



**ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA**



DEPARTMENT OF MECHANICAL ENGINEERING

SUMMARY REPORT OF HANDS ON TRAINING ACADEMIC YEAR: 2019-20

Sr. No.	Value added courses	Date of Introduction	Duration of course (Hours)	Number of Students completing the course in the year
1	Computer Aided Manufacturing (CAM)-CNC Programming, Simulation and Manufacturing	02/08/2019 to 30/08/2019	40	75
2	Computer Aided Design (CAD) - Catia V5 R19	07/01/2020 to 05/03/2020	32	75
		07/09/2019 to 30/10/2019	44	75
		11/01/2020 to 07/03/2020	44	70



Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering & Research, Pune-41



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DEPARTMENT OF MECHANICAL ENGINEERING

Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

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DEPARTMENT OF MECHANICAL ENGINEERING

1. Course Details

1	Course Name	Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
2	Duration	44 Hours
3	Date	11/01/2020 to 07/03/2020
4	Students enrolled	70
5	Learners (SE)	SE


Course Coordinator



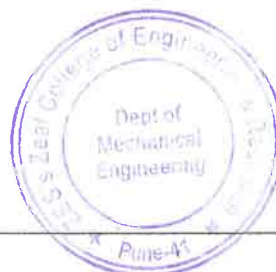

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2. Course Contents

Sr. No.	Details of Module
1	Module 1: Introduction to Catia 1. Workbenches 2. Toolbars 3. Specification Tree 4. Compass 5. Mouse Usage 6. File Operations
2	Module 2: Drawing Sketches in the Sketcher Workbench 1. Invoking the Sketcher Workbench 2. Units, Grid Settings 3. Construction and Standard elements 4. Drawing Sketch objects I 5. Exiting the Sketcher Workbench
3	Module 3: Drawing Sketches in the Sketcher Workbench 1. Drawing Sketch Objects II 2. Modifying sketch Objects 3. Sketch Transformations
4	Module 4: Constraining Sketches and Creating Base Features 1. Constraining Sketches 2. Geometric Constraints 3. Dimensional Constraints 4. Sketch Analysis
5	Module 5: Reference Elements and Sketch 1. Reference Elements 2. Drafted Filleted Pad Features 3. Pocket Features 4. Drafted Filleted Pocket 5. Multi 6. Discussion 7. Groove Discussion 8. Extruding and Revolving Faces
6	Module 6: Creating Dress-Up Hole Features 1. Hole features 2. Discussion 3. Chamfer 4. Discussion 5. Fillets 6. Discussion 7. Draft 8. Discussion






DEPARTMENT OF MECHANICAL ENGINEERING

	9. Shell
7	Module 7: Editing Features 1. Cut, Copy and Paste 2. Deleting Features 3. Deactivating Features 4. Defining the Work Object 5. Discussion 6. Parent Child Relationships 7. Discussion 8. Update Diagnostics
8	Module 8 1. Assembly Design 3. Drafting-To Create Industrial drawing with annotation. 4. Assembly-To assemble more the 2 parts with constraints. 5. Sheet Metal-To create all sheet metal parts with manufacturing concepts. 6. Surfacing-To create complex parts


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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 30/12/2019

Hands on training program on “**Computer Aided Design (CAD) - Catia V5 R19**” for SE students will be conducted from 11/01/2020 to 07/03/2020 in the Department of Mechanical Engineering. The interested students can register to department on or before 06/01/2020.

Course Coordinator



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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Design (CAD) -
Catia V5 R19



List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

Class : BE

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name
1	SHUBHAM VITTHAL GANJARE
2	ABDULRAZAK SHAHID MULLA
3	OMKAR CHANDRAKANT MORE
4	PRANALI RAJENDRA SAWANT
5	SHUBHAM DIPAK PANCHAL
6	DESHMUKH OMKAR RAMHARI
7	KOLEKAR SURAJ KRISHNAJI
8	PRANAV PRADEEP LOKHANDE
9	ASHISH DILIP MAHADIK
10	GAURAV S. TALEKAR
11	KHANDAPPA VILAS VIBHUTE
12	PRATIK NISHIKANT SAWARDEKAR
13	MANOHAR STYANARAYAN TALLA
14	POL SURAJ BALASO
15	HRUSHIKESH PRAKASH KULKARNI
16	AKSHAY PRADEEP KHEDEKAR
17	ROHAN PAMPATTIWAR
18	AKSHAY ARUN GAVALI
19	JAGTAP SIDHESHWER
20	ATHARVA S. DEOKAR

Course Coordinator



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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Design (CAD) -
Catia V5 R19



List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

Class : BE


Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name
1	ABHINKAR ATHARVA NILESH
2	BARBHAI ANIKET KISHOR
3	BAVISKAR AMIT ANIL
4	BHARGUDE ABHISHEK HARISHCHANDRA
5	BHOSALE SUMIT HANMANT
6	GAWADE AMAR GURUNATH
7	GAWADE UDAY KIRAN
8	GODSE ISHWANKU SANJAY
9	JADHAV SWAPNIL UMESH
10	KAKDE KUNDAN DILIP
11	KALE SHUBHAM VASANT
12	KAMBLE VIKRAM RAJAN
13	KASPATE SANKET BAJRANG
14	KATKAR SNEHAL SUDHAKAR
15	KHALADKAR SHUBHAM SUDAM
16	KHAMKAR NILESH MADHUKAR
17	KOLI AVINASH NARSING
18	KONDE ASHITOSH NILESH
19	MASKE SURAJ BALU
20	MHASKE VINAYAK NAMDEO
21	MUNDE ASHWINI VISHNU
22	NAGARGOJE UTKARSHA DASHARATH
23	NAGVANSHI YOGITA KISHOR
24	NIGADE ROHIT SHIVAJI
25	PARAB SWAPNIL RAVINDRA


Course Coordinator




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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Design (CAD) -
Catia V5 R19



**List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD)
- Catia V5 R19**

Academic Year: 2019-2020


Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

**Class : BE
SEM-II**

Sr. No.	Name
1	YADAV ABHISHEK SHIVAJI
2	SOURABH BALKRUSHNA RAUT
3	VISHWAKARMA ATMARAM DAMODAR
4	RANSING SOHAM SANTOSH
5	PATIL HINDURAO KESHAVRAO
6	BHATTA RUTWIK KAILASH
7	KALE ANAND JAGJEEVAN
8	DAIVADNYA GAYATRI MANOHAR
9	KHIRID SUJIT DNYANESHWAR
10	KAMBLE SUSHANT SHARAD
11	PAWAR GANESH LAXMAN
12	SHIVANKAR MRUNAL SUDAM
13	NURAJI AMMAR IQBAL
14	DUDHANE PRASAD PRAKASH
15	HANDE VARUN DILIP
16	MORE ANKIT RAJARAM
17	GHUTE DIVYARAJ MEGHRAJ
18	GAJARE VINAYAK POPAT
19	JAGATAP ABHISHEK RAJENDRA
20	AMANGI CHARUDATTA UDAY
21	MHASAWADE RADHIKA AJIT
22	CHANDANSHIVE AKASH VASANT
23	KORPAD PREM PRAMOD
24	GORAD PRADHIM BALASAHEB
25	YENPURE BHARAT MONOHAR


Course Coordinator




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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training schedule)


Date: 08/01/2020

All enrolled students for Hands on training program on “**Computer Aided Design (CAD) - Catia V5 R19**” are informed that training is scheduled from 11/01/2020 to 07/03/2020. The list of batch wise enrolled students displayed on notice board and details of batches are as follows,

Batch	Time
1	1.00 to 3.00
2	3.00 to 5.00
3	5.00 to 7.00


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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

Class : BE

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name	11-1	16-1	17-1	18-1	23-1	24-1	25-1	30-1	31-1	1-2	6-2	7-2	8-2	13-2	14-2	15-2	20-2	21-2	22-2	53	63	7-3	
1	Shubham Vitthal Ganjare	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Abdulrazak Shahid Mulla	A	P	P	P	P	P	A	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P
3	Omkar Chandrakant More	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
4	Pranali Rajendra Sawant	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P
5	Shubham Dipak Panchal	P	A	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
6	Deshmukh Omkar Ramhari	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
7	Kolekar Suraj Krishnaji	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Pranav Pradeep Lokhande	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
9	Ashish Dilip Mahadik	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P
10	Gaurav S. Talekar	P	A	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Khandappa Vilas Vibhute	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Pratik Nishikant Sawardekar	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Manohar Styanarayan Talla	P	P	P	P	A	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P
14	Pol Suraj Balaso	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Hrushikesh Prakash Kulkarni	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	Akshay Pradeep Khedekar	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P





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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

Sr. No.	Name	11-1	16-1	17-1	18-1	23-1	24-1	25-1	30-1	31-1	1-2	6-2	7-2	8-2	13-2	14-2	15-2	20-2	21-2	22-2	53-23	83	
17	Rohan Pampattiwar	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	R	R	R	R	P	P	P
18	Akshay Arun Gavali	P	P	P	P	P	P	A	P	A	P	P	P	P	P	P	P	P	P	P	R	P	P
19	Jagtap Sidheshwer	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	A	P
20	Atharva S. Deokar	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P


Course Co-ordinator




Head of Department
Head of Department
 Dept. of Mechanical Engineering
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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

Sr. No.	Name	11-16-1	12-1	18-1	23-1	24-1	25-1	30-1	31-1	1-2	6-2	7-2	8-2	13-2	14-2	15-2	20-2	21-2	20-2	25-3	6-3	7-3	
17	Koli Avinash Narsing	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
18	Konde Ashitosh Nilesh	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Maske Suraj Balu	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	A	P
20	Mhaske Vinayak Namdeo	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P
21	Munde Ashwini Vishnu	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P
22	Nagargoje Utkarsha Dasharath	A	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Nagvanshi Yogita Kishor	P	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Nigade Rohit Shivaji	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	A	P
25	Parab Swapnil Ravindra	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



Course Co-ordinator

Head of Department
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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

Class :SBE

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name	11-1	16-1	17-1	18-1	23-1	24-1	25-1	30-1	31-1	1-2	6-2	7-2	8-2	19-2	4-2	15-2	20-2	21-2	22-2	5-3	6-3	7-3	
1	Yadav Abhishek Shivaji	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
2	Sourabh Balkrushna Raut	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
3	Vishwakarma Atmaram Damodar	P	P	A	P	P	A	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Ransing Soham Santosh	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Patil Hindurao Keshavrao	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P
6	Bhatta Rutwik Kailash	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Kale Anand Jagjeevan	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
8	Daivadnya Gayatri Manohar	P	P	P	P	P	A	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P
9	Khirid Sujit Dnyaneshwar	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
10	Kamble Sushant Sharad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Pawar Ganesh Laxman	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Shivankar Mrunal Sudam	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Nuraji Ammar Iqbal	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Dudhane Prasad Prakash	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P
15	Hande Varun Dilip	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
16	More Ankit Rajaram	A	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P





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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

Sr. No.	Name	11-1	16-1	17-1	18-1	20-1	24-1	25-1	30-1	31-1	1-2	6-2	7-2	8-2	13-2	14-2	15-2	20-2	20-2	5-3	6-3	7-3
17	Ghute Divyraj Meghraj	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	A	P	P
18	Gajare Vinayak Popat	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P
19	Jagatap Abhishek Rajendra	A	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
20	Amangi Charudatta Uday	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P
21	Mhasawade Radhika Ajit	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
22	Chandanshive Akash Vasant	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A
23	Korpad Prem Pramod	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P	P
24	Gorad Pradhim Balasaheb	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P
25	Yenpure Bharat Monohar	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	A	P	P	P	P	P



[Signature]

Course Co-ordinator

Head of Department
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DEPARTMENT OF MECHANICAL ENGINEERING

Test on Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

SEM-II

Time: 2 Hrs

Marks: 50

Q.1) Plummer Block Assembly: In this project, you will create the components of the Plummer Block assembly, as shown in Figure 1 and then assemble them. The dimensions of the components are given in Figures 2 through 4.

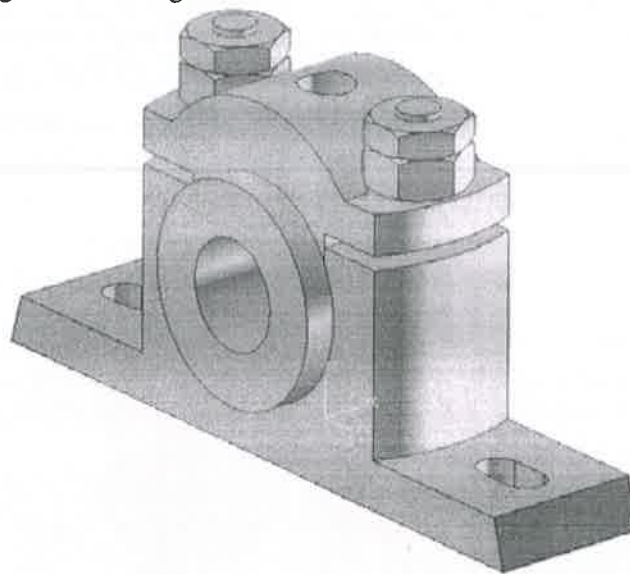


Figure 1 The Plummer Block assembly

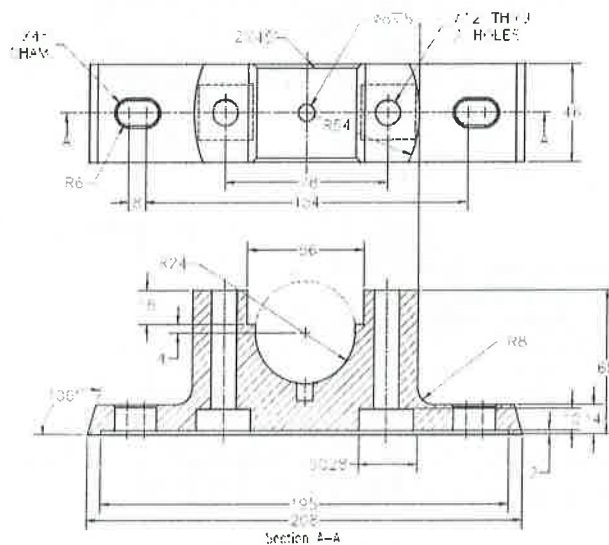


Figure 2 Views and dimensions of the Casting





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Test on Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

SEM-II

Time: 2 Hrs

Marks: 50

Q.1) Butterfly Valve Assembly: Create the components of the Butterfly Valve assembly and then assemble them, as shown in Figure 1. The dimensions of the components are shown in Figures 2 through 7. Assume the missing dimensions.

