

## DAFTAR PUSTAKA

- [1] PLN, “Rencana usaha penyediaan tenaga listrik (ruptl) pt pln (persero),” 2021, accessed on Mei 30, 2023. [Online]. Available: <https://web.pln.co.id/statics/uploads/2021/10/ruptl-2021-2030.pdf>
- [2] M. ElNozahy and M. Salama, “Technical impacts of grid-connected photovoltaic systems on electrical networks—a review,” *Journal of Renewable and Sustainable Energy*, vol. 5, 05 2013.
- [3] B. Uzum, A. Onen, H. M. Hasanien, and S. M. Muyeen, “Rooftop solar pv penetration impacts on distribution network and further growth factors—a comprehensive review,” *Electronics*, vol. 10, no. 1, 2021. [Online]. Available: <https://www.mdpi.com/2079-9292/10/1/55>
- [4] A. Cabrera-Tobar, E. Bullich-Massagué, M. Aragüés-Peñalba, and O. Gomis-Bellmunt, “Active and reactive power control of a pv generator for grid code compliance,” *Energies*, vol. 12, no. 20, 2019. [Online]. Available: <https://www.mdpi.com/1996-1073/12/20/3872>
- [5] O. Bellmunt, L. Serrano-Salamanca, R. Ferrer-San-José, C. Pacheco-Navas, M. Aragüés-Peñalba, and E. Bullich, “Power plant control in large-scale photovoltaic plants: Design, implementation and validation in a 9.4 mw photovoltaic plant,” *IET Renewable Power Generation*, vol. 10, 11 2015.
- [6] M. SeyyedHosseini, A. Varjani, and M. Mohamadian, “Iot based multi agent micro inverter for condition monitoring and controlling of pv systems,” 02 2020, pp. 1–6.
- [7] S. Teleke, M. Baran, S. Bhattacharya, and A. Huang, “Rule-based control of battery energy storage for dispatching intermittent renewable sources,” *Sustainable Energy, IEEE Transactions on*, vol. 1, pp. 117 – 124, 11 2010.
- [8] G. A. Raducu, N. Styliaras, J. Funkquist, and C. Ionita, “Design and implementation of a hybrid power plant controller,” 2018.
- [9] A. Zare and M. T. Iqbal, “Low-cost esp32, raspberry pi, node-red, and mqtt protocol based scada system,” in *2020 IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS)*, 2020, pp. 1–5.
- [10] R. Bayindir, E. Hossain, and S. Vadi, “The path of the smart grid -the new and improved power grid,” in *2016 International Smart Grid Workshop and Certificate Program (ISGWCP)*, 2016, pp. 1–8.
- [11] T. Bangtit, “Design and simulation of low-cost microgrid controller in off-grid remote areas,” in *Electric Power Conversion and Micro-Grids*, M. Nayeripour and M. Mansouri, Eds. Rijeka: IntechOpen, 2022, ch. 1. [Online]. Available: <https://doi.org/10.5772/intechopen.98551>
- [12] G. Knier, “How do photovoltaics work?” Aug 2008. [Online]. Available: <https://science.nasa.gov/science-news/science-at-nasa/2002/solarcells/>



- [13] C. Honsberg and S. Bowden, "Effect of temperature," 2019. [Online]. Available: <https://www.pveducation.org/pvcdrom/solar-cell-operation/effect-of-temperature>
- [14] Asian Development Bank, 2018, p. 1–11. [Online]. Available: <https://www.adb.org/sites/default/files/publication/479891/handbook-battery-energy-storage-system.pdf>
- [15] A. Abhishek, A. Ranjan, S. Devassy, B. Kumar Verma, S. K. Ram, and A. K. Dhakar, "Review of hierarchical control strategies for dc microgrid," *IET Renewable Power Generation*, vol. 14, no. 10, pp. 1631–1640, 2020. [Online]. Available: <https://ietresearch.onlinelibrary.wiley.com/doi/abs/10.1049/iet-rpg.2019.1136>
- [16] J. C. Vasquez, J. Guerrero, J. Miret, M. Castilla, and L. Vicuna, "Hierarchical control of intelligent microgrids," *Industrial Electronics Magazine, IEEE*, vol. 4, pp. 23 – 29, 01 2011.
- [17] A. E. M. Bouzid, J. Guerrero, A. Cheriti, M. Bouhamida, P. Sicard, and M. Benghanem, "A survey on control of electric power distributed generation systems for microgrid applications," *Renewable and Sustainable Energy Reviews*, vol. 44, pp. 751 – 766, 05 2015.
- [18] "Ieee standard for the specification of microgrid controllers," *IEEE Std 2030.7-2017*, pp. 1–43, 2018.
- [19] Jan 2021. [Online]. Available: <https://plcynergy.com/pid-controller/>
- [20] T. Mortenson, "Pid controller explained - realpars," Dec 2021. [Online]. Available: <https://realpars.com/pid-controller/>
- [21] K. Ang, G. Chong, and Y. Li, "Pid control system analysis, design, and technology," *Control Systems Technology, IEEE Transactions on*, vol. 13, pp. 559 – 576, 08 2005.
- [22] S. Rao and R. Mishra, "Comparative study of p, pi and pid controller for speed control of vsi-fed induction motor," *International Journal of Engineering Development and Research*, vol. 2, pp. 2740–2744, 2014.
- [23] L. O. Aghenta and M. T. Iqbal, "Design and implementation of a low-cost, open source iot-based scada system using esp32 with oled, thingsboard and mqtt protocol," 2019.
- [24] S. Cope, "How mqtt works -beginners guide," Feb 2021. [Online]. Available: <http://www.steves-internet-guide.com/mqtt-works/>
- [25] "Mqtt." [Online]. Available: <https://mqtt.org/>
- [26] O. F. . Contributors, "Node-red." [Online]. Available: <https://nodered.org>
- [27] A. Pandit, "Serial communication protocols," April 2019. [Online]. Available: <https://circuitdigest.com/tutorial/serial-communication-protocols>
- [28] E. Peña and M. G. Legaspi, "Uart: A hardware communication protocol," Dec 2020. [Online]. Available: <https://www.analog.com/en/analog-dialogue/articles/uart-a-hardware-communication-protocol.html>



- [29] T. Sharma, "Rs-232 serial communication protocol basics and specifications," Jan 2018. [Online]. Available: <https://circuitdigest.com/article/rs232-serial-communication-protocol-basics-specifications>
- [30] R. P. Foundation, "What is a raspberry pi?" Raspberry Pi Foundation. [Online]. Available: <https://www.raspberrypi.org/help/what-%20is-a-raspberry-pi/>
- [31] —, "Raspberry pi 3 model b+," Raspberry Pi Foundation. [Online]. Available: <https://static.raspberrypi.org/files/product-briefs/Raspberry-Pi-Model-Bplus-Product-Brief.pdf>
- [32] T. HIL, "About us - typhoon hil," Typhoon HIL. [Online]. Available: <https://www.typhoon-hil.com/about-us/>
- [33] Speedgoat, "Hardware in the loop," Speedgoat. [Online]. Available: <https://www.speedgoat.com/solutions/testing-workflows/hardware-in-the-loop>
- [34] T. HIL, "Typhoon hil products 6-series," Typhoon HIL. [Online]. Available: <https://www.typhoon-hil.com/products/6-series/>