

DAFTAR PUSTAKA

- Abdollahnejad, A., Panagiotidis, D., Surový, P., & Ulbrichová, I. (2018). UAV capability to detect and interpret solar radiation as a potential replacement method to hemispherical photography. *Remote Sensing*, 10(3), 1–17. <https://doi.org/10.3390/rs10030423>
- Afif Faisal, & Martin Awaludin. (2022). Tinjauan Potensi dan Kebijakan Energi Surya di Indonesia. *Jurnal Engine: Energi, Manufaktur, Dan Material*, 6(1), 43–52.
https://www.researchgate.net/publication/362433776_Tinjauan_Potensi_dan_Kebijakan_Energi_Surya_di_Indonesia
- ASPRS. (2015). Positional Accuracy Standards for Digital Geospatial Data. In *Photogrammetric Engineering & Remote Sensing* (First Edit, Vol. 81, Issue 3).
<https://doi.org/10.14358/pers.81.3.a1-a26>
- Badan Informasi Geospasial. (2021). *Peraturan Badan Informasi Geospasial RI No.18 Tahun 2021 Tentang Tata Cara Penyelenggaraan Informasi Geospasial* (Issue 984, pp. 1–191).
- Bajracharya, R., Shrestha, R., Jung, H., & Kim, S. (2022). 6G NR-U Based Wireless Infrastructure UAV : Standardization , Opportunities , Challenges and Future Scopes. *IEEE Access*, 10, 30536–30555. <https://doi.org/10.1109/ACCESS.2022.3159698>
- Barker, H. W., Marshak, A., Szymer, W., Trishchenko, A., Blanchet, J.-P., & Li, Z. (2002). Inference of Cloud Optical Depth from Aircraft-Based Solar Radiometric Measurements. *JOURNAL OF THE ATMOSPHERIC SCIENCES*, 59, 2093–2111.
- Barsi, Á., Kugler, Z., László, I., Szabó, G., & Abdulmutalib, H. M. (2018). Accuracy Dimensions in Remote Sensing. *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, XLII, 7–10.
<https://doi.org/https://doi.org/10.5194/isprs-archives-XLII-3-61-2018>
- Bhandari, B. (2018). *Generation of High Resolution DSM Using UAV Images Generation of High Resolution DSM Using UAV Images*. May.
- Boedoyo, M. S. (2013). POTENSI DAN PERANAN PLTS SEBAGAI ENERGI ALTERNATIF MASA DEPAN DI INDONESIA. *Jurnal Sains Dan Teknologi Indonesia*, 14(2). <https://doi.org/10.29122/jsti.v14i2.919>



- Bremer, M., Mayr, A., Wichmann, V., Schmidtner, K., & Rutzinger, M. (2016). A new multi-scale 3D-GIS-approach for the assessment and dissemination of solar income of digital city models. *Computers, Environment and Urban Systems*, 57, 144–154.
<https://doi.org/10.1016/j.compenvurbsys.2016.02.007>
- Chai, T., & Draxler, R. R. (2014). Root mean square error (RMSE) or mean absolute error (MAE)? -Arguments against avoiding RMSE in the literature. *Geoscientific Model Development*, 7(3), 1247–1250. <https://doi.org/10.5194/gmd-7-1247-2014>
- Chen, Q., Li, X., Zhang, Z., Zhou, C., Guo, Z., Liu, Z., & Zhang, H. (2023). Remote sensing of photovoltaic scenarios: Techniques, applications and future directions. *Applied Energy*, 333. <https://doi.org/10.1016/j.apenergy.2022.120579>
- Chen, Z., Yang, B., Zhu, R., & Dong, Z. (2024). City-scale solar PV potential estimation on 3D buildings using multi-source RS data : A case study in Wuhan , China. *Applied Energy Journal*, 359(November 2023).
<https://doi.org/https://doi.org/10.1016/j.apenergy.2024.122720>
- Choudhary, A., Pandey, D., & Bhardwaj, S. (2020). Overview of solar radiation estimation techniques with development of solar radiation model using artificial neural network. *Advances in Science, Technology and Engineering Systems*, 5(4), 589–593.
<https://doi.org/10.25046/AJ050469>
- Congalton, R., & Green, K. (2019). *Assessing the Accuracy of Remotely Sensed Data: Principles and Practices, Third Edition*. <https://doi.org/10.1201/9780429052729>
- Defense Pentagon. (2014). *Unmanned Systems Integrated Roadmap. FY2013-2038*. Departement Of Defense United States Of America.
- Direktorat Jenderal Energi Baru dan Energi Terbarukan. (2019). *KEBIJAKAN, REGULASI DAN INISIATIF PENGEMBANGAN ENERGI SURYA DI INDONESIA “Akselerasi Pengembangan Pembangkit Listrik Tenaga Surya Di Indonesia untuk Mencapai 6,5 GW pada Tahun 2025.”*
- Direktorat Jenderal Energi Baru Terbarukan dan Konservasi Energi. (2021). *Panduan Perencanaan PLTS Terapung*. Kementerian Energi dan Sumber Daya Mineral.
- Draper, N. R., & Smith, H. (1998). *Applied Regresion Analysis* (Third Edit). WILEY.
- Dubayah, R., & Rich, P. M. (1996). GIS-Based Solar Radiation Modeling. *GIS and*

