

DAFTAR PUSTAKA

- 440.2R-17, A. (2017). Building Code Requirements for Structural Concrete.
- Abdesselam, Z. (2015). Interfacial stresses in strengthened beam with shear cohesive zone model. *Indian Academy of Sciences*, 235–248.
- Abdul, A. S., Noridah, M., Noorwidawati, A. j., Jayaprakash, & Priyan, M. (2016). Rehabilitation of Continuous Reinforced Concrete Beams in Shear by External Bonding of Carbon Fiber Reinforced Polymer Strips for Sustainable Construction. *Engineering Material*, 49-58.
- ACI 318. (2019). Building Code Requirements for Structural Concrete and Commentary (ACI 318-19). American Concrete Institut.
- Alajarmeh, O. S., Manolo, A. C., Benmokrane, B., Karunasena, K., Ferdous, W., & Mendis, P. (2020). Hollow concrete columns: Review of structural behavior and new designs using GFRP reinforcement. *Engineering Structures*, 203, 1-16.
- Al-Qaralleh, M., & Toutanji, H. (2018). Effect of Overloading on Fatigue Life of RC Beams Strengthened with FRP Sheets. *ASCE*.
- American Concrete Institute (ACI). (2014). Building Code Requirements for Structural Concrete (ACI 318-14) and Commentary (ACI 318R-14). Farmington Hills, MI.
- Amiruddin, A., & Arwin. (2011). Perilaku Kekuatan Lentur Balok Beton Bertulang Dengan CFRP Grid dan PCM Shotcrete. *Konteks 5*. Medan.
- Ashrafal, A., Bakkar, S. A., Onik, S. A., & Mustapha. (2018). Embedded Connector in Severe Optimization of Steel Plate for Shear Strengthening of RC Beam: Experimental and Numerical Investigation. *Hindawi Advances in Civil Engineering*.
- Arslan, M. H., 2022. Shear strengthening of reinforced concrete T-beams with anchored and non-anchored CFRP fabrics. *Structures*, p. 527–542.
- Asoni, A. (2010). *Kolom Fondasi dan Balok T Beton Bertulang*. Indonesia: Graha Ilmu.
- Bank, L. C. (1993). Properties of FRP reinforcements for concrete," *Concrete Structures: Properties and Aplications*".
- Bastian, E., Thamrin, R., & Tanjung, J. (2015). Pengaruh Perkuatan Pelat CFRP Terhadap Perilaku Tulangan Tarik Struktur Balok Beton Bertulang. *Jurnal Rekayasa Sipil Vol.11 No.1*.
- Batubara, S., & Manik, D. (2018). Pengaruh Lobang Pada Kolom Akibat Gaya Aksial Tekan. *Jurnal Rekayasa Konstruksi Mekanika Sipil Vol.1 No.1*.
- Busnelli, Pedro, A., Lopez, Edgardo, R., & Adué, J. (2017). Concrete Beams Reinforced with GFRP Plates. *Key Engineering Materials Vol. 747*.
- Clarke, J. L., & Birjandi, F. K. (1993). The behaviour of reinforced concrete circular sections in shear. *The Structural Engineer*, 71(5), 73-78,81.

- Collins, M. P., Bentz, E. C., Sherwood, E. G., & Xi. (2007). An adequate theory for the shear strength of reinforced concrete structures. *Morley Symposium on Concrete Plasticity and its Applications* (pp. 75-93). Cambridge: University of Cambridge.
- Daouadjia, T. H., Rabahia, A., Abbesd, B., & Adima. (2016). Theoretical and finite element studies of interfacial stresses in reinforced concrete beams strengthened by externally FRP laminates plate. *Journal of Adhesion Science and Technology*, Vol. 30, no. 12, 1253–1280.
- Delgado, P., & et.al. (2013). Experimental Cyclic Tests Of Hollow Piers With Different Retrofit Strategies. *4th ECCOMAS Thematic Conference on Computational Methods In Structural Dynamics and Earthquake Engineering*.
