Certified Workshop on
3 D Printing Technology

5 Day Certified Workshop
2- 6 March. 2020

ORGANIZED BY

Mechanical Department

VISHWATMAK OM GURUDEV COLLEGE OF ENGINNERING

[Affilliated to MSBTE, Mumbai , Approved by AICTE, New Delhi & DTE, M.S.]
At: Mohili, Post: Aghai, Via Kalyan , Dist.: Thane, 421301

Resource Person: Mr. Nikhil Agrawal

COURSE OBJECIVES:

3D Printing technology is one of the most popular manufacturing processes in the industry. As an engineer, a student should be aware of advanced manufacturing processes like 3D printing. To fulfill this skill in the students, a training workshop on programming in ultimaker Cura and operating modeling software like Solidworks & Tinkercad and practical session on 3D printing machine to make different parts as application has been organized. This program will help students with their projects, competitions and create better career profiles.

Course Outcomes

- The students are able to:
- Know about the use of 3D Printer for industrial applications
- Understand all the fundamental modules of the 3D Printer, such as Cura and Solidworks/Tinkercad software
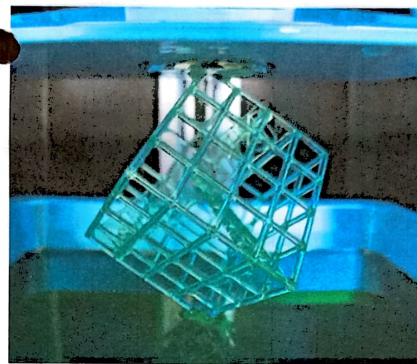
contact us:
email id:
vogcemech2020@gmail.com
MOBILE: 9096977520

PRINT

DRAW

Course Contents

- Introduction to 3 D Printing
- Solidworks/Tinkercad CAD Tool
- Preparing, Slicing and Printing 3D Model
- Filaments
- Printer Maintenance
- Hands on experience on 3D Printer & 3D printer software

Course Prerequisites

To get full benefit of this course, students need to have basic ideas about 3D Printers and 3D Printing technology.

Career Prospects

The key for the new generation of printers, especially industrial-grade solutions, will be the ability to handle a greater range of advanced materials. This opens the door for businesses to benefit from additive manufacturing in areas where they previously could not.Students can experience this process and learn how to create better designs like how the real workforce operatesy.
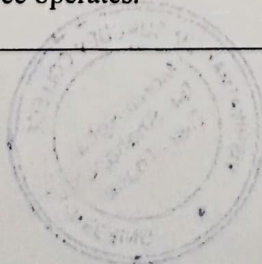

www.vishwatmakengg.in

Name of Course	:	**3 D Printing Technology**			
Duration	:	30 Hrs.	Modules	:	6

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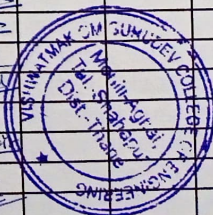| Course Contents		
Module-1 :	**Duration :**	**5 hours**
Introduction to 3 D Printing: Overview, Brief history, Different 3D Printing Technologies, Manufacturing Processes, Where does FDM 3D Printing fit with you, the Maker? Filaments, 3D Printer Hardware, Workflow of 3D Printing: Taking Files From a 3D Model to Printer Code.		
Module-2 :	**Duration :**	**5 hours**
Solid works/Tinker cad CAD Tool: Introduction of modeling tools and their importance, Solid works software, Part modeling. Basic setup of software in PC, EGD model, Design of keychain 3D model for 3D Printing.		
Module-3 :	**Duration :**	**5 hours**
Preparing, Slicing and Printing 3D Model: Overview, Printer Install and General Overview of a Print Slicer, Model Manipulation, Advanced Settings in Cura, Printer Preparation, Removing a Print From the Bed & Print Results.		
Module-4 :	**Duration :**	**5 hours**
Filaments: Overview, ABS Overview, PLA Overview, Warping, Stringing, Overhangs and Supports.		
Module-5:	**Duration :**	**5 hours**
Printer Maintenance: Mechanical Maintenance, Printing Replacement Parts, Additional Resources		
Module-6 :	**Duration :**	**5 hours**
Hands on experience on 3D Printer & 3D printer software: Processing and preparation of 3D key chain model for 3D printing on machine as per specification of Printer, Printing of own design keychain on 3 D printer.		
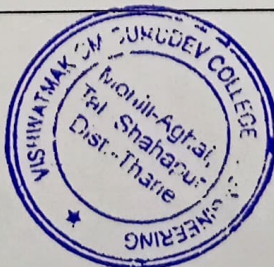
VISHWATMAK OM GURUDEV COLLEGE OF ENGINEERING
Department of Mechanical Engineering
ADD ON Program on 3 D Printing Technology