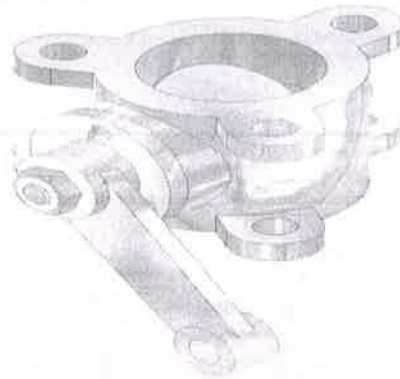


Figure 1 The Butterfly Valve assembly

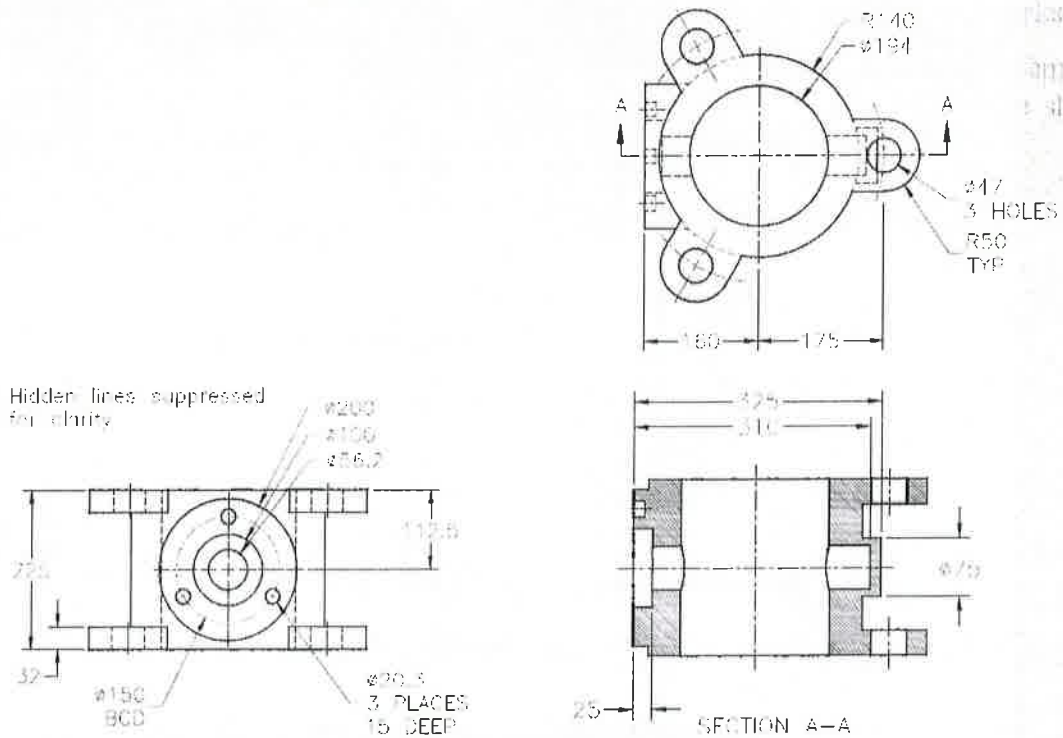


Figure 2 Dimensions of the Body





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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	SHUBHAM VITTHAL GANJARE	16	15	07	38
2	ABDULRAZAK SHAHID MULLA	17	16	08	41
3	OMKAR CHANDRAKANT MORE	15	14	07	36
4	PRANALI RAJENDRA SAWANT	16	17	09	42
5	SHUBHAM DIPAK PANCHAL	18	17	08	43
6	DESHMUKH OMKAR RAMHARI	12	10	07	29
7	KOLEKAR SURAJ KRISHNAJI	14	13	07	34
8	PRANAV PRADEEP LOKHANDE	12	15	08	35
9	ASHISH DILIP MAHADIK	14	16	07	37
10	GAURAV S. TALEKAR	10	12	07	29
11	KHANDAPPA VILAS VIBHUTE	13	14	08	35
12	PRATIK NISHIKANT SAWARDEKAR	14	16	08	38
13	MANOHAR STYANARAYAN TALLA	17	17	08	41
14	POL SURAJ BALASO	16	16	08	40
15	HRUSHIKESH PRAKASH KULKARNI	14	17	08	39
16	AKSHAY PRADEEP KHEDEKAR	18	18	09	45
17	ROHAN PAMPATTIWAR	17	16	08	41
18	AKSHAY ARUN GAVALI	18	17	08	43
19	JAGTAP SIDHESHWER	16	14	07	37
20	ATHARVA S. DEOKAR	15	13	06	34

Course Coordinator



Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	ABHINKAR ATHARVA NILESH	17	16	07	40
2	BARBHAI ANIKET KISHOR	18	16	08	42
3	BAVISKAR AMIT ANIL	13	12	07	32
4	BHARGUDE ABHISHEK HARISHCHANDRA	14	16	07	37
5	BHOSALE SUMIT HANMANT	16	17	07	40
6	GAWADE AMAR GURUNATH	18	16	08	42
7	GAWADE UDAY KIRAN	19	18	09	46
8	GODSE ISHWANKU SANJAY	15	17	08	40
9	JADHAV SWAPNIL UMESH	12	13	07	32
10	KAKDE KUNDAN DILIP	14	13	07	34
11	KALE SHUBHAM VASANT	15	17	08	40
12	KAMBLE VIKRAM RAJAN	18	18	08	44
13	KASPATE SANKET BAJRANG	13	13	06	32
14	KATKAR SNEHAL SUDHAKAR	15	14	07	36
15	KHALADKAR SHUBHAM SUDAM	16	17	08	41
16	KHAMKAR NILESH MADHUKAR	14	14	07	35
17	KOLI AVINASH NARSING	17	18	09	44
18	KONDE ASHITOSH NILESH	16	16	08	40
19	MASKE SURAJ BALU	17	14	08	39
20	MHASKE VINAYAK NAMDEO	16	17	08	41
21	MUNDE ASHWINI VISHNU	15	14	07	36
22	NAGARGOJE UTKARSHA DASHARATH	11	13	06	30
23	NAGVANSHI YOGITA KISHOR	17	16	07	40
24	NIGADE ROHIT SHIVAJI	16	17	08	41
25	PARAB SWAPNIL RAVINDRA	12	13	07	32

Course Coordinator



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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 44 Hours (11/01/20 to 07/03/2020)

SEM-II

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	YADAV ABHISHEK SHIVAJI	17	18	08	43
2	SOURABH BALKRUSHNA RAUT	16	17	08	41
3	VISHWAKARMA ATMARAM DAMODAR	16	15	07	38
4	RANSING SOHAM SANTOSH	14	15	07	36
5	PATIL HINDURAO KESHAVRAO	18	19	08	45
6	BHATTA RUTWIK KAILASH	16	14	07	37
7	KALE ANAND JAGJEEVAN	11	13	06	30
8	DAIVADNYA GAYATRI MANOHAR	14	14	06	34
9	KHIRID SUJIT DNYANESHWAR	15	16	07	38
10	KAMBLE SUSHANT SHARAD	17	18	08	43
11	PAWAR GANESH LAXMAN	15	16	07	38
12	SHIVANKAR MRUNAL SUDAM	16	16	08	40
13	NURAJI AMMAR IQBAL	17	17	08	42
14	DUDHANE PRASAD PRAKASH	16	16	07	39
15	HANDE VARUN DILIP	15	16	07	38
16	MORE ANKIT RAJARAM	18	18	08	44
17	GHUTE DIVYARAJ MEGHRAJ	13	14	07	34
18	GAJARE VINAYAK POPAT	14	11	07	32
19	JAGATAP ABHISHEK RAJENDRA	18	17	08	43
20	AMANGI CHARUDATTA UDAY	16	15	08	39
21	MHASAWADE RADHIKA AJIT	14	17	07	38
22	CHANDANSHIVE AKASH VASANT	18	14	08	40
23	KORPAD PREM PRAMOD	16	15	07	38
24	GORAD PRADHIM BALASAHEB	13	14	06	33
25	YENPURE BHARAT MONOHAR	16	15	08	39

Course Coordinator



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DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
Summary Report**

Academic Year: 2019-20
Class: S.E.

Semester: II

Title of Activity/Event	Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
Date of Activity/Event	11/01/2020 to 07/03/2020
Name of Expert/Trainer	Prof. S. S. Adewar, Prof. M.R. Kalyanshetti
Objective	The aim of this hands on training was to study the implementations of solid modeling and get hands-on experience on CAD modeling. Contents of this course is structured so as to cover the topics like part design, assembly, drafting, wireframe & surface, and Generative Sheet metal Design workbenches of CATIA V5 R19.
Summary	<p>CATIA V5R19 software is a powerful 3D modelling tool to design, simulate, analyse and manufacture everyday life products. This Computer-Aided Design (CAD) program supports precise solid modelling, advanced surface modelling, and detailed analysis and simulation of a 3D model in its operating environment. It is a Cross-Discipline Development platform used in a variety of industries including Aerospace, Automotive, consumer goods, and industrial machinery. Participants in this course will learn the techniques to convert an idea into a real 3D CAD model design. Students will obtain practical experience with CATIA V5R19 complex tools for surfacing and assembly design. They will practice designing parts which can be used in prototyping, 3D Printing, and machining. Students will obtain the skills essential for an entry level CAD drafting position where turning 2D Drawings into 3D Models is valuable.</p> <p>The training was conducted in one batch for second year mechanical engineering students at Machining excellence center of zeal college of engineering and research Pune. To enhance student's expertise in the field of CAD modeling, Hands on training program on Computer Aided Design (CAD)-Catia V5R19 was scheduled at Department of Mechanical Engineering, Zeal College of Engineering and Research.</p> <p>This training is the part of skill development of the second year students to enhance their skill in CAD domain. This was conducted from 11/01/2020 to 07/03/2020 with 44 hrs duration and total 70 students were participated in these hands on training.</p> <p>In the first session was Introduction, Parametric Sketching, Parametric solid modeling, Advance solid modeling tools and Introduction of Surface were discussed. The second session of the workshop was devoted to the hands on experience on CATIA V5R19. The following points were covered through this training.</p> <p>1. Sketcher- To create 2D sketches</p>





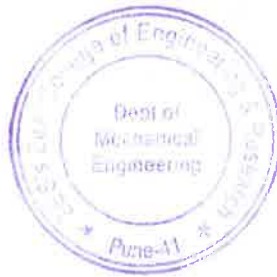
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	<p>2. Part Modeling- To create 3D model 3. Drafting-To Create Industrial drawing with annotation. 4. Assembly-To assemble more the 2 parts with constraints. 5. Sheet Metal-To create all sheet metal parts with manufacturing concepts. 6. Surfacing-To create complex parts</p> <p>Along with above domain also cover industrial design methodology with Industrial standards. The program was coordinated by Prof. S. S. Adewar and Prof M.R. Kalyanshetti under CAD/CAM/ CAE Excellence center.</p>															
POs/PSOs Attained	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
	✓	✓	✓	✓	✓	✓						✓	✓	✓	✓	✓
Outcomes	<p>The students got hands on experience through this program on CAD modeling. It helps to improve the ability to understand basics of part modeling using CATIA V5 interface and application of commands for the modules Sketcher, Part Design, Assembly Design & Drafting.</p>															

Course Coordinator



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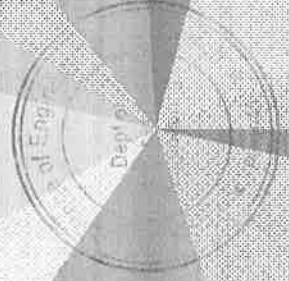
Department of Mechanical Engineering

CERTIFICATE OF APPRECIATION

SHUBHAM VITTHAL GANJARE

for successfully completing Hands-On Training on Computer-Aided Design (CAD) – Catia V5R19 Training Schedule from 11/01/2020 to 07/03/2020 under CAD-CAM Excellence Centre at Department of Mechanical Engineering, Zeal College of Engineering and Research Pune

Dr . A.B. Ubale
HOD, Mechanical Engineering
ZCOER, Pune



Dr. A. M. Kate
Principal,
ZCOER, Pune



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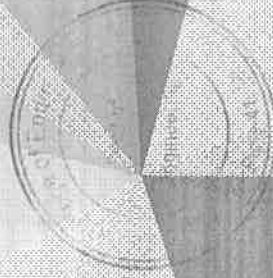
CERTIFICATE OF APPRECIATION

OMKAR CHANDRAKANT MORE

for successfully completing Hands-On Training on Computer-Aided Design (CAD) – Catia V5R19 Training Schedule from 11/01/2020 to 07/03/2020 under CAD-CAM Excellence Centre at Department of Mechanical Engineering, Zeal College of Engineering and Research Pune

Dr . A.B. Ubale

HOD, Mechanical Engineering
ZCOER, Pune



Dr. A. M. Kate

Principal,
ZCOER, Pune



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DEPARTMENT OF MECHANICAL ENGINEERING

Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Index

Sr. No	Particulars
1	Course Details
2	Course Content
3	Notice
4	List of students enrolled
5	Schedule
6	Student attendance
7	Evaluation Details
8	Activity Summary Report
9	Certificate



DEPARTMENT OF MECHANICAL ENGINEERING

1. Course Details

1	Course Name	Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
2	Duration	44 Hours
3	Date	07/09/2019 to 30/10/2019
4	Students enrolled	75
5	Learners (SE)	SE


Course Coordinator




Head of the Department
Head of Department
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DEPARTMENT OF MECHANICAL ENGINEERING

2. Course Contents

Sr. No.	Details of Module
1	Module 1: Introduction to Catia 1. Workbenches 2. Toolbars 3. Specification Tree 4. Compass 5. Mouse Usage 6. File Operations
2	Module 2: Drawing Sketches in the Sketcher Workbench 1. Invoking the Sketcher Workbench 2. Units, Grid Settings 3. Construction and Standard elements 4. Drawing Sketch objects I 5. Exiting the Sketcher Workbench
3	Module 3: Drawing Sketches in the Sketcher Workbench 1. Drawing Sketch Objects II 2. Modifying sketch Objects 3. Sketch Transformations
4	Module 4: Constraining Sketches and Creating Base Features 1. Constraining Sketches 2. Geometric Constraints 3. Dimensional Constraints 4. Sketch Analysis
5	Module 5: Reference Elements and Sketch 1. Reference Elements 2. Drafted Filleted Pad Features 3. Pocket Features 4. Drafted Filleted Pocket 5. Multi 6. Discussion 7. Groove Discussion 8. Extruding and Revolving Faces
6	Module 6: Creating Dress-Up Hole Features 1. Hole features 2. Discussion 3. Chamfer 4. Discussion 5. Fillets 6. Discussion 7. Draft 8. Discussion






DEPARTMENT OF MECHANICAL ENGINEERING

	9. Shell
7	Module 7: Editing Features 1. Cut, Copy and Paste 2. Deleting Features 3. Deactivating Features 4. Defining the Work Object 5. Discussion 6. Parent Child Relationships 7. Discussion 8. Update Diagnostics
8	Module 8 1. Assembly Design 3. Drafting-To Create Industrial drawing with annotation. 4. Assembly-To assemble more the 2 parts with constraints. 5. Sheet Metal-To create all sheet metal parts with manufacturing concepts. 6. Surfacing-To create complex parts


Course Coordinator




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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 26/08/2019

Hands on training program on “**Computer Aided Design (CAD) - Catia V5 R19**” for SE students will be conducted from 07/09/2019 to 30/10/2019 in the Department of Mechanical Engineering. The interested students can register to department on or before 02/09/2019.

