DAFTAR PUSTAKA

Alfina Nadhirotussolikah, Andjar Pudji, & Muhammad Ridha Mak'ruf. (2020). Fetal Doppler Simulator Based on Arduino. *Journal of Electronics, Electromedical Engineering, and Medical Informatics*, *2*(1), 28–32. https://doi.org/10.35882/jeeemi.v2i1.6

Alkurwy, S., Hameed, I. S., & Ali, H. H. (2025). High Performance IIR Filter Design Based on Fast Multiplier. *Diyala Journal of Engineering Sciences*, *18*(1), 192–202. https://doi.org/10.24237/djes.2025.18111

Boatin, A. A., Wylie, B., Goldfarb, I., Azevedo, R., Pittel, E., Ng, C., & Haberer, J. (2015). Wireless fetal heart rate monitoring in inpatient full-term pregnant women: Testing functionality and acceptability. *PLoS ONE*, *10*(1). https://doi.org/10.1371/journal.pone.0117043

Chourasia, V. S., & Tiwari, A. K. (2011). Fetal heart rate variability analysis from phonocardiographic recordings. *Journal of Mechanics in Medicine and Biology*, *11*(5), 1315–1331. https://doi.org/10.1142/S0219519411004174

Cömert, Z., & Kocamaz, A. F. (2017). Comparison of machine learning techniques for fetal heart rate classification. *Acta Physica Polonica A*, *132*(3), 451–454. https://doi.org/10.12693/APhysPolA.132.451

Dai, M., Zhan, K., Peng, R., Xu, J., Luo, H., Liu, Y., Luo, L., Wen, H., & Chen, S. (2021). A Novel Ultrasonic Doppler Fetal Heart Rate Detection System Using Windowed Digital Demodulation. *IEEE Access*, *9*, 79326–79342. https://doi.org/10.1109/ACCESS.2021.3083476

Dall'Asta, A., & Kumar, S. (2021). Prelabor and intrapartum Doppler ultrasound to predict fetal compromise. In *American Journal of Obstetrics and Gynecology MFM* (Vol. 3, Issue 6). Elsevier Inc. https://doi.org/10.1016/j.ajogmf.2021.100479

Dong, S., Zhou, Y., Chen, T., Li, S., Gao, Q., & Ran, B. (2021). An integrated Empirical Mode Decomposition and Butterworth filter based vehicle

trajectory reconstruction method. *Physica A: Statistical Mechanics and Its Applications*, *583*. https://doi.org/10.1016/j.physa.2021.126295

Garverick, S. L., Ghasemzadeh, H., Zurcher, M., Roham, M., & Saldivar, E. (2011). Wireless fetal monitoring device with provisions for multiple births. *Proceedings - 2011 International Conference on Body Sensor Networks, BSN 2011*, 113–118. https://doi.org/10.1109/BSN.2011.30

Gudmundsson, S., Huhta, J. C., Wood, D. C., Tulzer, G., Cohen, A. W., & Weiner, S. (1991). Venous Doppler ultrasonography in the fetus with nonimmune hydrops. *American Journal of Obstetrics and Gynecology*, *164*(1 PART 1), 33–37. https://doi.org/10.1016/0002-9378(91)90618-2

Hamelmann, P., Vullings, R., Kolen, A. F., Bergmans, J. W. M., Van Laar, J. O. E. H., Tortoli, P., & Mischi, M. (2020). Doppler Ultrasound Technology for Fetal Heart Rate Monitoring: A Review. In *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* (Vol. 67, Issue 2, pp. 226–238). Institute of Electrical and Electronics Engineers Inc. https://doi.org/10.1109/TUFFC.2019.2943626

Hussein, S. M., & Turulin, I. I. (2021). ANALYSIS OF MATLAB SYSTEM APPLICABILITY FOR SYNTHESIS OF CONTROLLED BUTTERWORTH DIGITAL RECURSIVE IIR FILTERS. *IZVESTIYA SFedU. ENGINEERING SCIENCES*, *3*, 72–82. https://doi.org/10.18522/2311-3103-2021-3-72-82

Hutasuhut, M., Tugiono, T., & Nasyuha, A. H. (2021). Analisis Aritmia (Gangguan Irama Jantung) Menerapkan Metode Certainty Factor. *JURNAL MEDIA INFORMATIKA BUDIDARMA*, *5*(4), 1386. https://doi.org/10.30865/mib.v5i4.3289

Jain, S., & Acharya, N. (2022). Fetal Wellbeing Monitoring – A Review Article. *Cureus*. https://doi.org/10.7759/cureus.29039

