



SNJB's
KKHA Arts, SMGL Commerce and SPHJ Science College, Chandwad



Dept. of Electronic Science

Report on Two Days Hands-on Robotics Workshop with Arduino

Date: 6th & 7th March 2026

A two-day workshop titled “**Hands-on Robotics Workshop with Arduino**” was organized by the **Department of Electronic Science** at the college to introduce students to the basics of robotics and embedded systems. The main objective of the workshop was to provide practical exposure and inspire students to explore innovation in the field of robotics and automation.

The workshop mainly focused on the **Arduino Uno microcontroller board** and the fundamentals of programming using the **Arduino IDE**. The sessions were conducted by experienced trainers Mr. Deep Maru sir, who explained key concepts such as electronics, sensors, actuators, and basic programming. Through practical demonstrations and hands-on activities, students gained a better understanding of how these components are used in robotics applications.



Welcoming guest to college

On first day at morning 11.30am inauguration function was conducted at Seminar Hall. Our chief guest Mr. Deep Maru sir is facilitated by honorable Dr. G. H. Jain sir. Our head of the department Dr. Onkar M. Pardeshi sir explained the outline of the program to all participants. Also Dr. Tushar S. Salve sir introduces guest with all participant.

After inauguration actual program was started on 12.30 pm participants were introduced to the fundamentals of robotics, the architecture of **Arduino**, and basic electronic components such as LEDs, resistors, and sensors. Students learned how to connect the Arduino board to a computer and write simple programs to control LEDs and other components. Total 30 students form T.Y.B.Sc., M.Sc. Electronics Science and first year Computer Science were participated in workshop.



Inauguration of Workshop



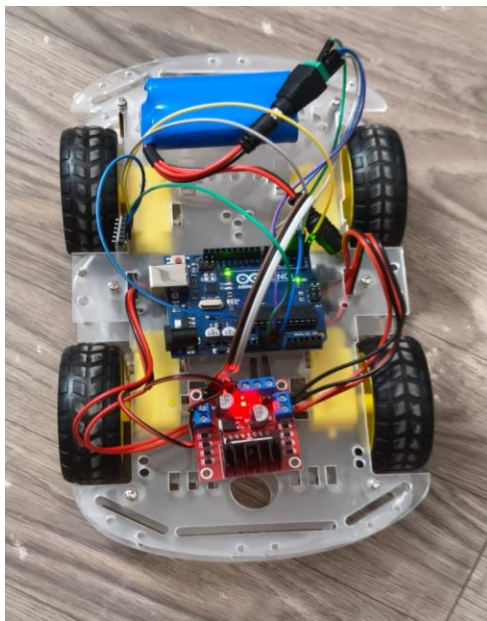
Guest demonstrating the core principles

The second day focused on practical applications. Students worked in groups to build simple robotic models such as line-following robots, Joystick controlled car, Bluetooth controlled car and obstacle-avoiding robots using sensors and motors. The hands-on sessions helped participants understand circuit design, coding, and troubleshooting techniques. The workshop witnessed enthusiastic participation from students. It provided them with valuable exposure to modern technology and helped develop problem-solving and teamwork skills.

The program concluded with a brief valedictory session where participants shared their learning experiences. Certificates were distributed to all participants. Dr. O. M. Pardeshi sir and Dr. T. S. Salve sir expressed gratitude to the guest and students for making the workshop a successful and enriching event.



Students watching a live demonstration of joystick controlled car



Bluetooth controlled car



Students engaged in the hardware assembly

Onkar M. Pardeshi

Dr. Onkar M. Pardeshi
Head of Department

Tushar S. Salve

Dr. Tushar S. Salve
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Dr. D. N. Shimpi

Dr. D. N. Shimpi
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