

- Ahmed, U., 2010. Evaluation of FWD Software and Deflection Basin for Airport Pavements. Albuquerque, New Mexico.
- Alfi, M., Utomo, S.H.T., dan Suparma, L.B., 2024. Analisis Prediksi Umur Sisa Struktur Perkerasan Lentur Menggunakan Metode Mekanistik-Empirik pada Jalan Milir-Sentolo Ruas Timur. Yogyakarta.
- Ameri, M., Yavari, N., and Scullion, T., 2009. Comparison of Static and Dynamic Backcalculation of Flexible Pavement Layers Moduli, Using Four Software Programs. Asian Journal of Applied Sciences, 2(3), 197-210.
- Anderson, M., 1990. Backcalculation of Composite Pavement Layer Moduli. Vicksburg, Mississippi.
- Angkasa Pura Property, 2023. Angkasa Pura Property Kerja Sama dengan Balai Teknik Penerbangan terkait Penggunaan Alat Penyelidikan Kemampuan Teknis Konstruksi di Banjarmasin.
- Ashrofi, F., dan Suparma, L.B., 2023. Analisis Tebal Perkerasan Lentur Runway Dengan Metode Empiris FAA, FAARFIELD, dan Defence Estates (Studi Kasus : Bandar Udara Sultan Hasanuddin Makassar). Yogyakarta.
- Ashtiani, A., Shirazi, H., Murrell, S., Asce, M., and Speir, R., 2017. Evaluation of HWD Backcalculation Tools and Methodologies Using FAA National Airport Pavement Test Facility's Data. Queensland, Australia.
- Balai Teknik Penerbangan Dirjen Perhubungan Udara, 2024. Lab. Teknik Sipil dan Lingkungan Bandar Udara. Jakarta.
- Balbo, J. T., 2007. Pavimentação Asfáltica – Materiais, Projeto E Restauração. 1st ed.: Oficina de Textos, Portuguese.
- Baldo, N., Miani, M., Rondinella, F., and Celauro, C., 2021. A Machine Learning Approach to Determine Airport Asphalt Concrete Layer Moduli Using Heavy Weight Deflectometer Data, Sustainability. Switzerland.
- Boussinesq, J., 1885. Application des potentiels à l'étude de l'équilibre et du mouvement des solides élastiques. Gauthier-Villars.
- Broutin, M., 2010. M. Assessment of flexible airfield pavements using Heavy Weight Deflectometers. Development of a FEM dynamical time-domain analysis for the backcalculation of structural properties (Doctoral dissertation, Ecole des Ponts ParisTech).
- Brunton, J.M., and De Almeida, J.R., 1992. Modeling Material Nonlinearity in a Pavement Backcalculation Procedure. Transportation Research Record, (1377).
- Bubushait, A., Newcomb, D., and Mahoney, J., 1985. Development and Implementation of Overlay Design Procedure, Interim Report No. 2: Asphalt Concrete Stiffness Temperature Relationships and Pavement Distress Modeling. Washington.
- Bush, A.J., and Baladi, G.Y., 1989. Nondestructive Testing of Pavements and Backcalculation of Moduli. ASTM International 1026.

Daulay, M.F., 2020. Evaluasi Daya Dukung Perkerasan Runway dan Taxiway Berdasarkan Hasil Uji HWD dan Metode FAA. Yogyakarta.

Direktorat Jenderal Perhubungan Udara, 2024. Statistik Angkutan Udara Tahun 2023. Jakarta.

Duncan, J. M., Monismith, C. L., and Wilson, E. L. 1968. Finite Element Analysis Of Pavements. Highway Research Record, 228(18-33), 157.

Dynatest, 2022. Dynatest HWD brochure A4. Florida, USA.

Dynatest, 2021. Elmod 6 Quick Start Manual. Florida, USA.

Ellis, T., 2008. A Comparison of Nondestructive Testing Backcalculation Techniques for Rigid and Flexible Pavements. ScholarWorks@UARK.

Federal Aviation Administration, 2023. Structural Airport Pavement NDT and Evaluation BAKFAA Version 3.4 User's Manual Task Order 17 NDT for Structural Evaluation of Airport Pavements Deliverable: 5.2.1.1 Update Upgraded BAKFAA User Manual, Help Files, and Presentation. Washington.

Federal Aviation Administration, 2016. AC 150/5320-6F Airport Pavement Design and Evaluations. Washington.

Federal Aviation Administration, 2011. AC 150/5370-11B Use of Nondestructive Testing in the Evaluation of Airport Pavements. Washington.

Federal Aviation Administration, 2004. AC 150/5370-11A Use of Nondestructive Testing In The Evaluation Of Airport Pavements Change. Washington.

Federal Highway Administration, 2017. FHWA-HRT-16-011 General Backcalculation Guidelines. Washington.

