

# Autonomous Institute, Affiliated to VTU **Department of Chemical Engineering**

## Design Forge – Phase Shift 2023, Techtopia

- 1. Name of the Department: Chemical Engineering
- 2. Name of the Activity: Design Forge 3D print your imagination.
- 3. Objectives:
  - 1. To teach the students about the basics of 3D printing
  - 2. To understand the methodology used by 3D printing personnel in additive manufacturing by reverse engineering.
  - 3. To attain hands on experience by performing reverse engineering techniques to model the parts used in various application.
- **4. Date:** 14<sup>th</sup> December, 2023.
- 5. Time: 10am 4:30 pm
- **6.** Venue: CR-3002 & Computer lab, Department of Chemical Engineering, BMSCE.
- 7. Brief summary of the Programme:

The event of 3D printing under the banner of Department of Chemical Engineering's take on the events for the Phase Shift, annual technical fest of BMSCE, with the title of Techtopia. The event begun by the resource person, Mr. Paul D'Souza, Consultant in 3D printing sector, explaining about the various equipment that is available in the industry of 3D printing and 3D printing application in the field of additive manufacturing. Next, Mr. Paul had brought some 3D printed models and asked the participants to use their imagination in recreating the same object as a 3D model in the software, 123D Design. The basics was then taught of how to use the software and Paul helped the students with their doubts whenever raised. After the modeling was completed, we discussed on how to extract the required file and the various filetypes that was involved in the outsourcing to slicing software. Slicing software as the name indicates cuts the object into layers for printing layer by layer to the final object. Slicing was done using another software by the name of Cura from Ultimaker, alternatively we used CreatWare software for slicing as well. The event coordinators, Prakyath T P and Seema N Poojary were providing a helping hand for the participants in installing and aggregating the participants at the aforementioned venue. The models designed by the



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participants was later aggregated and live demonstration of setting up the printer and showing the working was organized.

Dr. Y K Suneetha and Mrs. Shabnam Siddiqui were the coordinator's for the event. The department student coordinators were Mr. Jaganmaya and Mr.Pranav G for the event

**8.** Number of participants: The total number of registered participants were 20.

#### 9. Photographs:



Total students attending along with volunteers, taken by Prakyath T P



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Presenting about the application of 3D printing through PowerPoint presentation



Slicing software introduction and execution after modeling.



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 $Token\ of\ gratitude\ for\ the\ resource\ person,\ Mr. Paul\ D\ 'Souza\ from\ event\ coordinator,\ Prakyath\ T\ P$ 



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10. Banner:





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#### 11. List of Attendance:

SI No	Name	Department
1	PRIYANKA	4 <sup>th</sup> Year - Chemical Engineering, BMSCE
2	SNEHITH A SHETTY	4 <sup>th</sup> Year - Chemical Engineering BMSCE
3	KR YADAVA PRIYAN	1st year – Chemical Engineering BMSCE
4	S HARSH	4 <sup>th</sup> year – Information science engineering BMSCE
5	UMANG	1st year – Chemical Engineering BMSCE
6	R AMIRTHA	1st year – Chemical Engineering BMSCE
7	CHANDANA NAIK	1st year – Chemical Engineering BMSCE
8	GAYATRI K	1st year – Chemical Engineering BMSCE
9	CHAITHANYA V	4 <sup>th</sup> Year - Chemical Engineering BMSCE
10	DHANUSH.H	4 <sup>th</sup> Year - Chemical Engineering BMSCE
11	ANIRUDHA PAI H N	4 <sup>th</sup> Year - Chemical Engineering BMSCE
12	VIDHAAN APPAJI	4 <sup>th</sup> Year – Computer Science engineering BMSCE
13	NISHAN KUMAR P	1st year – Chemical Engineering BMSCE
14	GIRISH UDAY PRABHU	1st year – Chemical Engineering BMSCE
15	VAISHNAVI	3 <sup>rd</sup> Year – Chemical Engineering BMSCE
16	PRASHANTH	4 <sup>th</sup> Year - Chemical Engineering BMSCE
17	SHREEVATHSA	2 <sup>nd</sup> Year – Chemical Engineering BMSCE
18	ABHISHEK LODHI	1st year – Chemical Engineering BMSCE
19	ANANYA BHARATH	1st Year – Biotechnology BMSCE
20	HARSHITHA S KOWLAGI	1st Year – Biotechnology BMSCE