



## DAFTAR PUSTAKA

- Abdul, H.Q., Wesam, S.A., Wong, K.W., Syed Saad, M. Ali, Syed Ahmad, dan Ahmed, F.K., 2023. *Automated Progress Monitoring Technological Model for Construction Projects. Ain Shams Engineering Journal*, 14 (2023) 102165, Malaysia.
- Adan, A., Quintana, B., Prieto, S.A., dan Bosche, F., 2018. *Scan-to-BIM for ‘Secondary’ Building Components. Advanced Engineering Infrastructure* 2018, 37, 119–138.
- Akanmu, A. dan Okoukoni, F., 2018. *Swarm Nodes for Automated Steel Installation Tracking: A Case Study. Autom. Constr.*, 90, 294–302.
- Alaloul, W.S., Qureshi, A.H., Musaraf, M.A., dan Saad, 2021. *Evolution of Close-range Detection and Data Acquisition Technologies Towards. Automation in Construction Progress Monitoring. J. Build Engineering*, 43.
- Anhar, F.P., dan Arief, B., 2017, Konstruksi Indeks Kestabilan Sistem Keuangan Indonesia. *Quantitative Economics Journal*, Vol. 6, No. 1.
- Antwi-Afvari, M.F., Li, H., Parn, E.A. dan Edwards, D. J., 2018. *Critical Success Factors for Implementing Building Information Modelling (BIM); a Longitudinal Review. Automation Construction*. 91, pp. 100 - 110.
- Alizadehsalehi, S., Hadavi, A., Huang, J.C., 2020. *From BIM to Extended Reality in AEC Industry. Autom Constr.*, 116.
- Alizadehsalehi, S. dan Yitmen, I., 2021. *Digital Twin-based Progress Monitoring Management Model Through Reality Capture to Extended Reality Technologies (DRX). Smart Sustain Built Environ.*
- Alvataro Partogi, Yudo Prasetyo dan Bandi Sasmito, 2017. Analisis Ketelitian Data Pemodelan 3 Dimensi Dengan Metode Traverse Dan Metode Cloud to Cloud Menggunakan Terrestrial Laser Scanner. Universitas Diponegoro, Semarang, Indonesia.
- Asadi, K., Ramshankar, H., Noghabaei, M., dan Han, K., 2019. *Real-time Image Localization and Registration with BIM Using Perspective Alignment for Indoor Monitoring of Construction. J. Comput. Civil Eng.*, 33,1–15.
- Asiimwe, V.E., 2022. *Investigating the Potential of Laser Scanning Technology in Auditing Continuous Solid Materials on Construction Sites. Makerere University*, Uganda.
- Azhar, S., Khalfan, M., dan Masqod, T., 2012. *Building Information Modelling (BIM): Now and Beyond Australasian Journal of Construction, Economics and Building*, 12 (4) 15-28.
- Blanga, F.S., Pop, A., Hule, V., Karczis, A. dan Buzdugan, D., 2021. *Using Critical Path Method for a New Project Scheduling – The Case of a New Product Launch in Production. IOP Conference Series: Materials Sciend and Engineering*, Romania.
- Barber, D., dan Mills, J., 2001. *Laser Scanning and Photogrammetry: 21<sup>st</sup> Century Metrology. Department of Geomatics, University of Newcastle upon Tyne*, Inggris.
- Boanca, T., 2014. *BIM – GIS Integration for Asset Management. The Netherlands* <http://edepot.wur.nl/31762>.



