

- [1] M. Kavehrad, "Optical wireless applications: a solution to ease the wireless airwaves spectrum crunch," B. B. Dingel, R. Jain, and K. Tsukamoto, Eds., vol. 8645, International Society for Optics and Photonics. SPIE, 2013, p. 86450G. [Online]. Available: <https://doi.org/10.1117/12.2001522>
- [2] P. H. Pathak, X. Feng, P. Hu, and P. Mohapatra, "Visible light communication, networking, and sensing: A survey, potential and challenges," *IEEE Communications Surveys & Tutorials*, vol. 17, pp. 2047–2077, 2015.
- [3] K. Manivannan, S. Avaniathan, and S. Selvendran, "Performance investigation of visible light communication system using optisystem simulation tool," *International Journal of Microwave and Optical Technology*, vol. 11, p. 377, 09 2016.
- [4] I. García López, A. Awany, P. Rito, M. Ko, A. C. Ulusoy, and D. Kissinger, "100 gb/s differential linear tias with less than 10 pa/  $\sqrt{\text{hz}}$  in 130-nm sige:c bimos," *IEEE Journal of Solid-State Circuits*, vol. 53, no. 2, pp. 458–469, 2018.
- [5] S. Daneshgar, H. Li, T. Kim, and G. Balamurugan, "A 128 gb/s, 11.2 mw single-ended pam4 linear tia with 2.7  $\mu\text{arms}$  input noise in 22 nm finfet cmos," *IEEE Journal of Solid-State Circuits*, vol. 57, no. 5, pp. 1397–1408, 2022.
- [6] I. Mohammad, "Development of enhanced bandwidth of front-end receiver amplifier for high speed communication system," 01 2018.
- [7] J. Torres, J. S. Betancourt Perlaza, C. del Valle, I. Sarriegui, and J. Sánchez-Pena, "Low-cost visible light communication system for indoor positioning," 03 2021.
- [8] S. Fuada, T. Adiono, Y. Aska, and A. Putra, "Trans-impedance amplifier (tia) design for visible light communication (vlc) using commercially available op-amp," 10 2016.
- [9] T.-H. Ngo, T.-W. Lee, and H.-H. Park, "Design of transimpedance amplifier for optical receivers in 0.13  $\mu\text{m}$  cmos," in *Digest of the 9th International Conference on Optical Internet (COIN 2010)*, 2010, pp. 1–3.
- [10] S. Kadirvelu and V. B, "Ecofriendly data transmission in visible light communication," 02 2015.
- [11] L. E. M. Matheus, A. B. Vieira, L. F. M. Vieira, M. A. M. Vieira, and O. Gnawali, "Visible light communication: Concepts, applications and challenges," *IEEE Communications Surveys & Tutorials*, vol. 21, pp. 3204–3237, 2019.
- [12] V. P. Rachim, Y. Jiang, H.-S. Lee, and W.-Y. Chung, "Demonstration of long-distance hazard-free wearable eeg monitoring system using mobile phone visible light communication," *Optics Express*, vol. 25, p. 713, 01 2017.
- [13] Andersson, Henrik and Hans, and Nilsson, Hans-Erik and Thungström, Göran, "Position sensitive detectors -device technology and applications in spectroscopy," 03 2023.

[14] K. Abid, "Gated lateral silicon p-i-n junction photodiodes," 2011.

[15] M. A. Özçelik, "The optical measurement susceptibility of the photodiode and ldr light sensors," 2018.

[16] V. Semiconductors, "Bpw34, bpw34s datasheet," 2011.

[17] O. Skibitzki, "Material science for high performance sige hbts: Solid-phase epitaxy and iii-v/sige hybrid approaches," Ph.D. dissertation, 10 2013.

[18] D. Hidalgo and S. H. College, *Amplifier Design Using Neural Networks*. Pennsylvania State University, 2017. [Online]. Available: <https://books.google.co.id/books?id=q3bhswEACAAJ>

[19] H. G. Jackson, "19 - transistor circuits," in *Reference Data for Engineers (Ninth Edition)*, ninth edition ed., W. M. Middleton and M. E. Van Valkenburg, Eds. Woburn: Newnes, 2002, pp. 19–1–19–30. [Online]. Available: <https://www.sciencedirect.com/science/article/pii/B9780750672917500212>

[20] A. S. Sedra and K. C. Smith, *Microelectronic Circuits*, 5th ed. Oxford University Press, 2004.

[21] S. POTIRAKIS and G. ALEXAKIS, "An accurate calculation of miller effect on the frequency response and on the input and output impedances of feedback amplifiers," *Circuits and Systems II: Express Briefs, IEEE Transactions on*, vol. 52, pp. 491 – 495, 09 2005.

[22] O. Semiconductors, "P2n2222a datasheet," 2013.

[23] F. Sanfilippo and C. Pacchierotti, "A low-cost multi-modal auditory-visual-tactile framework for remote touch," in *2020 3rd International Conference on Information and Computer Technologies (ICICT)*, 2020, pp. 213–218.

[24] D. Patel and H. Patil, "Design and development of low cost artificial intelligence vacuum cleaner," *Int. J. Recent Trends Eng. Res.(IJRTER)*, vol. 3, no. 11, 2017.

[25] R. Santhosh and R. Mahalakshmi, "Low-cost automatic hand sanitizer dispenser for covid-19 pandemic period," in *2021 Third International Conference on Inventive Research in Computing Applications (ICIRCA)*, 2021, pp. 534–538.

[26] B. Razavi, *Fundamentals of Microelectronics*, ser. Fundamentals of Microelectronics. Wiley, 2013. [Online]. Available: <https://books.google.co.id/books?id=zpMYAgAAQBAJ>

[27] Y. Lu, "Design and analysis of low noise transimpedance amplifiers for 10 gbs optical receivers," 2002.

[28] L. Meters and P. Oximeters, "An 1494 using mcp 6491 op amps for photodetection applications," 2013.

[29] I. Sugiarto, F. Pasila, and M. Rudy, "Identifikasi parameter low pass filter menggunakan teknik rekonstruksi diagram bode," *Jurnal Teknik Elektro*, vol. 3, no. 2, 2003.

[30] C. Alexander and M. Sadiku, *Fundamentals of Electric Circuits*. McGraw-Hill Education, 2012. [Online]. Available: <https://books.google.co.id/books?id=OxRk5AAACAAJ>

[31] K. S. Faraj and F. Marouki. (2020, 07) Printed circuit board manufacturing.

[32] W. Wiguna, “Pengembangan user-menu pada zuken cr-5000 untuk hole error check pada proses desain pcb,” Ph.D. dissertation, Universitas Komputer Indonesia, 2017.

[33] I. for Interconnecting and I. Packaging Electronic Circuits (Northbrook, *Generic Standard on Printed Board Design: IPC-2221*. IPC, 1998. [Online]. Available: <https://books.google.co.id/books?id=nHPFoQEACAAJ>

[34] J. Karki, “Effect of parasitic capacitance in op amp circuits,” 2000.