



## DAFTAR PUSTAKA

- [1] J. Jason, *The VR book: Human centered design for virtual reality*. San Rafael, 2016.
- [2] Y. A. G. Boas, Ed., *Overview of Virtual Reality Technologies*. Computer Science, 2012.
- [3] Z. Shokishalov and H. Wang, “Applying Eye Tracking in Information Security,” 2019.
- [4] Keputusan Menteri Kesehatan Republik Indonesia Nomor 1778/MENKES/SK/XII/, “Pedoman Penyelenggaraan Pelayanan Intensive Care Unit (ICU) Rumah Sakit,” 2010
- [5] M. Siegrist et al., “Consumers’ food selection behaviors in threedimensional (3D) virtual reality,” *Food Res. Int.*, vol. 117, pp. 50–59, Mar. 2019, doi: 10.1016/j.foodres.2018.02.033.
- [6] A. Asadzadeh, T. Samad-Soltani, Z. Salahzadeh, and P. Rezaei-Hachesu, “Effectiveness of virtual reality-based exercise therapy in rehabilitation: A scoping review,” *Informatics Med. Unlocked*, vol. 24, p. 100562, 2021, doi: 10.1016/j.imu.2021.100562.
- [7] R. F. Fela, “Understanding ICU Sonic Environment for Nursing Education by Using Auditory Virtual Reality,” ITB, 2018.
- [8] H. Fauzi, “Virtual Auditory Reality Sebagai Piranti Studi Soundscape di Taman Kearifan Universitas Gadjah Mada,” UGM, 2018.
- [9] A. A. Baytar and K. Bollucuo, “Effect of virtual reality on preoperative anxiety in patients undergoing septorhinoplasty,” *Brazilian J. Anesthesiol. (English Ed.)*, vol. 73, no. 2, pp. 159–164, 2023, doi: 10.1016/j.bjane.2021.08.014.
- [10] Y. Seki and T. Sato, “A Training Sistem of Orientation and Mobility for Blind People Using Acoustic Virtual Reality,” *IEEE Trans. Neural Syst. Rehabil. Eng.*, vol. 10, no. 1, 2011
- [11] Y. Yasui, J. Tanaka, M. Kakudo, and M. Tanaka, “Relationship between preference and gaze in modified food using eye tracker,” *J. Prosthodont. Res.*, vol. 63, no. 2, pp. 210–215, Apr. 2019, doi: 10.1016/j.jpor.2018.11.011.





- [12] H. Hartridge and L. C. Thomson, “Methods of investigating eye movements,” in *British Journal of Ophthalmology*, 1948, pp. 581–591.
- [13] J. F. Mackworth and N. H. Mackworth, “Eye Fixations Recorded on Changing Visual Scenes by the Television Eye-Marker,” in *Journal of the Optical Society of America*, 1958, pp. 439–445
- [14] N. H. Mackworth and E. L. Thomas, “Head-mounted eye-marker camera,” in *Journal of the Optical Society of America*, 1958.
- [15] B. Shackel, “Note on mobile eye viewpoint recording,” in *Journal of the Optical Society of America*, 1960, pp. 763–768.
- [16] A. O. Mohamed, “A history of eye gaze tracking,” p. 20.
- [17] F. Deuser, H. Schieber, and C. Lecon, “Kinetosis Analyzation of the Symptoms Occurrence in combination with Eye Tracking,” p. 16.
- [18] T. Löwe, M. Stengel, E.-C. Förster, and S. Grogorick, “Visualization and Analysis of Head Movement and Gaze Data for Immersive Video in Headmounted Displays,” 2015.
- [19] N. Alghamdi and W. Alhalabi, “Fixation Detection with Ray-casting in Immersive Virtual Reality,” *Int. J. Adv. Comput. Sci. Appl.*, vol. 10, no. 7, 2019, doi: 10.14569/IJACSA.2019.0100710.
- [20] J. Wiciak, “VIRTUAL ACOUSTICS IN SOUNDSCAPE ANALYSIS,” p.7.
- [21] D. J. K. Frederic and Wightman, “Headphone simulation of free-field listening. I: Stimulus synthesis,” vol. 85, 1989, pp. 858–867.
- [22] S. Choi, K. Jung, and S. D. Noh, “Virtual reality applications in manufacturing industries: Past research, present findings, and future directions,” *Concurr. Eng.*, vol. 23, no. 1, pp. 40–63, Feb. 2015, doi: 10.1177/1063293X14568814.
- [23] F. Merienne, “Virtual reality: Principles and applications,” dalam *Encyclopedia of Computer Science and Technology*, Second Edition, CRC Press, 2016, hlm. 1–11.
- [24] O. Bamodu dan X. M. Ye, “Virtual reality and virtual reality system components,” *Adv. Mater. Res.*, vol. 765–767, hlm. 1169–1172, 2013.
- [25] T. H. Dani dan G. Rajit, *Mechanical engineers’ handbook*, volume 2: Design, instrumentation, and controls, 4 ed. Nashville, TN: John Wiley & Sons, 2015.