- Duguay, C. R. (2013). RADIATION MODELING IN MOUNTAINOUS TERRAIN REVIEW AND STATUS. *Mountain Research and Development*, 13(4), 339–357. <https://doi.org/http://www.jstor.org/stable/3673761> .
- Duraciová, R., & Pružinec, F. (2022). Effects of Terrain Parameters and Spatial Resolution of a Digital Elevation Model on the Calculation of Potential Solar Radiation in the Mountain Environment : A Case Study of the Tatra Mountains. *International Journal of Geo-Information*, 11. [https://doi.org/Renata `Dura`ciová * and Filip Pružinec](https://doi.org/Renata%20Dura%20ciov%C3%A1%20*%20and%20Filip%20Pru%C5%BEk)
- Dwinata, B., Tabah, G. G., & Triasdian, B. (2020). *Pemetaan Potensi Energi Listrik Tenaga Surya Berdasarkan Luas Area Permukiman*. 15–22. <https://doi.org/1693-3168>
- Elkhrachy, I. (2021). Accuracy Assessment of Low-Cost Unmanned Aerial Vehicle (UAV) Photogrammetry. *Alexandria Engineering Journal*, 60(6), 5579–5590. <https://doi.org/10.1016/j.aej.2021.04.011>
- Ertekin, C., & Evrendilek, F. (2007). Spatio-temporal modeling of global solar radiation dynamics as a function of sunshine duration for Turkey. *Agricultural and Forest Meteorology*, 145, 36–47. <https://doi.org/10.1016/j.agrformet.2007.04.004>
- Fifianny, H., & Setiabudy, R. (2025). *POTENSI ENERGI LISTRIK DARI PENGGUNAAN PLTS ATAP*. 9(12).
- Frederic J. Doyle. (1991). *Digital Terrain Model: An Overview, Photogrammetric Engineering and Remote Sensing*. 44(12), 1481–1485.
- Fu, P., & Rich, P. M. (2000). A Geometric Solar Radiation Model and its Applications in Agriculture and Forestry. *Proceedings of the Second International Conference on Geospatial Information in Agriculture and Forestry, January*, 357–364.
- Fuentes, J. E., Moya, F. D., & Montoya, O. D. (2020). Method for estimating solar energy potential based on photogrammetry from unmanned aerial vehicles. *Electronics (Switzerland)*, 9(12), 1–21. <https://doi.org/10.3390/electronics9122144>
- Gabrlik, P., Cour-Harbo, A. la, Kalvodova, P., Zalud, L., & Janata, P. (2018). Calibration and accuracy assessment in a direct georeferencing system for UAS photogrammetry. *International Journal of Remote Sensing*, 39(15–16), 4931–4959. <https://doi.org/10.1080/01431161.2018.1434331>



