

**Title of the Activity:** Robotics and Physiotherapy

**Category of Activity:** Academic Event

**Event Date:** 9<sup>th</sup> October 2025

**Event location:** Class 1, MDAH, KPGU

**Event Facilitator:** Dr. Kinnel Parmar (PT)

**Resource persons:**

1. Ms Ankita Kothari

Designation - Assistant Professor

Affiliation - Computer Science and Engineering, KSET, KPGU, Vadodara

2. Ms Sonia Panesar

Designation - Assistant Professor

Affiliation - Computer Science and Engineering, KSET, KPGU, Vadodara

**Mode of Conduct:** Offline

**Objective of the Activity:**

- Introduce students to the fundamentals and applications of robotics technology in healthcare and physiotherapy.
- To enhance understanding of various categories of healthcare robots and their roles in rehabilitation practices.
- To encourage interdisciplinary innovation by identifying potential research and project ideas integrating robotics and physiotherapy.

**Description of the Activity:**

The session on 'Physiotherapy and Robotics' was organized to highlight the growing integration of robotics technology in the field of healthcare and rehabilitation. The event focused on the role of robotics in modern physiotherapy practices, types of healthcare robotics, and their applications in rehabilitation settings. The expert speaker introduced the fundamentals of robotics, including its definition, working principles, and technical aspects of robotic design, such as robotic arms and sensor systems. Students learned how robotics enhances precision, consistency, and efficiency in therapy, particularly in neurological and musculoskeletal rehabilitation. Categories of healthcare robotics such as surgical robots, assistive robots, and rehabilitation robots were discussed in detail.



The session also explored the design elements of robotic systems, emphasizing mechanical structure, control algorithms, and user-interface integration. Several problem statements were proposed as potential student projects, including: developing robotic exoskeletons, AI-based movement tracking systems, and robotic aids for physiotherapy exercise repetition.

The session concluded with a video demonstration showcasing robotic-assisted physiotherapy and its impact on patient engagement and recovery outcomes. Participants appreciated the exposure to cutting-edge rehabilitation technology and expressed interest in future research collaborations in this domain.

### **Key Outcomes:**

- Participants gained a comprehensive understanding of how robotics can improve precision, efficiency, and patient engagement in physiotherapy.
- Students learned about the technical and functional aspects of robotic systems, including design principles, sensors, and control mechanisms.
- The session inspired participants to explore research opportunities and develop cost-effective robotic solutions for rehabilitation and healthcare applications.