Course Coordinator



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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Design (CAD) -
Catia V5 R19



List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD)
- Catia V5 R19

Academic Year: 2019-2020

Class : BE


Duration of Course: 44 Hours (07/09/2019 to 30/10/2019)

SEM-I

Sr. No.	Name
1	MORE SNEHAL ROHIDAS
2	TAPSE AKSHAY SUNILRAO
3	MAWAL TUSHAR SUBHASH
4	KOHADE RAJAT RAMDAS
5	KHUSTULE TEJAS PRAVIN
6	GAPAT RAJKUMAR ANKUSH
7	KOTWAL UMER PASHA
8	KUDALE PRANAV HEMANT
9	BHALE ASHWIN JITENDRA
10	NADRE DIPAK YASHWANTA
11	SUTAR OMKAR SHANKAR
12	SANAP NIKHIL POPAT
13	SHETE PRATIK PRAVIN
14	GADADE SWAPNIL NILKANTH
15	ALASE HARSHVARDHAN CHANDRAKANT
16	YADAV AKASH ARJUN
17	JADHAV DHIRAJ VIJAYKUMAR
18	RATHOD AVISHKAR RAJARAM
19	ADSUL SUNIL ARJUN
20	BHISE BAJARANG VASANTRAO
21	DHONDGE TIRUPATI VITHALRAO
22	GHADWALE PRANAV KIRAN
23	PATIL RUSHIKESH SHARAD
24	SASTIKAR ABHIRAM SHRIKANT
25	GUND VISHAL ACHYUT


Course Coordinator




Head of Department
Dept. - Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training schedule)


Date: 04/09/2019

All enrolled students for Hands on training program on “**Computer Aided Design (CAD) - Catia V5 R19**” are informed that training is scheduled from 07/09/2019 to 30/10/2019. The list of batch wise enrolled students displayed on notice board and details of batches are as follows,

Batch	Time
1	1.00 to 3.00
2	3.00 to 5.00
3	5.00 to 7.00


Course Coordinator




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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

List of the Students Enrolled for Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

Class : SE

Duration of Course: 44 Hours (07/09/2019 to 30/10/2019)

SEM-I

Sr. No.	Name	7-9	9-9	10-9	11-9	16-9	17-9	18-9	23-9	24-9	25-9	30-9	1-10	14-10	15-10	21-10	22-10	23-10	24-10	28-10	29-10	30-10	
1	More Snehal Rohidas	P	P	A	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P
2	Tapse Akshay Sunilrao	P	P	P	P	A	A	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P
3	Mawal Tushar Subhash	P	A	P	P	P	P	A	P	P	P	P	A	A	P	P	P	P	A	P	P	P	P
4	Kohade Rajat Ramdas	A	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	A	P	P
5	Khustule Tejas Pravin	P	P	A	P	P	P	P	P	P	A	P	P	A	P	P	P	P	A	P	P	P	P
6	Gapat Rajkumar Ankush	P	P	P	A	P	P	P	A	P	P	P	P	P	A	P	P	P	A	P	A	P	P
7	Kotwal Umer Pasha	P	A	P	P	P	P	P	P	A	P	P	P	A	A	P	P	P	A	P	A	P	P
8	Kudale Pranav Hemant	A	A	P	P	P	A	P	P	P	A	P	P	P	A	P	P	P	A	P	A	P	P
9	Bhale Ashwin Jitendra	A	A	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P
10	Nadre Dipak Yashwanta	P	P	A	P	P	P	P	P	A	P	P	P	P	A	P	P	P	A	P	P	P	P
11	Sutar Omkar Shankar	P	A	P	A	P	A	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P
12	Sanap Nikhil Popat	A	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	A	P	P	P	P
13	Shete Pratik Pravin	P	P	A	P	A	P	P	P	P	P	P	P	P	A	P	P	P	A	P	P	P	P
14	Gadade Swapnil Nilkanth	A	A	P	P	P	P	P	A	P	P	P	P	P	A	P	P	P	A	P	P	P	P
15	Alase Harshvardhan Chandrakant	P	P	P	A	P	P	P	P	A	P	P	P	P	P	P	P	P	A	P	P	P	P
16	Yadav Akash Arjun	P	P	A	P	A	P	A	P	P	P	P	P	P	A	P	P	P	A	P	A	P	P





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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

Sr. No.	Name	29	9-9	16-9	11-9	16-9	12-9	18-9	23-9	24-9	25-9	30-9	1-10	14-10	15-10	18-10	21-10	28-10	29-10	30-10	
17	Jadhav Dhiraj Vijaykumar	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A
18	Rathod Avishkar Rajaram	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Adsul Sunil Arjun	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
20	Bhise Bajarang Vasantao	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Dhondge Tirupati Vithalrao	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
22	Ghadwale Pranav Kiran	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Patil Rushikesh Sharad	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Sastikar Abhiram Shrikant	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
25	Gund Vishal Achyut	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P



(Signature)

Course Co-ordinator

(Signature)

Head of Department

Head of Department
Dept. of Mechanical Engineering
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HANDS-ON-TRAINING ON Computer Aided Design (CAD) - Catia V5 R19

Sr. No.	Name	7-9	9-9	10-9	11-9	16-9	17-9	18-9	23-9	24-9	25-9	30-9	1-10	14-10	15-10	16-10	21-10	22-10	24-10	28-10	29-10	30-10	
17	Gulve Kunal Narendra	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P
18	Arkal Varun Sunil	A	P	P	A	A	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
19	Upade Aniket Mahadev	A	P	A	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
20	Patil Abhijeet Namdeo	P	P	A	P	A	P	P	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P
21	Dange Prathamesh Manojkumar	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	P
22	Harde Ganesh Shankar	P	P	A	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P	A
23	Rawoot Faizan Moosa	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P
24	Parekh Smit Milind	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P
25	Sakpal Aniket Mangesh	P	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P	P	P	P	P	P



[Signature]
Course Co-ordinator

[Signature]
Head of Department
 Dept. of Mechanical Engineering
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Sr. No.	Name	7-9	9-9	10-9	11-9	16-9	17-9	18-9	23-9	24-9	25-9	30-9	1-10	14-10	15-10	18-10	21-10	22-10	24-10	28-10	29-10	30-10	
17	Chavan Pooja Hajimalang	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
18	Shaikh Nooruddin Nasiruddin	P	P	P	A	P	P	P	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P
19	Navale Pravin Vilas	P	P	P	P	A	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P
20	Rohit Dattatray Rajivade	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Patil Saurabh Subhash	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P
22	Sankpal Sourabh Hanumant	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	A	P	P	P
23	Rekhale Prashant Shrimant	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	A	A	P	P	P	P
24	Shelke Mayuresh Shahuraj	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P	P	P	A	P
25	Sourabh Balkrushna Raut	P	A	P	P	P	P	P	P	P	P	P	A	P	P	P	P	P	P	P	P	P	P

(Signature)

Course Co-ordinator



(Signature)

Head of Department

Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

Test on Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

SEM-I

Time: 2 Hrs

Marks: 50

Q. 1) Double Bearing: In this project, you will create the Double Bearing assembly shown in Figure 1. The exploded state of the assembly is shown in Figure 2 and the dimensions of the components of the Double Bearing assembly are shown in Figures 3 through 7.

Double Bearing Assembly

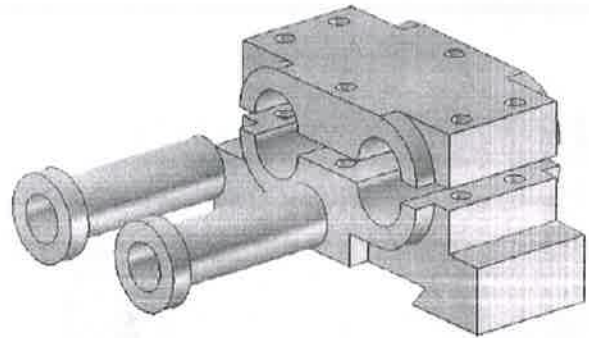
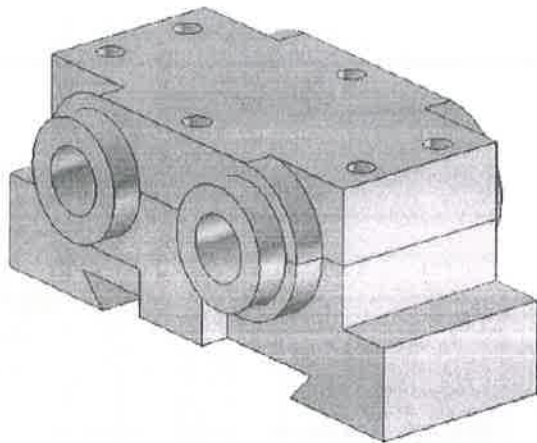


Figure 1 The completed Double Bearing assembly

Figure 2 The exploded view of the Double Bearing assembly

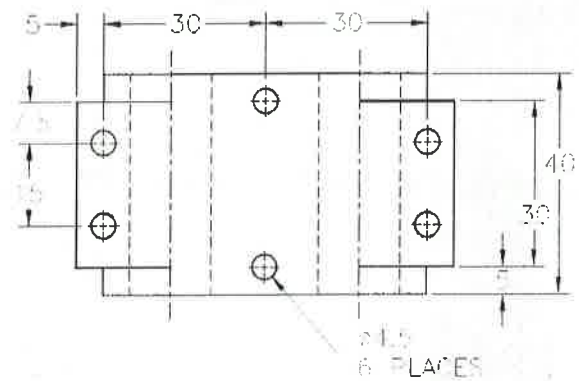
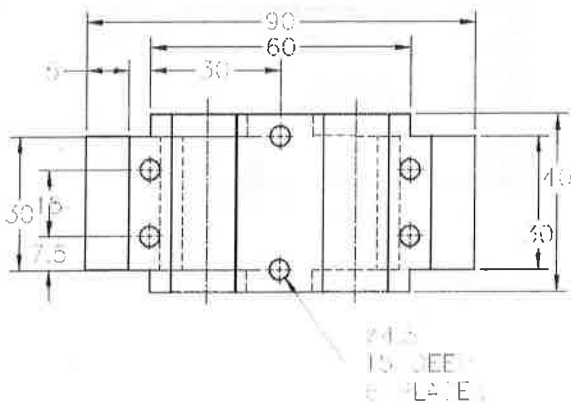


Figure 3 Top view of the Base

Figure 4 Top view of the Cap





DEPARTMENT OF MECHANICAL ENGINEERING

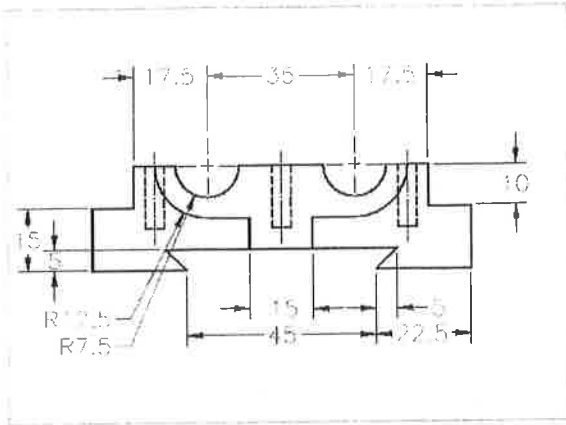


Figure 5 Front view of the Base

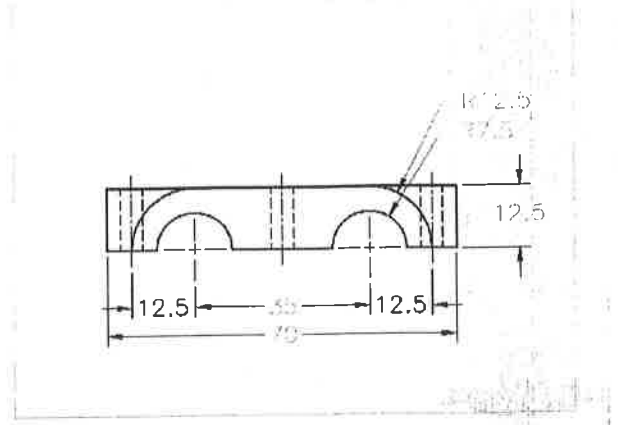


Figure 6 Front view of the Cap

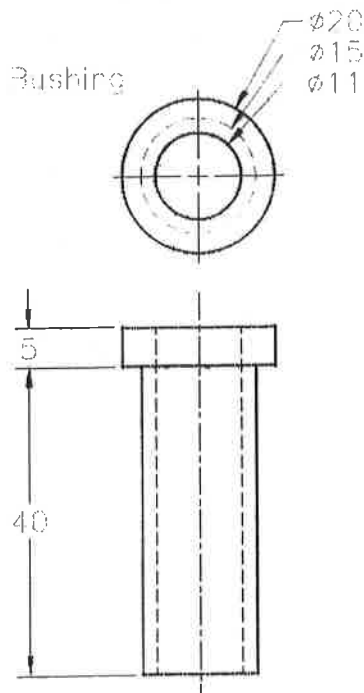


Figure 7 Dimensions and drawing views of the Bushing and the Bolt


Course Coordinator


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Head of Department
Dept. of Mechanical Engineering
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& Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

Test on Hands on Training on Computer Aided Design (CAD) - Catia V5 R19

Academic Year: 2019-2020

SEM-I

Time: 2 Hrs

Marks: 50

Q.2) Press Tool Assembly: In this project, you will create the Press Tool assembly shown in Figure 1. The exploded state of the assembly is shown in Figure 2 and the dimensions of the components of the Press Tool assembly are shown in Figures 2 through 5.

