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- [1] “WorldRiskReport 2023 Focus: Diversity,” Bündnis Entwicklung Hilft Ruhr University Bochum – Institute for International Law of Peace and Armed Conflict (IFHV), 2023. Accessed: Nov. 01, 2024.
[Online]. Available: https://weltrisikobericht.de/wp-content/uploads/2023/10/WRR_2023_english_online161023.pdf
- [2] Asia, “Ring Of FireIndonesia- Universitas Siber Asia The 1st Cyber UniversityinIndonesia,” *Universitas.. Siber Asia*, Jan. 15, 2024. <https://unsia.ac.id/ring-of-fire-indonesia/> (accessed Nov. 02, 2024).
- [3] “GAR Special Report 2023: Mapping resilience for the sustainable development goals | UNDRR,” www.undrr.org, Jul. 11, 2023. <https://www.undrr.org/gar/gar2023-special-report> (accessed Dec. 22, 2024).
- [4] U. Noreen, A. Bounceur, and L. Clavier, “A study of LoRa low power and wide area network technology,” *2017 International Conference on Advanced Technologies for Signal and Image Processing (ATSIP)*, May 2017, doi: <https://doi.org/10.1109/atsip.2017.8075570>.
- [5] U. Raza, P. Kulkarni, and M. Sooriyabandara, “Low Power Wide Area Networks: An Overview,” *IEEE Communications Surveys & Tutorials*, vol. 19, no. 2, pp. 855–873, 2017, doi: <https://doi.org/10.1109/comst.2017.2652320>.
- [6] M. A. M. Almuhaya, W. A. Jabbar, N. Sulaiman, and S. Abdulmalek, “A Survey on LoRaWAN Technology: Recent Trends, Opportunities, Simulation Tools and Future Directions,” *Electronics*, vol. 11, no. 1, p. 164, Jan. 2022, doi: <https://doi.org/10.3390/electronics11010164>.
- [7] A. Zourmand, A. L. Kun Hing, C. Wai Hung, and M. AbdulRehman, “Internet of Things (IoT) using LoRa technology,” *IEEE Xplore*, Jun. 01, 2019. <https://ieeexplore.ieee.org/abstract/document/8825008> (accessed Nov. 02, 2024).
- [8] R. Parada, V. M. Baeza, D. N. Barraca-Ibort, and C. Monzo, “LoRa-Based

- Low-Cost Nanosatellite for Emerging Communication Networks in Complex Scenarios,” *Aerospace*, vol. 10, no. 9, pp. 754–754, Aug. 2023, doi: <https://doi.org/10.3390/aerospace10090754>.
- [9] “Emergency telecommunications, ITU. <https://www.itu.int/en/mediacentre/backgrounders/Pages/emergency-telecommunications.aspx>(accessed Dec. 22,2024).
- [10] O. Ledesma, P. Lamo, and J. A. Fraire, “Trends in LPWAN Technologies for LEO Satellite Constellations in the NewSpace Context,” *Electronics*, vol. 13, no. 3, pp. 579–579, Jan. 2024, doi: <https://doi.org/10.3390/electronics13030579>.
- [11] S. Podaru, G. Gracia-Sola, and A. Camps, “The IEEE Geoscience and Remote Sensing Society ‘Open *PocketQube* Kit’: An affordable open source approach to Earth observation missions [Education in Remote Sensing],” *IEEE Geoscience and Remote Sensing Magazine*, vol. 11, no. 4, pp. 163–170, Dec. 2023, doi: <https://doi.org/10.1109/mgrs.2023.3321479>.
- [12] The Things Network, “What are LoRa and LoRaWAN?,” *The Things Network*. <https://www.thethingsnetwork.org/docs/LoRawan/what-is-LoRawan/> (accessed Dec. 31, 2024).
- [13] “Adaptive Data Rate,” *The Things Network*. <https://www.thethingsnetwork.org/docs/LoRawan/adaptive-data-rate/> (accessed Jan. 09, 2025).
- [14] J. Fernandez, “Link budget Calculation,” 2018.
- [15] V. Degli-Esposti, G. Falciassecca, F. Fuschini, and E. M. Vitucci, “A Meaningful Indoor Path-Loss Formula,” *IEEE Antennas and Wireless Propagation Letters*, vol. 12, pp. 872–875, 2013, doi: <https://doi.org/10.1109/lawp.2013.2271532>.
- [16] M. C. Bor, U. Roedig, T. Voigt, and J. M. Alonso, “Do LoRa Low-Power Wide-Area Networks Scale?,” *Proceedings of the 19th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems*, Nov. 2016, doi: <https://doi.org/10.1145/2988287.2989163>.