



A Report On RoboCraft Workshop



Organized by:

Electronics and Communication Department
Sarvajani College of Engineering and Technology

Faculty Coordinator: Prof. Pritesh N Saxena & Prof. Chintan H Panchal

Student Coordinator: Arya Kavani & Nainesh Gurav

Tech Lead: Tej Patel

Date: 22nd August 2026

Time: 10 am Onwards

Venue: EC-AV Room, ECE Department, SCET

OBJECTIVE:

The primary goal of the RoboCraft Workshop was to introduce students to the world of Embedded Systems and Robotics. The workshop provided a hands-on platform for students to, understand the fundamental concepts of robotics. Learn about the various components of robots, explore different types of power supply methods. Gain exposure to real-world applications of embedded technologies. The session focused on practical assembly of wired robots, helping students take their first steps into the domain of robotics, embedded system design, and control.

ABOUT THE WORKSHOP:

A workshop on building a wired robot was conducted by the Embedded System and Robotics (ESRO) Club of the Electronics and Communication Department, SCET, Surat, on 22 August 2026 at the EC AV Room. The session began with an introduction to the ESRO Club, highlighting its mission to promote embedded system design and provide exposure to students about the latest trends in the embedded technologies domain.

The workshop was initiated by Tej Patel, who welcomed the participants and explained the structure of the event. The first session included a detailed introduction to Robots and Robotics, explaining the basic concepts and real-life applications of robotics. Students were further introduced to the various components necessary for developing wired and wireless robotic cars, such as microcontrollers, sensors, servo motors, chassis types, and different types of batteries. The session motivated students to start their hands-on journey by assembling components of wired robots under the guidance of the coordinators and volunteer.

KEY HIGHLIGHTS:

- **Hands-on Building Experience:** The session was entirely practical, guiding participants from scratch through assembling the physical chassis, mounting components, and handling actual hardware tools.
- **Circuit Wiring & Connections:** Participants were taught complete electrical connections step-by-step, learning how to correctly interface power supplies, motor drivers, and control lines without relying on pre-assembled setups.
- **On-the-Spot Testing & Calibration:** Teams actively tested their circuits and hardware as they built, troubleshooting loose connections and fine-tuning their robots under real-time guidance.
- **Live Test Drives & Peer Collaboration:** Working together in small teams, participants finalized their builds and drove their finished bots across the floor, validating that every mechanical and electrical connection worked seamlessly.

Participant's Feedback:

The feedback was overwhelmingly positive, with participants praising the session as an engaging, hands-on learning experience. Attendees valued the step-by-step guidance on circuit wiring and assembly, which made complex hardware easy to grasp. Debugging real-time connection issues gave everyone genuine technical confidence. Test-driving their completed robots was widely celebrated as the most exciting milestone. Overall, participants expressed great enthusiasm and a strong interest in attending future robotics initiatives.

Summary:

The RoboCraft Workshop concluded as a highly impactful and successful event, effectively transforming theoretical engineering concepts into real-world hardware skills. By physically assembling, wiring, and calibrating their own robots from scratch, participants gained essential technical confidence and practical problem-solving abilities. The collaborative atmosphere and high level of engagement throughout the day underscored the profound value of experiential, hands-on learning. The event not only demystified the fundamentals of robotics but also fostered strong teamwork and critical thinking among all attendees. Ultimately, the workshop achieved its core mission and sparked a lasting curiosity, motivating participants to pursue more advanced embedded systems, automation, and hardware innovation projects in the future.

Photographs:





પ્રતાપ દર્પણ

સ્કેટ એન્જિનિયરિંગ કોલેજમાં રોબોટિક્સ વર્કશોપનું આયોજન

વિદ્યાર્થીઓને રોબોટિક ટેક્નોલોજીથી અભિમુખ કરાવાયા



સુરત, તા. ૨૪

Sarvajani University Sarvajani College of Engineering and Technology, ના Electronics and Communication Engineering વિભાગ હેઠળના ESRO Club (એમ્બેડેડ સિસ્ટમ અને રોબોટિક્સ ક્લબ) દ્વારા તા. ૨૨ ઓગસ્ટ, ૨૦૨૪ ના રોજ એક દિવસીય રોબોટિક્સ વર્કશોપનું સફળ આયોજન કરવામાં આવ્યું હતું. આ વર્કશોપ ઈલેક્ટ્રોનિક્સ એન્ડ ડિઝાઇન ડિપાર્ટમેન્ટના માર્ગદર્શન હેઠળ યોજાયો હતો. ૫૦ થી વધુ જુનિયર વિદ્યાર્થીઓએ ઉત્સાહપૂર્વક ભાગ લીધો હતો. વિદ્યાર્થીઓએ લેવલ-૧ મુજબ બેઝિક વાયરડ રોબોટ બનાવવાની પ્રેક્ટિકલ તાલીમ મેળવી હતી. વર્કશોપ દરમિયાન વિદ્યાર્થીઓને આગલા લેવલ-

