

DAFTAR PUSTAKA

- [1] Puslitbang SDPPI, "Studi Lanjutan 5G Indonesia 2018 Outlook dan Use Case Untuk Layanan 5G Indonesia," pp. 1-71, 2018.
- [2] A. Saputra, N. Ismail and A. Munir, "Perancangan Antena Mikrostrip Berbasis Substrate Integrated Waveguide (SIW) untuk Aplikasi WLAN," *Seminar Nasional Microwave, Antena dan Propagasi (SMAP)*, pp. 119-120, 2018.
- [3] G. V. Krishna Reddy, S. Mukherjee and A. Biswas, "Design of HMSIW fed dual frequency microstrip patch antenna for X-band applications," 2016 IEEE International Symposium on Antennas and Propagation (APSURSI), 2016, pp. 203-204, doi: 10.1109/APS.2016.7695810.
- [4] D. Singh and R. S. Meena, "A novel microstrip patch antenna using SIW technique for WLAN/Wi-Fi applications in C-band," 2015 International Conference on Computer, Communication and Control (IC4), 2015, pp. 1-4, doi: 10.1109/IC4.2015.7375528.
- [5] S. Yun, D. Kim and S. Nam, "Bandwidth and Efficiency Enhancement of Cavity-Backed Slot Antenna Using a Substrate Removal," in *IEEE Antennas and Wireless Propagation Letters*, vol. 11, pp. 1458-1461, 2012, doi: 10.1109/LAWP.2012.2230392.
- [6] D. W. Astuti, M. Asvial, F. Y. Zulkifli and E. T. Rahardjo, "Bandwidth Enhancement on Half-Mode Substrate Integrated Waveguide Antenna Using Cavity-Backed Triangular Slot," *International Journal of Antennas and Propagation*, pp. 1-9, 2020.
- [7] N. D. Bismoko, "Perancangan Banpass Filter Berbasis Substrate Integrated Waveguide (SIW) dengan Metode Defected Ground Structure (DGS) Untuk Aplikasi Ground Penetrating Radar (GPR)," Fakultas Teknologi Industri, Surabaya, 2016.
- [8] Radiocommunication Study Group ITU , "Minimum requirements related to technical performance for IMT-2020 radio interface(s)," ITU, Geneva, 2017.
- [9] A. Pandey, *Practical Microstrip and Printed Antenna Design*, Boston: Artech House, 2019.
- [10] F. Y. Zulkifli, E. T. Rahardjo, M. Asvial and D. Hartanto, "Pengembangan Antena Mikrostrip Susun Dua Elemen dengan Penerapan Defected Ground Structure Berbentuk Trapesium," *MAKARA*, vol. 12, no. 2, pp. 80-85, November 2008.