- Bortolini, R., Formoso, C.T., dan Viana, D.D., 2019. *Site Logistics Planning and Control for Engineer to Order Prefabricated Building Systems Using BIM 4D Modelling*. *Automation Construction*. 98, pp. 248-264.
- Bosché, F., Ahmed, M., Turkan, Y., Haas, C., dan Haas, R., 2014. *Tracking The Built Status of MEP Works: Assessing the Value of a Scan-vs-BIM System*. *Journal Computation Civil Engineering* 2014, 28, 05014004.
- Bosché, F., Ahmed, M., Turkan, Y., Haas, C., dan Haas, R. *The Value of Integrating Scan-to-BIM and Scan-vs-BIM Techniques for Construction Monitoring Using Laser Scanning and BIM: The Case of Cylindrical MEP Components*. *Automation Construction* 2015, 49, 201–213.
- Bueno, M., Bosche, F., Gonzalez-Jorge, H., Martinez-Sanchez, J., dan Arias, P., 2018. *4-Plane Congruent Sets for Automatic Registration of as-is 3D Point Clouds with 3D BIM Models*. *Autom. Constr.* 2018, 89, 120–134.
- Candelario, G.A., Garcia-Sanz, C.J., dan Reyes Rodriguez, A.M., 2017. *A Quantitative Analysis on the Feasibility of 4D Planning Graphic Systems Versus Conventional System in Building Projects*.
- Chen, P.H., dan Nguyen, T.C., 2019. *A BIM-WMS Integrated Decision Support Tool for Supply Chain Management in Construction*. *Automation Construction*. 98, pp. 289-301.
- Christian, H.S., Paulus, N., dan Andi, 2017. Prediksi Kinerja Waktu Proyek Konstruksi. *Jurnal Dimensi Utama Teknik Sipil*, Surabaya.
- Cinthia Ayu Berlian, Randi Putranto Adhi, Arif Hidayat dan Hari Nugroho, 2016. Perbandingan Efisiensi Waktu, Biaya dan Sumber Daya Manusia Antara Metode Building Information Modelling dan Konvensional.
- Dai, F., Rashidi, A., Brilakis, I., dan Vela, P., 2013. *Comparison of Image-based and Time-of-flight-based Technologies for Three-dimensional Reconstruction of Infrastructure*. *Journal Construction Engineering Management* 2013, 139, 69–79.
- Danijel Rebolj, Zoran Pučko, Nenad Čuš Babič Marko Bizjak dan Domen Mongus, 2017. *Point Clouds Quality Requirements for Scan vs BIM Based Automated Construction Progress Monitoring*. University of Maribor, Slovenia.
- Dong, Z., Liang, F., Yang, B., Xu, Y., Zang, Y., Li, J., Wang, Y., Dai, W., Fan, H., Hyppa, J., dan Stilla, U., 2020. *Registration of large-scale terrestrial laser scanner point clouds: A review and benchmark*. *ISPRS Journal of Photogrammetry and Remote Sensing*, 163 (March), 327-342.
- El-Omari dan Moselhi, 2011. *Integrating Automated Data Acquistion Technologies for Progress Reporting of Construction Projects*. *Autom. Construction*, 20, 699-705.
- Eva, Q.M., Juan, P.C.P., Juan, F.C., Jose, F.F.A., Marta, G., dan Santiago, F.R., 2022. *Integration of Aerobiological Information for Construction Engineering Based on LiDAR and BIM*. University of Extremadura, Spanyol.
- Farhan Ardianzaf, Abdi Sukmono dan Nurhadi Bashit, 2021. Analisis Simulasi Evakuasi Bencana Kebakaran Berbasis *Building Information Modeling* (BIM). Universitas Diponegoro, Indonesia.



Ghaffarian Hoseini, A., Zhang, T., Naismith, N., Doan, D. T., Rehman, A. U., Nwadigo, O. & Tookey, J., 2019. *ND BIM Integrated Knowledge Based Building Management: Inspecting Post-Construction Energy Efficiency.*

Giulia Terrosi, 2020. *Guidelines for BIM Information Management at Design Stage. Escola de Engenharia, Universidade do Minho, Braga, Portugal.*

Giuseppina Vacca, 2023. *3D Survey with Apple LiDAR Sensor – Test and Assessment for Architectural and Cultural Heritage. Department of Civil and Environmental Engineering and Architecture, University of Cagliari, Italia.*

Gledson, B., dan Greenwood, D., 2016. *Surveying the Extend and Use of 4D BIM in the UK. Journal of Information Technology in Construction (ITcon) 21, pp. 57-71.*

Golizadeh, H., Hon, C.K.H., Drogenmuller, R., dan Reza Hoseini, M., 2018. *Digital Engineering Potentian in Addressing Causes of Construction Accidents. Automation Construction. 95, pp. 284-295.*

Golpavar-Fard, M., Pena-Mora, F., dan Savarese, S., 2015. *Automated Progress Monitoring Using Unordered Daily Construction Photographs and IFC-based Building Information Models. Journal Computation Civil Engineer, 29, 04014025.*

Han, Z. H., 2020. *Application of GIS and BIM Integration Technology in Construction Management', IOP Conference Series: Earth and Environmental Science, 526(1), pp. 1–8.*

Hadi, M., Farnad, N., Ali, H.A., dan Saeid Nahavandi, 2019. *Automated Progress Controllingand Monitoring Using Daily Site Images and Building Information Modelling. Art University of Tehran, Iran.*

Hanifah Rusyanti, 2018. Studi Komparasi Implementasi *Building Information Modelling (BIM)* di Singapura dan Inggris Ditinjau dari Aspek Kelembagaan. Kementerian Pekerjaan dan Perumahan Rakyat, Jakarta.

