

MODALAVALASA SAI SURYA TEJA

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in Surya Teja Modalavalasa 📧 @suryateja_21 🎮 teja73 🔗 13SuryA

🎓 Education

Anil Neerukonda Institute of Technology and Sciences,
Bachelor of Technology in Electronics and communication Engineering
• CGPA - 8.94(Current)

2020 – present
Visakhapatnam, India

FIITJEE Junior College, Intermediate(10+2)
• Percentage - 89.6%

2018 – 2020
Visakhapatnam, India

Sri Chaitanya Techno School, High School
• Percentage - 82.2%

2018
Visakhapatnam, India

📁 Projects

Humanoid Robot, mini project 📄

2023

- Designed and developed a cost-effective humanoid robot, incorporating a single-board computer (ESP-32).AI frameworks, ultrasonic sensors(HC-SR04), Li-ion batteries and DC motor drives for human-like speech, visual communication, and navigation.
- Created a mid-sized humanoid model capable of interacting with people, walking, gesturing, and displaying visual signs(0.96Cm OLED), contributing to the advancement of robotic aesthetics and functionality.

Anti-Sleep Alarm For Drivers, mini project 📄

2023

- Devised and implemented using Arduino Nano V3.0 an eye blink sensor LM393, and a Piezo buzzer to prevent accidents caused by drowsy driving.
- Analyzed a safety solution to detect driver drowsiness, sound an alert(+5V/+6V) when the driver begins to fall asleep, and automatically deactivate the alert when the driver regains alertness, enhancing road safety.

Pet Resq, mini project 📄

2023

- Formulated and prototyped a responsive pet rescue website in **Figma**, emphasizing user-centricity to connect stray animals with prospective adopters.
- Implemented user-friendly features, such as comprehensive stray reporting, adoption listings, and community-building forums, contributing to the successful launch of the "Pet ResQ" platform, which promotes animal welfare and adoption.

Single Axis Solar Tracker Using Arduino, mini project

2022

- Directed a cost-effective and efficient horizontal single-axis solar tracker using Arduino UNO R3 and light-dependent resistors (LDR-5mm)for sunlight detection, resulting in increased solar panel efficiency and energy generation.
- Conducted comparative testing between the solar tracking system and static solar panels, demonstrating significant improvements in power generation,voltage, current, and overall system efficiency(11-15%).

🏢 Industrial Exposure

Hindustan Aeronautics Limited(HAL) 📄

2023

- Mastered the entire microcircuit design process, from schematic creation to substrate testing, including photo plotting, screen preparation(4-8mm), assembly, and mounting, and conducting thorough parameter-based testing.

Hyderabad, India

BHARAT SANCHAR NIGAM LIMITED(BSNL)

2022

- Acquired expertise in OSI reference model, TCP/IP Protocol suite,IP Addressing(IPv4), LAN Connectivity, VLAN, routing principles, DNS, HTTP/FTP, DHCP, Proxy Server, Firewall, IPV6 theory.

Visakhapatnam, India

Technical Skills

computing

- MS Office
- C
- Intermediate python
- Java
- Data structures and algorithms
- Database and management systems

Electronics

- Hybrid Microelectronics
- Embedded Systems
- Control Systems
- Arduino IDE
- Raspberry pi
- NodeMCU

Simulation

- Matlab
- Multisim
- Vivado Design Suite
- LT Spice

Computer-aided design

- Autodesk Fusion360
- Figma

General Skills

- Communication
- Decision-Making
- Active Listening
- Project Management
- Leadership
- Creativity

Certificates

Learn to Use Arduino IoT Cloud to Build IoT Projects

Infyosys Springboard

Introduction to Semiconductor devices

coursera

Sensors and Sensor Circuit Design

coursera

Java Full Stack

Wipro

Hardware Design and Development for Embedded Systems and IoT

CDAC

Advanced Semiconductor Packaging

coursera

Hybrid Microelectronics

HAL

Fundamental of Hybrid Electric Vehicle

SKYY Rider

Interests

- Building Electronic Models
- Gaming
- Blogging
- Circuit designing
- Music
- Travel

Declaration

I hereby solemnly affirm that all the details furnished above are true to the best of my Knowledge.

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