

DAFTAR PUSATAKA

- Arabani, M., Khe Iry, P.T. and Ferdowsi, B. (2012) 'Use of ultrasonic pulse velocity (UPV) for assessment of HMA mixtures behavior', *Iranian Journal of Science and Technology - Transactions of Civil Engineering*, 36(C1), pp. 111–114.
- Arabani, M. and Tahami, S.A. (2017) 'Assessment of mechanical properties of rice husk ash modified asphalt mixture', *Constr. Build. Mater.*, 149, pp. 350–358. Available at: <https://doi.org/10.1016/j.conbuildmat.2017.05.127>.
- Ariawan, I.M.A., Subagio, B.S. and Setiadji, B.H. (2015) 'Development of asphalt pavement temperature model for tropical climate conditions in West Bali region', *Procedia Engineering*, 125, pp. 474–480. Available at: <https://doi.org/10.1016/j.proeng.2015.11.126>.
- Biligiri, K.P. and Kaloush, K.E. (2009a) 'Prediction of pavement materials' impedance using ultrasonic pulse velocity', *Road Materials and Pavement Design*, 10(4), pp. 767–787. Available at: <https://doi.org/10.1080/14680629.2009.9690226>.
- Biligiri, K.P. and Kaloush, K.E. (2009b) 'Prediction of pavement materials' impedance using ultrasonic pulse velocity', *Road Materials and Pavement Design*, 10(4), pp. 767–787. Available at: <https://doi.org/10.3166/rmpd.10.767-787>.
- Binamarga (2010) 'Divisi 4_SPEK 2010 REV 3'.
- Caron, J. and Markusen, J.R. (2016) '濟無No Title No Title No Title', pp. 1–23.
- Gunarto, A. (2019) 'Penelitian Campuran Aspal Beton Dengan Menggunakan Filler Bunga Pinus', *UKaRsT*, 3(1), p. 37. Available at: <https://doi.org/10.30737/ukarst.v3i1.351>.
- Guncoro, A. et al. (2019) 'Prebandingan Stabilitas Aspal Menggunakan Agregat Kasar Batu Belah Dan Batu Gamping', *Jurnal Manajemen Teknologi & Teknik Sipil*, 2(2), p. 310. Available at: <https://doi.org/10.30737/jurmateks.v2i2.531>.
- Hakim, A.R. (2017) 'Studi Struktur Bawah Permukaan Dengan Menggunakan Metode Geolistrik Resistivitas Konfigurasi Schlumberger (Study kasus Stadion Universitas Brawijaya, Malang)', *Wacana Didaktika*, 5(01), pp. 56–64. Available at: <https://doi.org/10.31102/wacanadidaktika.5.01.56-64>.
- Helal, M., Mahdy, H. and Ibrahim, M. (2020) 'Effect of Rice Husk Ash on the Performance of Hot Asphalt Mixes', *Bulletin of the Faculty of Engineering. Mansoura University*, 45(2), pp. 8–19. Available at: <https://doi.org/10.21608/bfemu.2020.97418>.
- Ismadarni, Risman and Kasan, M. (2013) 'Karakteritik Beton Aspal Lapis Pengikat (Ac-Bc) Yang Menggunakan Bahan Pengisi Pengisi (Filler) Abu Sekam Padi', *Majalah Ilmiah Mektek*, (2), pp. 93–102.
- Jiang, Z.Y., Ponniah, J. and Cascante, G. (2006) 'Improved ultrasonic pulse velocity