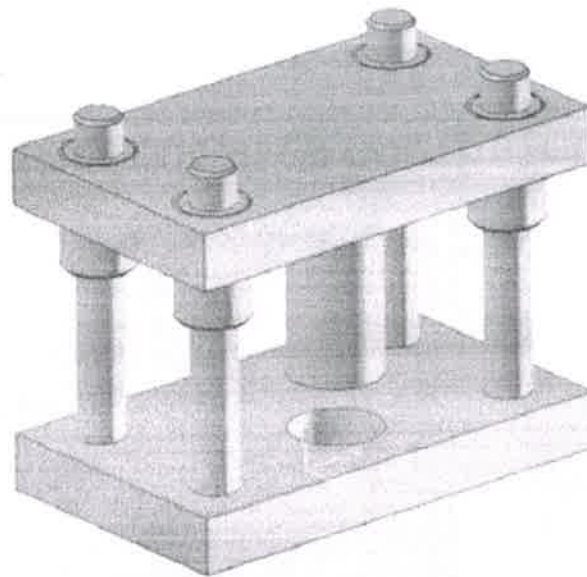


Figure 1 The completed Press Tool assembly after assembling the Top Plate with the assembly

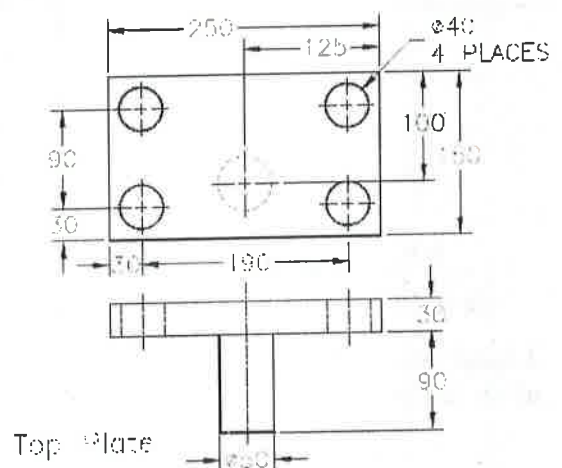
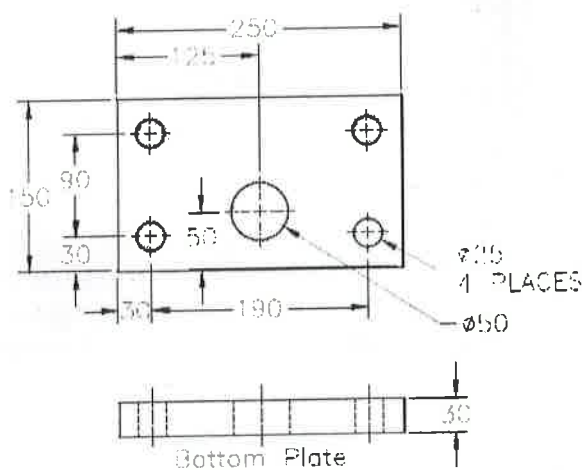


Figure 3 Figure showing the Bottom Plate **Figure 4** Dimensions and views of the Top Plate





DEPARTMENT OF MECHANICAL ENGINEERING

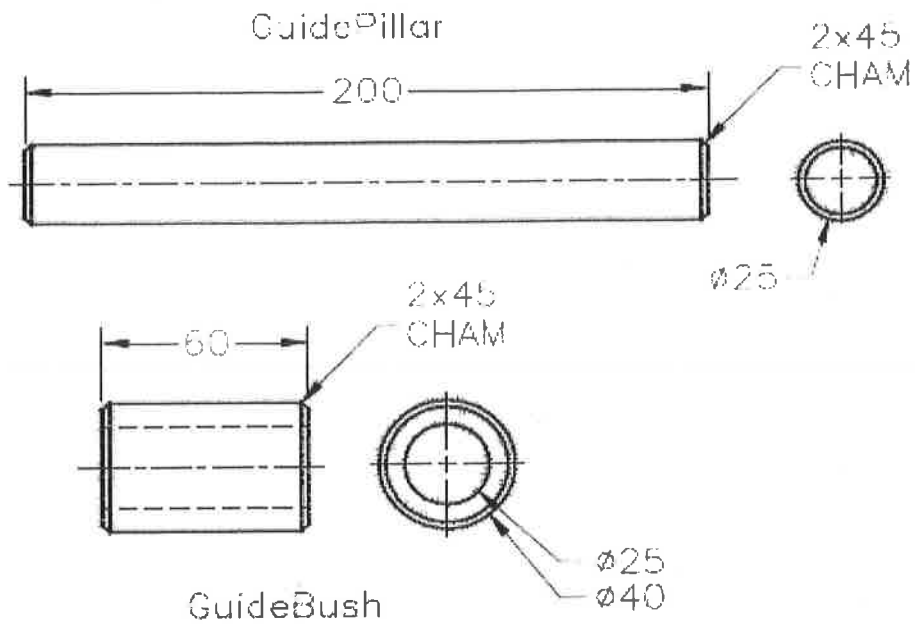


Figure 5 Dimensions and views of the Guide Pillar and Guide Bush

Course Coordinator

Head of the Department
Head of Department
Department of Mechanical Engineering
ZEAL College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 40 Hours (07/09/2019 to 30/10/2019)

SEM-I

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	MORE SNEHAL ROHIDAS	17	15	08	40
2	TAPSE AKSHAY SUNILRAO	14	15	07	36
3	MAWAL TUSHAR SUBHASH	16	16	07	39
4	KOHADE RAJAT RAMDAS	18	17	07	42
5	KHUSTULE TEJAS PRAVIN	16	15	08	39
6	GAPAT RAJKUMAR ANKUSH	13	14	06	33
7	KOTWAL UMER PASHA	15	16	08	39
8	KUDALE PRANAV HEMANT	18	17	08	43
9	BHALE ASHWIN JITENDRA	16	17	09	42
10	NADRE DIPAK YASHWANTA	14	13	06	33
11	SUTAR OMKAR SHANKAR	13	15	06	34
12	SANAP NIKHIL POPAT	18	17	07	42
13	SHETE PRATIK PRAVIN	19	18	08	45
14	GADADE SWAPNIL NILKANTH	16	17	07	40
15	ALASE HARSHVARDHAN CHANDRAKANT	17	18	08	43
16	YADAV AKASH ARJUN	12	13	06	31
17	JADHAV DHIRAJ VIJAYKUMAR	17	18	07	42
18	RATHOD AVISHKAR RAJARAM	14	16	08	38
19	ADSUL SUNIL ARJUN	15	13	06	34
20	BHISE BAJARANG VASANTRAO	16	17	07	40
21	DHONDGE TIRUPATI VITHALRAO	18	17	08	43
22	GHADWALE PRANAV KIRAN	11	13	07	31
23	PATIL RUSHIKESH SHARAD	16	15	07	38
24	SASTIKAR ABHIRAM SHRIKANT	15	14	06	35
25	GUND VISHAL ACHYUT	18	17	08	43

Course Coordinator



Head of the Department

Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 40 Hours (07/09/2019 to 30/10/2019)

SEM-I

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	MORE MAYUR KAILAS	16	17	08	41
2	MORE YASH SHANKAR	15	17	07	39
3	PARMAR NARESH JAGDISH	13	14	06	33
4	SHIRKE VIRAJ KUMAR	14	17	08	39
5	TEKALE GANESH VISHNU	18	17	08	43
6	WAGHMODE RUTURAJ HANUMANT	16	15	07	38
7	DOHALE GAURAV GENDLAL	16	17	07	40
8	TAWAR RAJSING SURATSING	17	18	09	44
9	SARADGI HANMANATH RACHANNA	14	16	07	37
10	POTDAR SHUBHAM SURESH	18	14	08	40
11	PAWAR ANIKET DNYANESHWAR	17	17	08	42
12	KADAM SURAJ KALYAN	15	16	07	38
13	BARGAJE AJAY DAJIBA	16	17	08	41
14	DAKVE BHAVESH SURESH	12	13	06	31
15	KOTHALKAR SAHIL DNYANESHWAR	14	15	07	36
16	GUNGE VINIT DHANANJAY	16	17	08	41
17	GULVE KUNAL NARENDRA	17	17	08	42
18	ARKAL VARUN SUNIL	12	12	06	30
19	UPADE ANIKET MAHADEV	14	15	07	36
20	PATIL ABHIJEET NAMDEO	17	16	07	40
21	DANGE PRATHAMESH MANOJKUMAR	18	17	08	43
22	HARDE GANESH SHANKAR	16	17	07	40
23	RAWOOT FAIZAN MOOSA	18	18	08	44
24	PAREKH SMIT MILIND	16	16	07	39
25	SAKPAL ANIKET MANGESH	15	17	08	37

Course Coordinator



Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Design (CAD) -
Catia V5 R19**

Academic Year: 2019-2020

Duration of Course: 40 Hours (07/09/2019 to 30/10/2019)

SEM-I

Sr. No.	Name	Part Modelling (20)	Assembly Modelling (20)	Drafting (10)	Total Marks (50)
1	AKERKAR OMKAR SHARAD	18	17	07	42
2	ASMAR SHARDUL VINOD	16	18	08	42
3	BHOJ AKSHAY ANIL	15	17	08	40
4	CHATE MADHUSUDAN TUKARAM	14	14	07	35
5	GAIKWAD VIVEKANAND RAJENDRA	16	17	08	41
6	KASHID CHANDRAKANT BABAN	14	15	07	36
7	MAHESH SUNIL MORE	16	16	08	40
8	SAKPAL SHUBHAM DEVENDRA	18	17	08	43
9	NINAD INAMDAR BHIRDIKAR	15	14	07	36
10	ZALTE AMIT SUNIL	11	13	06	30
11	DEOKAR SURAJ ANIL	13	14	07	34
12	SALVE RAHUL SUNIL	16	17	08	41
13	NARALE AMEYA LAHU	15	17	07	39
14	ABDUL MALEQUE	16	17	08	41
15	GHOSPURKAR SHIVANI RAJAN	17	14	07	38
16	GOGAWALE TANMAY PRASHANT	14	13	07	34
17	CHAVAN POOJA HAJIMALANG	15	16	06	37
18	SHAIKH NOORUDDIN NASIRUDDIN	12	11	07	30
19	NAVALE PRAVIN VILAS	18	17	07	42
20	ROHIT DATTATRAY RAJIVADE	17	18	09	44
21	PATIL SAURABH SUBHASH	13	14	07	34
22	SANKPAL SOURABH HANUMANT	15	17	08	40
23	REKHALE PRASHANT SHRIMANT	16	17	08	41
24	SHELKE MAYURESH SHAHURAJ	18	16	07	41
25	SOURABH BALKRUSHNA RAUT	16	17	08	41

Course Coordinator



Head of the Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



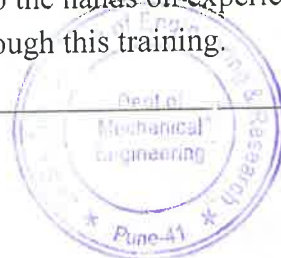
DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
Summary Report**

Academic Year: 2019-20
Class: S.E.

Semester: I

Title of Activity/Event	Hands on Training on Computer Aided Design (CAD) - Catia V5 R19
Date of Activity/Event	07/09/2020 to 30/10/2020
Name of Expert/Trainer	Prof. M.R. Kalyanshetti
Objective	The aim of this hands on training was to study the implementations of solid modeling and get hands-on experience on CAD modeling. Contents of this course is structured so as to cover the topics like part design, assembly, drafting, wireframe & surface, and Generative Sheet metal Design workbenches of CATIA V5 R19.
Summary	<p>CATIA V5R19 software is a powerful 3D modelling tool to design, simulate, analyse and manufacture everyday life products. This Computer-Aided Design (CAD) program supports precise solid modelling, advanced surface modelling, and detailed analysis and simulation of a 3D model in its operating environment. It is a Cross-Discipline Development platform used in a variety of industries including Aerospace, Automotive, consumer goods, and industrial machinery. Participants in this course will learn the techniques to convert an idea into a real 3D CAD model design. Students will obtain practical experience with CATIA V5R19 complex tools for surfacing and assembly design. They will practice designing parts which can be used in prototyping, 3D Printing, and machining. Students will obtain the skills essential for an entry level CAD drafting position where turning 2D Drawings into 3D Models is valuable.</p> <p>To enhance student's expertise in the field of CAD modeling, Hands on training program on Computer Aided Design (CAD)-Catia V5R19 was scheduled at Department of Mechanical Engineering, Zeal College of Engineering and Research. The training was conducted in one batch for second year mechanical engineering students at Machining excellence center of zeal college of engineering and research Pune.</p> <p>This training is the part of skill development of the second year students to enhance their skill in CAD domain. This was conducted from 07/09/2020 to 30/10/2020 with 44 hrs duration and total 75 students were participated in these hands on training.</p> <p>In the first session was Introduction, Parametric Sketching, Parametric solid modeling, Advance solid modeling tools and Introduction of Surface were discussed. The second session of the workshop was devoted to the hands-on experience on CATIA V5R19.</p> <p>The following points were covered through this training.</p> <ol style="list-style-type: none">1. Sketcher- To create 2D sketches





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	<p>2. Part Modeling- To create 3D model 3. Drafting-To Create Industrial drawing with annotation. 4. Assembly-To assemble more the 2 parts with constraints. 5. Sheet Metal-To create all sheet metal parts with manufacturing concepts. 6. Surfacing-To create complex parts Along with above domain also cover industrial design methodology with Industrial standards. The program was coordinated by Prof M.R. Kalyanshetti under CAD/CAM/CAE Excellence center.</p>															
POs/PSOs Attained	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
	✓	✓	✓	✓	✓	✓						✓	✓	✓	✓	✓
Outcomes	<p>The students got hands on experience through this program on CAD modeling. It helps to improve the ability to understand basics of part modeling using CATIA V5 interface and application of commands for the modules Sketcher, Part Design, Assembly Design & Drafting.</p>															


