

## REFERENCES

- [1] R. BNPB, “National disaster management plan 2010-2014,” *BNPB,[Online]*, 2010.
- [2] W. Widiyanto, P. B. Santoso, S.-C. Hsiao, and R. T. Imananta, “Post-event field survey of 28 september 2018 sulawesi earthquake and tsunami,” *Natural Hazards and Earth System Sciences*, vol. 19, no. 12, pp. 2781–2794, 2019.
- [3] J.-S. Huang and Y.-N. Lien, “Challenges of emergency communication network for disaster response,” in *2012 IEEE International Conference on Communication Systems (ICCS)*. IEEE, 2012, pp. 528–532.
- [4] H. Ye, “Life detection technique in earthquake search and rescue,” in *2012 Second International Conference on Instrumentation, Measurement, Computer, Communication and Control*. IEEE, 2012, pp. 664–666.
- [5] İ. Sisman, A. O. Canbaz, and K. Yegin, “Micro-doppler radar for human breathing and heartbeat detection,” in *2015 Computational Electromagnetics International Workshop (CEM)*. IEEE, 2015, pp. 1–2.
- [6] M. Iedema, *Getting Started with OpenBTS: Build Open Source Mobile Networks*. ” O’Reilly Media, Inc.”, 2014.
- [7] I. Gomez-Miguel, A. Garcia-Saavedra, P. D. Sutton, P. Serrano, C. Cano, and D. J. Leith, “srslte: an open-source platform for lte evolution and experimentation,” in *Proceedings of the Tenth ACM International Workshop on Wireless Network Testbeds, Experimental Evaluation, and Characterization*. ACM, 2016, pp. 25–32.
- [8] E. Hatorangan and T. Juhana, “Mobile phone auto registration to openbts-based cellular network in disaster situation,” in *2014 8th International Conference on Telecommunication Systems Services and Applications (TSSA)*. IEEE, 2014, pp. 1–3.
- [9] S. Tang, X. Shu, J. Hu, R. Zhou, S. Shen, and S. Cao, “Study on rss/aoa hybrid localization in life detection in huge disaster situation,” *Natural Hazards*, vol. 95, no. 3, pp. 569–583, 2019.

- [10] D. Forsberg, G. Horn, W.-D. Moeller, and V. Niemi, *LTE security*. John Wiley & Sons, 2012.
- [11] SDR Forum, “SDRF Cognitive Radio Definitions,” SDR Forum, Tech. Rep., November 2007.
- [12] J. J. Moskal, “Interfacing a reasoner with heterogeneous self-controlling software,” Ph.D. dissertation, Northeastern University, 2011.
- [13] K. Anwar, A. A. Muayyadi, M. A. Murti, E. Kurniawan, R. Mayasari, B. Syihabuddin, N. M. Adriansyah, R. Nugraha, U. Sunarya, S. Sumaryo *et al.*, “Recent updates on prevention and recovery networks for indonesia natural disasters based on the internet-of-things (patriot-net),” in *Symposium of Future Telecommunication and Technologies (SOFTT)*, no. 2, 2018.
- [14] D. A. Sujiansyah, B. Syihabuddin, K. Anwar, and N. M. Adriansyah, “Antenna design for multi-generation 2g-5g for rural area wireless communications,” in *2018 International Conference on ICT for Rural Development (ICTRuDev)*. IEEE, 2018, pp. 7–11.
- [15] F. L. Pönsen, “GSM and GPRS security using OsmocomBB,” Master’s thesis, NTNU, 2015.
- [16] C. Kappler, *UMTS networks and beyond*. John Wiley & Sons, 2009.
- [17] C. Sørseth, “Location disclosure in lte networks by using imsi catcher,” Master’s thesis, NTNU, 2017.
- [18] Z. E. Ankarali, B. Peköz, and H. Arslan, “Flexible radio access beyond 5G: A future projection on waveform, numerology, and frame design principles,” *IEEE Access*, vol. 5, pp. 18 295–18 309, 2017.
- [19] H. Arslan *et al.*, “Flexible multi-numerology systems for 5G new radio,” 2018.
- [20] C. Swenson, G. Manes, and S. Sheno, “Imaging and analysis of gsm sim cards,” in *IFIP International Conference on Digital Forensics*. Springer, 2005, pp. 205–216.
- [21] S. Yu, K. Sood, and Y. Xiang, “An effective and feasible traceback scheme in mobile internet environment,” *IEEE communications letters*, vol. 18, no. 11, pp. 1911–1914, 2014.

- [22] C.-Y. Chen, F.-H. Tseng, K.-D. Chang, H.-C. Chao, J.-L. Chen *et al.*, “Re-configurable software defined radio and its applications,” *Tamkang Journal of Science and Engineering*, vol. 13, no. 1, pp. 29–38, 2010.
- [23] F. Anthony, M. Gabriel, and B. Shao, “Open source cellular technologies for cost effective cellular connectivity in rural areas,” *International Journal of Computer Applications*, vol. 146, no. 15, 2016.
- [24] D. A. Burgess, H. S. Samra *et al.*, “The openbts project,” *Report available at <http://openbts.sourceforge.net>, <http://openBTS.org>*, 2008.
- [25] M. Iedema. (2014, July) Openbts-umts. openbts.org. [Online]. Available: <http://openbts.org/w/index.php?title=OpenBTS-UMTS>
- [26] srsLTE. (2020, May) srslte 20.04.1 documentation. <https://www.srslte.com/>. [Online]. Available: <https://docs.srslte.com/en/latest/>
- [27] M. N. Hasan and K. Anwar, “Joint decoding for multiway multirelay networks with coded random access,” in *2016 22nd Asia-Pacific Conference on Communications (APCC)*. IEEE, 2016, pp. 96–102.
- [28] K. Anwar and R. P. Astuti, “Finite-length analysis for wireless super-dense networks exploiting coded random access over rayleigh fading channels,” in *2016 IEEE Asia Pacific Conference on Wireless and Mobile (APWiMob)*. IEEE, 2016, pp. 7–13.
- [29] T. Anugraha, K. Anwar, and S. P. Jarot, “Cellular communications-based detection to estimate location of victims post-disaster,” in *2019 Symposium on Future Telecommunication Technologies (SOFTT)*, vol. 1. IEEE, 2019, pp. 1–5.
- [30] S. A. Ekawibowo and S. Haryadi, “Academic study of feasibility coexistence between 5g candidate bands and existing service in indonesia,” in *2019 IEEE 5th International Conference on Wireless and Telematics (ICWT)*. IEEE, 2019, pp. 1–6.
- [31] T. ETSI, “123 003:” digital cellular telecommunications system (phase 2+),” *Universal Mobile Telecommunications System (UMTS)*, 2000.
- [32] H.-W. Kang, S.-J. Koh, S.-K. Lim, and T.-G. Kang, “Tac reconfiguration for paging optimization in lte-based mobile communication systems,” in *Computer Science and its Applications*. Springer, 2015, pp. 677–682.

- [33] B. Peköz, H. Arslan *et al.*, “Fundamentals of multi-numerology 5G new radio,” *arXiv preprint arXiv:1805.02842*, 2018.
- [34] I. Inside, “A comparative introduction to 4g and 5g authentication. winter 2019,” 2019.
- [35] G. Ramasubramanian and C. B. Dietrich, “Performance characterization of usrps,” *Analog Integrated Circuits and Signal Processing*, pp. 1–11, 2017.