

Report on Robotics Workshop

The Entrepreneur Cell, in collaboration with the Department of Physics, organized a Robotics Workshop aimed at equipping students with practical knowledge and hands-on experience in robotics. The workshop was designed to bridge the gap between theoretical knowledge and real-world applications, fostering innovation, problem-solving skills, and entrepreneurial thinking among participants. The event attracted a diverse group of 1st semester students from various disciplines, eager to explore the rapidly evolving field of robotics and its potential for startups and technological advancements.

Date: 28/11/2024 & 29/11/2024

Chief Guest:

1. Dr. K. Tanveer Alam
CTO, AcenAAR technologies Pvt. Lmt
2. Dr. V. Mohammad Dada
R & D Head, AcenAAR technologies Pvt. Lmt



The poster for the 'Workshop on Robotics' is set against an orange background. At the top, it features the logo of St. Joseph's Degree College and the text 'St. Joseph's Degree College, Sunkesula Road, Kurnool-518004'. Logos for 'Institution's Innovation Council' and 'Innovation Cell' are also present. The main title 'WORKSHOP ON ROBOTICS' is in large, bold, black letters. Below the title, a dark grey box lists 'You will learn about' with bullet points: 'Robo chasis', 'Electronic parts', 'Wheels and rotation(working)', and 'coding, AI and Robotics'. To the right, a location pin icon is followed by 'Seminar Hall', '2:30 to 5:00 PM', and '28th and 29th Nov'. Below this, a clock icon and a calendar icon are shown. A section titled '5 types of Applications' lists: 'Line Followers', 'face detection', 'Obstacles detection', 'bluetooth control', and 'Voice control'. At the bottom left, it says 'ORGANIZED BY' followed by 'ENTREPRENEURSHIP DEVELOPMENT CELL IN COLLABORATION WITH INSTITUTION'S INNOVATION COUNCIL'. On the right side, there is a 3D rendering of a silver humanoid robot with a glowing blue eye.



Program Outcomes:

The workshop successfully achieved the following outcomes:

1. **Understanding Basic Robotics Concepts:** Participants gained a foundational understanding of robotics, including the principles of design, sensors, actuators, and microcontrollers.
2. **Hands-on Experience with Robotics Kits:** Students engaged in practical sessions using robotics kits to build simple robots, enhancing their technical skills and confidence in handling hardware components.
3. **Development of Problem-Solving Skills:** The workshop encouraged participants to solve real-world challenges by designing and programming robots to perform specific tasks, promoting critical thinking and creativity.
4. **Introduction to Programming and Control Systems:** Basic programming concepts were introduced, allowing students to control their robots using microcontrollers such as Arduino, thus linking coding with mechanical operations.
5. **Encouraging Teamwork and Collaboration:** The workshop emphasized collaborative learning, where students worked in teams to build and troubleshoot their robotic projects, fostering teamwork and communication skills.
6. **Exploring Entrepreneurial Opportunities in Robotics:** Sessions were conducted on the entrepreneurial potential of robotics, inspiring students to consider robotics-based startups and innovative solutions in various industries.
7. **Increased Awareness of Future Career Paths:** The workshop provided insights into career opportunities in robotics, automation, and related fields, motivating students to pursue advanced studies or careers in these domains.
8. **Networking with Industry Experts:** Participants had the opportunity to interact with industry professionals and alumni who shared their experiences and provided guidance on navigating the robotics and technology landscape.

Conclusion:

The Robotics Workshop, conducted in collaboration with the Entrepreneur Cell, was a resounding success. It not only provided students with valuable technical skills but also inspired them to think innovatively and explore entrepreneurial ventures in robotics. The positive feedback from participants highlights the importance of such initiatives in fostering a culture of innovation and entrepreneurship in academic institutions.