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DAFTAR PUSTAKA

[1] Y. Y. Adajah, S. Thomas, H. M. S., and A. S. O., "Distributed generation (dg): A review," in *2021 1st International Conference on Multidisciplinary Engineering and Applied Science (ICMEAS)*. Abuja, Nigeria: IEEE, 2021, pp. 20–25, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on July 12, 2024 from IEEE Xplore.

[2] J. Zhang, "Anti-islanding protection in distribution grids," Master's thesis, KTH Royal Institute of Technology, Stockholm, Sweden, June 2019, master's Thesis in Electric Power Engineering, supervised by Tin Rabuzin, examined by Lars Nordström. [Online]. Available: https://www.kth.se/

[3] S. C. Paiva, H. S. Sanca, F. B. Costa, and B. A. Souza, "Reviewing of anti-islanding protection," *IEEE*, pp. 1–8, 2014, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on March 27, 2024, from IEEE Xplore.

[4] *IEEE Standard for Interconnection and Interoperability of Distributed Energy Resources with Associated Electric Power Systems Interfaces*, IEEE Standards Coordinating Committee 21 Std., 2018, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on March 27, 2024, from IEEE Xplore.

[5] W. Freitas, W. Xu, C. M. Affonso, and Z. Huang, "Comparative analysis between rocof and vector surge relays for distributed generation applications," *IEEE Transactions on Power Delivery*, vol. 20, no. 2, pp. 1315–1324, 2005.

[6] M. T. A. B. Mollah Rezaul Alam and K. M. Muttaqi, "Assessing the performance of rocof relay for anti-islanding protection of distributed generation under subcritical region of power imbalance," *IEEE Transactions on Industry Applications*, vol. 55, no. 5, pp. 5395–5405, 2019, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[7] C. Y. Chan, T. K. Y. Lau, and S. K. K. Ng, "An impact study of rocof relays for islanding detection," in *2015 IET Advances in Power System Control, Operation and Management (APSCOM)*. Hong Kong: IET, 2015.

[8] A. Nassif and C. Madsen, "A real case application of rocof and vector surge relays for anti-islanding protection of distributed energy resources," in *2017 IEEE Electrical Power and Energy Conference (EPEC)*. IEEE, 2017, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[9] T. Gonen, *Electric Power Distribution Engineering*, 3rd ed. Boca Raton, FL: CRC Press, Taylor & Francis Group, 2014, mATLAB® is a trademark of The MathWorks, Inc.

[10] S. N. Singh, J. Østergaard, and N. Jain, "Distributed generation in power systems: An overview and key issues," in *Proceedings of the 24th Indian Engineering Congress*. NIT Surathkal, Kerala, India: IEEE, 2009, pp. 1–8, downloaded from DTU Orbit on March 24, 2024. [Online]. Available: https://orbit.dtu.dk/en/publications/9be502ff-854a-4bfb-93c0-b955c95c2156

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[11] D. K. Mer and R. R. Patel, "The concept of distributed generation and the effects of its placement in distribution network," in *2016 International Conference on Electrical, Electronics, and Optimization Techniques (ICEEOT)*. IEEE, 2016, pp. 3965–3969, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[12] R. C. Dugan and T. E. McDermott, "Operating conflicts for distributed generation interconnected with utility distribution systems," *IEEE Industry Applications Magazine*, vol. 8, no. 2, pp. 19–25, 2002, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[13] M. Vaziri, S. Vadhva, T. Oneal, and M. Johnson, "Distributed generation issues, and standards," in *2011 IEEE International Conference on Information Reuse and Integration (IRI)*. Las Vegas, Nevada, USA: IEEE, 2011, pp. 439–443, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[14] A. Hussain, C.-H. Kim, and A. Mehdi, "A comprehensive review of intelligent islanding schemes and feature selection techniques for distributed generation system," *IEEE Access*, vol. 9, pp. 146 603–146 618, 2021, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[15] *Type of Hydro Electric Development and Environmental Impact Assessment*. Hydro and Renewable Energy Department, IIT Roorkee, 2011, ch. 1, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 14, 2024. [Online]. Available: https://iitr.ac.in/Departments/Hydro%20and%20Renewable%20Energy%20Department/Miscellaneous/Modern%20Hydroelectric%20Engg%20Practice%20by%20Prof%20OD%20Thapar.html

[16] A. Wijesinghe and L. L. Lai, "Small hydro power plant analysis and development," in *2011 4th International Conference on Electric Utility Deregulation and Restructuring and Power Technologies (DRPT)*. IEEE, 2011, pp. 25–30, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 14, 2024, from IEEE Xplore.

[17] (2024) Discover the types of hydropower. International Hydropower Association. Accessed: September 14, 2024. [Online]. Available: https://www.hydropower.org/iha/discover-types-of-hydropower

[18] (2024) Low head turbines: Overview, types, and applications. Linquip. Accessed: September 14, 2024. [Online]. Available: https://www.linquip.com/blog/low-head-turbines/

[19] F. Noor, R. Arumugam, and M. Vaziri, "Unintentional islanding and comparison of prevention techniques," in *2005 IEEE Power Engineering Society General Meeting*. IEEE, 2005, pp. 90–96, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[20] G. Krishnan and D. N. Gaonkar, "Intentional islanding operations of distributed generation systems with a load shedding algorithm," in *2012 IEEE International Conference on Power Electronics, Drives and Energy Systems (PEDES)*. Bengaluru,

UNIVERSITAS GADJAH MADA
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India: IEEE, 2012, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[21] Z. Sun, Y. Spyridis, A. Sessis, G. Efstathopoulos, E. Grigoriou, T. Lagkas, and P. Sarigiannidis, "Intentional islanding of power systems through self-embedding learning," in *2021 IEEE Global Communications Workshops (GC Wkshps)*. IEEE, 2021, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[22] R. A. Walling and N. W. Miller, "Distributed generation islanding: Implications on power system dynamic performance," in *2002 IEEE Power Engineering Society Summer Meeting*. IEEE, 2002, pp. 92–96, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024 from IEEE Xplore.

