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Sarvajani Education Society

SARVAJANIK UNIVERSITY

Sarvajani College of Engineering & Technology

Dr. R. K. Desai Marg, Opp. Mission Hospital, Athwalines, Surat-395001

Report for Work shop on

“Prototype/Process Design and Development”

Date: 16th May, 2026

Venue: Mechanical Lab, SCET

Faculty Co-ordinators

Prof. (Dr.) Piyush Patel

Mechanical Engineering Department

In association with

Institution's Innovation Council (IIC), SCET

INTRODUCTION

Sarvajanik College of Engineering and Technology organized Workshop on **“Prototype/Process Design and Development”** on 16th May, 2026 (9:00 AM Onwards) at Department of Mechanical Engineering, Surat.



The major objectives of the workshop are mentioned as below;

- To provide fundamental knowledge of prototype and process design methodologies.
- To enhance understanding of product development and manufacturing processes.
- To develop practical skills in CAD modelling, prototyping, and process planning.
- To familiarize participants with modern design and development tools used in industry.
- To encourage innovation, creativity, and problem-solving abilities among students.
- To provide hands-on exposure to prototype fabrication and testing techniques.
- To motivate participants towards research, product development, and entrepreneurship activities.

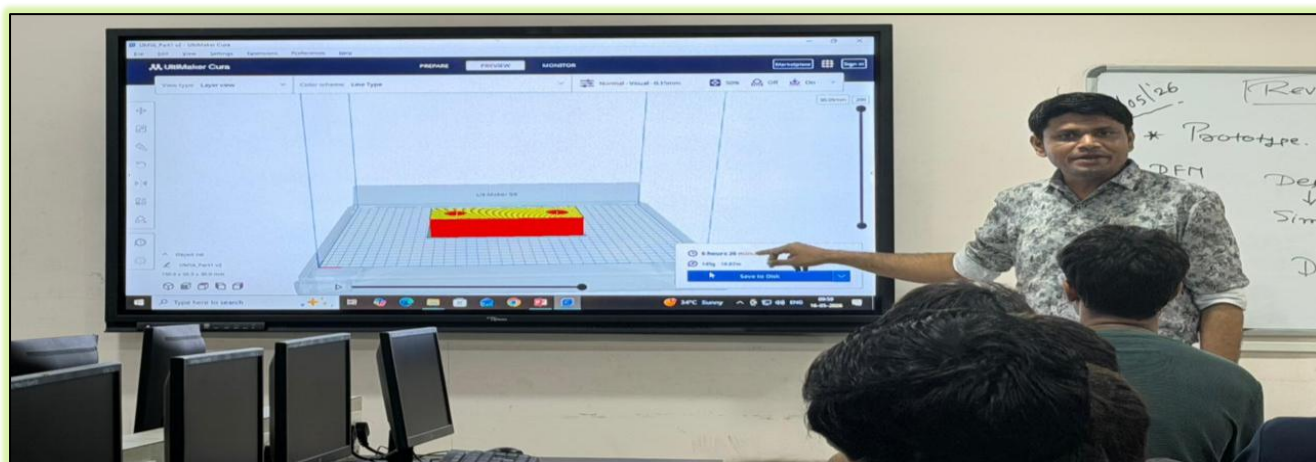
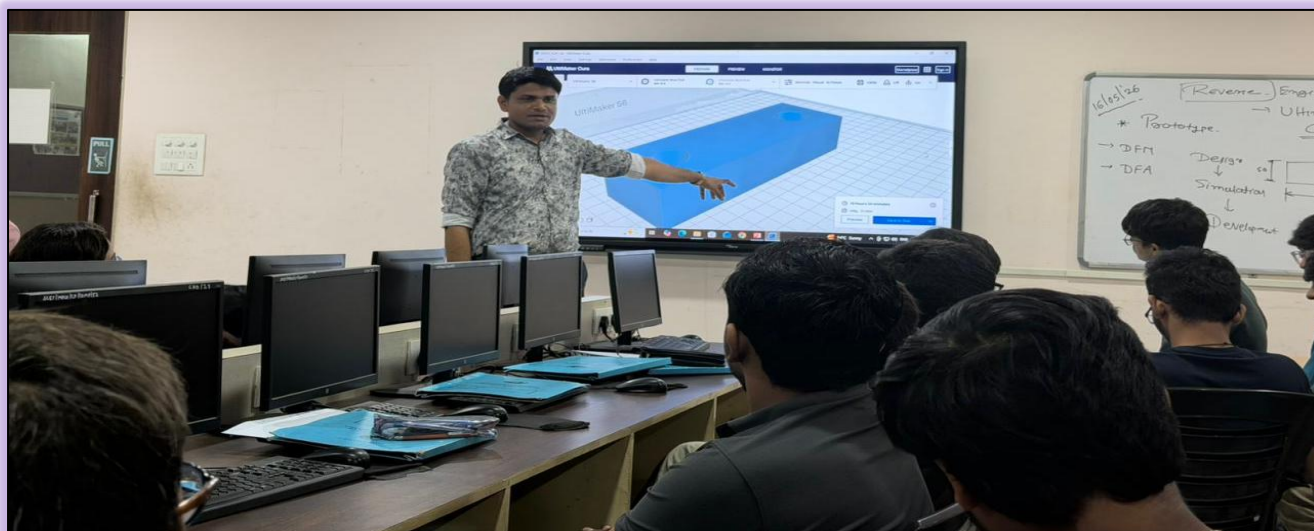
SESSIONS BRIEF DESCRIPTION

