

## DAFTAR PUSTAKA

- Al-Dhaheri, M. A., Mekkakia-Maaza, N. E., Mouhadjer, H., & Lakhdari, A. (2020). Noninvasive blood glucose monitoring system based on near-infrared method. *International Journal of Electrical and Computer Engineering*, 10(2), 1736–1746. <https://doi.org/10.11591/ijece.v10i2.pp1736-1746>
- Alfandi, O. (2022). An Intelligent IoT Monitoring and Prediction System for Health Critical Conditions. *Mobile Networks and Applications*, 27(3), 1299–1310. <https://doi.org/10.1007/s11036-021-01892-5>
- Ali, H., Bensaali, F., & Jaber, F. (2017). Novel Approach to Non-Invasive Blood Glucose Monitoring Based on Transmittance and Refraction of Visible Laser Light. *IEEE Access*, 5(c), 9163–9174. <https://doi.org/10.1109/ACCESS.2017.2707384>
- Anarwati, A., & Setiono, I. (2017). Rancang Bangun Alat Pemantauan Pengaturan Kecepatan Putar Motor DC Power Windows Berbasis PLC Panasonic Menggunakan Human Machine Interface (HMI). *Gema Teknologi*, 19(3), 32–37.
- Anggraini, M. D., Anas, Y., & Sumantri. (2018). Uji Aktivitas Antidiabetes Kombinasi Ekstrak Etanol Daun Alpukat Dan Rimpang Temulawak Pada Tikus DM Tipe-2 Yang Mengalami Resistensi Insulin. *Jurnal Ilmu Farmasi & Farmasi Klinik*, 14(2), 1–9.
- Asekar, M. S. (2018). Development of Portable Non-Invasive Blood Glucose Measuring Device Using NIR Spectroscopy. *Proceedings of the 2nd International Conference on Intelligent Computing and Control Systems, ICICCS 2018*, 572–575. <https://doi.org/10.1109/ICCONS.2018.8663039>

- Badriah, S., Bahtiar, Y., & Andang, A. (2022). Near Infrared LEDs-Based Non-Invasive Blood Sugar Testing for Detecting Blood Sugar Levels on Diabetic Care. *Journal of Biomimetics, Biomaterials and Biomedical Engineering*, 55(71), 183–191. <https://doi.org/10.4028/p-vthp40>
- Bahri, S., & Baharsyah, M. F. (2023). Rancang Bangun Alat Uji Kadar Gula Darah Non-Invasif Berbasis Internet of Things. *RESISTOR (Elektronika Kendali Telekomunikasi Tenaga Listrik Komputer)*, 6(1), 55–64. <https://doi.org/10.24853/resistor.6.1.55-64>
- Balitbangkes Kemenkes RI. (2019). Laporan Nasional Riskesdas 2018. In *Riset Kesehatan Dasar*. Lembaga Penerbit Badan Penelitian dan Pengembangan Kesehatan.
- Buyya, R., & Dastjerdi, A. V. (2016). Internet of Things: Principles and Paradigms. In *Advancing Microelectronics* (Vol. 44, Issue 3). Morgan Kaufmann. <https://doi.org/10.4018/ijssoe.2017070103>
- Dani, F. R., Candra, F., & Soesilo, E. (2018). Perancangan Internet Supervisory Control dan Data Acquisition ( I – Scada ) Universitas Bung Hatta. *Seminar Nasional TEKNOKA*, 3, 31–36.
- Darwich, M. A., Shahen, A., Daoud, A., Lahia, A., Diab, J., & Ismaiel, E. (2023). Non-Invasive IR-Based Measurement of Human Blood Glucose. *Engineering Proceedings*, 35(1), 1–8. <https://doi.org/10.3390/IECB2023-14593>
- Dwi, N., & Netra, W. I. (2020). The Analysis of Blood Glucose Level and Blood Pressure on Hypertension Patients in Mersi Village, East Purwokerto, Central Java. *1st International Conference on Community Health*, 20, 59–63.
- Ekawita, R., Nasution, A. A., Yuliza, E., Suardi, N., & Suwarsono. (2020). Development of Non-Invasive Blood Glucose Level Monitoring System using Phone as a Patient Data Storage. *Jurnal Penelitian Fisika Dan Aplikasinya (JPFA)*, 10(2), 103–113. <https://doi.org/10.26740/jpfa.v10n2.p103-113>
- Espressif Systems. (2023). *ESP32 Series Datasheet* (4.2). Espressif Systems.