- Hasrul, R. (2021). Analisis Efisiensi Panel Surya Sebagai Energi Alternatif. *Jurnal Sain, Energi, Teknologi & Industri*, 5(2), 79–87.
- Hidayat, H., & Maulana, F. K. (2024). Pemanfaatan Digital Surface Model (DSM) dari UAV Fixed Wing untuk Analisis Potensi Panel Surya (Studi Kasus : Desa Banturejo , Kabupaten Malang). *GEOID*, 19(3), 448–458.
- Hofierka, J. (2004). A New GIS-based Solar Radiation Model and Its Application to Photovoltaic Assessments. *Transactions in GIS*, 8(2), 175–190.
- Hofierka, J., & Šúri, M. (2002). The solar radiation model for Open source GIS : implementation and applications. *Proceedings of the Open Source GIS - GRASS Users Conference 2002*, 11–13.
- Huang, X., Hayashi, K., Matsumoto, T., Tao, L., Huang, Y., & Tomino, Y. (2022). Estimation of Rooftop Solar Power Potential by Comparing Solar Radiation Data and Remote Sensing Data—A Case Study in Aichi, Japan. *Remote Sensing*.
<https://doi.org/https://doi.org/10.3390/rs14071742>
- Huang, Z.-C., Yeh, C.-Y., Tseng, K.-H., & Hsu, W.-Y. (2018). A UAV – RTK Lidar System for Wave and Tide Measurements in Coastal Zones. 2015. <https://doi.org/10.1175/JTECH-D-17-0199.1>
- Hugenholtz, C., Brown, O., Walker, J., Barchyn, T., Nesbit, P., Kucharczyk, M., & Myshak, S. (2016). Spatial accuracy of UAV-derived orthoimagery and topography: Comparing photogrammetric models processed with direct geo-referencing and ground control points. *Geomatica*, 70(1), 21–30. <https://doi.org/10.5623/cig2016-102>
- International Civil Aviation Organization. (2011). Unmanned Aircraft Systems (UAS). In *International Civil Aviation Organization*. International Civil Aviation Organization.
- Irmak, S., Irmak, A., Allen, R. G., & Jones, J. W. (2004). Solar and Net Radiation-Based Equations to Estimate Reference Evapotranspiration in Humid Climates. *JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING*, 129(5), 336–347.
[https://doi.org/10.1061/\(ASCE\)0733-9437\(2003\)129:5\(336\)](https://doi.org/10.1061/(ASCE)0733-9437(2003)129:5(336))
- Junarto, R., Djurdjani, Permadi, F. B., Ferdiansyah, D., Admaja, P. K., Sholikin, Ah. R., & Rahmansani, R. (2020). PEMANFAATAN TEKNOLOGI UNMANNED AERIAL VEHICLE (UAV) UNTUK PEMETAAN KADASTER. 105–118.