Federal Highway Administration, 1997. Design Pamphlet for the Backcalculation of Pavement Layer Moduli in Support of the 1993 AASHTO Guide for the Design of Pavement Structures. Georgetown Pike.

George, K.P., and Uddin, W., 1994. In Situ and Laboratory Characterization of Nonlinear Pavement Layer Moduli. ASTM Special Technical Publication 1198 203–203.

Goel, A., and Das, A., 2008. Nondestructive testing of asphalt pavements for structural condition evaluation: A state of the art. Nondestructive Testing and Evaluation 23, 121–140. <https://doi.org/10.1080/10589750701848697>.

Gohil, R.R., Samu, V., and Kumar, J., 2024. Non-Destructive Evaluation Of Rigid Pavements Using Surface Wave Tests. Construction and Building Materials, 442, 137651.

Gopalakrishnan, K., 2012. Instantaneous Pavement Condition Evaluation Using Non-Destructive Neuro-Evolutionary Approach. Structure and Infrastructure Engineering 8, 857–872. <https://doi.org/10.1080/15732471003653009>.

Horak, E., Emery, S., Australia, K., and Professor, H., 2006. Falling Weight Deflectometer Bowl Parameters As Analysis Tool For Pavement Structural Evaluations. In Research into Practice: 22nd ARRB Conference ARRB.

Hu, J., Zheng, P., Mi, C., Liu, W., and Gong, H., 2022. Nondestructive Testing of the Airfield Pavement Structural Condition Based on the GPR and HWD. 2nd International Conference on Testing Technology and Automation Engineering 12457.

Huang, Yang. H., 1993. *Pavement Analysis and Design*. Englewood Cliffs, NJ: Pearson/Prentice Hall.

Huang, Y. H, 2004. *Pavement Analysis And Design* (Vol. 2, pp. 401-409). Upper Saddle River, NJ: Pearson/Prentice Hall.

Khazanovich, L., and Roesler, J., 1997. DIPLOBACK: Neural Network Based Backcalculation Program for Composite Pavements. *Transportation Research Record*, 1570(1), 143-150.

Lee, S.W., Mahoney, J.P., and Jackson, N.C., 1988. *Verification of Backcalculation of Pavement Moduli*.

Liu, W., and Scullion, T., 2001. October 2001 4. Title and Subtitle MODULUS 6.0 FOR WINDOWS: USER'S MANUAL 6. Performing Organization Code Title: Improving Flexible Pavement Design Procedures Unclassified. USA: Texas Transportation Institute, Texas A & M University System.

Lytton, R.L., 1989. *Backcalculation of Pavement Layer Properties Nondestructive Testing of Pavements and Backcalculation of Modulli*. Texas.

Mahmood, T., 1997. *Backcalculation of Pavement Layer Properties From Deflection Data*. Michigan.

Mehta, Y., and Roque, R., 2003. Evaluation of FWD Data for Determination of Layer Moduli of Pavements 15. *Journal of Materials in Civil Engineering*, 15(1), 25-31. <https://doi.org/10.1061/ASCE0899-1561200315:125>.

National Research Council, 1992. *Nondestructive Deflection Testing and Backcalculation for Pavements*. Proceedings of a Symposium: National Academy Press, Nashville, Tennessee.

Odemark, N., 1949. *Undersökning Av Elasticitetsegenskaperna Hos Olika Jordarter Samt Teori för Beräkning Av Beläggningar Enligt Elasticitetsteorin*. Statens Vägintstitut, Meddelande 77.

Priddy, L.P., Bianchini, A., Gonzalez, C.R., and Dossett, C.S., 2015. *Evaluation of Procedures for Backcalculation of Airfield Pavement Moduli Geotechnical and Structures Laboratory*. Vicksburg, U.S.

Putra, A.D., 2010. . *Kajian Nilai PCN Runway Berdasar Metode Analitik dan Metode Teoritik di Bandara H. Asan Sampit*. Bandar Lampung.

Putra, E.F., 2018. *Evaluasi PCN (Pavement Classification Number) Berdasarkan Pengujian HWD (Heavy Weight Deflectometer)*. Yogyakarta.

Rahmadika, V.N., dan Suwardo, 2017. *Performance Evaluation of Runway Pavement and Overlay Design in I*.

Rahmawati, R., Suparma, B.L., dan Utomo, S.H.T., 2022. Penentuan Nilai Modulus Elastisitas Perkerasan Lentur Menggunakan Metode Perhitungan Balik. *Jurnal HPJI (Himpunan Pengembangan Jalan Indonesia)*, 8(2), 159-172.

Rosyidi, S.A.P., Wukirasih, N., and Siegfried, S., 2022. Menentukan Modulus Elastisitas Stabilisasi Subgrade Berbasis Defleksi. *Jurnal Rekayasa Sipil (JRS-Unand)* 18, 1. <https://doi.org/10.25077/jrs.18.1.1-16.2022>.