- [26] J. D. Will, W. R. Sherman, dan A. Craig, *Developing virtual reality applications: Foundations of effective design*. Oxford, England: Morgan Kaufmann, 2009.
- [27] G. C. Burdea dan P. Coiffet, *Virtual Reality Technology*, 2 ed. Nashville, TN: John Wiley & Sons, 2003.
- [28] B. Lang, “11 tools for VR painting, modeling, animation, and more – road to VR,” [Roadtovr.com](https://www.roadtovr.com/vr-painting-drawing-modeling-animation-art-toolsquest-pc/). Jan 2021. [Daring]. Tersedia pada: <https://www.roadtovr.com/vr-painting-drawing-modeling-animation-art-toolsquest-pc/>
- [29] “Top 10 best CAD software for all levels,” [3Dnatives.com](https://www.3dnatives.com/en/top10-cad-software180320194/). Mar 2019. [Daring]. Tersedia pada: <https://www.3dnatives.com/en/top10-cad-software180320194/>
- [30] A. Maio, “What is 360 video? How to create an immersive experience,” [Studiobinder.com](https://www.studiobinder.com/blog/what-is-360-video/). Des 2019. [Daring]. Tersedia pada: <https://www.studiobinder.com/blog/what-is-360-video/>
- [31] F. Garza, “With Google’s new immersive videos, you can feel what it’s like to be a ballet dancer,” [Quartz](https://qz.com/562697/with-googles-new-immersive-videos-you-can-feelwhat-its-like-to-be-a-ballet-dancer/). Des 2015. [Daring]. Tersedia pada: <https://qz.com/562697/with-googles-new-immersive-videos-you-can-feelwhat-its-like-to-be-a-ballet-dancer/>
- [32] “Facebook To Support Spherical Video In News Feed And Oculus,” [TechCrunch](https://social.techcrunch.com/2015/03/25/facebook-to-support-spherical-video-in-news-feed-and-oculus/). <https://social.techcrunch.com/2015/03/25/facebook-to-support-spherical-video-in-news-feed-and-oculus/> (accessed Apr. 23, 2020).
- [33] “10 things I wish I knew before shooting 360 video - CNET.” <https://www.cnet.com/how-to/360-cameras-comparison-video-things-toknow-before-you-buy/> (accessed Apr. 23, 2020).
- [34] “Introducing Unity 2018.3 - Unity Technologies Blog,” Dec. 13, 2018. <https://blogs.unity3d.com/2018/12/13/introducing-unity-2018-3/> (accessed Apr. 23, 2020).
- [35] J. Hong, J. He, B. Lam, R. Gupta, and W.-S. Gan, “Spatial Audio for Soundscape Design: Recording and Reproduction,” *Appl. Sci.*, vol. 7, no. 6, p. 627, Jun. 2017, doi: 10.3390/app7060627.