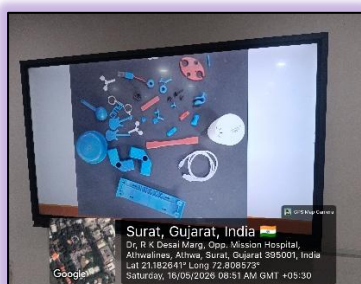
Prof. Piyush Patel shared valuable insights on prototype and process design methodologies, product development strategies, modern manufacturing practices, and plastic moulding machine technologies during the session. He explained the complete workflow involved in transforming an idea into a functional product, covering conceptual design, CAD modelling, process planning, prototype development, testing, and final manufacturing considerations. Special emphasis was given to the importance of integrating design accuracy, material selection, manufacturability, and cost-effective production techniques in industrial applications.

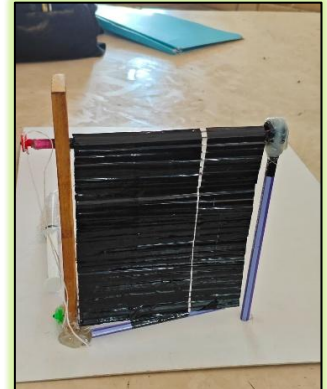
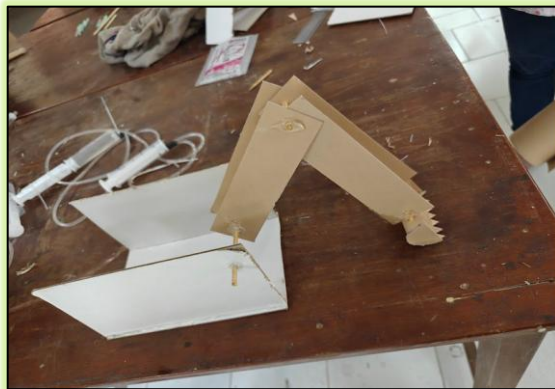
During the session, participants were introduced to advanced CAD modelling and industrial design tools commonly used in the manufacturing sector for product visualization, analysis, and development. Detailed demonstrations on rapid prototyping technologies, 3D printing processes, slicing software tools, parameter setting, and prototype fabrication techniques were also conducted to provide practical understanding of additive manufacturing concepts.

In addition, He discussed the working principles, applications, and industrial significance of plastic moulding machine technologies, including injection moulding processes, mould design considerations, material flow behaviour, and mass production techniques used in the plastic manufacturing industry. The session highlighted the role of moulding technologies in modern product manufacturing and emphasized their importance in achieving precision, productivity, and product quality.

GLIMPSES OF THE WORKSHOP SESSION







PARTICIPATION DETAILS & FEEDBACK:

A total of **62 participants** attended the workshop session. Participants showed keen interest during the technical sessions, hands-on demonstrations, and interactive discussions related to prototype development, CAD modelling, process planning, 3D printing, and manufacturing technologies.

Sarvajani University SARVAJANI COLLEGE OF ENGINEERING & TECHNOLOGY MECHANICAL ENGINEERING Workshop on "Prototype/Process Design and Development" on the 16th May, 2026			
B.Tech. Student Registration details			
En. No.	Student Full Name	Current Semester	Sign
1. ET25BTME016	Yash Joshi	2 nd	
2. ET25BTME017	Vaghavisha Bhargava	2 nd	
3. ET25BTME021	Nitya Shah	2 nd	
4. ET25BTME028	Vaas Hett	2 nd	Vaas Hett
5. ET25BTME011	Kalyan Gandhi	2 nd	Kalyan
6. ET25BTME014	Vishnu Shihomani	2 nd	
7. ET25BTME019	Dhananjaya Vutthikumar	2 nd	
8. ET25BTME010	Rajeeva Jain	2 nd	
9. ET25BTME008	Chahinidha Dhananjay	2 nd	
10. ET25BTME011	Pooja Nand	2 nd	
12. ET25BTME023	Shukla Siddharth	2 nd	
13. ET25BTME049	Soel Suresh	2 nd	
14. ET25BTME048	Savani Man	2 nd	
15. ET25BTME008	Dhananjaya Pransav	2 nd	
16. ET25BTME023	DHRUV HARUL	2 nd	
17. ET25BTME008	Hareesh Chaudhary	2 nd	
18. ET25BTME021	Vansh Patel	2 nd	
19. ET25BTME041	Saumya Patel	2 nd	
20. ET25BTME063	Hoshikavshna Thorpu	2 nd	
21. ET25BTME039	Pail Savan	2 nd	
22. ET25BTME035	DHRUV Patel	2 nd	
23. ET25BTME022	Shrey Manojkumar	2 nd	
24. ET25BTME019	Krish Saluja	2 nd	
25. ET25BTME039	HETRAJ PARMAR	2 nd	

