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**Sarvajanik Education Society**

**SARVAJANIK UNIVERSITY**

**Sarvajanik 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:** 16<sup>th</sup> May, 2026

**Venue:** Mechanical Lab, SCET

**Faculty Co-ordinator**

**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 16<sup>th</sup> May, 2026 (9:00 AM Onwards) at Department of Mechanical Engineering, Surat.

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MECHANICAL ENGINEERING DEPARTMENT  
IN ASSOCIATION WITH  
INSTITUTION'S INNOVATION COUNCIL

**Workshop on  
Prototype/Process Design and  
Development**

16th May, 2026 | SATURDAY  
TIME : 9:00 am onwards  
VENUE:  
Mechanical CAD LAB ;  
Additive Manufacturing Lab

**Coordinator**  
Dr. Piyush Patel  
Mechanical Department

**Head of Department**  
Dr. Pankaj Gohil  
Mechanical Department

**PRINCIPAL**  
Dr. Hiren Patel  
SCET, SURAT

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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.

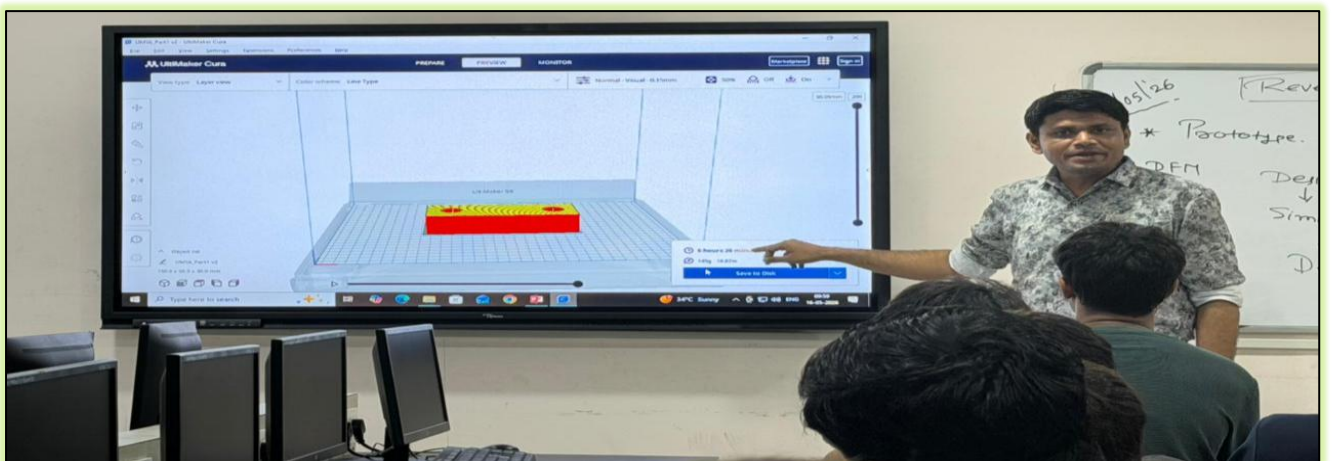
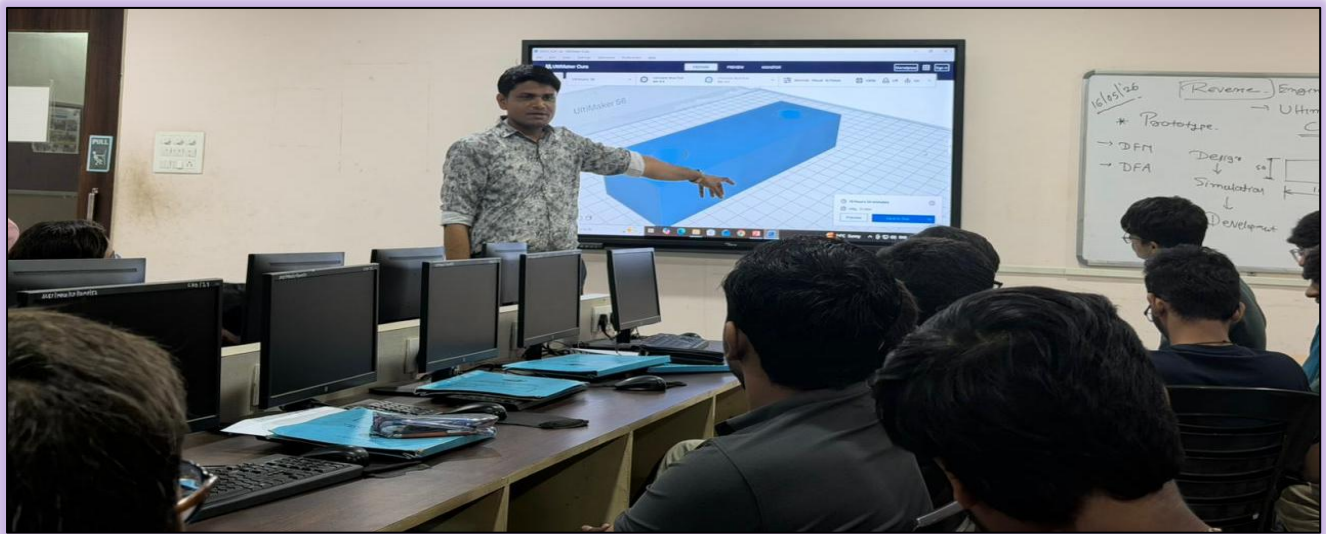
## SESSIONS BRIEF DESCRIPTION