Course Coordinator




Head of the Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



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ZEAL COLLEGE OF ENGINEERING & RESEARCH, PUNE

Department of Mechanical Engineering

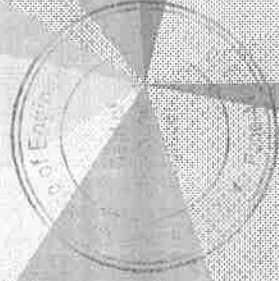
CERTIFICATE OF APPRECIATION

MORE SNEHAL ROHIDAS

for successfully completing Hands-On Training on Computer-Aided Design (CAD) – Catia V5R19 Training Schedule from 07/09/2019 to 30/10/2019 under CAD-CAM Excellence Centre at Department of Mechanical Engineering, Zeal College of Engineering and Research Pune

Dr . A.B. Ubale

HOD, Mechanical Engineering
ZCOER, Pune



Dr. A. M. Kate

Principal,
ZCOER, Pune





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ZEAL COLLEGE OF ENGINEERING & RESEARCH, PUNE

Department of Mechanical Engineering

CERTIFICATE OF APPRECIATION

TAPSE AKSHAY SUNILRAO

for successfully completing Hands-On Training on Computer-Aided Design (CAD) – Catia V5R19 Training Schedule from 07/09/2019 to 30/10/2019 under CAD-CAM Excellence Centre at Department of Mechanical Engineering, Zeal College of Engineering and Research Pune

Dr . A.B. Ubale

HOD, Mechanical Engineering
ZCOER, Pune



Dr. A. M. Kate

Principal,
ZCOER, Pune



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DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

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1	Course Details
2	Course Content
3	Notice
4	List of students enrolled
5	Schedule
6	Student attendance
7	Evaluation Details
8	Activity Summary Report
9	Certificate



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DEPARTMENT OF MECHANICAL ENGINEERING

1. Course Details

1	Course Name	Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing
2	Duration	40 Hours
3	Date	2/08/2019 to 30/8/2019
4	Students enrolled	75
5	Learners	BE


Course Coordinator




**Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

2. Course Contents

Sr. No.	Details of Module	Hours
1	Introduction to CAM, Conventional & advance machining, Overview of CNC & VMC machines	3
2	Different types of controls, operation & tools	3
3	Machining parameters : Spindle Speed, Feed rate, Depth of cut	3
4	Preparatory & Miscellaneous Codes (G & M codes)	3
5	Introduction to CAM, Conventional & advance machining, Overview of CNC & VMC machines	3
6	Manual codes for CNC & VMC machines	3
7	Canned cycle program, Examples	3
8	Concept of CAD & neutral file format (IGES & STP)	3
9	Introduction to Master-CAM 9.0 Software Initial settings.	3
10	File format, unit setting, 2D drawing generation for turning operation, Raw material setting & Tool parameters.	3
11	Different types of operations (Rough Turning, Finishing, Grooving, Drilling, Milling, Threading)	1
12	Canned cycle program in Master-CAM,	1
13	Introduction to DO-NC Simulator, Initial settings, GUI, Tool offset settings, Tool management, Tooling parameters, MPP generation	1
14	Hands-on practice on Simulator	1
15	Hands-on practice on Simulator	1
16	Hands-on practice on industrial grade CNC & VMC machine by using G & M codes- 1	1
17	Hands-on practice on industrial grade CNC & VMC machine by using G & M codes- 2	1
18	Hands-on practice on industrial grade CNC & VMC machine by using G & M codes- 3	1
19	Revision, Doubt Solving,	1
20	Test and evaluation.	1


Course Coordinator




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Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 20/07/2019

All the students of Mechanical Engineering department are hereby informed that department is launching special hands on Training program on “Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing” for BE students, from 02/08/19 to 30/08/2019. The interested students can register to department office before 27/07/2019.


Course Coordinator




Head of the Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours 02/08/2019 to 30/08/2019 SEM-I

Sr. No.	Name
1	PANCHAL SHUBHAM DEEPAK
2	PANGALE MANOJ RAMESH
3	PANSARE ARSHAD ASLAM
4	PARDESHI SHUBHAM RAHUL
5	PATIL GIRISH ANIL
6	PATIL KALPESH DIPAK
7	PATIL PRAJAKTA JAYASING
8	PATIL RAHUL RAJKUMAR
9	PATIL RAJKUMAR BALKRISHNA
10	PATIL YASH NITIN
11	PAWAR PRAJWAL LAXMAN
12	PIDURKAR SURAJ DINKAR
13	POKALE PRATHMESH RAJENDRA
14	PUSHPAKAR AYUSH ASHOKKUMAR
15	RAGHUWANSHI AMIT DEEPAK
16	RAUT HRUSHIKESH DEEPAK
17	SAHANI NILESH MAHAVEER
18	SANAS ABHISHEK BHAGWAN
19	SANGLE SAGAR EKNATH
20	SARDA NIRAJ RAJESH
21	SATHE SHRISH DILIP
22	SAWANT PRANALI RAJENDRA
23	SAWANT SAURABH JALINDHAR
24	SAWKAR ANUJ NITIN
25	SHAH KAUSTUBH RAKESH


Course Coordinator




Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019) SEM-I

Sr. No.	Name
1	AGASHE ATHARVA YOGESH
2	BHAGADE SAGAR VIJAY
3	BHANDARE HARDIK SUNIL
4	BHILARE RAVIRAJ ULHAS
5	BHOLE TEJAS SANJAY
6	BORADE YOGESH LAXMAN
7	CHAVAN PRASAD RAMCHANDRA
8	CHOGALE ANIKET MAHENDRA
9	CHOUDHARY OMKAR SANJAY
10	DALWALE RAHUL SANJAY
11	DAULE ASHUTOSH JAYSING
12	DEOKAR MAHESH JAYAVANT
13	DESAI KRISHNA GOVIND
14	DESHMUKH OMKAR DADASAHEB
15	DESHMUKH OMKAR RAMHARI
16	DHANAWADE RAKESH SAMBHAJI
17	JADHAV SANKET UMESH
18	JADHAV SHARDOOL SANJAY
19	JAGTAP YASH NANDKISHOR
20	JOSHI ANIKET PRADIP
21	KARADE SUYOG SARJERAO
22	KESARKAR AMAR ANANDA
23	KHADSE PRATIK SHRIKRUSHNA
24	JADHAV SANKET UMESH
25	JADHAV SHARDOOL SANJAY

Course Coordinator



Head of Department
Head of Department
Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours 02/08/2019 to 30/08/2019 SEM-**I**

Sr. No.	Name
1	KUMBHAR ABHISHEK VIJAY
2	KUMBHAR SAURABH DATTATRAY
3	LAD SUNIL KRISHNAT
4	LAGHATE PRATIK UMESH
5	LOKHANDE PRANAV PRADEEP
6	MAHADIK ASHISH DILIP
7	MAKHALE ROHAN BABURAO
8	MALI NIKHIL PRALHAD
9	MULIK PANKAJ SHANKAR
10	NALAWADE SHUBHAM KISHOR
11	NAVALE SURAJ JANU
12	PACHFULE AMOL RAMRAO
13	PASHAN AKSHAY VIVEK
14	PATHAN UBED AFSAR
15	PATIL AKSHAY TANAJI
16	PATIL SHUBHAM VIJAY
17	PATIL SURAJ SANJAY
18	SALUNKHE HARSHAWARDHAN SAMBHAJI
19	SALUNKHE PRAVIN SADASHIV
20	SATPUTE OMKAR ASHOK
21	SAWARDEKAR PRATIK NISHIKANT
22	SHELKE NIKHIL NANDKUMAR
23	SHINDE ANIKET SATISH
24	SHINDE NILESH BABAN
25	SHINGARE VAIBHAV VIKAS


Course Coordinator




Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 29/07/2019


All the enrolled students for Hands on Training program on “**Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing**” are hereby informed that training is scheduled from 02/08/19 to 30/08/2019. The batch wise schedule is given below,

SN	Batch	Time
1	Batch 1	1.00 pm to 3.00 pm
	Batch 2	3.00 pm to 05.00 pm
	Batch 3	05.00 pm to 07.00 pm

The batch wise list of enrolled students is displayed on Notice board.


Course Coordinator




Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
 NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019) **SEM-III**

Sr. No.	Name	02/08	03/08	05/08	06/08	07/08	08/08	09/08	10/08	12/08	13/08	14/08	16/08	17/08	19/08
1	Panchal Shubham Deepak	A	P	P	P	P	P	P	P	P	P	P	P	A	P
2	Pangale Manoj Ramesh	P	P	P	P	A	P	P	P	P	A	P	P	P	A
3	Pansare Arshad Aslam	P	P	A	P	P	P	A	P	P	P	P	A	P	P
4	Pardeshi Shubham Rahul	P	P	P	A	P	P	P	P	P	P	A	P	P	P
5	Patil Girish Anil	P	P	P	P	P	P	P	A	P	P	P	P	P	P
6	Patil Kalpesh Dipak	A	P	P	P	P	P	P	A	P	P	P	P	P	P
7	Patil Prajakta Jayasing	P	A	P	P	P	P	P	P	A	P	A	P	P	P
8	Patil Rahul Rajkumar	P	P	A	P	P	P	P	P	A	P	P	P	A	P
9	Patil Rajkumar Balkrishna	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Patil Yash Nitin	P	P	P	P	A	P	P	P	P	A	P	P	P	P
11	Pawar Prajwal Laxman	A	P	A	P	P	P	A	P	P	P	P	P	P	A
12	Pidurkar Suraj Dinkar	P	P	P	P	P	P	P	P	P	A	P	P	P	P
13	Pokale Prathmesh Rajendra	P	P	P	P	A	P	P	P	P	P	P	P	P	P
14	Pushpakar Ayush Ashokkumar	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Raghuvanshi Amit Deepak	A	P	A	P	P	P	P	P	P	A	P	P	P	P





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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	21/8	3/8	5/8	6/8	7/8	8/8	9/8	10/8	12/8	13/8	14/8	16/8	17/8	19/8
16	Raut Hrushikesh Deepak	P	P	A	P	P	P	P	P	P	P	P	P	P	P
17	Sahani Nilesh Mahaveer	A	P	P	P	A	P	P	A	P	A	P	P	A	P
18	Sanas Abhishek Bhagwan	P	P	P	P	P	A	P	P	P	P	A	P	P	P
19	Sangle Sagar Eknath	P	A	P	P	P	P	P	P	P	A	P	P	P	A
20	Sarda Niraj Rajesh	A	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Sathe Shrish Dilip	P	P	P	P	P	P	P	P	A	P	P	P	P	P
22	Sawant Pranali Rajendra	P	A	P	P	A	P	P	P	P	P	P	P	P	A
23	Sawant Saurabh Jalindhar	P	P	P	P	P	P	P	A	P	P	P	A	P	P
24	Sawkar Anuj Nitin	A	P	P	P	P	A	P	P	P	A	P	P	P	A
25	Shah Kaustubh Rakesh	P	P	A	P	P	P	P	P	A	P	P	P	A	P



(Signature)

Course Co-ordinator

Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
 NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

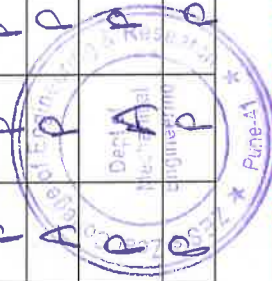
Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM III

Sr. No.	Name	20/8	21/8	22/8	23/8	24/8	26/8	27/8	28/8	28/8	29/8	30/8
1	Panchal Shubham Deepak	A	P	P	P	P	P	P	P	P	P	P
2	Pangale Manoj Ramesh	P	P	P	P	A	P	P	P	P	P	A
3	Pansare Arshad Aslam	P	P	A	P	P	A	P	P	P	P	P
4	Pardeshi Shubham Rahul	P	A	P	P	P	P	P	P	P	A	P
5	Patil Girish Anil	P	P	P	A	P	P	P	P	P	P	P
6	Patil Kalpesh Dipak	P	P	P	P	P	P	P	P	P	P	P
7	Patil Prajakta Jayasing	P	P	P	P	P	P	A	P	P	P	A
8	Patil Rahul Rajkumar	A	P	A	P	P	P	P	P	A	P	P
9	Patil Rajkumar Balkrishna	P	P	P	P	P	P	P	P	P	P	P
10	Patil Yash Nitin	P	P	P	P	P	P	P	P	A	P	P
11	Pawar Prajwal Laxman	P	P	P	P	P	A	P	P	P	P	A
12	Pidurkar Suraj Dinkar	P	A	P	P	P	P	P	A	P	P	P
13	Pokale Prathmesh Rajendra	P	P	P	P	P	P	P	P	P	P	P
14	Pushpakar Ayush Ashokkumar	A	P	P	P	P	A	P	P	A	P	A
15	Raghuwanshi Amit Deepak	P	P	P	P	P	P	P	P	P	P	P





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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	2018	21/18	22/18	23/18	24/18	24/18	26/18	27/18	28/18	28/18	29/18	30/18
16	Raut Hrushikesh Deepak	P	A	P	P	P	P	P	A	P	P	P	P
17	Sahani Nilesh Mahaveer	P	P	P	P	A	P	P	P	P	P	P	P
18	Sanas Abhishek Bhagwan	P	P	A	P	P	P	P	P	P	P	P	A
19	Sangle Sagar Eknath	A	P	P	P	P	P	P	P	P	P	A	P
20	Sarda Niraj Rajesh	P	P	P	P	P	A	P	P	A	P	P	P
21	Sathe Shrish Dilip	P	P	P	A	P	P	P	P	P	P	P	P
22	Sawant Pranali Rajendra	A	P	P	P	P	P	P	P	P	P	P	A
23	Sawant Saurabh Jalindhar	P	P	P	P	P	P	A	P	A	P	P	P
24	Sawkar Anuj Nitin	P	P	P	P	A	P	P	P	P	P	P	P
25	Shah Kaustubh Rakesh	P	A	P	P	P	P	P	P	P	P	P	A

(Signature)

Course Co-ordinator



(Signature)
 Head of Department
Head of Department
 Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-**II**