Hosseini, M.R., Maghrebi, M., Akbarnezhad, A., Martek, I. dan Arashpour, M., 2018. *Analysis of Citation Networks in Building Information Modelling Research. J. Construction Engineering Management. 144 (8) 04018064.*

Heesom, D., dan Mahdjoubi, L., 2004. *Trends of 4D CAD Applications for Construction Planning. Construction Management Economics, 22 (2), pp. 171-182.*

I Wayan Krisna Eka Putra, 2016. Sistem Kerja Sensor Laser pada LiDAR. Universitas Pendidikan Ganesha, Bali.

Ibrahim, A., Golpavar-Fard, M., dan El-Rayes, K., 2022. *Multiobjective Optimization of Reality Capture Plans for Computer Vision Driven Construction Monitoring with Camera Equipped UAVs. J. Comput. Eng., 36, 1-9.*

Imam Munandar dan Ingrid, M.R., 2017. Manajemen Konstruksi Proyek Pembangunan *Guest House Sutan Raja Kota Cirebon*. Jurnal Konstruksi Vol. 6 No. 2, Unswagati Cirebon.

Ishida, K., 2016. *Construction Progress Management and Interior Work Analysis Using Kinect 3D Image Sensors. ISARC 33rd Int. Symp. Autom. Robot. Constr., pp. 314–322*

Khalil Ismail dan Shamal Ali, 2019. *Comparison and Assesment of Using Primavera and Microsoft Project in Construction Projects in Erbil City. Salahaddin University, Irak.*



Kim, K., dan Lee, Y.C., 2019. *Automated Generation of Daily Evacuation Paths in 4D BIM*. *Appl. Sci.* 9, 1789.

Kevin K. Han, David Cline dan Mani Golparvar-Fard, 2015. *Formalized Knowledge of Construction Sequencing for Visual Monitoring of Work-in-Progress via Incomplete Point Clouds and Low-LoD 4D BIMs*. University of Illinois, Urbana, Amerika Serikat.

Kevin K. Han dan Mani Golparvar-Fard, 2017. *Potential of Big Visual Data and Building Information Modelling for Construction Performance Analytics: An Exploratory Study*. University of Illinois at Urbana-Champaign, Urbana, Amerika Serikat.

Liu, Z., Lu, Y., dan Peh, L.C., 2019. *A Review and Scientometric Analysis of Global Building Information Modeling (BIM) Research in the Architecture, Engineering and Construction (AEC) Industry*. *Buildings* 2019, 9, 210.

Lu, R. dan Brilakis, I., 2019. *Digital Twinning of Existing Reinforced Concrete Bridges from Labelled Point Clusters*. *Autom. Constr.*, 105.

Moench, H., Carpaij, M., Gerlach, P., Gronenborn, S., Gudde, R., Hellming, J., Kolb, J., dan van der Lee, 2016. *VCSEL-based Sensors for Distance and Velocity in Vertical-cavity Surface-emitting Lasers*. San Francisco, California, Amerika Serikat.

Muki Haklay, Vlado Ceti, Yerach Doytsher dan Charalabos Ioannidis, 2019. *New Trends in Geospatial Information: The Land Surveyors Role in the Era of Crowdsourcing and VGI*. Universitas College London, Britania Raya.

Nadia, K., Devi Pratami, dan Muhardi, S., 2023. Perancangan Scope, Schedule, dan Quality Baseline pada Proyek Pembuatan Sistem Informasi Pendidikan Terintegrasi Universitas X. *e-Proceeding of Engineering* Vol. 10 No.2, 1157.

Olawumi, T.O., dan Chan, D.W.M., 2018. *Building Information Modelling and Project Information Management Framework for Construction Projects*. *Journal of Civil Engineering and Management*, 25 (1).

Omar, T., dan Nehdi, M., 2016. *Data acquisition technologies for construction progress tracking*. *Automatic Construction*, 70, 143–15.

Otepka, J., 2013. *Georeferenced Point Clouds: A Survey of Features and Point Clouds Management*. *ISPRS International Journal of Geo-Information*.

Park, J., Cai, H., Dunston, P.S., dan Ghasemkhani, H., 2017. *Database Supported and Web Based Visualization for Daily 4D BIM*. *J. Construction Engineering Management*, 143 (10), 04017078.

Patraucean, V., Armeni, I., Nahangi, M., Yeung, J., Brilakis, I., dan Haas, C., 2015. *State of Research in Automatic As-built Modelling*. *Advanced Engineering Information* 2015, 29, 162–171.

