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**Analisis Model Kerusakan Perkerasan Lentur dengan Aspal Konvensional dan Modifikasi Menggunakan MDPJ
2024, AI 1982, dan AASHTO MEPDG**
Nur Abidah Hayatun Nafsiyah, Ir. Taqia Rahman, S.T., M.Sc., Ph.D., IPM
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DAFTAR PUSTAKA

A Standardized Procedure for Analysis of The Dynamic Modulus (|E|) Data to Predict Asphalt Pavement Distresses*. (n.d.).

AASHTO. (1993). AASHTO Guide for Design Pavement Structure 1993. In *AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS*.

AASHTO. (2008). AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS. In *Classification of Soils and Soil-Aggregate Mixtures for Highway Construction Purposes*.

AASHTO. (2015a). *Mechanistic-empirical pavement design guide : a manual of practice*. American Association of State Highway and Transportation Officials.

AASHTO. (2015b). *Standard Specification for Performance-Graded Asphalt Binder*.

Aburkaba, E., Muniandy, R., & Thamer, N. (2013). Comparison of Flexible Pavement Performance Using Kenlayer and Chev PC Software Program. *Australian Journal of Basic and Applied Sciences*, *7*(9), 112–119.

Ariawan, I. M. A., Subagio, B. S., & Setiadji, B. H. (2015). Development of asphalt pavement temperature model for tropical climate conditions in West Bali region. *Procedia Engineering*, *125*, 474–480. https://doi.org/10.1016/j.proeng.2015.11.126

Asphalt Institute. (1982). *Asphalt Institute, Research and Development of the Asphalt Institute's Thickness Design Manual* (9th ed.).

ASTM International. (n.d.). *Designation: D 6433-07 Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys 1*.

Azam, S., & Carmel, V. A. (2026). *Comparative Mechanistic Evaluation of Flexible Pavement Responses Using Linear, Nonlinear and Viscoelastic Analysis through KENPAVE*. https://www.ijert.org/

Cheng, Y., Li, H., Li, L., Zhang, Y., Wang, H., & Bai, Y. (2019). Viscoelastic properties of asphalt mixtures with different modifiers at different temperatures based on static creep tests. *Applied Sciences (Switzerland)*, *9*(20). https://doi.org/10.3390/app9204246

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Fitriana, K. D., & Widayanti, A. (2025). Identifikasi Kerusakan Jalan Menggunakan Metode Pavement Condition Index (PCI) Beserta Penanganannya Pada Ruas Jalan Cangkir – Mastrip Provinsi Jawa Timur. *Jurnal Media Publikasi Terapan Transportasi*. https://doi.org/10.26740/mitrans.v3n1.p90-99

Girish, S., Putman, B. J., Kumar, A., & Nagarajan, S. (2024). Evaluation of the Sensitivity of the MEPDG to Bottom-Up Fatigue Cracking in South Carolina. *International Journal of Pavement Research and Technology*, *17*(5). https://doi.org/10.1007/s42947-023-00297-9

Hariani, M. L., Taufik, A., Suparman, S., Kosasih, A., & Farhan, O. (2025). Road Damage Analysis On Inter-City Roads Using Pavement Condition Index (PCI) Approach In West Java Indonesia. *Interdiciplinary Journal and Hummanity (INJURITY)*, *4*(7), 534–548. https://doi.org/10.58631/injurity.v4i7.1464

Huang, Y. H. (2004). Pavement analysis and design - Second Edition. In *Deterioration and Maintenance of Pavements* (Second).

Huber, G. A. (1994). *Weather Database for the SUPERPAVE TM Mix Design System*.

Kementerian Pekerjaan Umum dan Perumahan Rakyat. (2024). *Manual Desain Perkerasan Jalan 2024*.