- [36] B. Bartlett and J. Bartlett, Practical recording techniques: the step-by-step approach to professional audio recording, 5th ed. Burlington, MA: Focal Press, 2009.
- [37] F. Hollerweger, “An Introduction to Higher-Order Ambisonic,” p. 12.
- [38] B. Rafaely, Fundamentals of Spherical Array Processing. Berlin: Springer, 2015.
- [39] T. Contributor, “Binaural Sound (Binaural Beats),” Techtarget.com. TechTarget, Mar 2019. [Daring]. Tersedia pada:  
<https://whatis.techtarget.com/definition/binaural-sound>
- [40] C. Pike, T. Parnel, T. Nixon, M. Firth, S. Highfield, dan A. Foster, “Binaural Sound Immersive Spatial Audio for Headphones,” BBC, 2020.
- [41] M. Lalwani, “Surrounded by sound: how 3D audio hacks your brain,”
- [42] D. N. L. Howell, “Spatial hearing: The psychophysics of human sound localization 1983,” J. Sound Vib., vol. 99, no. 4, hlm. 595, 1985.
- [43] B. Xie dkk., “Report on research projects on head-related transfer functions and virtual auditory displays in China,” J. Audio Eng. Soc., vol. 61, no. 5, hlm. 314–326, 2013.
- [44] W. G. Gardner dan K. D. Martin, “HRTF measurements of a KEMAR,” J. Acoust. Soc. Am., vol. 97, no. 6, hlm. 3907–3908, 1995.
- [45] P. Majdak, P. Balazs, dan B. Laback, “Multiple Exponential Sweep Method for Fast Measurement of Head-Related Transfer Functions,” J. Audio Eng. Soc., vol. 55, no. 7/8, hlm. 623–637, 2007.
- [46] P. Dietrich, B. Masiero, dan M. Vorländer, “On The Optimization of The Multiple Exponential Sweep Method,” J. Audio Eng. Soc., vol. 61, no. 3, hlm. 113–124, 2013.





- [47] J. Li, B. Wu, D. Yao, dan Y. Yan, “A Mixed-Order Modeling Approach for Head-Related Transfer Function in The Spherical Harmonic Domain,” *Appl. Acoust.*, vol. 176, no. 107828, hlm. 107828, 2021.
- [48] T. Potisk dan D. Svenšek, “Head-Related Transfer Function,” Master’s Thesis, Faculty of Mathematics and Physics, University of Ljubljana, Slovenia, 2015.
- [49] M. Usman, K. Kamal, R. Qayyum, S. Akram, dan S. Mathavan, “3D sound generation using Kinect and HRTF,” dalam 2017 IEEE 2nd International Conference on Signal and Image Processing (ICSIP), 2017, hlm. 307–310.
- [50] L. Savioja, J. Huopaniemi, T. Lokki, dan R. Väänänen, “Creating Interactive Virtual Acoustic Environments,” *J. Audio Eng. Soc.*, vol. 47, no. 9, hlm. 675–705, 1999.
- [51] J. Wang, M. Liu, X. Wang, T. Liu, dan X. Xie, “Prediction of Head-Related Transfer Function Based On Tensor Completion,” *Appl. Acoust.*, vol. 157, no. 106995, hlm. 106995, 2020.
- [52] D. Hansen and Q. Ji, “In the Eye of the Beholder: A Survey of Models for Eyes and Gaze,” *IEEE Trans. Pattern Anal. Mach. Intell.*, vol. 32, pp. 478–500, Mar. 2010, doi: 10.1109/TPAMI.2009.30
- [53] M. Gneo, M. Schmid, S. Conforto, and T. D’Alessio, “A Free Geometry Model-Independent Neural Eye-Gaze Tracking Sistem,” *J. Neuroengineering Rehabil.*, vol. 9, p. 82, Nov. 2012, doi: 10.1186/17430003-9-82.
- [54] J. Sigut and S.-A. Sidha, “Iris Center Corneal Reflection Method for Gaze Tracking Using Visible Light,” *IEEE Trans. Biomed. Eng.*, vol. 58, pp. 411–9, Oct. 2010, doi: 10.1109/TBME.2010.2087330
- [55] “Types of eye movements,” Aug. 06, 2015.  
<https://www.tobiipro.com/learn-and-support/learn/eye-trackingessentials/types-of-eye-movements/> (accessed Apr. 28, 2020).
- [56] “New Dell G7 15 Gaming Laptop,” Dell.com. [Daring]. Tersedia pada:  
<https://www.dell.com/id/p/g-series-15-7588-laptop/pdf>