Pazhoohesh, M., dan Zhang, C., 2015. *Automated Construction Progress Monitoring Using Thermal Images and Wireless Sensor Networks*. *Proceedings, Annu. Conf. Can. Soc. Civ. Eng.*, pp. 593–602.

Pelayo, P., Mattia, P., Fabio, F., Simone, C., Francesco, T., Massimo, V., Manuel, S.R., 2022. *CubeSAT Landing Simulations on Small Bodies Using Blender*.

PMI, 2017. *A Guide to the Project Management Body of Knowledge (PMBOK Guide)*. Newton Square, PA: Project Management Institute.



- Pour Rahimian, Seyedzadeh, Oliver, S., Rodriguez, S., dan Dawood, N., 2020. *On-demand Monitoring of Construction Projects through a Game like Hybrid Application of BIM and Machine Learning*. *Automation Construction*, 110.
- Project Management Institute, 2013. *A Guide to the Project Management Body of Knowledge. PMBOK Guide Fifth Edition*.
- Puri, N., dan Turkan, Y., 2020. *Bridge Construction Progress Monitoring Using LiDAR and 4D Design Models*. *Automation Construction* 2020, 109, 102961.
- Putu, D.M.Y., dan Nyoman Abundanti, 2019. Pengaruh Profitabilitas, Leverage dan Kebijakan Dividen Terhadap Nilai Perusahaan Properti *Real Estate* dan Konstruksi Bangunan. Universitas Udayana, Bali.
- Quintero, M.S., Genechten, B.V., Bruyne, M.D., Ronald, P., Hankar, M., dan Barnes, S., 2008. *Theory and Practice on Terrestrial Laser Scanning Project 3D Risk Mapping*.
- Qureshi, A.H., Alaloul, W.S., Wing, W.K., Saad, S., Ammad, S., dan Musarat, M.A., 2022. *Factors Impacting the Implementation Process of Automated Construction Progress Monitoring*. *Ain Shams Eng. Journals*, 13.
- Rafaela Bortolini, Carlos Torres Formoso dan Daniela D. Viena, 2019. *Site Logistics Planning and Control for Engineer-to-Order Prefabricated Building Systems Using BIM 4D Modelling*. Universidade Federal do Rio Grande do Sul, Brasil.
- Rebolj, D., Pućko, Z., Babić, N.C., Bizjak, M., dan Mongus, D., 2017. *Point Cloud Quality Requirements for Scan-vs-BIM Based Automated Construction Progress Monitoring*. *Automation Construction* 2017, 84, 323–334.
- Reshetnyuk, Y., 2009. *Terrestrial Laser Scanning, Error Source, Self-Calibration and Direct Georeferencing*. Saarbrücken, Germany: VDM Verlag Dr. Müller.
- Republik Indonesia, 2017. Undang-Undang Republik Indonesia No. 2 Tahun 2017 tentang Jasa Konstruksi. Kementerian BUMN, Jakarta, Indonesia.
- Rex, D., dan Stoli, S., 2014. *Applications of 3D Laser Scanning in a Production Environment*. Chalmers University of Technology.
- Sami Ur Rehman, Shafiq, M.T., dan Ullah, F., 2022. *Automated Computer Vision-Based Construction Progress Monitoring: A Systematic Review*. *Buildings*, 12, 1037.
- Si Van-Tien Tran, Truong Linh Nguyen, Hung-Lin Chi, Doyeop Lee dan Chansik Park, 2022. *Generative Planning for Construction Safety Surveillance Camera Installation in 4D BIM Environment*. The Hong Kong Polytechnic University, Kowloon, Hong Kong Special Administrative Region.
- Sekar M.R., Yudo Prasetyo dan Nurhadi Bashit, 2021. Analisis Ketelitian *Point Clouds* Teknologi *Terrestrial Laser Scanner* (Studi Kasus: Dekanat Lama Fakultas Teknik UNDIP). Universitas Diponegoro, Semarang, Indonesia.
- Seungho Kim, Sangyong Kim dan Dong-Eun Lee, 2020. *Sustainable Application of Hybrid Point Clouds and BIM Method for Tracking Construction Progress*. Yeungnam University College, Daegu, Korea.
- Shahi, A., Safa M, Haas CT, West JS., 2015. *Data Fusion Process Management for Automated Construction Progress Estimation*. *J. Comput. Civil Eng.*, 29, 1–9



