

REPORT ON " Introduction of 3D Printer For Newly Admitted Students " SESSION

1.Introduction

Government Polytechnic, Rajpipla organized an orientation event titled "**Introduction of 3D Printer For Newly Admitted Students**" on 29 July 2026. The program targeted newly joined diploma students to introduce them to modern manufacturing technologies early in their academic journey. The session ran from 1:00 PM to 3:00 PM.

2. Objectives

- To familiarize freshers with additive manufacturing and rapid prototyping concepts.
- To bridge the gap between theoretical engineering textbooks and industry execution.
- To inspire multidisciplinary project ideas using modern hardware tools.

3. Event Proceedings

The expert session was split into two dedicated segments:

Phase 1: Technical Presentation (1:00 PM - 2:00 PM)

- **Expert Address:** Mr. Snehal A. Patel introduced the core concepts of 3D printing.
- **Workflow Explanation:** He walked students through the pipeline: 3D CAD modeling → STL file conversion → Slicing software configuration → G-code generation.
- **Material Selection:** The expert detailed structural differences between printing filaments like PLA, ABS, and PETG.

Phase 2: Live Demonstration & Q&A (2:00 PM - 3:00 PM)

- **Machine Setup:** A physical 3D printer was operated live to show bed leveling, nozzle heating, and axis calibration.
- **Live Print:** Students observed layer-by-layer material deposition creating a physical component prototype.
- **Interactive QA:** Mr. Patel answered queries regarding print speed, structural infill density, and structural tolerances.

Key Outcomes

- **Technological Literacy:** 68 newly admitted students gained direct exposure to advanced fabrication methods.
- **Enhanced Engagement:** The hands-on machine demo successfully increased student interest in technical engineering concepts.
- **Skill Orientation:** Attendees learned the industry value of 3D design software skills for future job markets.