- [57] G. T. Yuwono, “Review laptop gaming: Dell G7 15 7588 (GTX 1060) • jagat review,” Jagatreview.com. Jan 2019. [Daring]. Tersedia pada:  
<https://www.jagatreview.com/2019/01/review-laptop-gaming-dell-g7-157588-gtx-1060/>
- [58] “Pro Eye Specs,” Vive.com. [Daring]. Tersedia pada:  
<https://www.vive.com/sea/product/vive-pro-eye/specs/>
- [59] B. Lang, “FOVE eye-tracking VR headset gets final specs and pre-order date,” Roadtovr.com. Sep 2016. [Daring]. Tersedia pada:  
<https://www.roadtovr.com/fove-0-eye-tracking-vr-headset-final-specs-preorder-date/>
- [60] “FOVE VR,” GitHub. <https://github.com/FoveHMD> (accessed Apr. 23, 2020).
- [61] “Nvidia Has A Better Method Of Foveated Rendering In VR,” Digital Trends, Jul. 22, 2016. <https://www.digitaltrends.com/virtual-reality/nvidiaresearch-foveated-rendering-vr-smi/> (accessed Apr. 27, 2020).
- [62] “ATH-R70x,” Audio-technica.com. [Daring]. Tersedia pada:  
<https://www.audio-technica.com/en-us/ath-r70x>
- [63] “REAPER,” Reaper.fm. [Daring]. Tersedia pada:  
<https://www.reaper.fm/index.php>
- [64] Unity Technologies, “Unity - Unity,” Unity.com. [Daring]. Tersedia pada:<https://unity.com/>
- [65] “Google forms: Free online surveys for personal use,” Google.com. [Daring]. Tersedia pada: <https://www.google.com/forms/about/>
- [66] “Microsoft, office, 365, excel, logo Free Icon,” Icon-icons.com. [Daring]. Tersedia pada: <https://icon-icons.com/icon/microsoft-office-365-excel-logo/145720>
- [67] “FOVE Official website,” Fove-inc.com. [Daring]. Tersedia pada:  
<https://fove-inc.com/>





UNIVERSITAS  
GADJAH MADA

Pembuatan Lingkungan Virtual (Virtual Reality) pada Ruangan dengan Obyek-Obyek Statis Menggunakan

Perangkat HTC VIVE PRO EYE dan FOVE HMD

Firman Yuda Pratama Putra, Ir. Sentagi Sesotya Utami., S.T., M.Sc., Ph.D., IPU.

Universitas Gadjah Mada, 2023 | Diunduh dari <http://etd.repository.ugm.ac.id/>

[68] "VIVEPORT", *Viveport.com*. [Online]. Tersedia pada

[https://www.viveport.com/?\\_ga=2.261064653.1340249749.16257356081338324823.1619445015&gl=us](https://www.viveport.com/?_ga=2.261064653.1340249749.16257356081338324823.1619445015&gl=us)

[69] "SteamVR on Steam," Steampowered.com. [Daring]. Tersedia pada:

<https://store.steampowered.com/app/250820/SteamVR/>

[70] Y. Rayson, "Penggunaan Eye Tracking dalam Lingkungan Virtual Ruangan Icu Rumah Sakit sebagai Media Pembelajaran bagi Mahasiswa Keperawatan," Master's Thesis, Universitas Gadjah Mada, Yogyakarta, 2020.

---