- technique for bituminous material characterization', *TAC/ATC 2006 - 2006 Annual Conference and Exhibition of the Transportation Association of Canada: Transportation Without Boundaries* [Preprint], (April).
- Kadium, N. sajad and Sarsam, S.I. (2020) 'Evaluating Asphalt Concrete Properties by the Implementation of Ultrasonic Pulse Velocity', *Journal of Engineering*, 26(6), pp. 140–151. Available at: <https://doi.org/10.31026/j.eng.2020.06.12>.
- Kamal, K., Amin, M. and Ijet, K. (2023) 'Evaluation of Asphalt Mixtures Containing Rejuvenated Reclaimed Asphalt Pavement Evaluation of Asphalt Mixtures Containing Rejuvenated Reclaimed Asphalt Pavement', (September).
- Kementerian Pekerjaan Umum dan Perumahan Rakyat; Direktorat Jenderal Bina Marga (2018) 'Spesifikasi Umum Bina Marga 2018 untuk Pekerjaan Jalan dan Jembatan (General Specifications of Bina Marga 2018 for Road Works and Bridges)', (September).
- Modarres, A. and Alinia Bengar, P. (2017) 'Investigating the indirect tensile stiffness, toughness and fatigue life of hot mix asphalt containing copper slag powder', *International Journal of Pavement Engineering*, 18(3), pp. 280–288.
- Nur, N.K. *et al.* (2021) *Perancangan Perkerasan Jalan, Nuevos sistemas de comunicación e información*. Available at: <https://books.google.com/books?hl=en&lr=&id=6x83EAAQBAJ&oi=fnd&pg=PA2&dq=bachtiar&ots=FqTul4BZZf&sig=AkcPj78TamCvObV8PD8vBZuzaKM>.
- Properties, S. *et al.* (2011) 'Standard Test Method for Indirect Tensile (IDT) Strength of Bituminous Mixtures 1', pp. 3–7. Available at: <https://doi.org/10.1520/D6931-12.2>.
- Si, W. *et al.* (2016) 'Temperature response to tensile characteristics of the hot asphalt mixtures', *KSCE Journal of Civil Engineering*, 20(4), pp. 1336–1346. Available at: <https://doi.org/10.1007/s12205-015-0688-2>.
- Srivatsan, T.S. *et al.* (1997) 'The tensile response and fracture behavior of an Al-Zn-Mg-Cu Alloy: Influence of temperature', *Journal of Materials Engineering and Performance*, 6(3), pp. 349–358. Available at: <https://doi.org/10.1007/s11665-997-0100-6>.
- Sukirman, S. (2016) *Beton Aspal Campuran Panas*, Institut Teknologi Nasional.
- Tahir., A. (2023) 'Karakteristik Adonan Beton Aspal (Ac-Wc) Dengan Menggunakan Variasi Kadar Filler Abu Terbang Batu Bara'.
- Walubita, L.F. and van de Ven, M.F. (2009) 'Stresses and Strains in Pavements', *South African Transport Conference Organised by: Conference Planners, 'Action in Transport for the New Millennium'*, (July), pp. 1–8.
- M. of R. T. and H. (MORTH), "Specifications for Road and Bridge Works (Fifth Revision)," Indian Road Congress, New Delhi, 2013.

