Science and Engineering* 4, 643-650.
- Phedy, P., Ismail, H.D., Hoo, C., and Djaja, Y.P., 2017, Total hip replacement: A meta-analysis to evaluate survival of cemented, cementless, and hybrid implants, *World Journal of Orthopedics*, vol. 8, no. 2, pp. 192-207.
- Rajpura, A., and Board, T., 2013, *Complications Following Total Hip Arthroplasty*, Chapt.17, IntechOpen.
- Ramos, A., Fonseca, F., and Simões, J.A., 2003, A Preliminary Investigation on the Influence of Cross Section Geometry on Cemented Interface Stresses in Femoral Hip Replacement, *Summer Bioengineering Conference*.
- Ro, J., Kim, P., and Shin, C. S., 2018, Optimizing Total Hip Replacement Prosthesis Design, *International Journal of Precision Engineering And Manufacturing* vol. 19, no. 1, pp. 119-127.
- Ruben, R. B., Fernandes, P. R., and Folgado, J., 2012, On the optimal shape of hip implants, *Journal of Biomechanics*, vol.45, pp. 239-246
- Sayyidmousavi, A., and Bougherara H., 2011, Investigation of stress shielding around the Stryker Omnifit and Exeter periprosthetic hip implants using an irreversible thermodynamic-based model, *Society for Biomaterial*.
- Scheerlinck, T., and Casteleyn, P-P, 2006, The design features of cemented femoral hip implants *C. Te Journal of Bone & Joint Surgery (Br)*, vol.88, no. 11, pp. 1409-1418.
- SimWiki, 2017, What is Finite Element Analysis? <https://www.simscale.com/docs/content/simwiki/fea.html> online accessed on 22 Jun 2018.
- Taj, Nidumolu, E. C. P., Krishna, P. G., and Kumar, B. P., 2017, Finite Element Modelling and Analysis of Hip Joint Prosthesis with Modular Stem, *International Journal of Mechanical Engineering and Technology (IJMET)*, Vol. 8, Issue 6, pp. 789-795.
- Tsikandylakis, G., Mohaddes, M., Cnudde, P., Eskelinen, A., Karrholm, J., Rolfson, O., 2018, Head size in primary total hip arthroplasty, *EFORT Open Review*, Vol. 3(5), pp. 225-231.
- Widmer, K.H., and Majewski, M., 2005, The Impact of The CCD-Angle on Range of Motion and Cup Positioning in Total Hip Arthroplasty, *C. Elsevier*, vol. 20, no. 7, pp. 723-728.
- Zhang, J., Jin, T., Wang, Z., dan Zhao, L., 2016, Experimental investigation on yield behavior of PMMA under combined shear-compression loading, *Elsevier : Results in Physics*, vol. 6, pp. 265-269.