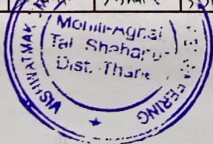**ADD ON Attendance**

Sr No.	Students Name	02/03/2020 Session I	02/03/2020 Session II	03/03/2020 Session I	03/03/2020 Session II	04/03/020 Session I	04/03/020 Session II	05/03/020 Session I	05/03/020 Session II	06/03/2020 Session I	06/03/2020 Session II	Session I	Session II	Remark
1	GOTARNE SARVESH RAMESH	Sarvesh	Sarvesh	Sarvesh	Sarvesh	Sarvesh	Sarvesh	AB		Sarvesh	Sarvesh			
2	DUBEY ROHAN BANSBAHADUR	Rohan	Rohan	Rohan	Rohan	Rohan	Rohan	Rohan	Rohan	AB	Rohan			
3	FARDE BHUSHAN HIRAJI	Bfarde	Bfarde	Bfarde	Bfarde	AB	Bfarde	Bfarde	Bfarde	Bfarde	Bfarde			
4	KHANJODE SHUBHAM SURESH	Sur.	Sur.	Sur.	Sur.	Sur.	Sur.	Sur.	Sur.	Sur.	Sur.			
5	ADHIKARI LALIT BALKRUSHNA	Adhee	Adhee	Adhee	Adhee	AB	Adhee	Adhee	Aad	Aad				
6	TOKE ANIKET SAJAN	Astoke	Astoke	Astoke	Astoke	Astoke	Astoke	Astoke	Astoke	Astoke	Astoke			
7	SHEDAGE PRASHANT MOHAN	Anu	Anu	Anu	Anu	Anu	Anu	Anu	Anu	Anu	Anu			
8	KONDLEKAR KARAN GHANSHYAM	Kn	Kn	Kn	Kn	Kn	Kn	Kn	Kn	Kn	Kn			
9	LATE CHETAN SUNIL	Clate	Clate	Clate	Clate	Clate	Clate	Clate	Clate	Clate	Clate			
10	SONAVANE RAHUL KAILAS	SR	SR	SR	AB	SR	SR	SR	SR	SR	SR			
11	THAKARE ABHISHEKH PRABHAKAR	ABW	ABW	ABW	ABW	ABW	ABW	ABW	ABW	ABW	ABW			
12	GHARAT BHUSHAN ASHOK	Gharat	Gharat	Gharat	Gharat	Gharat	Gharat	Gharat	Gharat	Gharat	Gharat			
13	GODE MAYUR BABAJI	M	M	M	M	M	M	M	M	M	M			
14	MANGLEKAR CHETAN SANTOSH	Cha	Cha	Cha	Cha	Cha	Cha	Cha	Cha	Cha	Cha			
15	NICHIT TEJAS SANTOSH	Ntej	Ntej	Ntej	Ntej	Ntej	Ntej	Ntej	Ntej	Ntej				
16	NOUBATTE RAKESH ANIL	Rh	Rh	AB		Rh	Rh	Rh	Rh	Rh	Rh			
17	PATIL ASHISH SATISH	Sur	Sur	Sur	Sur	Sur	Sur	AB		Sur	Sur			
18	PAWAR JITESH GURUNATH	Pawar	Pawar	Pawar	Pawar	Pawar	AB	Pawar	Pawar	Pawar	Pawar			
19	PRABHU YASH NARENDRA	Yash	Yash	AB	Yash	Yash	Yash	AB		Yash	AB			
20	RIKAME AKASH ASHOK	Akesh	AB	Akesh	AB	Akesh	AB	Akesh	Akesh					
21	SABALE ABHAY DASHRATH	Asable	Asable	Asable	Asable	Asable	Asable	Asable	Asable	Asable	Asable			
22	DHONE SIDDHANT BARKU	D	D	D	D	D	D	D	D	D	D			
23	SAKAT GAURAV PRAKASH	G	G	G	AB	G	G	G	G	G	G			
24	SANDE PRAJVAL VASANT	Prajval	Prajval	AB		Prajval	Prajval	AB		Prajval	Prajval			
25	GHODVINDE NIKHIL PANDHARINATH	N	N	N	N	N	N	N	N	N	N			
26	BHOIR PRANAV RAJENDRA	PRBhoir	AB	PRBhoir	PRBhoir	PRBhoir	AB	PRBhoir	PRBhoir	PRBhoir	PRBhoir			
27	UGALE ULHAS DNYANESHWAR	AB		2	3	AB		3	3	3	3			
28	CHAUDHARI DEVESH NANDKUMAR	Dchoudri	Dchoudri	Dchoudri	Dchoudri	Dchoudri	Dchoudri	Dchoudri	Dchoudri	Dchoudri				

