

DAFTAR PUSTAKA

- [1] D. Kartikasari, “Analisis Faktor-Faktor Yang Mempengaruhi Level Polusi Udara Dengan Metode Regresi Logistik Biner,” *MATHunesa J. Ilm. Mat.*, vol. 8, no. 1, pp. 55–59, 2020, doi: 10.26740/mathunesa.v8n1.p55-59.
- [2] N. Pohan, “Pencemaran Udara dan Hujan Asam,” *Jurnal digital library*, vol. 4, no. 1, pp. 4–6, 2002. [Online]. Available: <http://library.usu.ac.id/download/ft/kimia-nurhasmawaty2.pdf>
- [3] N. Sabor, S. Sasaki, M. Abo-Zahhad, and S. M. Ahmed, “A comprehensive survey on hierarchical-based routing protocols for mobile wireless sensor networks: Review, taxonomy, and future directions,” *Wirel. Commun. Mob. Comput.*, vol. 2017, 2017, doi: 10.1155/2017/2818542.
- [4] T. Adiono, R. V. W. Putra, M. Y. Fathany, and W. Adijarto, “Desain Sistem Rumah Cerdas berbasis Topologi Mesh dan Protokol Wireless Sensor Network yang Efisien,” *J. INKOM*, vol. 9, no. 2, p. 65, 2016, doi: 10.14203/j.inkom.429.
- [5] A. Sujana, “Aplikasi Monitoring Data Wireless Sensor Network Untuk Deteksi Dini Potensi Kebakaran Berbasis Android,” *J. Online Sekol. Tinggi Teknol. Mandala*, vol. 13, no. 2, pp. 83–99, 2018.
- [6] E. Teixeira, P. Pedreiras, and A. Mota, “Low Power WSN Protocol for Smart Green Homes,” *IEEE Int. Conf. Emerg. Technol. Fact. Autom. ETFA*, vol. 2019-September, pp. 1411–1414, 2019, doi: 10.1109/ETF.A.2019.8869512.
- [7] J. Botero-Valencia, L. Castano-Londono, D. Marquez-Viloria, and M. Rico-Garcia, “Data reduction in a low-cost environmental monitoring system based on LoRa for WSN,” *IEEE Internet Things J.*, vol. 6, no. 2, pp. 3024–3030, 2019, doi: 10.1109/JIOT.2018.2878528.
- [8] A. Bhawiyuga and W. Yahya, “Sistem Monitoring Kualitas Air Kolam Budidaya Menggunakan Aquaculture Water Monitoring System Using Wireless Sensor,” *J. Teknol. Inf. dan Ilmu Komput.*, vol. 6, no. 1, pp. 99–106, 2019, doi: 10.25126/jtiik.201961292.
- [9] S. Adinandra, “Wireless Sensor Network Untuk Pengumpulan Data

- Bergerak Pada Sistem Informasi Medis,” *Snimed*, no. November, pp. 87–94, 2013.
- [10] Y. K. Huang, A. C. Pang, P. C. Hsiu, W. Zhuang, and P. Liu, “Distributed throughput optimization for ZigBee cluster-tree networks,” *IEEE Trans. Parallel Distrib. Syst.*, vol. 23, no. 3, pp. 513–520, 2012, doi: 10.1109/TPDS.2011.192.
- [11] F. N. Aroeboesman, M. H. H. Ichsan, and R. Primananda, “Tampilan Analisis Kinerja LoRa SX1278 Menggunakan Topologi *Star* Berdasarkan Jarak dan Besar Data Pada WSN,” *J. Pengemb. Teknol. Inf. dan Ilmu Komput.*, vol. 3, no. 4, pp. 3860–3865, 2019, [Online]. Available: <https://j-ptiik.ub.ac.id/index.php/j-ptiik/article/view/5070/2387>
- [12] Y. Arafat and E. Setyati, “Desain dan implementasi Wireless Sensor Network menggunakan LoRa untuk pemantauan tingkat pencemaran udara di Kota Surabaya,” *Teknologi*, vol. 10, no. 2, pp. 75–84, 2020, doi: 10.26594/teknologi.v10i2.2070.
- [13] S. F. Mochamad, F. Imansyah, and J. Marpaung, “Analisis Kinerja Modul Transceiver SX1278 pada Sistem Monitoring dengan Jaringan *Star*,” *J. Untan*, vol. 2, no. 1, 2021.
- [14] N. Dengan and L. Sx, “Rancang Bangun Stasiun Cuaca Menggunakan,” vol. 24, no. 2, pp. 116–128, 2022.
- [15] A. F. Shodiq, P. Susanto, and I. D. G. R. Mardiana, “Rancang Bangun Protokol Komunikasi Data Pada Wireless Sensor Network Dengan Topologi Tree Untuk Memantau Gas karbon Monoksida,” *J. JCONES*, vol. 3, 2014.
- [16] W. I. Lesmana, Harianto, and M. C. Wibowo, “Penerapan Wireless Sensor Network (WSN) dengan Topologi Tree pada Pemantauan Tanah Longsor,” *J. Control Netw. Syst.*, vol. 4, no. 2, pp. 69–77, 2015.
- [17] E. N. Amalina, “Perbandingan Topologi WSN (Wireless Sensor Network) Untuk Sistem Pemantauan Jembatan,” no. November, pp. 14–15, 2013.
- [18] M. Diana, R. Nazir, and A. Rufiyanto, “Harvesting RF Ambient Energy dari End Device LoRa (Long Range Access),” vol. 9, no. 4, pp. 387–393, 2017.
- [19] D. Merkle, “Part One: Introduction,” *Transcult. A J. Transl. Cult. Stud.*, vol.