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





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 Athwalines, Athwa, Surat, Gujarat 395001, India  
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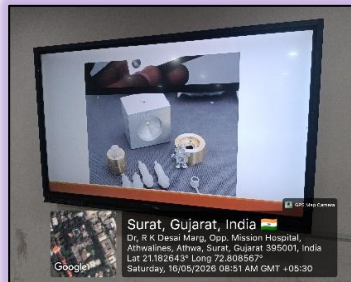
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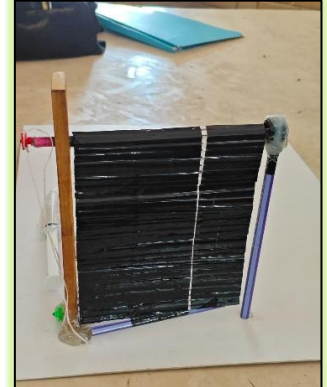
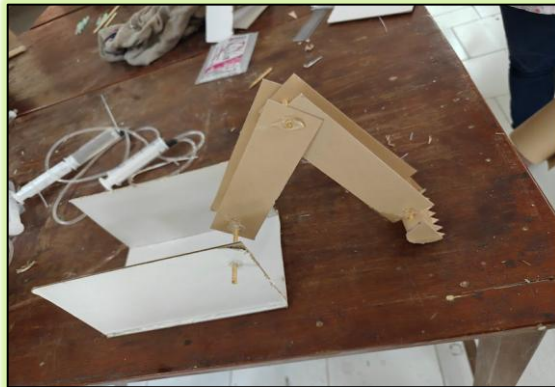


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## PARTICIPATION DETAILS & FEEDBACK:

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				
Sl. No.	En. No.	Student Full Name	Current Semester	Sign
1	ET25BTME01K	Yash Joshi	2 <sup>nd</sup>	[Signature]
2	ET25BTME01F	Vaghavaya Dhanya	2 <sup>nd</sup>	[Signature]
3	ET25BTME01T	Nitya Shah	2 <sup>nd</sup>	[Signature]
4	ET25BTME01G	Vaia Hest	2 <sup>nd</sup>	Vaia Hest
5	ET25BTME01I	Kashyap Gandhi	2 <sup>nd</sup>	[Signature]
6	ET25BTME01H	Vishnu Shilpam	2 <sup>nd</sup>	[Signature]
7	ET25BTME01J	Dhananjay Vastanikumar	2 <sup>nd</sup>	[Signature]
8	ET25BTME01O	Geetika Jain	2 <sup>nd</sup>	[Signature]
9	ET25BTME01E	Chaitanya Dhananjay	2 <sup>nd</sup>	[Signature]
10	ET25BTME01L	Pooja Nand	2 <sup>nd</sup>	[Signature]
11	ET25BTME01S	Shruti Chandan	2 <sup>nd</sup>	[Signature]
12	ET25BTME01R	Tejal Suresh	2 <sup>nd</sup>	[Signature]
13	ET25BTME01Q	Savani Man	2 <sup>nd</sup>	[Signature]
14	ET25BTME01M	Dhananjay Pransav	2 <sup>nd</sup>	[Signature]
15	ET25BTME01N	Dhruvil Haril	2 <sup>nd</sup>	[Signature]
16	ET25BTME01P	Hrushil Chandra	2 <sup>nd</sup>	[Signature]
17	ET25BTME01A	Vansh Patel	2 <sup>nd</sup>	[Signature]
18	ET25BTME01I	Seemita Patel	2 <sup>nd</sup>	[Signature]
19	ET25BTME01G	Hushikavshna Thejiv	2 <sup>nd</sup>	[Signature]
20	ET25BTME01J	Peel Savan	2 <sup>nd</sup>	[Signature]
21	ET25BTME01F	Dhruvil Patel	2 <sup>nd</sup>	[Signature]
22	ET25BTME01D	Shrey Manojkumar	2 <sup>nd</sup>	[Signature]
23	ET25BTME01H	Krish Saluja	2 <sup>nd</sup>	[Signature]
24	ET25BTME01B	HETRAJ PARMAR	2 <sup>nd</sup>	[Signature]