<https://doi.org/10.31292/jb.v6i1.428>

- Kausika, B. B., & van Sark, W. G. J. H. M. (2021). Calibration and validation of ArcGIS solar radiation tool for photovoltaic potential determination in the Netherlands. *Energies*, 14(7). <https://doi.org/10.3390/en14071865>
- Klemas, V. (2013). Airborne remote sensing of coastal features and processes: An overview. *Journal of Coastal Research*, 29(2), 239–255. <https://doi.org/10.2112/JCOASTRES-D-12-00107.1>
- Kumar, L., Skidmore, A. K., & Knowles, E. (1997). Modelling topographic variation in solar radiation in a GIS environment. *Geographical Information Science*, 11(5), 475–497.
- Liou, K. N. (2002). *AN INTRODUCTION TO ATMOSPHERIC RADIATION* (Issue June).
- Liu, W., Guan, H., Guti, H. A., Banks, E. W., He, X., & Zhang, X. (2022). Modelling quasi-three-dimensional distribution of solar irradiance on complex terrain. *Environmental Modelling and Software*, 149(June 2021). <https://doi.org/10.1016/j.envsoft.2021.105293>
- Liu, X., Lian, X., Yang, W., Wang, F., Han, Y., & Zhang, Y. (2022). Accuracy Assessment of a UAV Direct Georeferencing Method and Impact of the Configuration of Ground Control Points. *Drones*, 6(2). <https://doi.org/10.3390/drones6020030>
- Maes, W. H. (2025). Practical Guidelines for Performing UAV Mapping Flights with Snapshot Sensors. *Remote Sensing*, 17(4). <https://doi.org/10.3390/rs17040606>
- Mark, D. (1975). Computer Analysis of Topography: A Comparison of Terrain Storage Methods. *Geografiska Annaler. Series A, Physical Geography*, 57. <https://doi.org/10.2307/520613>
- Mohammadzadeh Bina, S., Fujii, H., & Toriya, H. (2025). Innovative methodology for unlocking solar energy potential in Japanese urban areas: drone-based DSM and roof shape analysis in Akita City. *Energy Conversion and Management*, 345(February), 120391. <https://doi.org/10.1016/j.enconman.2025.120391>
- Montgomery, D. C., Peck, E. A., & Vining, G. G. (2012). *INTRODUCTION TO LINEAR REGRESSION ANALYSIS* (J. L. T. David J. Balding, Noel A. C. Cressie, Garrett M. Fitzmaurice, Harvey Goldstein, Iain M. Johnstone, Geert Molenberghs, David W. Scott, Adrian F. M. Smith, Ruey S. Tsay, Sanford Weisberg Editors Emeriti: Vic Barnett, J. Stuart Hunter, Joseph B. Kadane (ed.); Fifth Edit). WILEY.



MOORE, I. D., GRAYSON, R. B., & LADSON, A. R. (1991). DIGITAL TERRAIN MODELLING: A REVIEW OF HYDROLOGICAL, GEOMORPHOLOGICAL, AND BIOLOGICAL APPLICATIONS. *HYDROLOGICAL PROCESSES*, 5, 3–30.

Moudrý, V. (2019). Evaluation of a high resolution UAV imagery model for rooftop solar irradiation estimates. *Remote Sensing Letters*.
<https://doi.org/10.1080/2150704X.2019.1649735>

Müller, R., Pfeifroth, U., & Str, F. (2022). *Remote sensing of solar surface radiation – a reflection of concepts , applications and input data based on experience with the effective cloud albedo*. 1537–1561.

Nurjaman, H. B., & Purnama, T. (2022). Pembangkit Listrik Tenaga Surya (PLTS) Sebagai Solusi Energi Terbarukan Rumah Tangga. *Jurnal Edukasi Elektro*, 06(02), 136–142.
<https://journal.uny.ac.id/index.php/jee>

Okegbola, M. O., Okafor, S. C., Oyebanji, S. T., Raheem, G. O., & Yusuf, M. A. (2022). Assessment Of the Geometric Accuracy (Vertical and Horizontal) Of an Unmanned Aerial Vehicle Data. *IRE Journals* |, 5(January), 245–256.
https://www.researchgate.net/profile/Michael-Okegbola/publication/358047865_Assessment_Of_the_Geometric_Accuracy_Vertical_and_Horizontal_Of_an_Unmanned_Aerial_Vehicle_Data/links/61fa71c31e98d168d7e7c5e5/Assessment-Of-the-Geometric-Accuracy-Vertical-and-Ho

PP No. 79. (2014). *PP No. 79 Thn 2014.pdf* (pp. 1–36).

Prahasta E. (2008). *Remote Sensing*. Bandung (ID): Informatika.

Prayogo, I. P. H., Manoppo, F. J., & Lefrandt, L. I. R. (2020). *PEMANFAATAN TEKNOLOGI UNMANNED AERIAL VEHICLE (UAV) QUADCOPTER DALAM PEMETAAN DIGITAL (FOTOGRAMETRI) MENGGUNAKAN KERANGKA GROUND CONTROL POINT (GCP)*. 10(1).

Purwanto, T. H. (2015). *Digital Terrain Modelling*. Universitas Gadjah Mada.