- 10, no. 1, pp. 9–10, 2018, doi: 10.21992/tc29389.
- [20] R. Mittal and M. P. S. Bhatia, “Wireless sensor networks for monitoring the environmental activities,” no. January 2011, pp. 3–8, 2015, doi: 10.1109/ICCIC.2010.5705791.
- [21] D. Purnomo, “Model Prototyping Pada Pengembangan Sistem Informasi,” *J I M P - J. Inform. Merdeka Pasuruan*, vol. 2, no. 2, pp. 54–61, 2017, doi: 10.37438/jimp.v2i2.67.
- [22] F. A. Aoudia *et al.*, “Long-Short Range Communication Network Leveraging LoRa TM and Wake-up Receiver To cite this version : HAL Id : hal-01666858 Long-Short Range Communication Network Leveraging LoRa TM and Wake-up Receiver,” 2017.
- [23] N. T. T. Trang and H. H. Loc, “Design and Implementation of an IoT-based River Water Salinity Monitoring System Using MSP432 Design and Implementation of an IoT-based River Water Salinity Monitoring System Using MSP432”, doi: 10.1088/1742-6596/1878/1/012023.
- [24] P. Lingkungan, K. Boiler, and D. I. Pt, “SISTEM MONITORING DEBU DAN KARBON MONOKSIDA,” vol. 2, no. 3, pp. 62–71, 2018.
- [25] J. Pseudocode, S. Widodo, M. M. Amin, A. Sutrisman, and A. A. Putra, “RANCANG BANGUN ALAT MONITORING KADAR UDARA BERSIH DAN GAS BERBAHAYA CO , CO2 , DAN CH4 DI DALAM,” pp. 105–119, 2017.
- [26] R. Singh, A. Gehlot, B. Singh, and S. Choudhury, *Introduction to Arduino*. 2019. doi: 10.1201/9781315162881-1.
- [27] A. S. Ayuningtyas, I. Uke, K. Usman, and I. Alinursafa, “Analisis Perencanaan Jaringan Lora (Long Range) Di Kota Surabaya Lora (Long Range) Network Planning Analysis in Surabaya City,” *e-Proceeding Eng.*, vol. 7, no. 2, pp. 3350–3358, 2020.
- [28] O. Victor, E. O. Joy, and O. Endurance, “Investigating the Received Signal Strength and Electromagnetic Radiation from 2G, 3G and 4G Mobile Architectures,” *NIPES J. Sci. Technol. Res.*, vol. 2, no. 3, p. 386, 2020, doi: 10.37933/nipes/2.3.2020.37.

- [29] L. D. D. Saputra and W. Sulisty, "Analisis Qos Differentiated Service Pada Jaringan Mpls Menggunakan Algoritma Threshold," *J. Teknol. Inf. dan Ilmu Komput.*, vol. 4, no. 4, p. 227, 2017, doi: 10.25126/jtiik.201744427.