- W. Grabowski and J. Wilanowicz, "The structure of mineral fillers and their stiffening properties in filler-bitumen mastics," *Mater. Struct. Constr.*, vol. 41, no. 4, pp. 793–804, 2008, doi: 10.1617/s11527-007-9283-4.
- N. Tiwari, N. Baldo, N. Satyam, and M. Miani, "Mechanical Characterization of Industrial Waste Materials as Mineral Fillers in Asphalt Mixes: Integrated Experimental and Machine Learning Analysis," *Sustain.*, vol. 14, no. 10, 2022, doi: 10.3390/su14105946.
- J. Choudhary, B. Kumar, and A. Gupta, "Laboratory evaluation on recycling waste industrial glass powder as mineral filler in hot mix asphalt," in *Proceeding of Civil Engineering Conference- Innovation for Sustainability*, Hamirpur, India, 2016, pp. 352–359.
- D. A. Anderson and W. H. Goetz, "Mechanical behavior and reinforcement of mineral filler-asphalt mixes," *Proc. Assoc. Asph. Paving Technol.*, vol. 42, pp. 37–66, 1973.
- G. D. Airey, M. C. Liao, and N. N. Thom, "Fatigue behaviour of bitumen-filler mastics," *Proc. 10th Int. Conf. Asph. Pavements*, pp. 485–495, 2006.
- MoRTH, "Specifications for Road Bridge Works 5th Revision," *Indian Roads Congr. behalf Govet. India, Minist. Road Transp. Highw.*, vol. 1, pp. 1–883, 2013.
- A. I. Nassar, M. K. Mohammed, N. Thom, and T. Parry, "Mechanical, durability and microstructure properties of Cold Asphalt Emulsion Mixtures with different types of filler," *Constr. Build. Mater.*, vol. 114, pp. 352–363, 2016, doi: 10.1016/j.conbuildmat.2016.03.112.
- W. Grabowski and J. Wilanowicz, "The structure of mineral fillers and their stiffening properties in filler-bitumen mastics," *Mater. Struct.*, vol. 40, no. 8, pp. 793–804, 2007.
- A. H. Aljassar, S. Metwali, and M. A. Ali, "Effect of filler types on Marshall stability and retained strength of asphalt concrete," *Int. J. Pavement Eng.*, vol. 5, no. 1, pp. 47–51, 2004, doi: 10.1080/10298430410001733491.
- M. Z. M. Zainudin, F. H. Khairuddin, C. P. Ng, S. K. Che Osmi, N. A. Misnon, and S. Murniati, "Effect of sugarcane bagasse ash as filler in hot mix asphalt," *Mater. Sci. Forum*, vol. 846, pp. 683–689, 2016, doi: 10.4028/www.scientific.net/MSF.846.683.
- A. Kumar Yadav, K. Gaurav, R. Kishor, and S. K. Suman, "Stabilization of alluvial soil for subgrade using rice husk ash, sugarcane bagasse ash and cow dung ash for rural roads," *Int. J. Pavement Res. Technol.*, vol. 10, no. 3, pp. 254–261, 2017, doi: 10.1016/j.ijprt.2017.02.001.
- P. K. Akarsh, G. O. Ganesh, S. Marathe, and R. Rai, "Incorporation of sugarcane bagasse ash to investigate the mechanical behavior of stone mastic asphalt," *Constr. Build. Mater.*, vol. 353, 2022, doi: 10.1016/j.conbuildmat.2022.129089.

- A. Al-Hdabi, "Laboratory investigation on the properties of asphalt concrete mixture with Rice Husk Ash as filler," *Constr. Build. Mater.*, vol. 126, pp. 544–551, 2016, doi: 10.1016/j.conbuildmat.2016.09.070.
- S. Sargin, M. Saltan, N. Morova, S. Serin, and S. Terzi, "Evaluation of rice husk ash as filler in hot mix asphalt concrete," *Constr. Build. Mater.*, vol. 48, pp. 390–397, 2013, doi: 10.1016/j.conbuildmat.2013.06.029.
- L. F. Walubita and M. F. van de Ven, "Stresses and Strains in Pavements," *South African Transp. Conf. Organised by Conf. Planners, 'Action Transp. New Millenn.*, no. July, pp. 1–8, 2009.
- A. Aljubory, A. S. Abbas, and A. F. Bdan, "Effect of Palm Fibers on Asphalt Pavement Properties," *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 881, no. 1, 2020, doi: 10.1088/1757-899X/881/1/012176.
- S. Properties *et al.*, "Standard Test Method for Indirect Tensile (IDT) Strength of Bituminous Mixtures 1," pp. 3–7, 2011, doi: 10.1520/D6931-12.2.
- M. Arabani, P. T. Khe Iry, and B. Ferdowsi, "Use of ultrasonic pulse velocity (UPV) for assessment of HMA mixtures behavior," *Iran. J. Sci. Technol. - Trans. Civ. Eng.*, vol. 36, no. C1, pp. 111–114, 2012.
- K. P. Biligiri and K. E. Kaloush, "Prediction of pavement materials' impedance using ultrasonic pulse velocity," *Road Mater. Pavement Des.*, vol. 10, no. 4, pp. 767–787, 2009, doi: 10.3166/rmpd.10.767-787.
- S. Abo-Qudais and A. Suleiman, "Monitoring fatigue famage and crack healing by ultrasound wave velocity," *Nondestruct. Test. Eval.*, vol. 20, no. 2, pp. 125–145, 2005, doi: 10.1080/10589750500206774.
- A. Zulkati, W. Y. Diew, and D. S. Delai, "Effects of fillers on properties of asphalt-concrete mixture," *J. Transp. Eng.*, vol. 138, no. 7, pp. 902–910, 2012, doi: 10.1061/(ASCE)TE.1943-5436.0000395.
- A. Modarres and P. Alinia Bengar, "Investigating the indirect tensile stiffness, toughness and fatigue life of hot mix asphalt containing copper slag powder," *Int. J. Pavement Eng.*, vol. 18, no. 3, pp. 280–288, 2017.
- K. Sobhan and M. Mashnad, "Tensile Strength and Toughness of Soil-Cement-Fly-Ash Composite Reinforced with Recycled High-Density Polyethylene Strips", doi: 10.1061/ASCE0899-1561200214:2177.
- M. Pasra, M. W. Tjaronge, M. A. Caronge, A. R. Djamaluddin, F. E. P. Lapian, and M. Tumpu, "Influence of Tensile Load on Bonding Strength of Asphalt Concrete Containing Modified Buton Asphalt and Polyethylene Terephthalate Waste: A Case Study of Indonesian Roads," *Int. J. Eng. Trans. B Appl.*, vol. 35, no. 9, pp. 1779–1786, 2022, doi: 10.5829/ije.2022.35.09c.14.
- A. Akila and P. Shalini, "Jurnal Internasional Teknik & Teknologi," vol. 7, no. November, pp. 170–173, 2018.