Sarvajani University SARVAJANI COLLEGE OF ENGINEERING & TECHNOLOGY MECHANICAL ENGINEERING Workshop on "Prototype/Process Design and Development" on the 16th May, 2026			
B.Tech. Student Registration details			
En. No.	Student Full Name	Current Semester	Sign
26. ET25BTME015	Rishav Vaghani	2 nd	
27. ET25BTME010	Yus Patel	2 nd	
28. ET25BTME049	KEVIN VARA	2 nd	
29. ET25BTME054	SHREYANSH PATTIL	2 nd	
30. ET25BTME053	Harshad Shekhda	2 nd	
31. ET25BTME019	Tanay Jari	2 nd	
32. ET25BTME017	Joshi Pail	2 nd	
33. ET25BTME034	Patel Harsh	2 nd	
35. ET25BTME034	Shravya Patil	2 nd	
36. ET25BTME026	Tanish Pawar	2 nd	
37. ET25BTME017	Dipin Kanarya	2 nd	
38. ET25BTME040	Purvi Sahil	2 nd	
39. ET25BTME015	Rohanvadhana	2 nd	
40. ET25BTME029	Dharm Purohit	2 nd	
41. ET25BTME060	Pranav Soni	2 nd	
42. ET25BTME050	SURAT VANDU	2 nd	
43. ET25BTME050	KRISH SONI	2 nd	
44. ET25BTME050	MEHAK TESH PATTI	2 nd	
45. ET25BTME050	SHREYA SRIVASTAVA	2 nd	
46. ET25BTME050	Patil Jyoti A	2 nd	
47. ET25BTME050	Patil Neel	2 nd	
48. ET25BTME018	Priyansu Kansala	2 nd	
49. ET25BTME025	Vagdevi Murali	2 nd	

Sarvajani University SARVAJANI COLLEGE OF ENGINEERING & TECHNOLOGY MECHANICAL ENGINEERING Workshop on "Prototype/Process Design and Development" on the 16th May, 2026			
B.Tech. Student Registration details			
En. No.	Student Full Name	Current Semester	Sign
50. ET25BTME050	Manav Sonani	2 nd	
51. ET25BTME050	Tikku Magtanpura	2 nd	
52. ET25BTME050	Brest Patel	2 nd	
53. ET25BTME050	Vansh Patel	2 nd	
54. ET25BTME050	Jan-Harshvardhan	2 nd	
55. ET25BTME050	Manoj Patil	2 nd	
56. ET25BTME050	Sanku Patel	2 nd	
57. ET25BTME050	Siddhi Chaudhary	2 nd	
58. ET25BTME050	Agarwal Patel	2 nd	
59. ET25BTME050	Hemisha Bhand	2 nd	
60. ET25BTME050	Aarav Shukla	2 nd	
61. ET25BTME050	Tanish Mahesh	2 nd	
62. ET25BTME050	Manish Nishu	2 nd	
63. ET25BTME050	Shravya Shree	2 nd	

The expert talk was highly engaging, and we received excellent feedback from participants regarding both the speaker and the subject matter. A few comments from the session are listed below:

- The workshop helped students become familiar with modern industrial design and development tools and their real-world applications.
- Hands-on exposure to prototype fabrication, 3D printing, plastic moulding technologies was highly useful to us.
- The sessions motivated us towards design thinking, product design and development stages in the engineering field.

OUTCOMES OF THE ACTIVITY

The workshop enhanced participants' understanding of prototype and process design methodologies, product development, CAD modelling, and modern manufacturing practices through practical learning and hands-on exposure. It also encouraged innovation, problem-solving, research orientation, and entrepreneurship skills among students for real-world engineering applications.

ACKNOWLEDGMENT

We thank to **Dr. Pankaj Gohil** (Head of the Mechanical Department) for all kinds of support extended and Honourable Principal **Dr. Hiren Patel** and Dean-R&D: **Dr. Utpal Pandya** for encouraging us to conduct the session under the banner of **Institution's Innovation Council (IIC)**.

Through this brief note, we would like to acknowledge the support provided by every faculty member of the department to make the event successful. In addition, we would like to thanks all the participants without whom the talk could not have been planned or executed.