DAFTAR PUSTAKA

[1] World Bank, "Surface area (sq. km) - Indonesia, World," data.worldbank.org, 2021, [Online]. Available: https://data.worldbank.org/indicator/AG.SRF.TOTL.K2?locations=ID-1W [Accessed: 01 June 2024].

[2] Badan Pusat Statistik Indonesia, "Panjang jalan menurut tingkat kewenangan," bps.go.id, Feb 2024, [Online]. Available: https://www.bps.go.id/id/statistics-table/2/NTAjMg%3D%3D/panjang-jalan-menurut-tingkat-kewenangan.html [Accessed: 01 June 2024].

[3] Direktorat Jenderal Bina Marga, "Tugas bina marga," August 2019, [Online]. Available: https://binamarga.pu.go.id/index.php/konten/profil/tugas-binamarga [Accessed: 05 June 2024].

[4] M. Simamora, D. Trisnoyuwono, and A. H. Muda, "Model intrnational roughness index vs waktu pada beberapa jalan nasional di kota kupang," *Jurnal Teknik Sipil*, vol. 3, pp. 254–258, April 2018.

[5] Badan Pusat Statistik Indonesia, "Statistik transportasi darat 2022," Nov 2023, [Accessed: 04 June 2024].

[6] Z. Z. Mutaqin and Elkhasnet, "Pengaruh kerusakan jalan terhadap biaya operasional kendaraan," in *Seminar Nasional dan Diseminasi Tugas Akhir 2022*. Bandung, Indonesia: Institut Teknologi Nasional, 2022, pp. 189–198.

[7] A. Y. Prasetyo, "Analisis dampak kerusakan jalan terhadap pengguna jalan dan lingkungan di jalan raya gampeng, kediri, jawa timur," 2017.

[8] Badan Pusat Statistik, "Tekan angka kecelakaan lalu lintas, kemenhub ajak masyarakat beralih ke transportasi umum dan utamakan keselamatan berkendara," https://www.bps.go.id/, February 2024, [Online]. Available: https://www.bps.go.id/id/statistics-table/2/NTEzIzI=/jumlah-kecelakaan-korban-mati-luka-berat-luka-ringan-dan-kerugian-materi.html [Accessed: 10-Jun-2024].

[9] Biro Komunikasi dan Informasi Publik, "Tekan angka kecelakaan lalu lintas, kemenhub ajak masyarakat beralih ke transportasi umum dan utamakan keselamatan berkendara," https://www.dephub.go.id/, September 2023, [Online]. Available: https://www.dephub.go.id/post/read/%E2%80%8Btekan-angka-kecelakaan-lalu-lintas,-kemenhub-ajak-masyarakat-beralih-ke-transportasi-umum-dan-utamakan-keselamatan-berkenda [Accessed: 10-Jun-2024].

[10] R. L. Jannah, H. Yermadona, and S. Dewi, "Analisis kerusakan perkerasan jalan dengan metoda bina marga dan pavement condition index (pci)," *Ensiklopedia Research and Community Service Review*, 2022.

[11] Direktorat Jenderal Bina Marga, "Penjelasan umum manual survai data irms," 2017, [Online]. Available: https://www.scribd.com/document/367722626/Penjelasan-Umum-Manual-Survai-Data-Irms [Accessed: 07 June 2024].

[12] Subdirektorat Analisis Data dan Pengembangan Sistem, "Modul interurban road management system (irms)," Direktorat Pengembangan Jaringan Jalan, Direktorat Jenderal Bina Marga, Kementerian Pekerjaan Umum dan Perumahan Rakyat, Bandung, Indonesia, 2017.

[13] D. Muradi and I. Iskandar, "Optimizing the handling of national road preservation in bangka belitung province using the integrated road management system (irms) e-budgeting program," *International Journal of Engineering Applied Sciences and Technology*, vol. 7, no. 5, 2022.

[14] M. Abdel Raheem, M. Hassan, M. A. Alyousify, A. Hussein, and A. A. Nassr, "Design and implementation of a vibration-based real-time internet of things framework for road condition monitoring," *IEEE Open Journal of Vehicular Technology*, vol. 4, pp. 867–876, 2023.

[15] B. Suhartono, Y. Fitrianto, and D. N. Arifin, "Perancangan sistem informasi geografis pemetaan kerusakan jalan menggunakan e-participation dengan metode simple additive weighting (saw)," *JURNAL TEKNIK INFORMATIKA DAN TEKNOLOGI INFORMASI*, vol. 2, no. 2, august 2022.