Sr. No.	Name	21/8	3/8	5/8	6/8	7/8	8/8	9/8	10/8	12/8	13/8	14/8	16/8	17/8	19/8
1	Agashe Atharva Yogesh	A	P	P	P	P	A	P	P	P	A	P	P	P	P
2	Bhagade Sagar Vijay	P	P	A	P	P	P	P	P	P	P	P	A	P	P
3	Bhandare Hardik Sunil	P	P	P	A	P	P	P	A	P	P	P	P	P	A
4	Bhilare Raviraj Ulhas	P	A	P	P	P	P	P	P	P	P	P	P	P	P
5	Bhole Tejas Sanjay	P	P	P	P	P	P	P	P	A	P	P	P	P	P
6	Borade Yogesh Laxman	A	P	P	P	P	P	A	P	P	P	A	P	P	P
7	Chavan Prasad Ramchandra	P	P	P	P	A	P	P	P	P	P	P	P	P	P
8	Chogale Aniket Mahendra	P	A	P	P	P	P	A	P	P	P	P	P	P	P
9	Choudhary Omkar Sanjay	A	P	P	P	P	A	P	P	A	P	P	P	P	P
10	Dalwale Rahul Sanjay	P	P	A	P	P	P	P	A	P	P	P	P	A	P
11	Daule Ashutosh Jaysing	P	P	P	P	P	P	P	P	P	P	A	P	P	P
12	Deokar Mahesh Jayavant	P	P	A	P	P	P	P	P	P	A	P	P	P	P
13	Desai Krishna Govind	A	P	P	P	A	P	P	P	P	P	P	P	P	A
14	Deshmukh Omkar Dadasaheb	P	P	P	P	P	P	A	P	P	P	P	P	P	P
15	Deshmukh Omkar Ramhari	P	P	A	P	P	P	P	P	A	P	P	P	P	P





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 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	218	318	518	618	718	818	918	1018	1218	1318	1418	1618	1718	1918
16	Dhanawade Rakesh Sambhaji	A	P	P	P	A	P	P	A	P	P	P	P	P	A
17	Jadhav Sanket Umesh	P	P	P	P	A	P	A	P	P	P	P	A	P	P
18	Jadhav Shardool Sanjay	P	A	P	P	P	P	P	P	A	P	P	P	P	P
19	Jagtap Yash Nandkishor	P	P	P	A	P	P	P	P	P	P	A	P	P	P
20	Joshi Aniket Pradip	P	P	P	P	P	A	P	P	P	P	P	P	P	P
21	Karade Suyog Sarjerao	A	P	P	P	P	P	P	A	P	A	P	P	A	P
22	Kesarkar Amar Ananda	P	P	A	P	P	P	A	P	P	P	P	P	P	P
23	Khadse Pratik Shrikrushna	P	P	P	P	A	P	P	P	P	P	P	P	P	P
24	Jadhav Sanket Umesh	P	P	P	P	P	A	P	P	P	A	P	P	P	A
25	Jadhav Shardool Sanjay	P	A	P	P	A	P	P	A	P	P	P	A	P	P

(Signature)

Course Co-ordinator



Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041

(Signature)



ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-**II**

Sr. No.	Name	20/18	21/18	22/18	23/18	24/18	24/18	26/18	27/18	28/18	29/18	30/18	
1	Agashe Atharva Yogesh	A	P	P	P	P	P	P	P	P	P	A	
2	Bhagade Sagar Vijay	P	P	P	P	A	P	P	P	P	P	P	
3	Bhandare Hardik Sunil	P	P	P	P	P	A	P	P	P	A	P	
4	Bhilaré Raviraj Ulhas	P	P	A	P	P	P	P	P	A	P	P	
5	Bhole Tejas Sanjay	P	P	P	P	P	P	P	A	P	P	A	
6	Borade Yogesh Laxman	P	P	P	P	P	P	A	P	P	P	P	
7	Chavan Prasad Ramchandra	A	P	P	P	P	P	P	P	P	A	P	
8	Chogale Aniket Mahendra	P	P	P	A	P	P	P	P	P	P	P	
9	Choudhary Omkar Sanjay	P	P	P	P	P	P	P	P	A	P	P	
10	Dalwale Rahul Sanjay	P	P	P	P	A	P	P	P	P	P	P	
11	Daule Ashutosh Jaysing	P	A	P	P	P	P	P	P	P	A	P	
12	Deokar Mahesh Jayavant	P	P	P	P	P	P	A	P	P	P	P	
13	Desai Krishna Govind	P	P	P	P	P	P	P	P	P	P	A	
14	Deshmukh Omkar Dadasaheb	P	P	A	P	A	P	P	A	P	P	P	
15	Deshmukh Omkar Ramhari	P	P	P	P	P	P	P	P	P	P	P	





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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
 NARHE | PUNE -41 | INDIA



DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON

Computer Aided Manufacturing (CAM) - CNC Programming, Simulation & Manufacturing

Sr. No.	Name	20/8	21/8	22/8	23/8	24/8	26/8	27/8	28/8	29/8	30/8
16	Dhanawade Rakesh Sambhaji	P	P	A	P	P	P	P	P	P	A
17	Jadhav Sanket Umesh	A	P	P	P	P	P	P	P	P	P
18	Jadhav Shardool Sanjay	P	A	P	P	P	A	P	P	P	P
19	Jagtap Yash Nandkishor	P	P	P	P	P	P	P	P	P	P
20	Joshi Aniket Pradip	P	P	P	A	P	P	P	P	P	P
21	Karade Suyog Sarjerao	P	P	P	P	P	P	P	A	P	P
22	Kesarkar Amar Ananda	A	P	P	P	A	P	P	P	P	P
23	Khadse Pratik Shrikrushna	P	P	P	P	P	P	P	P	P	P
24	Jadhav Sanket Umesh	P	A	P	P	P	P	P	P	P	P
25	Jadhav Shardool Sanjay	P	P	P	P	P	P	P	P	P	A



(Signature)

Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 Pune-411 041

(Signature)

Course Co-ordinator



ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

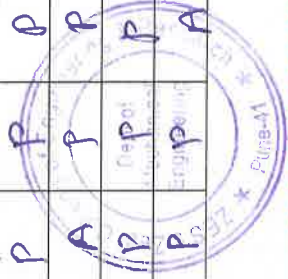
Academic Year: 2019-2020

Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-1

Sr. No.	Name	2/18	3/18	5/18	6/18	7/18	8/18	9/18	10/18	12/18	13/18	14/18	16/18	17/18	19/18
1	Kumbhar Abhishek Vijay	A	P	P	P	P	A	P	P	P	P	A	P	P	P
2	Kumbhar Saurabh Dattatray	P	P	P	P	A	P	P	P	A	P	P	A	P	A
3	Lad Sunil Krishnat	P	A	P	P	P	P	A	P	P	P	P	P	P	P
4	Laghate Pratik Umesh	P	P	P	A	P	P	P	P	P	P	P	P	A	P
5	Lokhande Pranav Pradeep	A	P	P	P	P	P	P	P	P	P	P	P	P	P
6	Mahadik Ashish Dilip	P	P	P	P	P	P	P	P	P	A	P	P	P	P
7	Makhale Rohan Baburao	P	P	A	P	P	P	P	P	P	P	P	A	P	A
8	Mali Nikhil Prathad	P	P	P	A	P	P	P	P	P	P	A	P	P	P
9	Mulik Pankaj Shankar	P	P	P	P	P	A	P	P	P	P	P	P	P	P
10	Nalawade Shubham Kishor	A	P	P	P	P	P	P	P	P	P	P	A	P	P
11	Navale Suraj Janu	P	P	P	P	P	P	P	P	P	P	P	P	A	P
12	Pachfule Amol Ramrao	P	P	A	A	P	P	P	A	P	P	P	P	P	A
13	Pashan Akshay Vivek	P	P	P	P	A	P	P	P	P	A	P	P	P	P
14	Pathan Ubbed Afsar	P	P	P	P	P	P	P	P	P	P	A	P	A	P
15	Patil Akshay Tanaji	P	P	P	P	P	P	P	P	P	P	P	P	P	A





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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	2/8	3/8	5/8	6/8	7/8	8/8	9/8	10/8	12/8	13/8	14/8	16/8	17/8	19/8
16	Patil Shubham Vijay	P	P	P	P	A	P	P	A	P	P	P	P	P	A
17	Patil Suraj Sanjay	A	P	P	A	P	P	A	P	P	P	P	P	P	P
18	Salunkhe Harshawardhan Sambhaji	P	P	P	P	P	P	P	P	P	P	P	P	P	P
19	Salunkhe Pravin Sadashiv	P	A	P	P	P	A	P	P	P	A	P	A	P	P
20	Satpute Omkar Ashok	P	P	P	P	P	P	A	P	P	P	P	P	P	P
21	Sawardekar Pratik Nishikant	P	P	A	P	A	P	P	P	P	P	P	P	P	A
22	Shelke Nikhil Nandkumar	P	P	P	P	P	P	P	P	A	P	P	P	P	P
23	Shinde Aniket Satish	A	P	P	P	P	P	A	P	P	P	A	P	P	P
24	Shinde Nilesh Baban	P	P	P	P	P	P	P	P	P	P	P	P	A	P
25	Shingare Vaibhav Vikas	P	P	A	P	A	P	P	P	P	P	P	P	P	P



(Signature)

Course Co-ordinator

(Signature)

Head of Department

Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

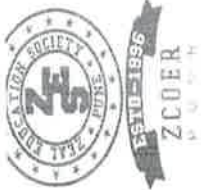
Class: B.E.

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019) **SEM-I**

Sr. No.	Name	20/8	21/8	22/8	23/8	24/8	25/8	26/8	27/8	28/8	29/8	30/8
1	Kumbhar Abhishek Vijay	P	P	P	P	P	A	P	P	P	P	A
2	Kumbhar Saurabh Dattatray	P	P	A	P	P	P	P	A	P	P	P
3	Lad Sunil Krishnat	A	P	P	P	P	P	P	P	P	P	A
4	Laghate Pratik Umesh	P	P	P	P	A	P	P	P	A	P	P
5	Lokhande Pranav Pradeep	P	A	P	P	P	P	P	P	P	A	P
6	Mahadik Ashish Dilip	P	P	P	P	P	P	P	P	P	P	P
7	Makhale Rohan Baburao	A	P	P	P	P	P	P	P	P	P	A
8	Mali Nikhil Pralhad	P	P	P	A	P	A	P	P	P	P	P
9	Mulik Pankaj Shankar	P	P	A	P	P	P	P	A	P	P	P
10	Nalawade Shubham Kishor	P	P	P	P	P	P	P	P	P	A	P
11	Navale Suraj Janu	A	P	P	P	P	P	P	A	P	P	P
12	Pachfule Amol Ramrao	P	P	P	P	A	P	P	P	P	P	P
13	Pashan Akshay Vivek	P	P	P	A	P	A	P	P	P	P	A
14	Pathan Ubaid Afsar	P	P	P	P	P	P	P	P	P	A	P
15	Patil Akshay Tanaji	P	A	P	P	P	A	P	P	P	P	P



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DEPARTMENT OF MECHANICAL ENGINEERING



HANDS-ON-TRAINING ON

Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	2018	21/8	22/8	23/8	24/8	24/8	26/8	27/8	28/8	29/8	30/8
16	Patil Shubham Vijay	P	P	P	A	P	P	P	A	P	P	P
17	Patil Suraj Sanjay	A	P	A	P	P	P	P	P	P	P	A
18	Salunkhe Harshawardhan Sambhaji	P	P	P	P	A	P	P	P	A	P	P
19	Salunkhe Pravin Sadashiv	P	A	P	P	P	P	P	P	P	P	A
20	Satpute Omkar Ashok	P	P	P	A	P	A	P	P	P	A	P
21	Sawardekar Pratik Nishikant	P	P	P	P	P	A	P	P	P	P	P
22	Shelke Nikhil Nandkumar	A	P	P	P	P	P	P	P	P	P	P
23	Shinde Aniket Satish	P	P	A	P	P	P	P	A	P	P	P
24	Shinde Nilesh Baban	P	P	P	A	P	P	P	P	A	P	A
25	Shingare Vaibhav Vikas	P	A	P	P	A	P	P	P	P	P	P



(Signature)

Course Co-ordinator

(Signature)

Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

**Test on Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

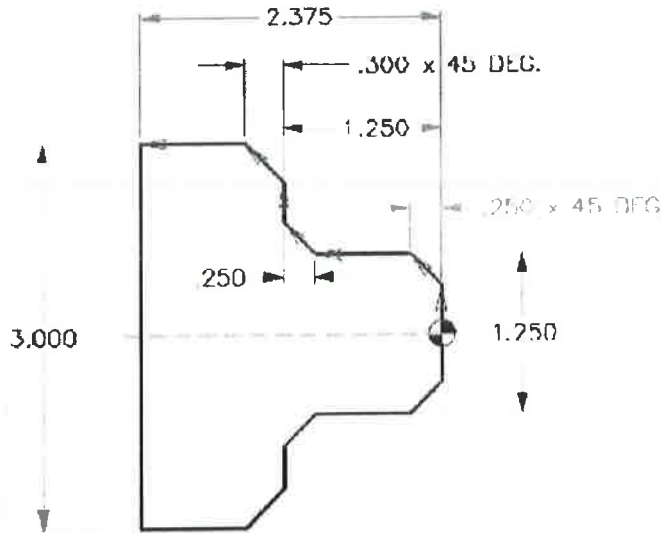
Academic Year: 2019-2020

SEM-I

Time: 2 Hrs

Marks: 50

Q1. Write CNC Part program to obtain finish component as shown below



ANS:

```

O00055 (LINEAR INTERPOLATION "WITHOUT" CUTTER COMP.)
N1 G53 G00 X0. Z0. T0
N2 T101 (O.D. TURNING TOOL .031 TNR)
N3 G97 S1450 M03
N4 G54 G00 X0.85 Z0.1 M08
N5 Z0.
N6 G01 X-.062 F0.01 (Face down end of part)
N7 G00 X.7134 Z0.02 (Rapid to start point of angle
subtracting X compensation value: .75-.0366)
N8 G01 Z0. F0.006 (Feed into face)
N9 X1.250 Z-.2683 (Feed up angle adding Z
compensation amount: .25+.0183)
N10 Z-1.0183 (Feed to angle adding Z compensation amount)
N11 X1.7134 Z-1.250 (Feed up to angle subtracting X
compensation amount)
N12 X2.3634 (Feed up to angle subtracting X
compensation amount)
N13 X3.0 Z-1.5683 (Feed up angle adding Z
compensation amount)
N14 Z-2.375 (Feed to finish to end in Z axis)
N15 G00 U-0.01 Z1.0 M09
N16 G53 G00 X0. Z0. T0
N17 M30
    
```

Course Coordinator



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 Head of Department
 Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Test on Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