- Dong, Wang, J., He, D., & Uan, Z. (2011). CFRP sheets for flexural strengthening of RC beam. 1000-1003.
- Erki, M. A., & Rizkalla, S. H. (1993). A sample of international production: FRP reinforcement for concrete structure. *Concrete International*, 48-52.
- Feltham, I. (2004). Shear in reinforced concrete piles and circular columns. *The Structural Engineer*, 84(11), 27-31.
- Gentile, R., & Raffaelea, D. (2018). Simplified analytical Moment-Curvature relationship for hollow circular RC cross-sections. *Earthquakes and Structures*, Vol. 15, No. 4.
- Ghai, R., Bansal, P. P., & Kumar, M. (2018). Strengthening of RCC Beams in Shear by Using SBR Polymer-Modified Ferrocement Jacketing Technique". *Hindawi Advances in Civil Engineering*.
- Hamid, N. A., Ibrahim, A., Rendy, T., & Hamid, H. A. (2015). Effect of longitudinal reinforcement ratio on shear capacity of concrete beams with GFRP bars. *Proc. of the Inter. Civil and Infrastructure Eng. Conference*, Springer, 587–599.
- Hamid, N. A., Ibrahim, A., Thamrin, R., & Hamid, H. A. (2013). Experimental Investigation on the Shear Behaviour of Concrete Beams Reinforced with GFRP Reinforcement Bars. *Advanced Materials Engineering and Technology*, 626, 559-563.
- Hamid, N. A., Salleh, N., Ali, N., Abdullah, S. R., Adnan, S. H., & Jamellodin, Z. (2022). Strengthening of Reinforced Concrete Beams with Circular Opening at Flexure Zone by Various Types of Fiber Reinforced Polymer. *ICONCEES*.
- Hamid, N. A., Thamrin, R., Ibrahim, A., & Hamid, H. A. (2014). Strain distribution on reinforcement of concrete beams reinforced with glass fiber reinforced polymer (GFRP) bars. *Key Eng. Mater.*, 812–817.
- Hong, S., & Park, S. K. (2016). Behavior of Concrete Beams with Peel-Plied aramid-fiber-reinforced Polymer Plate. *Mechanics of Composite Materials*, Vol. 52, No.1.
- Horowitz, B. (2016). Shear Strength of Hollow Circular Sections. *IBRACON*, 9, 214-225.

- Ibrahim, A. M., & Mahmood, M. S. (2009). Finite Element Modeling of Reinforced Concrete Beams Strengthened with FRP Laminates. *European Journal of Scientific Research*, 526-541.
- Jayajothi, P., Kumutha, R., & Vijai, K. (2013). Finite Element Analysis of FRP Strengthened RC Beams Using ANSYS. *Asian Journal of Civil Engineering (BHRC)*, 631-642.
- Jensen, G. U., Hoang, L. C., & Joergensen, H. B. (2010). Shear strength of heavily reinforced concrete members with circular cross section. *Engineering Structures*, 617-626.
- Jiao, H., Phan, H. B., & Zhao, X. L. (2014). Fatigue Behaviour of Steel Elements Strengthened with Stand CFRP Sheet. *Advances in Structural Engineering*, Vol. 17 No. 12.
- Kader, I. M., & Jaya, I. M. (2013). Analisis Pola Retak dan Mekanisme Kegagalan Balok Beton Bertulang Dengan Perkuatan Lentur Lembar CFRP. *Jurnal Logic*, Vol. 13. No. 3.
- Kani, G. J. (1964). The riddle of Shear Failure and Its Solution. *American Concrete Institute Journal*, 61(4), 441-467.
- Khalifa, A., Gold, W. J., Nanni, A., & Aziz, A. (1998). Contribution Of Externally Bonded FRP to Shear Capacity of RC Flexural Members. *Journal of Composites for Construction*.
- Kishida, S., Horii, M., Kuwabara, F., & Hayashi, S. (1998). Experimental Study on Shear Strength of the PHC Pile with Large Diameter. *J. Struct. Constr. Eng., AIJ*, 123-130.