[23] *IEEE Recommended Practice for Protection and Coordination of Industrial and Commercial Power Systems*. New York, NY, USA: Institute of Electrical and Electronics Engineers, 2001, downloaded on September 11, 2024 from IEEE Xplore.

[24] *IEEE Guide for Power System Protection Testing*, IEEE Power System Relaying Committee Std., 2009, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[25] (2024) Zone protection system. Electrical4U. Accessed: September 15, 2024. [Online]. Available: https://www.electrical4u.net/relay/zone-protection-system/

[26] R. A. Gamboa, A. CV, and C. A. Chin, "System protection coordination study for electrical distribution system," in *2018 IEEE 16th Student Conference on Research and Development (SCOReD)*. IEEE, 2018, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024 from IEEE Xplore.

[27] R. Rifaat, "Power system protective relays: Principles and practices," in *IEEE Southern Alberta Section PES/IAS Joint Chapter Technical Seminar*, 2016, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[28] A. Shmoylov, "Relay selectivity and technical efficiency in relaying and automation," in *2007 IEEE Power Engineering Society General Meeting*. IEEE, 2007, pp. 416–421, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[29] A. Girgis and S. Brahma, "Effect of distributed generation on protective device coordination in distribution system," in *2001 IEEE Power Engineering Society Summer Meeting*. IEEE, 2001, pp. 115–119, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[30] H. Agarwal and J. Rai, "Protection coordination of distributed system with distributed generation," in *2022 IEEE 2nd International Conference on Intelligent Controller and Computing for Smart Power (ICICCSP)*. Hyderabad, India: IEEE, 2022, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

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Universitas Gadjah Mada, 2024 | Diunduh dari http://etd.repository.ugm.ac.id/

[31] A. K. and S. K. T. C., "Relay coordination for distribution system," in *2016 Second International Conference on Science Technology Engineering and Management (ICONSTEM)*. IEEE, 2016, pp. 337–341, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024 from IEEE Xplore.

[32] Y. Jin, Q. Song, and W. Liu, "Anti-islanding protection for distributed generation systems based on reactive power drift," in *2009 IEEE Power Electronics and Motion Control Conference (EPE-PEMC)*. IEEE, 2009, pp. 3970–3975, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[33] I. K. I. I. Tomislav Bašakarad, Ninoslav Holjevac and N. Zovko, "Rocof importance in electric power systems with high renewables share: A simulation case for croatia," in *2020 IEEE Power and Energy Society General Meeting*. IEEE, 2020, pp. 1–8, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[34] S. L. K. S. W. W. W. Q. Y. L. Shutang You, Hongyu Li, "Calculate center-of-inertia frequency and system rocof using pmu data," in *2021 IEEE Power and Energy Society General Meeting (PESGM)*. IEEE, 2021, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[35] H. Kirkham and S. Pandey, "Is rocof measurable?" in *2021 IEEE Power Engineering Society General Meeting (PESGM)*. IEEE, 2021, pp. 1–6, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024, from IEEE Xplore.

[36] "Inertia and rate of change of frequency (rocof)," ENTSO-E, Rue de Spa 8, 1000 Brussels, Belgium, Tech. Rep., December 2020, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on September 11, 2024. [Online]. Available: https://www.entsoe.eu

[37] (2020) Understanding rocof protection. NOJA Power. Accessed: September 15, 2024. [Online]. Available: https://www.nojapower.com.au/expertise/2020/understanding-RCOF-protection

[38] C. Ten and P. Crossley, "Evaluation of rocof relay performances on networks with distributed generation," in *2005 IEEE Power Engineering Society General Meeting*. IEEE, 2005, pp. 523–528, authorized licensed use limited to: UNIVERSITAS GADJAH MADA. Downloaded on August 29, 2024, from IEEE Xplore.

[39] S. H. Dolatabadi, M. Ghorbanian, P. Siano, and N. D. Hatziargyriou, "An enhanced ieee 33 bus benchmark test system for distribution system studies," *IEEE Transactions on Power Systems*, vol. 36, no. 3, pp. 2565–2572, 2021.

[40] S. N. Wenxia Liu, Huiting Xu and J. Xie, "Optimal distributed generator allocation method considering voltage control cost," *Sustainability*, vol. 8, no. 2, p. 193, 2016.

[41] W. H. Kersting, "Radial distribution test feeders," *IEEE Transactions on Power Systems*, vol. 6, no. 3, pp. 975–985, 1991.

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Universitas Gadjah Mada, 2024 | Diunduh dari http://etd.repository.ugm.ac.id/

[42] C. E. Authority, *Hydro Generator: Characteristics and Performance*, 2023, chapter 9: Hydro Generator, Characteristics and Performance. [Online]. Available: /mnt/data/Chapter-9_Hydro_Generator_Characteristics_and_Performance.pdf

[43] *IEEE Guide for Automatic Reclosing of Circuit Breakers for AC Distribution and Transmission Lines (IEEE Std C37.104-2012, Revision of IEEE Std C37.104-2002)*, IEEE Power & Energy Society Std., 2012, sponsored by the Power System Relaying Committee.