- Z. Y. Jiang, J. Ponniah, and G. Cascante, "Improved ultrasonic pulse velocity technique for bituminous material characterization," *TAC/ATC 2006 - 2006 Annu. Conf. Exhib. Transp. Assoc. Canada Transp. Without Boundaries*, no. April, 2006.
- E. I. Materials and R. Bartnikas, "Standard Test Method for Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power," *Engineering*, vol. i, no. Reapproved, pp. 1–13, 2004, doi: 10.1520/D0149-09R13.2.
- N. sajad Kadium and S. I. Sarsam, "Evaluating Asphalt Concrete Properties by the Implementation of Ultrasonic Pulse Velocity," *J. Eng.*, vol. 26, no. 6, pp. 140–151, 2020, doi: 10.31026/j.eng.2020.06.12.
- K. P. Biligiri and G. B. Way, "Noise-damping characteristics of different pavement surface wearing courses," *Road Mater. Pavement Des.*, vol. 15, no. 4, pp. 925–941, 2014, doi: 10.1080/14680629.2014.902768.
- M. Arabani and S. A. Tahami, "Assessment of mechanical properties of rice husk ash modified asphalt mixture," *Constr. Build. Mater.*, vol. 149, pp. 350–358, 2017, doi: 10.1016/j.conbuildmat.2017.05.127.
- T. S. Srivatsan, S. Anand, D. Veeraghavan, and V. K. Vasudevan, "The tensile response and fracture behavior of an Al-Zn-Mg-Cu Alloy: Influence of temperature," *J. Mater. Eng. Perform.*, vol. 6, no. 3, pp. 349–358, 1997, doi: 10.1007/s11665-997-0100-6.
- K. Kamal, M. Amin, and K. Ijet, "Evaluation of Asphalt Mixtures Containing Rejuvenated Reclaimed Asphalt Pavement Evaluation of Asphalt Mixtures Containing Rejuvenated Reclaimed Asphalt Pavement," no. September, 2023.
- M. Abdel-Jaber, R. A. Al-shamayleh, R. Ibrahim, T. Alkhrrissat, and A. Alqatamin, "Mechanical properties evaluation of asphalt mixtures with variable contents of reclaimed asphalt pavement (RAP)," *Results Eng.*, vol. 14, no. May, pp. 1–7, 2022, doi: 10.1016/j.rineng.2022.100463.
- M. Helal, H. Mahdy, and M. Ibrahim, "Effect of Rice Husk Ash on the Performance of Hot Asphalt Mixes," *Bull. Fac. Eng. Mansoura Univ.*, vol. 45, no. 2, pp. 8–19, 2020, doi: 10.21608/bfemu.2020.97418.
- K. Sobhan and M. Mashnad, "Fatigue Behavior of a Pavement Foundation with Recycled Aggregate and Waste HDPE Strips," *J. Geotech. Geoenvironmental Eng.*, vol. 129, no. 7, pp. 630–638, 2003, doi: 10.1061/(asce)1090-0241(2003)129:7(630).
- T. S. Rao, G. M. Reddy, and S. R. K. Rao, "Microstructure and mechanical properties of friction stir welded AA7075-T651 aluminum alloy thick plates," *Trans. Nonferrous Met. Soc. China (English Ed.)*, vol. 25, no. 6, pp. 1770–1778, 2015, doi: 10.1016/S1003-6326(15)63782-7.
- C. Vipulanandan and V. Garas, "Electrical Resistivity, Pulse Velocity, and Compressive Properties of Carbon Fiber-Reinforced Cement Mortar," *J. Mater. Civ. Eng.*, vol. 20, no. 2, pp. 93–101, 2008, doi: 10.1061/(asce)0899-1561(2008)20:2(93).

