ADITI TAPARIYA

Student at Sardar Vallabhbhai National Institute of Technology, Surat

+91-9351120181 | LinkedIn | Github | LeetCode | tapariyaaditi23@gmail.com

EDUCATION

B.TECH- ELECTRICAL ENGINEERING,
Sardar Vallabhbhai National Institute of Technology
Dec 2021 – Jun 2025 | Surat
3rd Year, Undergraduate
Current Department Rank 1 | CGPA 9.26

HSC, Maheshwari Public School
May 2019 – Jul 2021 | Kota
93.2% in Class 12th

SSC, M.S.S Public School
Apr 2010 – Apr 2019 | Kishangarh
96.4% in Class 10th

ORGANIZATIONS

DRISHTI, SVNIT, Member and Website Coordinator
Largest Technical Student Chapter

ACM, SVNIT, Executive
Coding Club

CEV, SVNIT, Senior Executive
Techno-Managerial Club

EXTRACURRICULARS

Underwater Robotics, DRISHTI, SVNIT
Guiding 20+ students in underwater robotics, emphasizing design, communication, control, and innovative applications.

Makernova 1.0, DRISHTI, SVNIT
Mentored students through the OmniWebBot Project, covering circuit design, web servers, inverse kinematics and ESP32.

Mindbend 2023, Technical Co-Head
Boosted engagement with Maze Solver and Hunt the Line events, partnering with 30+ teams for robotic project success.

ACHIEVEMENTS

Samsung Solve For Tomorrow 2023 : Winner
Won Samsung Solve For Tomorrow 2023 among 70,000+ entries with SWEEP, India's Top 3 Innovations: a Beach Cleaning Robot.

Google Girls Hackathon 2024
Advanced to Level 3 (Semi Finale Round) and delivered an innovative solution to the problem statement.

WISH'24 Scholar
Chosen as one of India's top 65 women for WISH's (Women in Silicon Hardware) first cohort, supported by Google and TalentSprint.

Gujcost : Robofest 3.0
Secured 4th place in Gujcost Robofest, India's Largest Robotics Competition, showcasing SWEEP - a Beach Cleaning Robot.

Google Girls Hackathon 2023
Selected for hackathon participation, progressing from Round 1 to Round 2 workshops.

DotSlash 7.0
Achieved a top 8 position out of 500+ registrations at DotSlash 7.0, a 30-hour hackathon, in partnership with DevFolio and ACM-NIT SURAT.

Hack The Tank 2.0
Ranked top 33 out of 700+ applicants in GDSC SVNIT's Hack the Tank 2.0, showcasing web development prowess.

Google Cloud Study Jams

HackHERs CP Contest : ACM-W PDEU
Ranked among the top 10 students in the HackHers Clash.

VOLUNTEERING

NSS SVNIT | **HELP AGE INDIA** | **ACM HOUR OF CODE**

SOFT SKILLS

Leadership | Team Work | Communication | Design Thinking

TECHNICAL SKILLS

DSA | OOPS | C++ | Python | HTML | JavaScript | EJS | React | Firebase | CSS | Webserver | Ubuntu | WebGUI | RPI | DBMS | SQL | Gazebo | MATLAB | ROS | Proteus | Embedded Systems | Microcontrollers | LaTeX | Canva

PROJECTS

SWEEP : Sand Waste Elimination and Environmental Protection
- Designed an autonomous beach cleaning robot equipped with 4 efficient mechanisms for debris collection, and preservation, and an innovative sorting system for plastic segregation.
- Developed an autonomous algorithm utilizing coordinate mathematics, Go-to-goal navigation, and bug2 obstacle avoidance to optimize path planning for maximum coverage in complex environments.
- Applied Object-Oriented Programming principles to enhance code readability and maintenance efficiency, integrating recursive data structures for seamless autonomous algorithm execution.
- Created a user-friendly WebGUI with JavaScript and EJS, seamlessly integrated with ROS across 3 pages.
- Integrated waste detection with sensors and real-time image capture via grounding dino technology for object recognition.

Smart Home Automation
- Employed Proteus to simulate circuits and executed embedded C coding within the Atmel environment for implementation.
- Demonstrated in-depth knowledge of ATmega 32 registers and ports, and applied UART communication protocol.
- Leveraged MIT App Inventor to design an Android application, enabling seamless control of the fan speed via Bluetooth, resulting in a user satisfaction rating exceeding 90%.

NSS Website
- Led an 8-person team to utilize Firebase and React in creating a captivating website with interactive pages, enabling content management and aiming for a 40% increase in club awareness.
- Redesigned the website, developed initially with HTML and CSS, yielding a significant 30% enhancement in user experience .

Google Winter of Code
- Created a standout website for a Surat café, focusing on captivating user experiences with HTML and CSS frontend design.
- Boosted satisfaction with an interactive landing page, featuring 5 tiles for seamless navigation across menu, gallery, reservation, and contact pages.

Holonomic Drive
- Engineered a custom robot with unique omni-wheels, allowing multidirectional movement and precise rotation up to 45 degrees.
- Developed embedded C algorithms for precise motor control and complex inverse kinematics, while seamlessly integrating a PS3 controller via USB host shield to optimize user experience.

POSITION OF RESPONSIBILITY

Junior Training and Placement Coordinator, DOEE, SVNIT
Jan 2024 – present

Technical Head, EES, SVNIT
Jul 2023 – present

Technical Head, NSS, SVNIT
Apr 2023 – present

PUBLICATIONS

Design Patent : SWEEP
SWEEP's patent application submitted and is currently under review.