- Roussel, J.M., Sauzéat, C., Di Benedetto, H., and Broutin, M., 2019. Numerical Simulation of Falling/Heavy Weight Deflectometer Test Considering Linear Viscoelastic Behaviour in Bituminous Layers and Inertia Effects. *Road Materials and Pavement Design* 20, S64–S78. <https://doi.org/10.1080/14680629.2019.1587491>.
- Sahis, M., and Biswas, P., 2021. Optimization of Bituminous Pavement Thickness using Mechanistic-Empirical Strain-Based Design Approach. India.
- Saltan, M., Terzi, S., and Küüksille, E.U., 2011. Backcalculation of pavement layer moduli and Poisson's ratio using data mining. *Expert Syst Appl* 38, 2600–2608. <https://doi.org/10.1016/j.eswa.2010.08.050>.
- Santilli, S.R., and Correia, N. de S., 2024. Evaluating Cumulative Damage Factor (CDF) of 20 Brazilian Airfield Pavement structures using FAARFIELD and BAKFAA. *TRANSPORTES* 32. <https://doi.org/10.58922/transportes.v32i2.2973>.
- Schmalzer, P., Rada, G., and Miller, J., 2007. Falling Weight Deflectometer (FWD) Testing and Analysis Guidelines Volume I (US Customary Units Version) (No. FHWA-FLH-07-001). United States.
- Scimemi, G.F., Turetta, T., and Celauro, C., 2016. Backcalculation of Airport Pavement Moduli and Thickness Using the Lévy Ant Colony Optimization Algorithm. *Constr Build Mater* 119, 288–295.
- Setiadji, B.H., Priyono, E.Y., Supriyono, dan Widayarni, G., 2016. Pengkinian Analisis Perhitungan Balik Pedoman Desain Pelapisan Ulang. *Jurnal Transportasi*, 16(2). <https://doi.org/https://doi.org/10.26593/jtrans.v16i2.2359.%25p>.
- Stolle, D., Nezhentseva, A., and Sedran, G., 2010. Backcalculation and Sensitivity of NDT to Temperature Variations in Flexible Pavements. In 63rd Canadian Geotechnical Conference and 6th Canadian Permafrost Conference.
- Sun, J., Chai, G., Oh, E., and Bell, P., 2022. A Review of PCN Determination of Airport Pavements Using FWD/HWD Test. *International Journal of Pavement Research and Technology*. <https://doi.org/10.1007/s42947-022-00170-1>.
- Tandela, L. 2020. Analisa Desain Overlay Runway Bandar Udara Aji Pangeran Tumenggung Pranoto Berdasarkan Uji Heavy Weight Deflectometer. Yogyakarta.
- Tarefder, R.A., and Ahmed, M.U., 2013. . Consistency and Accuracy of Selected FWD Backcalculation Software for Computing Layer Modulus of Airport Pavements. *International Journal of Geotechnical Engineering* 7, 21–35.
- Tia, M., Eom, K.S., and Ruth, B.E., 1989. Development of the DBCONPAS Computer Program for Estimation of Concrete Pavement Parameters from FWD Data . Nondestructive Testing of Pavements and Backcalculation of Moduli. ASTM International.
- Uddin, W., Meyer, A.H., and Hudson, W.R., 1985. A User's Guide for Pavement Evaluation Programs RPEDD1 and FPEDD1. The Center.
- Ullidtz, P., 1987. Pavement Analysis. Development in Civil Eng, Amsterdam, the Netherlands.
- US Army Corps of Engineers, 2024. User Guide Pavement-Transportation Computer Assisted Structural Engineering. Washington.

Von Quintus, H. L., and Killingsworth, B. M., 1997. Nondestructive Testing of Pavements and Backcalculation of Moduli. NCHRP Synthesis 268.

Wang, H., Xie, P., Ji, R., and Gagnon, J., 2021. Prediction of Airfield Pavement Responses from Surface Deflections: Comparison Between the Traditional Backcalculation Approach and the ANN model. Road Materials and Pavement Design 22, 1930–1945. <https://doi.org/10.1080/14680629.2020.1733638>.

Wolfe, R.K., Randolph, B.W., and Colony, D.C., 1995. Standardized Elastic Moduli of Pavement Layers for Overlay Design. Journal of Transportation Engineering, 121(2), 221-232.

WSDOT, 2005. Everseries Users Guide Information and Chapters In Support of The Backcalculation Tool Were Extracted From: Everseries© User's Guide Pavement Analysis Computer Software and Case Studies. Washington.

Zaman, M., and Mohammad, L. N., 2002. Finite Element Analysis of Pavement Structures. ASCE.

Zhou, H., Hicks, R.G., and Bell, C.A., 1990. BOUSDEF: A Backcalculation Program for Determining Moduli of a Pavement Structure. Transportation Research Record, (1260).