REFERENCES

[1] X. Fan, P. Wu, and M. Xia, "Air-to-Ground Communications Beyond 5G: UAV Swarm Formation Control and Tracking," *IEEE Transactions on Wireless Communications*, 2024.

[2] W. Saad, M. Bennis, and M. Chen, "A Vision of 6G Wireless Systems: Applications, Trends, Technologies, and Open Research Problems," *IEEE Network*, vol. 34, no. 3, pp. 134–142, 2020.

[3] O. Recy and K. Anwar, "Simple Virtual Turbo Codes for Unmanned Aerial Vehicle (UAV) Communications," in *2022 IEEE Symposium on Future Telecommunication Technologies (SOFTT)*, 2022, pp. 109–114.

[4] M. Z. Chowdhury, M. Shahjalal, S. Ahmed, and Y. M. Jang, "6G Wireless Communication Systems: Applications, Requirements, Technologies, Challenges, and Research Directions," *IEEE Open Journal of the Communications Society*, vol. 1, pp. 957–975, 2020.

[5] N. Marchetti, *Telecommunications in Disaster Areas*. Denmark: River Publishers Series in Communications and Networking, January 2011.

[6] C. A. B. Fajardo, "Emergency Communications Network for Disaster Management," in *Natural Hazards*, J. P. Tiefenbacher, Ed. Rijeka: IntechOpen, 2019, ch. 10. [Online]. Available: https://doi.org/10.5772/intechopen.85872

[7] S. Hartinah, H. Prakoso, and K. Anwar, "Routing of Mobile Cognitive Radio Base Station for Disaster Recovery Networks," in *2018 International Conference on Electrical Engineering and Informatics (ICELTICs)*, 2018, pp. 1–6.

[8] D. A. Sujiansyah, K. Anwar, and A. A. Pramudita, "Biconical Antenna for Mobile Base Station for Post Disaster Area Wireless Communications," in *2019 Symposium on Future Telecommunication Technologies (SOFTT)*, vol. 1, 2019, pp. 1–6.

[9] L. Fauzi, K. Anwar, and Hafidudin, "Experiment of Routing for Mobile Cognitive Radio Base Station (MCRBS)," in *2020 10th Electrical Power, Electronics, Communications, Controls and Informatics Seminar (EECCIS)*, 2020, pp. 307–312.

[10] M. Erdelj, E. Natalizio, K. R. Chowdhury, and I. F. Akyildiz, "Help from the Sky: Leveraging UAVs for Disaster Management," *IEEE Pervasive Computing*, vol. 16, no. 1, pp. 24–32, 2017.

[11] Y. Zeng, Q. Wu, and R. Zhang, "Accessing From the Sky: A Tutorial on UAV Communications for 5G and Beyond," *Proceedings of the IEEE*, vol. 107, no. 12, pp. 2327–2375, 2019.

[12] H. Shakhatreh, A. Sawalmeh, K. F. Hayajneh, S. Abdel-Razeq, W. Malkawi, and A. Al-Fuqaha, "A Systematic Review of Interference Mitigation Techniques in Current and Future UAV-Assisted Wireless Networks," *IEEE Open Journal of the Communications Society*, pp. 1–1, 2024.

[13] R. Gallager, "Low-density Parity-check Codes," *IRE Transactions on Information Theory*, vol. 8, no. 1, pp. 21–28, 1962.

[14] E. T. S. Institute, "Second Generation Framing Structure, Channel Coding and Modulation Systems for Broadcasting, Interactive Services, News Gathering, and Other Broadband Satellite Applications," *ETSI EN 302 307 V1*, 2014.

[15] 3GPP, "NR; Multiplexing and channel coding," 2020.

[16] C. D. Anggraeni and K. Anwar, "Design of Rateless Polar Accumulate Tornado Codes Using EXIT Chart for UAV Communications," in *2021 IEEE Symposium On Future Telecommunication Technologies (SOFTT)*, 2021, pp. 63–68.

[17] Wahidin, K. Anwar, and N. M. Adriansyah, "Density Evolution Analysis for 5G NR Quasi-Cyclic Low Density Parity Check (QC-LDPC) Codes," in *2023 International Conference on Artificial Intelligence, Blockchain, Cloud Computing, and Data Analytics (ICoABCD)*, 2023, pp. 129–133.

[18] A. Alhammadi, I. Shayea, A. A. El-Saleh, M. H. Azmi, Z. H. Ismail, L. Kouhalvandi, and S. A. Saad, "Artificial Intelligence in 6G Wireless Networks: Opportunities, Applications, and Challenges," *International Journal of Intelligent Systems*, 2024.

[19] E. Nachmani, E. Marciano, L. Lugosch, W. J. Gross, D. Burshtein, and Y. Be'ery, "Deep Learning Methods for Improved Decoding of Linear Codes," *IEEE Journal of Selected Topics in Signal Processing*, vol. 12, no. 1, pp. 119–131, 2018.

[20] L. Huang, H. Zhang, R. Li, Y. Ge, and J. Wang, "AI coding: Learning to Construct Error Correction Codes," *IEEE Transactions on Communications*, vol. 68, no. 1, pp. 26–39, 2019.