Khalil, A. A., Morales-Rosello, J., Elsaddig, M., Khan, N., Papageorghiou, A., Bhide, A., & Thilaganathan, B. (2015). The association between fetal Doppler and admission to neonatal unit at term. *American Journal of Obstetrics and Gynecology*, *213*(1), 57.e1-57.e7. https://doi.org/10.1016/j.ajog.2014.10.013

Khokhlova, L. A., Seleznev, A. I., Zhdanov, D. S., Zemlyakov, I. Y., & Kiseleva, E. Y. (2016). A device for fetal monitoring by means of control over cardiovascular parameters based on acoustic data. *Journal of Physics: Conference Series*, *671*(1). https://doi.org/10.1088/1742-6596/671/1/012064

Kolate, D., Suryarao, P., Bhattacharjee, N., & Sansare, S. (2024). Assessing the Role of Fetal Doppler in High-Risk Obstetrics: Evidence From a Comprehensive Study. *Cureus*. https://doi.org/10.7759/cureus.68383

Kumar, S. (2021). A COMPREHENSIVE REVIEW AND ANALYSIS ON DIGITAL FILTER DESIGN. *International Journal of Advanced Research in Engineering and Technology (IJARET)*, *12*(1), 1131–1149. https://doi.org/10.34218/IJARET.12.1.2021.103

Kupka, T., Matonia, A., Jezewski, M., Jezewski, J., Horoba, K., Wrobel, J., Czabanski, R., & Martinek, R. (2020). New method for beat-to-beat fetal heart rate measurement using doppler ultrasound signal. *Sensors (Switzerland)*, *20*(15), 1–25. https://doi.org/10.3390/s20154079

Liang, S., Peng, J., & Xu, Y. (2021). Passive Fetal Movement Signal Detection System Based on Intelligent Sensing Technology. *Journal of Healthcare Engineering*, *2021*. https://doi.org/10.1155/2021/1745292

Mohammadkarimi, M., Karami, E., Dobre, O. A., & Win, M. Z. (2018). Doppler spread estimation in MIMO frequency-selective fading channels. *IEEE Transactions on Wireless Communications*, *17*(3), 1951–1965. https://doi.org/10.1109/TWC.2017.2787539

Motika, G., & Prusty, A. (2011). Wireless fetal heartbeat monitoring system using ZigBee & IEEE 802.15.4 standard. *Proceedings - 2nd International Conference on Emerging Applications of Information Technology, EAIT 2011*, 83–86. https://doi.org/10.1109/EAIT.2011.89

Pasic, R., Kuzmanov, I., & Atanasovski, K. (2021). ESP-NOW communication protocol with ESP32. *Izzivi Prihodnost*, *6*(1). https://doi.org/10.37886/ip.2021.019

Queyam, A. Bin, Pahuja, S. K., & Singh, D. (2018). Doppler ultrasound based non-invasive heart rate telemonitoring system for wellbeing assessment.

International Journal of Intelligent Systems and Applications, *10*(12), 69–79. https://doi.org/10.5815/ijisa.2018.12.07

Signorini, M. G., Fanelli, A., & Magenes, G. (2014). Monitoring fetal heart rate during pregnancy: Contributions from advanced signal processing and wearable technology. *Computational and Mathematical Methods in Medicine*, *2014*. https://doi.org/10.1155/2014/707581

Siswono, H., Suwandi, W., Dovan, Y., & Nur'ainingsih, D. (2023). Design of Fir Digital Bandpass Filter with Hamming Window and Hanning Window Method for Fetal Doppler. *Jurnal Ilmiah Teknik Elektro Komputer Dan Informatika (JITEKI)*, *9*(4), 912–926. https://doi.org/10.26555/jiteki.v9i4.26849

Siwa, A., & Surbakti, J. O. (n.d.). *RANCANG BANGUN ALAT FETAL DOPPLER DENGAN INDICATOR DISPLAY MENGGUNAKAN LCD BERBASIS ARDUINO UNO KARYA TULIS ILMIAH Oleh*.

Sulas, E., Urru, M., Tumbarello, R., Raffo, L., Sameni, R., & Pani, D. (2021). A non-invasive multimodal foetal ECG–Doppler dataset for antenatal cardiology research. *Scientific Data*, *8*(1). https://doi.org/10.1038/s41597-021-00811-3

Urdal, J., Engan, K., Eftestøl, T., Haaland, S. H., Kamala, B., Mdoe, P., Kidanto, H., & Ersdal, H. (2021). Fetal heart rate development during labour. *BioMedical Engineering Online*, *20*(1). https://doi.org/10.1186/s12938-021-00861-z

Wei, J., Wang, Z., & Xing, X. (2021). A wireless high-sensitivity fetal heart sound monitoring system. In *Sensors (Switzerland)* (Vol. 21, Issue 1, pp. 1–12). MDPI AG. https://doi.org/10.3390/s21010193