

Education

SRM IST

B.Tech., Biomedical Engineering (CGPA: 7.50)

Kattankulathur, Chennai

2023 - 2027

Nandha Central City School

Higher Secondary School Examination (Score: 75%)

Erode, India

2022

Biomedical Skills

Bio Instrumentation: ECG, X-Ray, CT Scan and etc

PCB Design: Easy EDA, Autocad

Chip Design: Coral Draw

AI Tools: ChatGPT, Prompt Engineering

Work Experience

CK Hospital

Biomedical Engineering Intern

Erode, India

Dec 2024

- Learned Radiology + ICU
- *I meticulously learned the essence of Patient Monitoring and Analysis. I was able to learn MRI, CT Scan, X-Ray and so on. I had an exposure with ICU environment where I learned Defibrillator, Monitor Systems, etc.,.*

Projects

Finger-based Pulse and Health Monitoring System

- Utilizes infrared (IR) light to measure SpO2 and blood pressure levels non-invasively.
- Employs TCRT1000 IR Reflective Sensor integrated with a microcontroller unit (MCU) and ESP32 for signal processing and transmission.

Comparative Circuit

- Designed and simulated electronic comparator circuits.
- Converted simulations into PCB layouts and successfully fabricated the hardware.

Overcurrent Protection System

- Implemented a safety mechanism where exceeding a predefined current threshold triggers a MOSFET shutdown.
- Provides circuit-level protection against current surges.

Artificial Heart Prototype

- Built using Arduino Nano, DC pumping motor, IRF549N MOSFET, and 1N5819 Schottky diode.
- Simulates the pumping action of a human heart for biomedical demonstrations.

Nano Chip Design

- Designed conceptual nano chips using acrylic sheets for physical modeling.
- Used CorelDRAW for layout and pattern creation.

Achievements/Activities

- Workshop on "How to Read and Write Research Papers" – SRM IST Chennai *Learned academic research techniques, paper structuring, and effective scientific communication.* (APR 2023)
- Seminar on "Implants" – Nano Technology Class, SRM IST Chennai *Presented insights on biomedical implants and advancements in nanotechnology during a departmental seminar.* (MAR 2023)
- Workshop on R Studio – Fundamentals of Data Analysis *Participated in a hands-on workshop to explore data cleaning, visualization, and statistical analysis using R.* (FEB 2023)
- Winner – "Physics Expo" at SRM IST Chennai *Secured first place for demonstrating an innovative physical science model at the university-level exhibition.* (JAN 2023)