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Sl. No.	En. No.	Student Full Name	Current Semester	Sign
25	ET25BTME01S	Raghu Vaghani	2 <sup>nd</sup>	[Signature]
26	ET25BTME01O	YUJ Patel	2 <sup>nd</sup>	[Signature]
27	ET25BTME01A	KEVIN VARA	2 <sup>nd</sup>	[Signature]
28	ET25BTME01H	Shreyansh Parth Patel	2 <sup>nd</sup>	[Signature]
29	ET25BTME01G	Harshal Shekhda	2 <sup>nd</sup>	[Signature]
30	ET25BTME01I	[Signature]	2 <sup>nd</sup>	[Signature]
31	ET25BTME01R	Tanay Jari	2 <sup>nd</sup>	[Signature]
32	ET25BTME01Q	Tejal Patel	2 <sup>nd</sup>	[Signature]
33	ET25BTME01E	Pratik Harsh	2 <sup>nd</sup>	[Signature]
34	ET25BTME01S	Elanya Pole	2 <sup>nd</sup>	[Signature]
35	ET25BTME01R	Tanish Parthab	2 <sup>nd</sup>	[Signature]
36	ET25BTME01J	Dhruv Kanarya	2 <sup>nd</sup>	[Signature]
37	ET25BTME01I	Pratik Sahil	2 <sup>nd</sup>	[Signature]
38	ET25BTME01S	Rohanvaruna	2 <sup>nd</sup>	[Signature]
39	ET25BTME01A	Dhruv Parthab	2 <sup>nd</sup>	[Signature]
40	ET25BTME01O	Pranav Soni	2 <sup>nd</sup>	[Signature]
41	ET25BTME01G	Sumit Vansh	2 <sup>nd</sup>	[Signature]
42	ET25BTME01I	KRISH SONI	2 <sup>nd</sup>	[Signature]
43	ET25BTME01H	MEHAKTESH PATEL	2 <sup>nd</sup>	[Signature]
44	ET25BTME01J	SHOBEYA SRIVASTAVA	2 <sup>nd</sup>	[Signature]
45	ET25BTME01S	Pooja Tulka A	2 <sup>nd</sup>	[Signature]
46	ET25BTME01Q	Patel Neel	2 <sup>nd</sup>	[Signature]
47	ET25BTME01G	Pransav Kansala	2 <sup>nd</sup>	[Signature]
48	ET25BTME01H	Yagnesh Muralip	2 <sup>nd</sup>	[Signature]

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Workshop on "Prototype/Process Design and Development" on the 16th May, 2026				
B.Tech. Student Registration details				
Sl. No.	En. No.	Student Full Name	Current Semester	Sign
50	ET25BTME01S	Manav Sonani	2 <sup>nd</sup>	[Signature]
51	ET25BTME01O	Tikku Magtanpura	2 <sup>nd</sup>	[Signature]
52	ET25BTME01A	Pratik Patel	2 <sup>nd</sup>	[Signature]
53	ET25BTME01H	Krush Patel	2 <sup>nd</sup>	[Signature]
54	ET25BTME01R	Jen Hanishkumar	2 <sup>nd</sup>	[Signature]
55	ET25BTME01Q	Manoj Patil	2 <sup>nd</sup>	[Signature]
56	ET25BTME01E	Sonik Patel	2 <sup>nd</sup>	[Signature]
57	ET25BTME01S	Sudh Chandan	2 <sup>nd</sup>	[Signature]
58	ET25BTME01R	Agad Pratik	2 <sup>nd</sup>	[Signature]
59	ET25BTME01O	Hrushikesh Bhat	2 <sup>nd</sup>	[Signature]
60	ET25BTME01J	Aarav Shukla	2 <sup>nd</sup>	[Signature]
61	ET25BTME01G	Tanish Mahesh	2 <sup>nd</sup>	[Signature]
62	ET25BTME01H	Manish Mohit	2 <sup>nd</sup>	[Signature]
63	ET25BTME01A	Shreyash Shetal	2 <sup>nd</sup>	[Signature]

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 thank all the participants without whom the talk could not have been planned or executed.

**Report Prepared By:**

Prof. (Dr.) Piyush T. Patel  
MED, SCET.