- Gamessa, T. W., & Suman, D. (2019). Non-Invasive Blood Glucose Monitoring using Visible Laser Light. *Research Journal of Pharmacy and Technology*, 12(2), 831–840. <https://doi.org/10.5958/0974-360X.2019.00144.6>
- Gusev, M., Poposka, L., Spasevski, G., Kostoska, M., Koteska, B., Simjanoska, M., Ackovska, N., Stojmenski, A., Tasic, J., & Trontelj, J. (2020). Noninvasive Glucose Measurement Using Machine Learning and Neural Network Methods and Correlation with Heart Rate Variability. *Journal of Sensors*, 2020, 1–13.
- Hafidhotunnisa, U., Heru P.I, Y., & Waluyo. (2019). Implementasi Pengiriman Suara Melalui Serat Optik Dengan Menggunakan Led Yang Berbeda. *Jurnal Jaringan Telekomunikasi*, 9(2), 93–96. <https://doi.org/https://doi.org/10.33795/jartel.v9i2.207>
- Harsiti, Muttaqin, Z., & Srihartini, E. (2022). Penerapan Metode Regresi Linier Sederhana Untuk Prediksi Persediaan Obat Jenis Tablet. *JSiI (Jurnal Sistem Informasi)*, 9(1), 12–16. <https://doi.org/10.30656/jsii.v9i1.4426>
- Hartati, E. (2022). Sistem Informasi Transaksi Gudang Berbasis Website pada CV. ASYURA. *Klik - Jurnal Ilmu Komputer*, 3(1), 12–18.
- Hartiwiati, E. N. (2022). Aplikasi Inventori Barang Menggunakan Java dengan PHPMyadmin. *Cross-Border*, 5(1), 601–610.
- Hidayat, A., Yani, A., Rusidi, & Saadulloh. (2019). Membangun Website SMA PGRI Gunung Raya Ranau Menggunakan PHP dan MYSQL. *Jurnal Teknik Informatika Mahakarya*, 2(2), 41–52.
- International Diabetes Federation. (2021). IDF Diabetes Atlas 10th Edition. In *Diabetes Research and Clinical Practice* (10th ed.). <https://doi.org/10.1016/j.diabres.2013.10.013>
- Ismail, D., Anisah, M., & Amperawan. (2022). Perancangan Sarung Tangan Menggunakan Sistem Discovery ID Berbasis Wireless Network untuk Mencegah Kehilangan Anggota dalam Pendakian. *Jurnal Teknika*, 16(1), 17–23.

- Jain, P., Maddila, R., & Joshi, A. M. (2019). A precise non-invasive blood glucose measurement system using NIR spectroscopy and Huber's regression model. *Optical and Quantum Electronics*, 51(2), 1–15. <https://doi.org/10.1007/s11082-019-1766-3>
- Javid, B., Faranak, F. G., & Zakeri, F. S. (2018). Noninvasive Optical Diagnostic Techniques for Mobile Blood Glucose and Bilirubin Monitoring. *Journal of Medical Signals and Sensors*, 8(3), 125–139. <https://doi.org/10.4103/jmss.JMSS-8-18>
- Jha, A., Holla, R., Satish, K. P., Kundolil, F. S., Goel, P., Jaiswal, S., Kumar, D. N., & Dasgupta, A. (2023). Trypanophobia among medical students - An overlooked concern. *Clinical Epidemiology and Global Health*, 20(101257), 1–5. <https://doi.org/10.1016/j.cegh.2023.101257>
- Kahar, P., Yulkifli, & Ramli. (2019). Studi Awal Rancangan Alat Colormeter Menggunakan Sensor OPT101 Untuk Menentukan Serapan Ektrak Pewarna Alami Berbasis Mikrokontroler Arduino. *Pillar of Physics*, 12(1), 1–7.
- Kamal, R. (2017). *Internet of Things: Architecture and Design Principles*. McGraw Hill Education (India) Private Limited. <http://search.ebscohost.com/login.aspx?direct=true&db=buh&AN=132818904&site=ehost-live>
- Kemenkes RI. (2020). Infodatin : Tetap Produktif, Cegah, dan Atasi Diabetes Melitus. *Pusat Data Dan Informasi Kementerian Kesehatan RI*, 1–10.
- Kolban, N. (2018). *Kolban's Book on ESP32*. Leanpub.
- Li, T., Bai, D., Prioleau, T., Bui, N., Vu, T., & Zhou, X. (2020). Noninvasive Glucose Monitoring Using Polarized Light. *SenSys '20: Proceedings of the 18th Conference on Embedded Networked Sensor Systems*, 544–557. <https://doi.org/10.1145/3384419.3430720>