૨ તથા લેવલ-૩ માટે વાયરલેસ અને ઓટોમેટિક રોબોટ કેવી રીતે તૈયાર કરાય તેની માર્ગદર્શનરૂપ માહિતી પણ આપવામાં આવી હતી. આ કાર્યક્રમનો હેતુ વિદ્યાર્થીઓમાં રોબોટિક્સ ટેક્નોલોજીથી અભિમુખ કરવાનો, જરૂરી ટેકેનિકલ જ્ઞાન આપવાનો અને સાથે નવીનતા કેવી રીતે ઉમેરી શકાય તે પાસા અંગે ની કુશળતાનો વિકાસ કરવાનો રહ્યો હતો. વિભાગ નો હેતુ સુરત શહેર માટે આ ટેક્નોલોજી નો ઉપયોગ કરી શકાય તે માટે ની નવી પેઢી તૈયાર કરવાનો હતો. સુરત ના ઈજનેરો ને પણ આહવાન કરીએ છીએ કે આવા પ્રયત્નો માં જોડાય. તે અંગે વધુ ભાગીદાર થવા શ્રી પ્રીતેશ સક્ષેના (pritesh.saxena@scet.ac.in) નો સંપર્ક કરી શકાય.

Event Poster:



SARVAJANIK COLLEGE OF
ENGINEERING & TECHNOLOGY

ELECTRONICS & COMMUNICATION DEPARTMENT

ROBOCRAFT WORKSHOP

*Your
Journey
Into
Robotics
Begins
Here!!*



KIT FEES
1300/- RS Metallic Kit
1000/- RS Plastic Kit

TEAM
Join Solo or in
Team upto 4

DATE
22 August
2026

VENUE
EC AV Room

TIME
10 AM
Onwards

Tech Lead
Tej Patel (+91 90674 66824)

Student Co-ordinator
Arya Kavani (+91 99098 12119)
Nainesh Gurav (+91 78742 41979)



HOD EC
Prof. Niteen Patel

Faculty Co-ordinator
Prof. Pritesh N. Saxena
Prof. Chintan H. Panchal

List of Participants:

Sr NO	Name of Participate	Branch	Year
1.	Vishwa Jiteshbhai Goti	EC	1st Year
2.	Khushi Hirenbbhai Savaliya	EC	1st Year
3.	Jenisha Bharatbbhai Padhra	EC	1st Year
4.	Krishha Vinodbhai	EC	1st Year
5.	Vansh Kirtikumar Patel	Electrical	1st Year
6.	Arya Nilesh Patel	Civil	1st Year
7.	Rudra Gopani	EC	1st Year
8.	Abhi Lila	EC	1st Year
9.	Mitansh Koyani	EC	1st Year
10.	Dhruv Patel	EC	1st Year
11.	Rishva Tala	EC	1st Year
12.	Rajvi	EC	1st Year
13.	Divy Moradiya	EC	1st Year
14.	Samarth	EC	1st Year
15.	Saloni Akshay Joshi	CO	1st Year
16.	Rutvi Gopalbbhai Korat	CO	1st Year
17.	Shruti Lathiya	IT	1st Year
18.	Niyati Naik	EC	1st Year
19.	Komal Jain	EC	1st Year
20.	Dhvani Prajapati	EC	1st Year
21.	Rehan Chirag Khansaheb	EC	1st Year
22.	Aarnav Patel	EC	1st Year
23.	Umar Memon	EC	1st Year
24.	Mann Shah	EC	1st Year
25.	Vinamra Patel	Electrical	1st Year

26.	Bhavya Shah	Electrical	1st Year
27.	Jeshmin Brahmbhatt	IC	1st Year
28.	Maahi Dipakkumar Rathod	IC	1st Year
29.	Manav Hemalkumar Lakdawala	Electrical	1st Year
30.	Harsh Bhavsar	Electrical	1st Year
31.	Akshat Patva	Electrical	1st Year
32.	Dishant Lapsiwala	Electrical	1st Year
33.	Sudani Pari Bhadreshkumar	CO	2nd Year
34.	Dhruti Dharmesh Tailor	IT	2nd Year
35.	Dhvani Vansia	CO	2nd Year
36.	Krish Nitinbhai Khambhati	IT	2nd Year
37.	Aryan Chevli	Electrical	1st Year
38.	Pranay Swami	Mechanical	1st Year
39.	Jenil Dodiya	Civil	1st Year