Lee, J., Lee, S., Hwang, Y., Kwon, O., & Yeon, G. (2024). Mechanistic Fatigue Performance Evaluation of Stone Mastic Asphalt Mixtures: Effect of Asphalt Performance Grade and Elastic Recovery. *Polymers*, *16*(17). https://doi.org/10.3390/polym16172414

Li, Q., Wang, Z., Li, Y., & Shang, J. (2018). Cold recycling of lime-fly ash stabilized macadam mixtures as pavement bases and subbases. *Construction and Building Materials*, *169*, 306–314. https://doi.org/10.1016/j.conbuildmat.2018.03.030

Pasaribu, K. B., Rahman, T., & Suparma, L. B. (2025). Comparative Analysis Of Flexible Pavement Damage Models Between MDPJ 2024 And Asphalt Institute And AASHTO MEPDG. *Jurnal Multidisiplin Indonesia*, *4*(7). https://doi.org/10.58344/jmi.v4i7.2565

Permata, D. Y., Subagio, B. S., & Ayuningtyas, K. N. S. (2022). Performance of Resilient Modulus (SMix) and Dynamic Modulus ((|E*|) on Asphalt Concrete – Wearing Course (AC-WC) Using Pen 60/70 Asphalt and Styrene-Butadiene-Styrene (SBS) Polymer.

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International Journal on Advanced Science, Engineering and Information Technology, *12*(2). https://doi.org/10.18517/ijaseit.12.2.13719

Perraton, D., Baaj, H., & Carter, A. (2010). Comparison of Some Pavement Design Methods from a Fatigue Point of View. *Road Materials and Pavement Design*, *11*(4), 833–861. https://doi.org/10.1080/14680629.2010.9690309

Pusat Litbang Jalan dan Jembatan. (2009). KAJIAN PENGGUNAAN LAPIS PONDASI AGREGAT YANG DISTABILISASI SEMEN. *Jurnal Jalan Dan Jembatan*, *26*(2).

Putri, C. K. (2014). Prediksi Nilai Kerusakan Perkerasan Lentur dengan Metode Mekanistik-Empirik (Studi Kasus: Rekonstruksi JL. Arteri Selatan). *Universitas Gadjah Mada*.

Rahman, M. M., Gassman, S. L., & Islam, K. M. (2023). Effect of Moisture Content on Subgrade Soils Resilient Modulus for Predicting Pavement Rutting. *Geosciences (Switzerland)*, *13*(4). https://doi.org/10.3390/geosciences13040103

Saboo, N., & Kumar, P. (2016). Performance Characterization of Polymer Modified Asphalt Binders and Mixes. *Advances in Civil Engineering*, *2016*. https://doi.org/10.1155/2016/5938270

Shallal, Dr. M., & Ahmed, E. S. (2019). A Comparison between the Empirical and Mechanistic-Empirical Pavement Design Methods. *International Journal of Scientific Research and Management*, *7*(07). https://doi.org/10.18535/ijsrm/v7i7.ec01

Solanki, P., & Zaman, M. (2017). Design of semi-rigid type of flexible pavements. *International Journal of Pavement Research and Technology*, *10*(2). https://doi.org/10.1016/j.ijprt.2016.10.004

Subagio, B. S., Prayoga, A. B., & Fadilah, S. R. (2022). Implementation of Mechanistic-Empirical Pavement Design Guide against Indonesian Conditions using Arizona Calibration. *The Open Civil Engineering Journal*, *16*(1). https://doi.org/10.2174/18741495-v16-e221026-2022-45

Suharso, A. B. K., & Andaryati. (2024). Analysis of Road Damage Level Using the Pavement Condition Index (PCI) Method on the Surabaya-Gresik Toll Road, East Java. *International Journal on Advanced Science, Engineering and Information Technology*, *14*(2). https://doi.org/10.18517/ijaseit.14.2.19811

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Syaripin, Kaffa, N. S., Pranadiarso, T., Ardiansyah, A. F., Alawy, G. A., & Septiandri, R. A. (2025). PERBANDINGAN KINERJA CAMPURAN BERASPAL DARI ASPAL PEN 60/70 DAN ASPAL PG DI INDONESIA. *JMTS: Jurnal Mitra Teknik Sipil*. https://doi.org/10.24912/jmts.v8i4.35160

Tadeu Balbo, J., & Cintra, J. P. (2007). *FATIGUE VERIFICATION CRITERIA FOR SEMI-RIGID PAVEMENTS*.

Zhang, J., Peng, J., Zhang, A., & Li, J. (2022). Prediction of permanent deformation for subgrade soils under traffic loading in Southern China. *International Journal of Pavement Engineering*, *23*(3). https://doi.org/10.1080/10298436.2020.1765244