[21] T. Gruber, S. Cammerer, J. Hoydis, and S. t. Brink, "On Deep Learning-based Channel Decoding," in *2017 51st Annual Conference on Information Sciences and Systems (CISS)*, 2017, pp. 1–6.

[22] M. Ebada, S. Cammerer, A. Elkelesh, and S. ten Brink, "Deep learning-based polar code design," in *2019 57th Annual Allerton Conference on Communication, Control, and Computing (Allerton)*. IEEE, 2019, pp. 177–183.

[23] M. Sandell and A. Ismail, "Machine Learning for LLR Estimation in Flash Memory With LDPC Codes," *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 68, no. 2, pp. 792–796, 2021.

[24] C. Xie, M. El-Hajjar, and S. X. Ng, "Machine Learning Assisted Adaptive LDPC Coded System Design and Analysis," *IET Communications*, vol. 18, no. 1, pp. 1–10, 2024. [Online]. Available: https://ietresearch.onlinelibrary.wiley.com/doi/abs/10.1049/cmu2.12707

[25] S. Cammerer, J. Hoydis, F. A. Aoudia, and A. Keller, "Graph Neural Networks for Channel Decoding," in *2022 IEEE Globecom Workshops (GC Wkshps)*, 2022, pp. 486–491.

[26] Y. Wang, Z. Zhang, S. Zhang, S. Cao, and S. Xu, "A Unified Deep Learning Based Polar-LDPC Decoder for 5G Communication Systems," in *2018 10th International Conference on Wireless Communications and Signal Processing (WCSP)*. IEEE, 2018, pp. 1–6.

[27] P. Mary, V. Koivunen, and C. Moy, "Reinforcement learning for physical layer communications," *CoRR*, vol. abs/2106.11595, 2021. [Online]. Available: https://arxiv.org/abs/2106.11595

[28] T. K. Moon, *Error Correction Coding: Mathematical Methods and Algorithms*. USA: Wiley-Interscience, 2005.

[29] K. Anwar and T. Matsumoto, "Accumulator-assisted distributed turbo codes for relay systems exploiting source-relay correlation," *IEEE Communications Letters*, vol. 16, no. 7, pp. 1114–1117, 2012.

[30] R. G. Gallager, *Low-Density Parity-Check Codes*. The MIT Press, 1963.

[31] K. Anwar, "Graph-based decoding for high-dense vehicular multiway multirelay networks," in *2016 IEEE 83rd Vehicular Technology Conference (VTC Spring)*, 2016, pp. 1–5.

[32] ——, "High-dense multiway relay networks exploiting direct links as side information," in *2016 IEEE International Conference on Communications (ICC)*, 2016, pp. 1–6.

[33] A. A. Purwita and K. Anwar, "Massive multiway relay networks applying coded random access," *IEEE Transactions on Communications*, vol. 64, no. 10, pp. 4134–4146, 2016.

[34] H. Harada and R. Prasad, *Simulation and Software Radio for Mobile Communications*. USA: Artech House, Inc., 2002.

[35] ITU-R, "Report ITU-R M.2516-0," November 2022, accessed on October 28, 2023. [Online]. Available: https://www.itu.int/pub/R-REP-M.2516-2022

[36] P. Yang, Y. Xiao, M. Xiao, and S. Li, "6G Wireless Communications: Vision and Potential Techniques," *IEEE Network*, vol. 33, no. 4, pp. 70–75, 2019.

[37] Y. Sun, J. Liu, J. Wang, Y. Cao, and N. Kato, "When Machine Learning Meets Privacy in 6G: A Survey," *IEEE Communications Surveys & Tutorials*, vol. 22, no. 4, pp. 2694–2724, 2020.

[38] ITU-R WP 5D, "IMT-2030 Framework," September 2023, Accessed on November 19, 2023. [Online]. Available: https://www.itu.int/en/ITU-R/study-groups/rsg5/rwp5d/imt-2030/Pages/default.aspx

[39] S. Nayak and R. Patgiri, "6G Communication: Envisioning the Key Issues and Challenges," *EAI Endorsed Transactions on Internet of Things*, vol. 6, no. 24, p.

166959, feb 2021. [Online]. Available: https://doi.org/10.4108%2Feai.11-11-2020.166959

[40] J. Hagenauer, E. Offer, C. Méasson, and M. Mörz, "Decoding and equalization with analog non-linear networks," *European Transactions on Telecommunications*, vol. 10, no. 6, pp. 659–680, 1999. [Online]. Available: https://onlinelibrary.wiley.com/doi/abs/10.1002/ett.4460100610

[41] O. Recy, K. Anwar, and G. Budiman, "Machine Learning Structure for Box-plus Operation with Soft Information Processing," in *2023 Eighth International Conference on Informatics and Computing (ICIC)*, 2023, pp. 1–5.

[42] C. Watkins and K. C. U. of Cambridge), *Learning from Delayed Rewards*. Cambridge University, 1989. [Online]. Available: https://books.google.co.id/books?id=6MBgNwAACAAJ