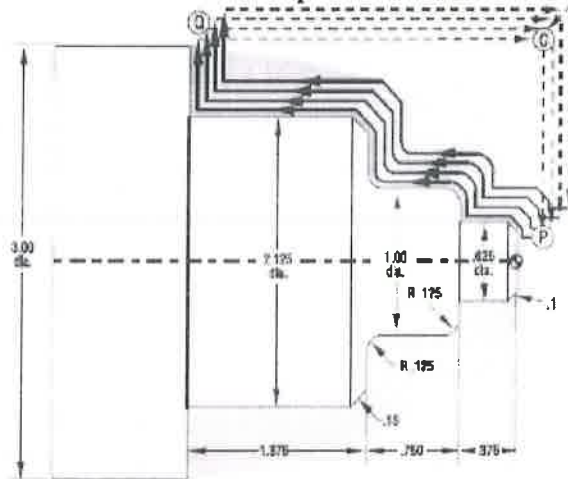
Academic Year: 2019-2020

SEM-I

Time: 2 Hrs

Marks: 50

Q1. Write CNC Part program to obtain finish component as shown below



ANS:

```

O00101 (G73 O.D. ROUGHING)
N101 G53 G00 X-3. Z-4. T0 (Rapid to tool change location)
N102 T101 (Tool 1 Offset 1)
N103 G50 S3000
N104 G97 S450 M03
N105 G54 G00 X3.1 Z.1 M08 (Rapid to Start Point)
N106 G96 S370
N107 G73 P108 Q121 U.01 W.005 I0.3 K0.15 D4 F.012 (G73
Stock Removal)
N108 G42 G00 X0.325 (P) (Start of geometry P number in G73
line. G42 C.C. right)
N109 G01 Z0. F0.01
N110 X0.425
N111 X.625 Z-0.1 F0.005
N112 Z-0.375
N113 X0.75
N114 G03 X1. Z-0.5 R.125
N115 G01 Z-1. F0.003
N116 G02 X1.25 Z-1.125 R.125
N117 G01 X1.825
N118 X2.125 Z-1.275
N119 Z-2.5 F0.008
N120 X3.

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```

N120 X3.
N121 G40 G00 X3.1 (Q) (End of geometry Q number in G71
line. G40 cancels C.C.)
N122 G70 P108 Q121 (G70 Finishing cycle N108 thru N121)
N123 G97 S450 M09
N124 G53 G00 X-3. Z-4. T0 (Rapid to tool change location)
N125 M30 (End of Program)

```

Course Coordinator



Head of the Department
Head of Department
Department of Mechanical Engineering
ZES's Zeal College of Engineering
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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing**

Academic Year: 2019-2020

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-III

Sr. No.	Name	Programming (30)	Simulation (20)	Total Marks (50)
1	PANCHAL SHUBHAM DEEPAK	26	14	40
2	PANGALE MANOJ RAMESH	24	15	39
3	PANSARE ARSHAD ASLAM	23	16	39
4	PARDESHI SHUBHAM RAHUL	26	17	43
5	PATIL GIRISH ANIL	27	18	45
6	PATIL KALPESH DIPAK	20	15	35
7	PATIL PRAJAKTA JAYASING	18	15	33
8	PATIL RAHUL RAJKUMAR	17	16	33
9	PATIL RAJKUMAR BALKRISHNA	22	16	38
10	PATIL YASH NITIN	26	14	40
11	PAWAR PRAJWAL LAXMAN	27	18	45
12	PIDURKAR SURAJ DINKAR	20	17	43
13	POKALE PRATHMESH RAJENDRA	21	16	37
14	PUSHPAKAR AYUSH ASHOKKUMAR	26	16	42
15	RAGHUWANSHI AMIT DEEPAK	25	15	40
16	RAUT HRUSHIKESH DEEPAK	24	16	40
17	SAHANI NILESH MAHAVEER	23	15	38
18	SANAS ABHISHEK BHAGWAN	24	16	40
19	SANGLE SAGAR EKNATH	26	16	42
20	SARDA NIRAJ RAJESH	27	18	45
21	SATHE SHRISH DILIP	26	15	41
22	SAWANT PRANALI RAJENDRA	22	14	36
23	SAWANT SAURABH JALINDHAR	23	15	38
24	SAWKAR ANUJ NITIN	23	16	39
25	SHAH KAUSTUBH RAKESH	28	16	44

Course Coordinator



Head of the Department

Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing**

Academic Year: 2019-2020

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-**II**

Sr. No.	Name	Programming (30)	Simulation (20)	Total Marks (50)
1	AGASHE ATHARVA YOGESH	22	16	38
2	BHAGADE SAGAR VIJAY	27	16	43
3	BHANDARE HARDIK SUNIL	25	17	42
4	BHILARE RAVIRAJ ULHAS	18	13	31
5	BHOLE TEJAS SANJAY	19	16	35
6	BORADE YOGESH LAXMAN	17	15	32
7	CHAVAN PRASAD RAMCHANDRA	27	16	43
8	CHOGALE ANIKET MAHENDRA	25	15	40
9	CHOUDHARY OMKAR SANJAY	24	15	39
10	DALWALE RAHUL SANJAY	23	17	40
11	DAULE ASHUTOSH JAYSING	24	16	40
12	DEOKAR MAHESH JAYAVANT	22	17	39
13	DESAI KRISHNA GOVIND	23	16	39
14	DESHMUKH OMKAR DADASAHEB	22	17	39
15	DESHMUKH OMKAR RAMHARI	21	16	37
16	DHANAWADE RAKESH SAMBHAJI	26	15	41
17	JADHAV SANKET UMESH	27	16	43
18	JADHAV SHARDOOL SANJAY	25	17	42
19	JAGTAP YASH NANDKISHOR	17	13	30
20	JOSHI ANIKET PRADIP	19	14	33
21	KARADE SUYOG SARJERAO	25	15	40
22	KESARKAR AMAR ANANDA	24	14	38
23	KHADSE PRATIK SHRIKRUSHNA	26	15	41
24	JADHAV SANKET UMESH	27	16	43
25	JADHAV SHARDOOL SANJAY	22	15	37

Course Coordinator



Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



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NARHE | PUNE -41 | INDIA**



DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing**

Academic Year: 2019-2020

Duration of Course: 40 Hours (02/08/2019 to 30/08/2019)

SEM-I

Sr. No.	Name	Programming (30)	Simulation (20)	Total Marks (50)
1	KUMBHAR ABHISHEK VIJAY	24	17	41
2	KUMBHAR SAURABH DATTATRAY	26	15	41
3	LAD SUNIL KRISHNAT	24	16	40
4	LAGHATE PRATIK UMESH	25	15	40
5	LOKHANDE PRANAV PRADEEP	23	14	37
6	MAHADIK ASHISH DILIP	24	15	39
7	MAKHALE ROHAN BABURAO	27	17	44
8	MALI NIKHIL PRALHAD	26	18	44
9	MULIK PANKAJ SHANKAR	25	15	40
10	NALAWADE SHUBHAM KISHOR	26	16	42
11	NAVALE SURAJ JANU	25	17	42
12	PACHFULE AMOL RAMRAO	26	16	42
13	PASHAN AKSHAY VIVEK	27	18	45
14	PATHAN UBED AFSAR	25	17	42
15	PATIL AKSHAY TANAJI	18	13	31
16	PATIL SHUBHAM VIJAY	19	14	33
17	PATIL SURAJ SANJAY	22	16	38
18	SALUNKHE HARSHAWARDHAN SAMBHAJI	24	17	41
19	SALUNKHE PRAVIN SADASHIV	27	16	43
20	SATPUTE OMKAR ASHOK	25	15	40
21	SAWARDEKAR PRATIK NISHIKANT	26	17	43
22	SHELKE NIKHIL NANDKUMAR	25	15	40
23	SHINDE ANIKET SATISH	26	16	42
24	SHINDE NILESH BABAN	22	15	37
25	SHINGARE VAIBHAV VIKAS	21	14	35

Course Coordinator



Head of the Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

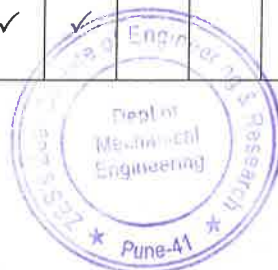
**Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing Summary Report**

Academic Year: 2019-20

Semester: I

Class: B.E.

Title of Activity/Event	Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing															
Date of Activity/Event	02/08/2019 to 30/08/2019															
Name of Expert/Trainer	Prof. M.R. Kalyanshetti															
Objective	The objective of this workshop was to communicate different CNC Programming , Simulation & Manufacturing in Industry															
Summary	<p>To meet the industry's requirement from manufacturing sector, CNC machining and programming plays an important role. To enhance student's expertise in the field of machining, a 20 days Hands on training program on CNC Programming, Simulation & Manufacturing was scheduled. The hands-on training was conducted in two batches for final year mechanical engineering students at Machining excellence center of zeal college of engineering and research Pune.</p> <p>The training was scheduled from 02/08/2019 to 30/08/2019. The first week of training was class room sessions in which students were trained to write a program for manufacturing specified product drawing. Second week consists of practical on Master CAM Software to enhance student's expertise in file format, unit setting, 2D drawing generation for turning operation, Raw material setting & Tool parameters. Further in the third week of session students were exposed to DO-NC Simulator. Through these sessions they were able to work with simulators in Tool offset settings, Tool management, Tooling parameters and MPP generation. In the last week of training students work on CNC Machine to manufacture the job as per requirement.</p> <p>At the end a test was conducted to examine students' progress in CNC Machining. This program was conducted by Prof. Mahendra Kalyanshetti in the guidance of HOD Mechanical Engineering Department at Machining Excellence center of Zeal College of Engineering and Research Pune.</p>															
POs/PSOs Attained	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓





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DEPARTMENT OF MECHANICAL ENGINEERING

Outcomes

The students got hands on experience through this program on CAM-CNC programming and simulation. The programming of CNC machines and software ensures consistency in all the pieces Moreover, develops technical skills and produce industry ready CNC operators and product designers who are able to make any part you can imagine on your CNC Machine.


Course Coordinator




**Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041**



DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing Summary Report**

**Academic Year: 2019-20
Class: B.E.**

Semester: I

**Photo
Gallery**

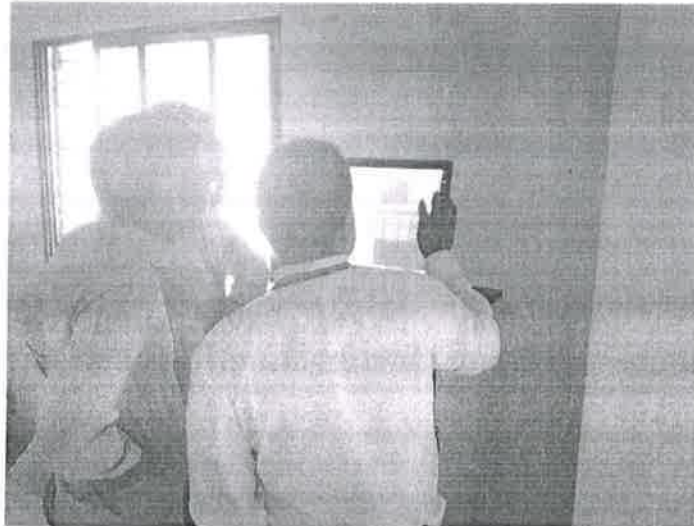


Photo 1 Students learning Coding on DoNC Simulator



Photo 2 Students practicing on CNC Machine


Course Coordinator




**Head of the Department
Head of Department**
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041

CERTIFICATE

OF APPRECIATION

PROUDLY PRESENTED TO

PANCHAL SHUBHAM DEEPAK

Has successfully completed the training course of
HANDS-ON-TRAINING On Computer Aided Manufacturing (CAM)

The course was scheduled from 02/08/2019 to
30/08/2019 under CAD CAM CAEExcellence center at
Department of Mechanical Engineering, Zeal College of
Engineering and Research Pune



Dr. A. B. Ubale
HEAD OF DEPARTMENT



Dr. A. M. Kate
PRINCIPAL

CERTIFICATE

OF APPRECIATION

PROUDLY PRESENTED TO

PANGALE MANOJ RAMESH

Has successfully completed the training course of
HANDS-ON-TRAINING On Computer Aided Manufacturing (CAM)

The course was scheduled from 02/08/2019 to
30/08/2019 under CAD CAM CAEEll Excellence center at
Department of Mechanical Engineering, Zeal College of
Engineering and Research Pune



Dr. A. B. Ubale
HEAD OF DEPARTMENT



Dr. A. M. Kate
PRINCIPAL



**ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA**



DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

Index

Sr. No	Particulars
1	Course Details
2	Course Content
3	Notice
4	List of students enrolled
5	Schedule
6	Student attendance
7	Evaluation Details
8	Activity Summary Report
9	Certificate



**ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA**




DEPARTMENT OF MECHANICAL ENGINEERING

1. Course Details

1	Course Name	Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing
2	Duration	32 Hours
3	Date	07/01/2020 to 05/03/2020
4	Students enrolled	75
5	Learners	BE


Course Coordinator




Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

2. Course Contents

Sr. No.	Details of Module	Hours
1	Introduction to CAM, Conventional & advance machining, Overview of CNC & VMC machines	2
2	Different types of controls, operation & tools	3
3	Machining parameters : Spindle Speed, Feed rate, Depth of cut	1
4	Preparatory & Miscellaneous Codes (G & M codes)	3
5	Introduction to CAM, Conventional & advance machining, Overview of CNC & VMC machines	3
6	Manual codes for CNC & VMC machines	3
7	Canned cycle program, Examples	3
8	Concept of CAD & neutral file format (IGES & STP)	1
9	Introduction to Master-CAM 9.0 Software Initial settings.	3
10	File format, unit setting, 2D drawing generation for turning operation, Raw material setting & Tool parameters.	3
11	Different types of operations (Rough Turning, Finishing, Grooving, Drilling, Milling, Threading), Canned cycle program in Master-CAM	1
12	Introduction to DO-NC Simulator, Initial settings, GUI, Tool offset settings, Tool management, Tooling parameters, MPP generation	1
13	Hands-on practice on Simulator	1
14	Hands-on practice on Simulator	1
15	Hands-on practice on industrial grade CNC & VMC machine by using G & M codes- 1	1
16	Revision, Doubt Solving,	1
17	Test and evaluation.	1


Course Coordinator




Head of the Department

Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



**ZEAL EDUCATION SOCIETY'S
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DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 30/12/2020

All the students of Mechanical Engineering department are hereby informed that department is launching special hands on Training program on “**Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing**” for BE students, from 07/01/2020 to 05/03/2020. The interested students can register to department office before 02/01/2020.