[16] R. Sulistyowati, A. Suryowinoto, H. A. Sujono, and I. Iswahyudi, "Monitoring of road damage detection systems using image processing methods and google map," *IOP Conference Series: Materials Science and Engineering*, vol. 1010, no. 1, p. 012017, jan 2021. [Online]. Available: https://dx.doi.org/10.1088/1757-899X/1010/1/012017

[17] L. Sitanayah, A. Angdresey, and E. Kristalino, "A real-time application for road conditions detection based on the internet of things," *INTERNATIONAL JOURNAL ON INFORMATICS VISUALIZATION*, vol. 6, no. 3, pp. 629–635, 2022.

[18] G. Alessandroni, L. Klopfenstein, S. Delpriori, M. Dromedari, G. Luchetti, B. Paolini, A. Seraghiti, E. Lattanzi, V. Freschi, A. Carini, and A. Bogliolo, "Smartroadsense: Collaborative road surface condition monitoring," 08 2014.

[19] F. G. Faris and M. D. Mahir, "Using of modern gis in road condition index," *Journal of Advanced Science and Engineering Research*, vol. 2, no. 3, pp. 178–190, 2012.

[20] I. Septiana, Y. Setiowati, and A. Fariza, "Road condition monitoring application based on social media with text mining system: Case study: East java," in *2016 International Electronics Symposium (IES)*, 2016, pp. 148–153.

[21] K. Rose, S. Eldridge, and L. Chapin, "The internet of things: An overview," *The internet society (ISOC)*, vol. 80, no. 15, pp. 1–53, 2015.

[22] B. F. Bender and J. A. Berry, "Trends in passive iot biomarker monitoring and machine learning for cardiovascular disease management in the u.s. elderly population," *Advances in Geriatric Medicine and Research*, vol. 5, no. 1, p. e230002, 2023.

[23] Bosch Sensortec GmbH, *BNO055: Intelligent 9-axis absolute orientation sensor*, Nov. 2014, document number: BST-BNO055-DS000-12, Revision 1.2.

[24] E. D. Kaplan, "Understanding gps : principles and applications," 1996. [Online]. Available: https://api.semanticscholar.org/CorpusID:131346458

[25] Amazon Web Service, "The difference between frontend and backend," aws.amazon.com, 2024, [Online]. Available: https://aws.amazon.com/id/compare/the-difference-between-frontend-and-backend/ [Accessed: 06-Jun-2024].

[26] L. V. Hanif, "Memahami front-end development: Definisi dan peranannya," toffeedev.com, June 2023, [Online]. Available: https://toffeedev.com/blog/website/front-end-adalah/ [Accessed: 06-Jun-2024].

[27] B. Cao, M. Shi, and C. Li, "The solution of web font-end performance optimization," in *2017 10th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI)*, 2017, pp. 1–5.

[28] K. Chris, "What is HTML – Definition and Meaning of Hypertext Markup Language," freecodecamp.org, August 2021, [Online]. Available: https://www.freecodecamp.org/news/what-is-html-definition-and-meaning/ [Accessed: 11-Jun-2024].

[29] B. Lutkevich, "Html (hypertext markup language)," theserverside.com, February 2020, [Online]. Available: https://www.theserverside.com/definition/HTML-Hypertext-Markup-Language [Accessed: 11-Jun-2024].

[30] D. R. Denishtsany, "Bagaimana struktur dasar html," toffeedev.com, July 2023, [Online]. Available: https://toffeedev.com/blog/website/crm-bagaimana-struktur-dasar-html/ [Accessed: 06-Jun-2024].

[31] C. BasuMallick, "What Are CSS (Cascading Style Sheets)? Meaning, Types, and Properties," spiceworks.com, November 2022, [Online]. Available: https://www.spiceworks.com/tech/tech-general/articles/what-are-css/amp/ [Accessed: 06-Jun-2024].

[32] I. Ivanov, "Css selectors, properties and values," codecoda.com, December 2020, [Online]. Available: https://codecoda.com/en/blog/entry/css-selectors-properties-and-values [Accessed: 06-Jun-2024].

[33] I. Afrianto, *Modul Lengkap Javascript*, 2023, available at: https://repository.unikom.ac.id/46889/1/Modul%20Lengkap%20Javascript.pdf.

[34] AppMaster, "Javascript vs typescript: Perbandingan mendalam untuk pengembangan web modern," appmaster.io, April 2023, [Online]. Available: https://appmaster.io/id/blog/javascript-vs-typescript-id [Accessed: 12-Jun-2024].

[35] CodingStudio Team, "Apa itu typescript? pengertian, kelebihan dan kekurangannya," codingstudio.id, January 2024, [Online]. Available: https://codingstudio.id/blog/typescript-adalah/ [Accessed: 12-Jun-2024].