- Ma'arif, A., Iswanto, I., Nuryono, A. A., & Alfian, R. I. (2019). Kalman Filter for Noise Reducer on Sensor Readings. *Signal and Image Processing Letters*, 1(2), 50–61. <https://doi.org/10.31763/simple.v1i2.2>
- Mufti, T., Dananjaya, R., & Yuniarti, L. (2015). Perbandingan Peningkatan Kadar Glukosa Darah Setelah Pemberian Madu, Gula Putih, Dan Gula Merah Pada Orang Dewasa Muda Yang Berpuasa. *Prosiding Pendidikan Dokter*, 69–75.
- Mutmainnah, Rofii, I., Misto, & Azmi, D. U. (2020). Karakteristik Listrik dan Optik pada LED dan Laser. *Jurnal Teori Dan Aplikasi Fisika*, 8(2), 203–208. <https://doi.org/10.23960/jtaf.v8i2.2577>
- Nampeng, J., Samona, Y., Pintavirooj, C., Ni, B., & Visitsattapongse, S. (2021). The Noninvasive Blood Glucose Monitoring by Means of Near Infrared Sensors. *International Journal of Pharma Medicine and Biological Sciences*, 10(2), 55–59. <https://doi.org/10.18178/ijpmbs.10.2.55-59>
- Nazer, H. R., & Basry, A. (2021). Rancang Bangun Alat Sensor Pendekripsi Asap Rokok Di Dalam Area Stadion Gelora Bung Karno Berbasis Raspberry Pi. *Jurnal Ilmiah Teknik Informatika (TEKINFO)*, 22(1), 40–55. <https://doi.org/10.37817/tekinfo.v22i1.1179>
- Nugraha, G., & Badrawi, I. (2018). *Pedoman Teknik Pemeriksaan Laboratorium Klinik*. Trans Info Media.
- Pamungkas, R. R., Putrada, A. G., & Abdurohman, M. (2019). Performance Improvement of Non Invasive Blood Glucose Measuring System With Near Infra Red Using Artificial Neural Networks. *Kinetik: Game Technology, Information System, Computer Network, Computing, Electronics, and Control*, 4(4), 315–324. <https://doi.org/10.22219/kinetik.v4i4.844>
- Perkeni. (2015). *Konsensus Pengelolaan dan Pencegahan Diabetes Melitus Tipe 2 di Indonesia*. Pengurus Besar Perkumpulan Endokrinologi Indonesia.