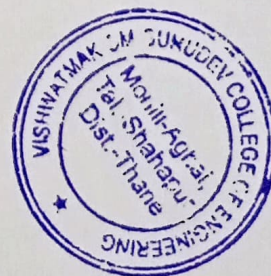| No.	Name	1	2	3	4	5	6	7	8	9	10			
29	CHAUDHARI DHIRAJ SUBHASH	✓	✓	✓	✓	✓	✓	✓	✓	AB	✓			
30	CHAUDHARI PRANAV	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
31	DANDEKAR YOGESH YASHWANT	✓	✓	✓	✓	AB	✓	AB	✓	✓	✓			
32	MESTRI CHINMAY MARUTI	AB	✓	✓	✓	✓	✓	AB	✓	✓	✓			
33	SABALE SANDESH KISHOR	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
34	SAMBARE SANDESH RAVINDRA	✓	✓	✓	AB	✓	AB	✓	AB	✓	✓			
35	CHAUDHARI PAVAN SUBHASH	✓	✓	✓	✓	AB	✓	✓	AB	✓	✓			
36	GAIKWAD SHUBHAM BHASKAR	✓	✓	✓	✓	✓	✓	✓	AB	✓				
37	GUJARI DINESHRAO KESHAV	✓	✓	✓	✓	✓	✓	✓	AB	AB				
38	HAREKAR ROHIT SANJAY	✓	✓	✓	✓	AB	✓	✓	AB	✓	✓			
39	KOR MANGESH ANIL	✓	✓	✓	✓	AB	✓	✓	✓	AB				
40	KOTKAR SANKET GHANSHAM	✓	✓	AB	✓	AB	✓	✓	✓	AB				
41	KUTHE MIRAJ DANISH	✓	✓	✓	✓	✓	✓	AB	✓	AB				
42	BHOIR MAYUR RAMCHANDRA	✓	✓	✓	AB	✓	AB	✓	✓	✓	AB			
43	BHALEKAR ANIKET ANANTA	AB	✓	✓	✓	✓	AB	✓	✓	✓	AB			
44	DALVI KAMINI BHAGWAN	✓	✓	✓	✓	AB	✓	✓	✓	✓				
45	PATIL BHAVESH SUDHIR	✓	✓	✓	✓	AB	✓	✓	✓	✓				
46	PATIL KUMAR JANARDHA	✓	✓	✓	AB	✓	✓	✓	AB	✓				
47	MUNDE AKSHAY HANUMAN	✓	✓	✓	✓	✓	✓	AB	✓	✓				
48	NICHAM OMKAR ASHOK	✓	AB	✓	✓	✓	AB	✓	✓	✓	AB			
49	OGALE VINAYAK SANTOSH	✓	AB	✓	✓	✓	✓	✓	✓	✓				
50	PALVE DATTATRAY DINKAR	✓	✓	✓	✓	✓	✓	✓	✓	AB				
51	PASHTE DEVENDRA TANAJI	✓	✓	AB	✓	AB	✓	✓	✓	AB				
52	PATIL ASHISH VILAS	✓	✓	AB	✓	AB	✓	AB	✓	AB				
53	VISHE SANDESH NAMDEV	✓	AB	✓	✓	AB	✓	✓	AB	✓	AB			
54	GHARAT ADARSH PRABHAKAR	✓	✓	✓	AB	✓	AB	✓	✓	✓	AB			
55	SONAWANE YATISH KISHOR	AB	✓	✓	✓	AB	✓	✓	AB	✓	✓			
56	TAMORE MAYURESH VAIJANATH	✓	✓	✓	✓	AB	✓	AB	✓	✓	AB			
57	THAKARE BOBBY RAMESH	✓	✓	AB	✓	✓	✓	✓	✓	✓				
58	PAWALE TEJAS MAHADEV	✓	✓	✓	✓	AB	✓	AB	✓	✓	AB			
59	SAWANT ANIKET ARVIND	✓	✓	AB	✓	✓	✓	✓	✓	✓				
60	SHAIKH SAHIL MUKHTAR	✓	✓	AB	✓	✓	✓	AB	✓	AB				

One Page Activity Report

- **Faculty Name –** Prof. Mahesh Salunke

- **Date –**02/03/2020-06/03/2020 Timing 10.00AM-05.00 PM

- **Planned Activity –** ADD On Program on 3 D Printing Technology

- **Permission from Authorities –** Dr. Manoj Chavan (Principal)

- **Implementation Details –** The purpose of the workshop is to introduce students to know about the use of 3D Printer for industrial applications and also be able to understand all the fundamental modules of the 3D Printer, such as Cura and Solidworks/Tinkercad software. In this workshop students have studied Solidworks/Tinkercad CAD Tool. They have learned about filaments and printer maintenance. Through this workshop students learnt about hands-on experience on 3 D printers and software.