- [11] A. A. Nidardika, K. Sujatmoko and Y. Wahyu, "Perancangan dan Realisasi Antena Mikrostrip Array Rectangular Untuk Radar Pada Frekuensi L-Band," Universitas Telkom, Bandung, 2019.
- [12] M. R. Sumpena, H. Madiawati and Elisma, "Desain Antena Susun Mikrostrip Rectangular Patch 4x2 Untuk Aplikasi 5G," *Prosiding The 11th Industrial Research Workshop and National*, pp. 591-595, Agustus 2020.
- [13] A. Rizky, Koesmarjianto and Waluyo, "Perancangan dan Realisasi Antena Mikrostrip 4x4 Patch Circular Pada Frekuensi 2.4 GHz Untuk Aplikasi WLAN 802.11n," *JARTEL*, pp. 23-27, 2018.
- [14] E. Roza and M. Mujirudin, "Sistem Mimo dan Aplikasi Penggunaannya," *Rekayasa Teknologi*, vol. 6, no. 2, pp. 14-17, 2013.
- [15] M. Akbari, M. R. Manesh, A. A. El-Saleh and A. W. Reza, "Receiver Diversity Combining Using Evolutionary Algorithms in Rayleigh Fading Channel," *International Journal of The Scientific World Journal*, November 2014.
- [16] G. Nuzulia, "Teknologi Antena MIMO pada Long Term Evolution (LTE)," Teknik Elektro Universitas Diponegoro, Bandung, Seminar Kerja Praktek.
- [17] A. Sianipar, "Perancangan dan Realisasi Antena Mikrostrip MIMO Bowtie 4x4 dengan Corner Reflektor 90° pada Frekuensi 1,8 GHz untuk Aplikasi LTE Melalui Teknik Pencatutan Mikrostrip Line," <https://elibrary.unikom.ac.id/>, Bandung, 2018.
- [18] F. W. Ardianto, N. Mufti and B. Syihabuddin, "Analisis Simulasi Antena MIMO 4 4 Susunan Persegi dan Sirkular pada Frekuensi 15 GHz," *JNTETI*, vol. 7, no. 2, Mei 2018.
- [19] A. Febian Surya Admaja, "Awangga Febian Surya Admaja," Buletin Pos dan Telekomunikasi, vol. 13, no. 2, pp. 97-114, 2015.
- [20] U. K. Usman and M. A. Irwan, "KEY TEKNOLOGY 5G mmWave, Small Cell and Massive MIMO," Fakultas Teknik Elektro, Bandung, 2019.
- [21] M. R. Sumpena, H. Madiawati and Elisma, "Desain Antena Susun Mikrostrip Rectangular Patch 4x2 Untuk Aplikasi 5G," Teknik Elektro, Bandung, 2020.
- [22] D. Akbar, R. P. Astuti and B. S. Nugroho, "Perancangan Dan Analisis Mimo Mikrostrip Patch Rectangular Dual Band (6 Ghz Dan 28 Ghz) Untuk Komunikasi Indoor," *TEKTRIKA*, vol. 3, no. 1, pp. 23-28, Januari 2018.

- [23] F.-P. Lai, L.-W. Chang and Y.-S. Chen, "Miniature Dual-Band Substrate Integrated Waveguide Slotted Antenna Array for Millimeter-Wave 5G Applications," *International Journal of Antennas and Propagation*, pp. 1-10, 2020.
- [24] E. Sandi, A. Diamah, M. W. Iqbal and D. N. Fajriah, "Design of substrate integrated waveguide to improve antenna performances for 5G mobile communication application," *Journal of Physics: Conference Series*, pp. 1-5, 2019.
- [25] R. Santoso, R. P. Astuti and B. S. Nugroho, "Perancangan Dan Analisis Antena Massive Mimo Mikrostrip Dengan Pencatutan Proximity Feed Berpolarisasi Cross Linier Untuk Komunikasi 5g (28 Ghz) Universitas Telkom," *Fakultas Teknik Elektro, Bandung*, 2017.
- [26] Sepryanto and F. Sirait, "Perancangan Antena Mikrostrip Siw Cavity-Backed Modified Dumbell-Shaped Slot Untuk Pengaplikasian Pada 5G," *Jurnal Teknologi Elektro*, vol. 11, no. 2, pp. 115-118, 2020.
- [27] M. Anthoni, R. S. Asthan, A. Pascawati, D. Maryopi and M. R. K. Aziz, "Perancangan dan Simulasi Antena Mikrostrip MIMO 4×4 Rectangular Patch dengan Double U-Slot dan DGS pada Frekuensi 26 GHz untuk Aplikasi 5G," *Journal of Science and Applicative Technology*, vol. 5, no. 2, pp. 371-382, 2021.
- [28] S. Yang, Z. Xu, Y. Hou, J. Liu, X. Lv and W. Yu, "Substrate integrated waveguide filter based on novel coupling enhanced semicircle slots for 5G applications," *IEICE Electronics Express*, vol. 16, no. 8, pp. 1-4, 2019.