- Sheikhkhoshkar, M., Pour Rahimian, F., Hosseini, M.R., Kaveh, M.H., dan Edwards, D. J., 2019. *Automated Planning of Concrete Joint Layouts with 4D BIM*. *Automation in Construction*, 107, 102943.
- Shirazi, A., dan Behzadan, A.H., 2015. *Design and Assessment of a Mobile Augmented Reality-based Information Delivery Tool for Construction and Civil Engineering Curriculum*. *Journals Prof. Issues Engineering* 2015, 141, 04014012.
- Shirowzhan, S., Sepasgozar, S.M.E., Li, H., Trinder, J., Tang, P., 2019. *Comparative Analysis of Machine Learning and Point-based Algorithms for Detecting 3D Changes in Buildings Overtime using Bi-temporal Lidar Data*. *Autom. Constr.*, 105.
- Sri Kiswati dan Ummi Chasanah, 2019. Analisis Konsultan Manajemen Konstruksi Terhadap Penerapan Manajemen Waktu Pada Pembangunan Rumah Sakit di Jawa Tengah. *Jurnal NeoTeknika* Vol. 5 No. 1, Juni 2019.
- Sofyan, A.M., Ronny, D.N., dan Hendro, S., 2021. *BIM Implementation in Mall Laves Project Construction Surabaya*. *International Journal of Engineering, Science & Information Technology (IJESTY)*.
- Succar, B., 2009. *Building Information Modelling Framework: Research and Delivery Foundation for Industry Stakeholders*. *Automation Construction*, 18, pp. 357-375.
- Supanan Rattanapongwanich, Korb Srinavin, Wuttipong Kusonkhum, dan Tanayut Chatongrat, 2022. *Accuracy of 3D Model Based on Point Cloud: A case study of reinforcement concrete building in Khonkaen Province*. *Khon Kaen University*, Thailand.
- Tran, S.V.T., Khan, N., Lee, D., dan Park, C., 2021. *A Hazard Identification Approach of Integrating 4D BIM and Accident Case Analysis of Spasial-Temporal Exposure*. *Sustainability*, 13, 1-19.
- Turkan, Y., Bosche, F., Haas, C.T., dan Haas, R., 2022. *Automated Progress Tracking Using 4D Schedule and 3D Sensing Technologies*. *Autom Constr.*, 22, 414–21.
- Vanlande, R., Nicolle, C., dan Cruz, C., 2008. *IFC and Building Lifecycle Management*. *Automation in Construction* 18 (2008) 70-78.
- Vito Getuli, Silvia Mastrolempo dan Pietro Capone, 2016. *Field BIM And Supply Chain Management in Construction: An On-going Monitoring System*.
- Wang, X., Truijens, M., Hou, L., Wang, Y., dan Zhou, Y., 2014. *Integrating Augmented Reality with Building Information Modeling: Onsite Construction Process Controlling for Liquefied Natural Gas Industry*. *Automation Construction* 2014, 40, 96–105.
- Wang, Q., Sohn, H., dan Cheng, J.C., 2018. *Automatic As-built BIM Creation of Precast Concrete Bridge Deck Panels Using Laser Scan Data*. *Journal Computation Civil Engineering* 2018, 32, 04018011.
- Wang, Q., dan Kim, M.K., 2019. *Applications of 3D Point Cloud Data in The Construction Industry: A Fifteen-year Review from 2004 to 2018*. *Advanced Engineering Infrastructure* 2019, 39, 306–319.
- Woo, S., Jeong, S., Mok, E., Xia, L., Choi, C., Pyeon, M., dan Heo, J., 2011. *Application of Wifi-based Indoor Positioning System for Labor Tracking at Construction Sites: A Case Study in Guangzhou*. *Automation Construction* 2011, 20, 3–13.



Xue, K., Md. Uzzal., Meng, L., Mingjun, M., Yizhi, Z., Mengqiang Hu, Xiao, Y.C., dan Guangyu Cao, 2021. *BIM Integrated LCA for Promoting Circular Economy towards Sustainable Construction: An Analytical Review*. Chongqing University, China.

Yong, K. Cho, 2017. *Automated Schedule Updates Using As-Built Data and a 4D Building Information Model*. ASCE Journal of Management in Engineering, Korea.

Zhang, C. dan Huang, H., 2019. *As-Built BIM Updating Based on Image Processing and Artificial Intelligence*. Comput. Civil Eng. American Society of Civil Engineers, Reston, VA, pp. 9–16.

Zoran Pučko, Danijel Rebolj, dan Nataša Šuman, 2018. *Automated Continuous Construction Progress Monitoring Using Multiple Workplace Real Time 3D Scans*. Faculty of Civil Engineering, University of Maribor, Slovenia.