- Pratiwi, C. A., Madona, P., & Wijaya, Y. P. (2016). Akuisisi Data Sinyal Photoplethysmograph (PPG) Menggunakan Photodioda. *Jurnal Elektro Dan Mesin Terapan*, 2(2), 32–41.  
<https://doi.org/https://doi.org/10.35143/elementer.v2i2.187>
- Prawiroedjo, K., & Julian, E. S. (2019). Comparative study of 940 nm and 1450 nm near infrared sensor for glucose concentration monitoring. *TELKOMNIKA (Telecommunication Computing Electronics and Control)*, 17(2), 981–985.  
<https://doi.org/10.12928/TELKOMNIKA.V17I2.10149>
- Rahmat, M. A. A., Su, E. L. M., Addi, M. M., & Yeong, C. F. (2017). GluQo: IoT-Based Non-invasive Blood Glucose Monitoring. *Journal of Telecommunication, Electronic and Computer Engineering*, 9(3–9), 71–75.
- Rashid, M. M., Mokhtaruddi, N., & Nayen, M. J. (2019). Development of a glucose sensor system with real time calibration. *International Journal of Recent Technology and Engineering*, 7(6S), 216–218.
- Reddy, P. S., & Jyostna, K. (2017). Development of Smart Insulin Device for Non Invasive Blood Glucose Level Monitoring. *Proceedings - 7th IEEE International Advanced Computing Conference, IACC 2017*, 516–519.  
<https://doi.org/10.1109/IACC.2017.0112>
- Reddy, P. S. K., Mahesh, D., Uday Teja, C., Janaki, M., & Mannem, K. (2022). Non-Invasive Glucose Monitoring Using NIR Spectroscopy. *International Conference on Electronic Circuits and Signalling Technologies*, 2325(1), 1–12. <https://doi.org/10.1088/1742-6596/2325/1/012021>
- Santoso, H. (2015). *Panduan Praktis Arduino untuk Pemula*. www.elangakti.com
- Sari, A. O., Abdilah, A., & Sunarti. (2019). *Web Programming*. Graha Ilmu.  
<https://doi.org/10.1201/9781003316244-11>

- Sarkar, K., Ahmad, D., Singha, S. K., & Ahmad, M. (2018). Design and Implementation of a Noninvasive Blood Glucose Monitoring Device. *2018 21st International Conference of Computer and Information Technology, ICCIT 2018*, 1–5. <https://doi.org/10.1109/ICCITECHN.2018.8631942>
- Shubha B, Anuradha M G, Poornima N, Suprada H S, & Prathiksha R V. (2023). Implementation of blood Glucose and cholesterol monitoring device using non-invasive technique. *EMITTER International Journal of Engineering Technology*, 11(1), 76–88.
- Suarsa, I. W. (2015). *Spektroskopi*. <https://doi.org/10.1007/BF00504655>
- Sugiyono. (2013). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. CV. Alfabeta.
- Sulistiyowati, W., & Astuti, C. C. (2017). *Buku Ajar Statistika Dasar: Konsep dan Aplikasinya*. Umsida Press. [http://eprints.mercubuana-yogyakarta.ac.id/6667/1/Buku-Ajar\\_Dasar-Dasar-Statistik-Penelitian.pdf](http://eprints.mercubuana-yogyakarta.ac.id/6667/1/Buku-Ajar_Dasar-Dasar-Statistik-Penelitian.pdf)
- Suprayitno, E. A., Setiawan, A., & Dijaya, R. (2018). Design of Instrumentation in Detecting Blood Sugar Levels with Non-Invasive Technique Base on IoT (Internet of Things). *International Journal of Engineering & Technology*, 7(4.15), 440–442. <https://doi.org/10.14419/ijet.v7i4.15.25252>
- Surendran, K. T. S., & Sasikala, T. (2019). Sensor system based Non-Invasive System to Measure Glucose Level in Human Body. *Proceedings of the 3rd International Conference on Computing Methodologies and Communication, ICCMC 2019*, 203–207. <https://doi.org/10.1109/ICCMC.2019.8819766>
- Tang, L., Chang, S. J., Chen, C. J., & Liu, J. T. (2020). Non-Invasive Blood Glucose Monitoring Technology : A Review. *Sensors*, 20(6925), 1–32. <https://doi.org/10.3390/s20236925>
- Texas Instruments. (2015). *OPT101 Monolithic Photodiode and Single-Supply Transimpedance Amplifier*. Texas Instruments.

Warono, D., & Syamsudin. (2013). Unjuk Kerja Spektrofotometer Analisa Zat Aktif Ketoprofen. *Konversi*, 2(2), 57–65.

World Health Organization. (2023). *Diabetes*. <https://www.who.int/news-room/fact-sheets/detail/diabetes>