L A M P I R A N

	Universitas Hasanuddin	Nama : Garry R. Kondologit
	Program Studi Magister Teknik Sipil	NIM : D012231052
LAMPIRAN		Tgl : Februari 2024
<u>Persiapan Material</u>		 Filler Debu Batu  Agregat Kasar  Filler Abu Sekam Padi  Aspal

	Universitas Hasanuddin	Nama : Garry R.Kondologit
	Program Studi Magister Teknik Sipil	NIM : D012231052
LAMPIRAN		Tgl : Februari 2024
<u>Pengujian Karakteristik</u>		  

	Universitas Hasanuddin	Nama : Garry R.Kondologit
	Program Studi Magister Teknik Sipil	NIM : D012231052
LAMPIRAN		Tgl : Februari 2024
<u>Pengujian Karakteristik</u>		  

	Universitas Hasanuddin	Nama : Garry R.Kondologit
	Program Studi Magister Teknik Sipil	NIM : D012231052
	LAMPIRAN	Tgl : Februari 2024
<u>Proses Pencampuran Material</u>		  

	Universitas Hasanuddin Program Studi Magister Teknik Sipil	Nama : Garry R. Kondologit
LAMPIRAN		NIM : D012231052
<u>Karakteristik Marshall</u> <u>Perendaman Selama +/- 24 Jam</u> <u>Penimbangan Bricket dalam Air</u> <u>Proses SSD Bricket</u>		  

	<u>Universitas Hasanuddin</u> <u>Program Studi Magister</u> <u>Teknik Sipil</u>	<u>Nama : Garry R.Kondologit</u>
<u>LAMPIRAN</u>		<u>Tgl : February 2024</u>
<u>Pengujian UPV</u>		  

	<u>Universitas Hasanuddin</u> <u>Program Studi Magister</u> <u>Teknik Sipil</u>	<u>Nama : Garry R.Kondologit</u> <u>NIM : D012231052</u>
<u>LAMPIRAN</u>		<u>Tgl : February 2024</u>
<u>Pengujian Kuat Tarik Belah</u>		  

	Universitas Hasanuddin Program Studi Magister Teknik Sipil	Nama : Garry R.Kondologit NIM : D012231052
<u>LAMPIRAN</u>		<u>Tgl : February 2024</u>
<u>Pengujian Kuat Tarik Belah</u>		  

	Universitas Hasanuddin Program Studi Magister Teknik Sipil	Nama : Garry R.Kondologit NIM : D012231052
<u>LAMPIRAN</u>		Tgl : February 2024
<u>Tampak Hasil Penqujian Sampel dan</u> <u>Pola Keretakan</u>		