[36] G. A. Ekainu, "Next.js vs React: The Difference and Which Framework to Choose," ninetailed.io, March 2024, [Online]. Available: https://ninetailed.io/blog/next-js-vs-react/ [Accessed: 12-Jun-2024].

[37] F. Copes, "The Next.js Handbook – Learn Next.js for Beginners," freecodecamp.org, November 2019, [Online]. Available: https://www.freecodecamp.org/news/the-next-js-handbook/ [Accessed: 12-Jun-2024].

[38] A. D. Raharja, "Next.js: Pengertian, Cara Kerja, 3 Fitur, Kelebihan, dan Bedanya dengan React," ekrut.com, June 2022, [Online]. Available: https://www.ekrut.com/media/next-js-adalah [Accessed: 12-Jun-2024].

[39] H. Dhaduk, "Component based development: The definitive guide to making a scalable frontend," simform.com, May 2021, [Online]. Available: https://www.simform.com/blog/component-based-development/ [Accessed: 27-Jun-2024].

[40] P. Murley, Z. Ma, J. Mason, M. Bailey, and A. Kharraz, "Websocket adoption and the landscape of the real-time web," in *Proceedings of the Web Conference 2021*, ser. WWW '21. New York, NY, USA: Association for Computing Machinery, 2021, p. 1192–1203. [Online]. Available: https://doi.org/10.1145/3442381.3450063

[41] R. T. Fielding, "Architectural styles and the design of network-based software architectures," Dissertation, University of California, Irvine, Irvine, California, 2000. [Online]. Available: http://www.ics.uci.edu/~fielding/pubs/dissertation/top.htm

[42] Andriani, Agustina, Andry, and Johanes, "Designing a web-based inventory application at general steel supplier using extreme programming method," *CogITo Smart Journal*, vol. 9, pp. 15–27, 06 2023.

[43] B. Lutkevich and V. Silverthrone, "Agile software development," techtarget.com, November 2022, [Online]. Available: https://www.techtarget.com/searchsoftwarequality/definition/waterfall-model [Accessed: 12-Jun-2024].

[44] K. Kuas and S. Lewis, "Watefall model," techtarget.com, November 2022, [Online]. Available: https://www.techtarget.com/searchsoftwarequality/definition/agile-software-development [Accessed: 12-Jun-2024].

[45] S. Kumar, "Importance of non functional testing," erpsolutions.oodles.io, September 2020, [Online]. Available: https://erpsolutions.oodles.io/developer-blogs/Importance-of-Non-Functional-Testing/ [Accessed: 13-Jun-2024].

[46] Javatpoint, "Black box testing," javatpoint.com, [Online]. Available: https://www.javatpoint.com/black-box-testing [Accessed: 12-Jun-2024].

[47] Codingstudio Team, "Black box testing adalah: Teknik dan contoh pengujiannya," codingstudio.id, October 2023, [Online]. Available: https://codingstudio.id/blog/black-box-testing-adalah/ [Accessed: 12-Jun-2024].

[48] G. Thabroni, "Black box testing – pengertian, ciri, jenis, kategori langkah," serupa.id, February 2022, [Online]. Available: https://serupa.id/black-box-testing-pengertian-ciri-jenis-fungsi-kategori/ [Accessed: 12-Jun-2024].

[49] B. Hutomo, "White box testing: Metode pengujian perangkat lunak lanjutan," domainesia.com, April 2023, [Online]. Available: https://www.domainesia.com/berita/white-box-testing/ [Accessed: 12-Jun-2024].

[50] H. Nurfauziah and I. Jamaliyah, "Teknik pengujian sistem menggunakan black box testing," *Jurnal VISUALIKA*, vol. 8, no. 2, pp. 105–113, 2022. [Online]. Available: http://jurnas.saintekmu.ac.id/index.php/visualika/article/download/24/19/50

[51] I. A. HN, P. I. Santoso, and R. Ferdiana, "Pengujian usability website menggunakan system usability scale," *IPTEK-KOM*, vol. 17, no. 1, pp. 31–38, 2015.

[52] J. Nielsen, "Usability 101: Introduction to usability," nngroup.com, January 2012, [Online]. Available: https://www.nngroup.com/articles/usability-101-introduction-to-usability/ [Accessed: 13-Jun-2024].

[53] T. Pol, "Google lighthouse: What it is how to use it," semrush.com, May 2023, [Online]. Available: https://www.semrush.com/blog/google-lighthouse/ [Accessed: 29-Jun-2024].