Qadeer, A., Khan, M. E., & Alam, S. (2020). Estimation of Solar Radiation on Tilted Surface by Using Regression Analysis at Different Locations in India. *Distributed Generation & Alternative Energy Journal*, 35, 1–18. <https://doi.org/10.13052/dgaej2156-3306.3511>

Ramachandra, T. V. (2007). Solar energy potential assessment using GIS. In *Energy*

- Ruiz-Arias, J. A., Tovar-Pescador, J., Pozo-Vazquez, D., & Alsamamra, H. (2009). A comparative analysis of DEM-based models to estimate the solar radiation in mountainous terrain. *International Journal of Geographical Information Science*, 23(8), 1049–1076. <https://doi.org/10.1080/13658810802022806>
- Salim, D. H. C. (2021). *A combination of UAV photogrammetry and GIS irradiation modeling to suggest scenarios of PV transition in Fernando de Noronha Island (PE, Brazil)* (Vol. 32, Issue 3).
- Samani, Z., Bawazir, A. S., Bleiweiss, M., Skaggs, R., & Tran, V. D. (2007). Estimating Daily Net Radiation over Vegetation Canopy through Remote Sensing and Climatic Data. *JOURNAL OF IRRIGATION AND DRAINAGE ENGINEERING*, August, 291–297. [https://doi.org/10.1061/\(ASCE\)0733-9437\(2007\)133:4\(291\)](https://doi.org/10.1061/(ASCE)0733-9437(2007)133:4(291))
- Samsurizal, Mauriraya, K. T., Fikri, M., Pasra, N., & Cristiono. (2021). *Pengenalan Pembangkit Listrik Tenaga Surya*. Institut Teknologi PLN.
- Sulistiana, T., Parapata, A. D., & Aristomo, D. (2019). ANALISIS AKURASI VERTIKAL DIGITAL ELEVATION MODEL NASIONAL (DEMNAS) STUDI KASUS KOTA MEDAN. *FIT ISI 2019 Dan Aseanflag 72nd Council Meeting*, 1, 37–43.
- Sultan, S., Wu, R., Ahmad, I., & Ahmad, M. F. (2014). Modeling of Diffuse Solar Radiation and Impact of Complex Terrain over Pakistan Using RS / GIS. *Journal of Geographic Information System*, 6(August), 404–413. <https://doi.org/http://dx.doi.org/10.4236/jgis.2014.64035>
- Tjahjadi, M. E., & Rifaan, M. (2020). *FOTO UDARA MENGGUNAKAN UNMANNED AERIAL VEHICLE (UAV) UNTUK PEMODELAN 3D JALAN RAYA*.
- Wong, M. S., Zhu, R., Liu, Z., Lu, L., Peng, J., Tang, Z., Lo, C. H., & Chan, W. K. (2016). Estimation of Hong Kong's solar energy potential using GIS and remote sensing technologies. *Renewable Energy*, 99, 325–335. <https://doi.org/10.1016/j.renene.2016.07.003>
- Zhang, J. (2014). *Assessment of renewable energy potentials based on GIS and RS- A case study in China*. technische universitat dortmund.



Zhong, I., Zhang, Z., Chen, M., Zhang, K., Zhou, Z., Zhu, R., Wang, Y., Lü, G., & Yan, J.

(2021). A city-scale estimation of rooftop solar photovoltaic potential based on deep learning. *Applied Energy*, 298. <https://doi.org/10.1016/j.apenergy.2021.117132>

Zhu, W. (n.d.). *Statistical parameters for assessing environmental model performance related to sample size : Case study in ocean color remote sensing*. 1, 6–10.

Zhu, X., Wang, X., Yan, D., Liu, Z., & Zhou, Y. (2020). Analysis of remotely-sensed ecological indexes ' influence on urban thermal environment dynamic using an integrated ecological index : a case study of Xi ' an , China. *International Journal of Remote Sensing*, 40(9), 3421–3447. <https://doi.org/10.1080/01431161.2018.1547448>