- Leung, H. Y. (2002). Strengthening of RC Beams: Some Experimental Findings. *Structural Survey*, 173-181.
- Li, A., Assih, J., & Delmas, Y. (2001). Shear Strengthening of RC Beams with Externally Bonded CFRP Sheets. *Journal Of Structural Engineering*, 374-380.
- Liang, X., & Sritharan, S. (2018). Effect of Confinement in Circular Hollow Concrete Columns. *ASCE*, 144(9).
- Malvar, L. J., Warren, G. E., and Inaba, C. (1995). "Rehabilitation of Navy Pier Beams with Composite Sheets," *Non-Metallic (FRP) Reinforcement for Concrete Structures; Proceedings of the 2nd International RILEM Symposium, London, England*, pp. 534-540.
- Matthys, S., 2000. Structural behavior and design of concrete members strengthened with externally bonded FRP reinforcement, Ghent, Belgium: Ghent University, Faculty of Applied Sciences Department of Structural Engineering.
- Milani, G., & Lourenco, P. B. (2013). Simple Homogenized Model for the Nonlinear Analysis of FRP-Strengthened Masonry Structures. II: Structural Applications. *American Society of Civil Engineers (ASCE)*.
- Mohamed, O. A., & Khattab, R. M. (2014). Numerical Analysis of Reinforced Concrete Beam Strengthened with CFRP Laminates. *1st International Conf. on Infrastructure Management, Assessment and Rehabilitation Techniques, ICIMART14*.

- Mohammed, A., Ahmed, A., & Maekawa, K. (2019). Performance Comparison of Circular and Square RC Columns under Monotonic Loading Conditions. *KSCCE Journal of Civil Engineering*, 23(1): 210-216.
- Niwa, J., Yamada, K., Yokozawa, K., & Okamura, H. (n.d.). Revaluation of the equation for shear strength of reinforced concrete beams without web reinforcement, *Proceedings of JSCE*, No. 372/V-5, 167-176, (1986).
- Nurlina, S., Suseno, H., Hidayat, M. T., & Pratama, I. M. (2016). Perbandingan Daktilitas Balok Beton Bertulang Dengan Memnggunakan Perkuatan CFRP dan GFRP. *Rekayasa Sipil*, Vol. 10, No.1.
- Okamura, H., & Higai, T. (1980). Proposed Design Equation for Shear Strength of R.C. Beams without Web Reinforcement. *Japan Society of Civil Engineering*, 131-141.
- Pangestuti, E. K., & Handayani, F. S. (2009). Penggunaan Carbon Fiber Reinforced Plate Sebagai Tulangan Eksternal Pada Struktur Balok Beton. *Media Teknik Sipil*, Volume IX, Juli 2009 ISSN 1412-0976.
- Papanikolaou, Vassilis, K., Thermou, & Georgia, E. (2015). Concrete-To-Concrete Interfaces Under Cyclic Loading. *Finite Element Analisis Towards Experimental Verification*.
- Park, R., & Paulay, T. (1975). *Reinforced Concrete Structure*. New York: John Wiley.
- Parmo, & Taufikurrahman. (2014). Perbaikan Kekuatan dan Daktilitas Balok Beton Bertulang Menggunakan Glass Fiber Reinforced Polymer (GFRP) Strips. *Jurnal Ilmu-ilmu Teknik-Sistem*, Vol.10, No.3.
- Perkins, P. (1997). *Repair, protection and waterproofing of concrete structures*. Taylor & Francis.
- PT. Hesa Laras Cemerlang. (2019, Maret 25). Retrieved from Pola Kerusakan Struktur Beton Akibat Kelebihan Beban: <https://www.google.com/search?q=kerusakan+geser+kolom+akibat+overloading&clientRahman>, M. J. (2011). Peningkatan Kinerja Pilar/Kolom Jembatan Beton Bertulang Berpenampang Persegi Berlobang di Bawah Pembebanan Siklik dengan Reactive Power Concrete (RPC). *Prosiding Konferensi Nasional Pascasarjana Teknik Sipil (KNPTS)*.