- **Conclusion –** After completion, this workshop we conclude that students get more benefits from this workshop and they are more familiar with the software. In the market scenario the extra skills are required for getting a good job, so software knowledge is the most important factor of industry. We are very thankful to our Head of Department for giving such good support as well as we are also especially thankful to our President sir and Principal Sir that he was continuously guiding and supporting us.

- **Feedback Report-** Attached

- **Completion Report -**Workshop Successfully completed on 06/03/2020

Coordinator

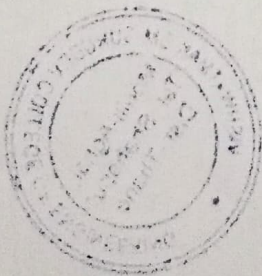**HOD**

Vishwatmak Om Gurudev College of Engineering

VISHWATMAK OM GURUDEV
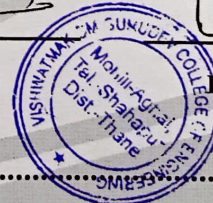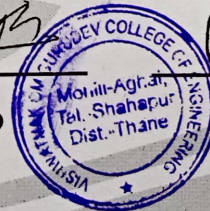**COLLEGE OF ENGINEERING**

Certificate

of Completion

This is to certify that

Mr./Ms. **SHAIKH SAHIL MUKHTAR** of Class SE/TE/BE Mechanical
Engineering has successfully completed the ADD On Course titled "
3 D Printing Technology" organized by Mechanical Engineering
Department from 02/03/2020 to 06/03/2020.

Course Instructor	Program Coordinator	HOD	Principal

Vishwatmak Om Gurudev College of Engineering

Certificate

of Completion

This is to certify that

Mr./Ms. **SAMBARE SANDESH RAVINDRA** of Class SE/TE/BE

Mechanical Engineering has successfully completed the ADD On

Course titled " **3 D Printing Technology**" organized by Mechanical

Engineering Department from 02/03/2020 to 06/03/2020.

VISHWATMAK OM GURUDEV COLLEGE OF ENGINEERING

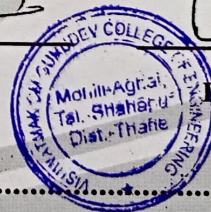| Course Instructor	Program Coordinator	HOD	Principal

Certificate

of Completion

This is to certify that

Mr./Ms. **PATIL ASHISH VILAS** of Class SE/TE/BE Mechanical
Engineering has successfully completed the ADD On Course titled
" **3 D Printing Technology** " organized by Mechanical Engineering
Department from 02/03/2020 to 06/03/2020.

Course Instructor	Program Coordinator	HOD	Principal

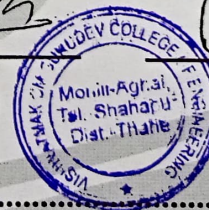# Vishwatmak Om Gurudev College of Engineering

Certificate

of Completion

This is to certify that

Mr./Ms. **PASHTE DEVENDRA TANAJI** of Class SE/TE/BE Mechanical Engineering has successfully completed the ADD On Course titled **" 3 D Printing Technology"** organized by Mechanical Engineering Department from 02/03/2020 to 06/03/2020.

VISHWATMAK OM GURUDEV
COLLEGE OF ENGINEERING

Course Instructor	Program Coordinator	HOD	Principal

Mohili-Aghai,
Tal. Shaharu
Dist. Thane

!! Sabka Malik Atma !!

Vishwatmak Jangli Maharaj Ashram Trust's

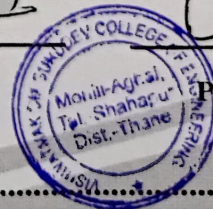# Vishwatmak Om Gurudev College of Engineering

Certificate

of Completion

This is to certify that

Mr./Ms. **BHOIR MAYUR RAMCHANDRA** of Class SE/TE/BE

Mechanical Engineering has successfully completed the ADD On

Course titled *" 3 D Printing Technology"* organized by Mechanical

Engineering Department from 02/03/2020 to 06/03/2020.

VISHWATMAK OM GURUDEV
COLLEGE OF ENGINEERING

Course Instructor	Program Coordinator	HOD	Principal

Mohit Agrsl,
Tal. Shahapur
Dist.-Thane