### **Number of Participants:**

61 participants

### **Target Audience:**

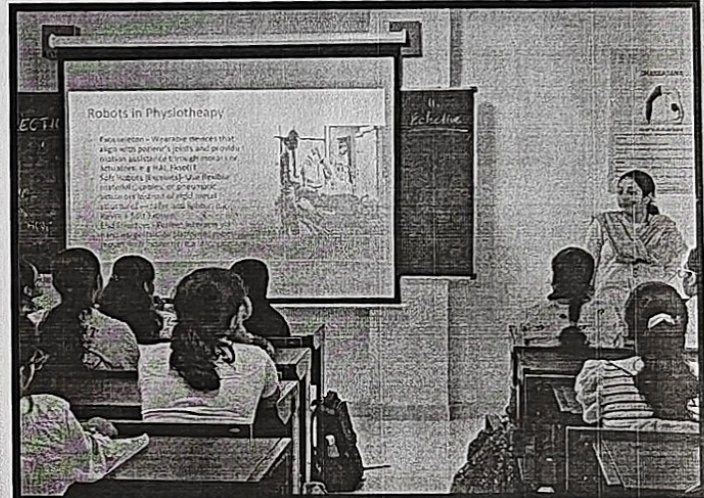
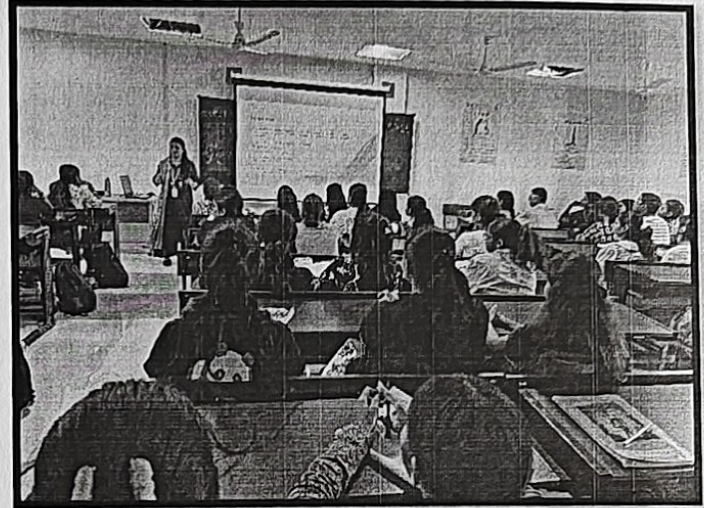
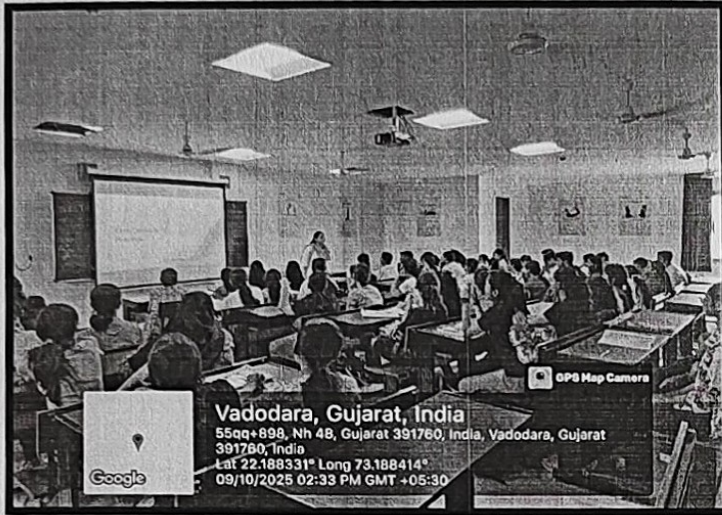
1<sup>st</sup> BPT students

### **Feedback & Testimonials:**

Attached with report.



## Photographs:



Prepared by,

*Kinnel*

**Dr. Kinnel Parmar (PT)**  
Assistant Professor  
Event coordinator, KSPR

*Paras*

**Dr. Paras Bhura**  
Director (I/c), KSPR





## FEEDBACK FORM

### • Event Details


College Name:	Krishna School of Physiotherapy & Rehabilitation (KSPR)
Event Name:	Expert session – Robotics & Physiotherapy
Event Date:	09/10/2025
Event Time:	2:00PM – 3:00PM
Event Location:	Class 1, MDAH, KPGU

### • Student Details

● <u>Student Details</u>			
Student's Name:	Sunny Kushwaha		
Enrolment No.	25 UG 040057		
Course:	Physiotherapy		
Branch:	BPT	Year:	1st

Sr.	Questionnaire	Feedback Rating			
		Excellent	Good	Fair	Poor
1	Clarity of objectives & content		✓		
2	Presentation skills of the speaker	✓			
3	Practical relevance of the topic	✓			
4	Opportunity for interaction & queries	✓			
5	Overall effectiveness of the session	✓			

Any suggestion- \_\_\_\_\_

  
Sign of the student





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### • Student Details

Student's Name:	Shah Nishtha Rikesh		
Enrolment No.	25UG040086		
Course:	Physiotherapy		
Branch:	BPT	Year:	1 <sup>st</sup> Year

Sr.	Questionnaire	Feedback Rating			
		Excellent	Good	Fair	Poor
1	Clarity of objectives & content	✓			
2	Presentation skills of the speaker	✓			
3	Practical relevance of the topic	✓			
4	Opportunity for interaction & queries	✓			
5	Overall effectiveness of the session		✓		

Any suggestion- \_\_\_\_\_

Shah Nishtha Rikesh

Sign of the student