- Salleh, N., Sam, A. R., Yatim, J. M., & Osman, M. (2014). Flexural Behaviour of Reinforced Concrete Beam with Glass Fiber Reinforced Polymer (GFRP) Bar Strengthened with Carbon Fiber Reinforced Polymer (CFRP) Plate. *Adv. Mater. Res.*, 748-751.
- Shen, Y., & Wei, B. (2019). Shaking Table Test Study on Seismic Performance of Hollow Rectangular Piers. *Hindawi Advances in Civil Engineering*.
- Situmorang, L. P., Manalip, H., & Handono, B. D. (2017). *TEKNO*, Vol.15, No.67.
- SNI 03-2847-2002. (n.d.). *Saluran Dan Pipa Yang Ditanam Dalam Beton*.
- Tajaddini, A., Ibell, T., Darby, T., Evernden, M., & Silva, P. (2018). Effect of Fiber-Reinforced Polymer Strengthening on Moment Redistribution in Reinforced Concrete Members. *ACI Structural Journal*, V. 115, No. 4.

- Thamrin, R. (2015). User Manual Reinforced Concrete Cross Section Analysis (RCCSA v.4.3.0). Padang.
- Thamrin, R. (2016). Effect of End Anchorage Length and Stirrup Ratio on Bond and Shear Capacity of Concrete Beams with Nonmetallic Reinforcement. *Journal of Engineering Science and Technology*, Vol. 11, No. 6 (2016) 768 - 787.
- Thamrin, R., Kurniawan, R., & Melinda, A. P. (2017). Shear and flexural capacity of reinforced concrete members with circular cross section. *Procedia Eng*, 171, 957–964.
- Thamrin, R., Tanjung, J., Aryanti, R., Nur, O. F., & Devinus, A. (2016). Shear strength of reinforced concrete T-Beams without stirrups. *Journal of Engineering Science and Technology*, 11(4), 548-562.
- Thamrin, R., Zaidir, & Haris, S. (2019). Shear capacity of reinforced concrete beams strengthened with web-side bonded CFRP sheets. *MATEC Web of Conferences*.
- Thusoo, S., Kono, S., Hamada, J., & Asai, Y. (2020). Performance of precast hollow steel-encased high-strength concrete piles. *Engineering Structures*.
- Tonias, D. E. (1995). *Bridge Engineering; design, rehabilitation, and maintenance of modern highway bridge*. McGraw-Hill.
- Tonseth, D., & Welchermill, K. (2014). Design of Hollow Reinforced Concrete Columns in the Tubed Mega Frame. Master Thesis in Concrete Structures. ISSN 11034297.
- Triantafillou, T. C., & Plevris, N. (1992). Strengthening of RC beams with epoxy-bonded fibre-composite materials. *Materials and Structures*, 201-211.
- Triantafillou, T. C. (1998). "Shear Strengthening of Reinforced Concrete Beams Using Epoxybonded, FRP Composites," *ACI Structural Journal*, Vol. 95, No.2, pp. 107-115.
- Turmo, J., Ramos, G., & Aparicio, A. C. (2009). Shear truss analogy for concrete members of solid and hollow circular cross section. *Eng. Struct*, 31(2), 455–465.
- Wong, Y. L., Paulay, T., & Priestley, M, J. N. (1993). Response of circular reinforced concrete columns to multi-directional seismic attack. *ACI Structural Journal*, 90(2), 180-191.
- Zararis, P. D. (2003). Shear Strength and Minimum Shear Reinforcement of Reinforced Concrete Slender Beams. *American Concrete Institute Structural Journal*, 100(2), 203-214.
- Ziara. (1993). The influence of confining the compression zone in the design of structural concrete beams.
- Zsutty, T. C. (1968). Beam Shear Strength Prediction by Analysis of Existing Data. *American Concrete Institute Journal*, 65(11), 942–951.