Anshul Sharma

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Profile!

Biomedical Engineering student with hands-on experience in designing and developing electronic systems for medical diagnostics and imaging. Demonstrated expertise in creating power supplies, speaker amplifiers, and electronic stethoscopes, employing components like piezo sensors, Arduino, and Bluetooth. Proficient in applying AI and Machine Learning techniques to enhance medical imaging analysis and diagnostic accuracy. Skilled in integrating real-time data processing and advanced signal processing to improve patient care. Adept at troubleshooting and optimizing biomedical equipment, with a strong commitment to advancing healthcare technologies through innovative solutions.

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Quick Guide

- Biomedical Engineering Student with experience in electronic system design for medical diagnostics and imaging.
- Project Highlights:

  Developed a dual power supply and speaker amplifier. Created an electronic stethoscope with piezo sensors, Arduino, and Bluetooth integration.
- AI/ML in Healthcare:

  Applied AI/ML techniques to enhance medical imaging and diagnostic accuracy.
- Web Development:

  Built a web application for real-time data visualization and analysis.
- Technical Skills:

  Expertise in signal processing, troubleshooting, and biomedical equipment optimization.

Education

Shri Govindram Seksaria Institute of Techno, B-tech in Biomedical Engineering   2021 – 2025

- GPA: 6.0/10.0
- **Coursework:** Bio-instrumentation, Bioelectricity and transducer, Human anatomy and Physiology, Signal and System,Programming Tools And Techniques,Bio-Medical Signal Processing, Bio-Medical Statistical Signal Processing, Bio Mechanics

Saraswati Vidya Mandir Shujalpur, Higher secondary education   2020-2021

- Percentage: 73.0/100
- **Coursework:** Mathematics , Chemistry , Physics

Experience

Bio-Medical Engineer, Annapurna health care pvt ltd –20 Day   June 2023 – July 2023

- Maintained and repaired medical equipment to ensure optimal performance and compliance with safety regulations.
- Troubleshot technical issues to minimize downtime and support continuous patient care.
- Collaborated with healthcare teams to integrate new technologies and enhance operational efficiency.

Bio-Medical Engineer, V ONE Hospital – 1.5 Month   May 2024 – june 2024

- Ensured reliable operation of medical equipment through regular maintenance, calibration, and compliance with safety standard
- Addressed and resolved technical issues swiftly to minimize downtime and ensure uninterrupted patient care.
- Collaborated with healthcare professionals to deploy and optimize new technologies, improving overall hospital

efficiency.

Projects

- Designed and implemented a dual power supply system using a single transformer to provide both 5V and 12V DC outputs. The project involved end-to-end development from circuit design to final assembly.
- Componets Used: Transformer (Dual-secondary or center-tap),Bridge Rectifiers (KBPC5010),Voltage Regulators (LM7812, LM7805),Capacitors (Electrolytic, Ceramic), Heat Sinks,Fuses and Switches

Speaker Amplifier

- Designed and built a speaker amplifier to enhance audio performance, focusing on delivering high-quality sound output with reliable power handling.
- Componets Used: PCB,Capacitors, Resistors, Inductors, Power supply, Heat sink

Electronic Stethoscope Using Piezo Sensor

- Developed a comprehensive electronic stethoscope system integrating a piezo sensor and Arduino UNO to capture and process heart and lung sounds. Utilized the XL6009 for voltage regulation, the HC-05 Bluetooth module for wireless data transmission, and implemented filters to enhance audio quality. Created a web application to visualize and analyze the collected audio data in real-time.
- Componets Used: Pizeo sensor , Aurdino UNO , Power supply , XL6009 ,HC-05, fillter,web-application

Technologies

Programing: TypeScript, JavaScript, React.js ,HTML , Machine Learning, Python

Software: MATLAB ,Linux ,Ubuntu, Window , Microsoft Office, Cursor , Vs-code