Course Coordinator



Head of the Department

**Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041**



ZEAL EDUCATION SOCIETY'S
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NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



**List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing**

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name
1	ABANAVE VAISHNAV SUKHADEV
2	AMLE SHRIPAD NANDKUMAR
3	AYWALE SAGAR ARJUN
4	BAIG ASHRAF ALTAF
5	KATORE ATISH RAJARAM
6	MORE ROHIT SANJAY
7	SAMBHAJI SHIVAJI NIVANGUNE
8	PILLAI RUSSEL RICHARD
9	NIRBHAVANE SUNNY VILAS
10	ZADE VIVEK SHANKAR
11	BHOSLE PRASHANT PANDURANG
12	MUSALE SAINATH MANIKRAO
13	NAIK KRISHNA VISHWANATHRAO
14	GARAD VAJBHAV JAIWANTRAV
15	RUSHIKESH BHUJAJI GAWALI
16	GHADGE AMOL BALIRAM
17	YOGESH DNYANDEV MANE
18	YADAV KETAN CHANDRASHEKHAR
19	ABNAVE SHREEDHAR MARUTI
20	ITEKAR SHRIKANT RAMESH
21	PATIL AKHIL CHANDRAKANT
22	PAGARE HARSHAD DILIP
23	SONAWANE DHANRAJ KAILAS
24	SHAIKH MOHAMMAD HUMRAN RAFIQUEAHMED
25	SANGLE MIHEER SANJAY


Course Coordinator




Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name
1	BALURE AMOL TANAJI
2	BAMUGADE PAYAL MANOJ
3	BANDAL VISHWAJEET VIJAY
4	BHANDARE RUSHIKESH RAJESH
5	BHELE SARVESH DEEPAK
6	BHOITE AJINKYA GIRISH
7	BIBAVE ADITYA PRAMOD
8	CHORDIA AKSHAY RAJENDRA
9	CHOUDHARY MRUNAL LAXMAN
10	CHOUDHARY RAMESH MOHANLAL
11	PATIL PANKAJ SUKUMAR (OLD SURNAME-DADIBUDE)
12	DAHLE SHUBHAM SANTOSH
13	DAMLE VIJAY VINAYAK
14	DARGE SHUBHAM SUBHASH
15	DARWATKAR SWAPNIL HEMANT
16	DENGALE SAURABH SACHIN
17	DESHMUKH PRASAD SUNIL
18	DESHPANDE PIYUSH MILIND
19	DHARMADHIKARI PRATHAMESH MANOJ
20	DIGHE NILESH VILAS
21	GADE SANDEEP SATISH
22	GADIYA VISHAL RAJESH
23	GANJARE SHUBHAM VITTHALAPPA
24	GAVADA RAHUL SHIVAJI
25	GOLE ADITYA CHANDRASHEKHAR

Course Coordinator



Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing



List of the Students Enrolled for Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name
1	JADHAV TUSHAR RAJARAM
2	JANGAM DARSHAN SUBHASH
3	JARANDE KETAN NATHU
4	JAWARKAR UDDHAV SHIVAJI
5	JOSHI OMKAR BHALCHANDRA
6	JOSHI VAIBHAV LAXMIKANAT
7	KABUGADE SUSHANT SUBRAO
8	KAD PRATIKSHA SUNIL
9	KADAM DIPEN VILAS
10	KADAM GAJANAN ARUN
11	KADU PANKAJ DNYANESHWAR
12	KALE SHASHANK HANUMANT
13	KALE SWAPNIL RAMKRISHNA
14	KANDEKAR BALNATH GANPAT
15	KATE SWAPNIL CHANDRAKANT
16	KESARKAR PRATHAMESH NAMDEV
17	KHANDALE MAYUR MILIND
18	KHANDALE VINAY UTTAM
19	KHEDKAR KETAN VIJAY
20	KHEDKAR PRAJWAL SAGAR
21	KOLHE AMIT BABAN
22	KONDE SHUBHAM RAJENDRA
23	KULKARNI ADWAIT AVINASH
24	KULKARNI KAUSTUBH DHANANJAY
25	KUNDALKAR SEJAL NIKHIL

Course Coordinator



Head of Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

Notice (Hands on Training)

Date: 04/01/2020


All the enrolled students for Hands on Training program on “**Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing**” are hereby informed that training is scheduled from 07/01/2020 to 05/03/2020. The batch wise schedule is given below,

SN	Batch	Time
1	Batch 1	2.00 pm to 3.00 pm
	Batch 2	3.30 pm to 04.30 pm
	Batch 3	05.00 pm to 06.00 pm

The batch wise list of enrolled students is displayed on Notice board.


Course Coordinator




Head of the Department
Head of Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
& Research, Pune-411 041



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
1	Abanave Vaishnav Sukhadev	P	P	P	P	P	P	P	A	P	P	P	P	P	A
2	Amle Shripad Nandkumar	P	P	P	A	P	P	P	P	P	P	P	P	P	P
3	Aywale Sagar Arjun	A	P	P	P	P	P	P	P	P	P	P	P	P	P
4	Baig Ashraf Altaf	P	P	P	P	P	P	P	P	P	P	P	P	P	P
5	Katore Atish Rajaram	P	P	P	P	P	P	P	P	P	P	P	P	P	P
6	More Rohit Sanjay	P	P	P	P	P	P	P	P	P	P	P	P	P	P
7	Sambhaji Shivaji Nivangune	A	P	P	P	P	P	P	P	P	P	P	P	P	P
8	Pillai Russel Richard	P	P	P	P	P	P	P	P	P	P	P	P	P	P
9	Nirbhavane Sunny Vilas	P	P	P	P	P	P	P	P	P	P	P	P	P	P
10	Zade Vivek Shankar	P	P	P	P	P	P	P	P	P	P	P	P	P	P
11	Bhosle Prashant Pandurang	P	P	P	P	P	P	P	P	P	P	P	P	P	P
12	Musale Sainath Manikrao	P	P	P	P	P	P	P	P	P	P	P	P	P	P
13	Naik Krishna Vishwanathrao	P	P	P	P	P	P	P	P	P	P	P	P	P	P
14	Garad Vaibhav Jaiwantrav	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Rushikesh Bhujaji Gawali	P	P	P	P	P	P	P	P	P	P	P	P	P	P





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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
16	Ghadge Amol Baliram	P	P	P	A	P	P	P	A	P	P	P	P	P	P
17	Yogesh Dnyandeve Mane	A	P	P	P	P	P	P	P	P	P	P	P	P	A
18	Yadav Ketan Chandrashekhar	P	P	P	P	P	P	P	P	A	P	P	P	P	P
19	Abnave Shreedhar Maruti	P	A	P	P	P	P	P	P	P	P	P	A	P	P
20	Itekar Shrikant Ramesh	P	P	P	P	P	P	P	P	P	P	P	P	P	P
21	Patil Akhil Chandrakant	P	P	P	P	P	P	A	P	P	P	P	P	P	P
22	Pagare Harshad Dilip	P	P	P	P	P	P	P	P	P	P	P	P	P	P
23	Sonawane Dhanraj Kailas	P	P	P	P	P	P	P	P	P	P	P	P	P	P
24	Shaikh Mohammad Humran Rafiqueahmed	A	P	P	P	P	A	P	P	P	P	A	P	P	P
25	Sangle Miheer Sanjay	P	P	A	P	P	P	P	P	P	P	P	P	A	P



(Signature)

Course Co-ordinator

(Signature)
 Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	27/02	03/03	04/03	05/03																
16	Ghadge Amol Baliram	A	P	P	P																
17	Yogesh Dnyandev Mane	P	P	P	A																
18	Yadav Ketan Chandrashekhhar	P	A	P	P																
19	Abnave Shreedhar Maruti	P	P	P	A																
20	Itekar Shrikant Ramesh	P	P	A	P																
21	Patil Akhil Chandrakant	P	A	P	P																
22	Pagare Harshad Dilip	A	P	P	P																
23	Sonawane Dhanraj Kailas	P	P	A	P																
24	Shaikh Mohammad Humran Rafiqueahmed	P	P	P	A																
25	Sangle Miheer Sanjay	P	A	P	P																

[Signature]

Course Co-ordinator



[Signature]
 Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 004



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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
 NARHE | PUNE -41 | INDIA
DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
1	Balure Amol Tanaji	P	P	T	P	P	P	P	A	A	P	P	A	P	P
2	Bamugade Payal Manoj	P	P	P	P	P	P	P	P	P	A	P	P	P	A
3	Bandal Vishwajeet Vijay	P	P	P	P	P	P	A	P	P	A	P	P	P	P
4	Bhandare Rushikesh Rajesh	P	P	P	P	P	A	A	P	P	P	P	P	P	A
5	Bhele Sarvesh Deepak	P	P	P	A	P	P	P	P	P	P	P	A	A	A
6	Bhoite Ajinkya Girish	P	P	P	P	P	P	P	P	P	A	P	P	P	P
7	Bibave Aditya Pramod	P	P	P	P	P	P	P	P	A	P	P	A	P	P
8	Chordia Akshay Rajendra	P	P	P	P	P	P	A	P	A	P	P	P	P	P
9	Choudhary Mrunal Laxman	P	P	P	P	P	P	P	A	P	P	P	P	P	A
10	Choudhary Ramesh Mohanlal	A	P	P	P	P	A	P	P	P	A	A	P	P	A
11	Patil Pankaj Sukumar (Old Surname-Dadibude)	P	P	P	A	P	P	A	P	P	P	A	P	P	P
12	Dahale Shubham Santosh	P	A	P	A	P	P	P	P	P	P	P	A	A	A
13	Damle Vijay Vinayak	P	P	P	A	P	P	A	P	P	P	P	A	P	P
14	Darge Shubham Subhash	P	P	P	P	P	P	P	P	P	P	P	P	P	P
15	Darwatkar Swapnil Hemant	P	A	A	A	P	P	P	P	P	P	P	P	P	A





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 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
16	Dengale Saurabh Sachin	P	P	P	P	A	P	P	A	P	P	P	A	P	P
17	Deshmukh Prasad Sunil	P	P	A	P	P	P	A	A	P	P	P	P	A	P
18	Deshpande Piyush Milind	P	P	P	P	P	A	P	P	P	A	P	P	P	P
19	Dharmadhikari Prathamesh Manoj	P	P	A	P	P	A	P	P	A	P	P	A	P	P
20	Dighe Nilesh Vilas	P	A	P	A	P	P	A	A	P	P	A	A	P	P
21	Gade Sandeep Satish	P	P	P	P	P	P	P	P	A	P	P	A	P	P
22	Gadiya Vishal Rajesh	A	P	P	A	P	P	A	P	P	A	P	P	P	A
23	Ganjare Shubham Vitthalappa	P	P	P	A	P	P	P	P	P	P	A	P	A	A
24	Gavada Rahul Shivaji	A	P	P	P	A	A	P	P	P	A	P	A	P	P
25	Gole Aditya Chandrashekhar	P	A	P	P	P	P	A	P	P	P	A	P	P	P

Course Co-ordinator



Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING
 HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

List of the Students Enrolled for Hands-on-Training on Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Academic Year: 2019-2020

Class: B.E.

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020) SEM-II

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
1	Jadhav Tushar Rajaram	P	A	P	P	P	P	P	P	A	P	P	P	P	P
2	Jangam Darshan Subhash	P	P	P	A	P	P	P	P	P	P	P	P	A	P
3	Jarande Ketan Nathu	P	P	P	P	P	A	P	P	P	P	P	P	P	P
4	Jawarkar Uddhav Shivaji	P	A	P	P	P	P	P	P	A	P	P	A	P	P
5	Joshi Omkar Bhalchandra	P	P	P	P	P	P	P	A	P	P	P	P	P	P
6	Joshi Vaibhav Laxmikanat	P	P	A	P	A	P	P	P	P	P	P	P	P	A
7	Kabugade Sushant Subrao	A	P	P	A	P	P	A	P	A	P	P	A	P	P
8	Kad Pratiksha Sunil	P	A	P	P	P	P	P	P	P	P	P	P	P	P
9	Kadam Dipen Vilas	P	P	P	P	P	P	P	A	P	P	A	P	P	P
10	Kadam Gajanan Arun	P	P	P	P	P	A	P	P	P	P	P	P	P	P
11	Kadu Pankaj Dnyaneshwar	A	P	P	P	A	P	P	P	P	P	P	P	A	P
12	Kale Shashank Hanumant	P	P	P	P	P	P	P	A	P	A	P	P	P	P
13	Kale Swapnil Ramkrishna	P	A	P	P	P	P	P	P	A	P	P	P	P	A
14	Kandekar Balnath Ganpat	P	P	A	P	P	P	P	P	P	P	P	P	P	P
15	Kate Swapnil Chandrakant	A	P	P	P	P	P	P	P	A	A	P	P	P	P





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HANDS-ON-TRAINING ON

Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	07/01	08/01	09/01	10/01	16/01	21/01	22/01	23/01	30/01	13/02	14/02	18/02	24/02	25/02
16	Kesarkar Prathamesh Namdev	P	P	P	P	A	P	P	P	P	A	P	P	P	P
17	Khandale Mayur Milind	A	P	P	P	P	P	P	A	A	P	A	P	A	P
18	Khandale Vinay Uttam	P	A	P	A	P	P	P	P	P	P	P	A	P	P
19	Khedkar Ketan Vijay	P	P	P	P	P	A	P	P	P	P	P	P	A	P
20	Khedkar Prajwal Sagar	P	P	P	P	P	P	P	A	A	P	P	P	P	P
21	Kolhe Amit Baban	P	P	P	P	A	P	P	P	P	P	P	P	P	P
22	Konde Shubham Rajendra	A	P	P	P	P	P	P	P	P	P	P	P	P	A
23	Kulkarni Adwait Avinash	P	P	P	P	P	P	P	P	P	P	P	P	A	P
24	Kulkarni Kaustubh Dhananjay	P	A	P	P	P	P	P	A	P	P	P	P	P	P
25	Kundalkar Sejal Nikhil	P	P	P	P	A	P	P	P	P	P	A	P	P	P



(Signature)

Course Co-ordinator

(Signature)
Head of Department
Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



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DEPARTMENT OF MECHANICAL ENGINEERING
HANDS-ON-TRAINING ON



Computer Aided Manufacturing (CAM) –CNC Programming, Simulation & Manufacturing

Sr. No.	Name	27/02	03/03	04/03	05/03							
16	Kesarkar Prathamesh Namdev	P	A	P	P							
17	Khandale Mayur Milind	P	P	P	A							
18	Khandale Vinay Uttam	A	P	P	P							
19	Khedkar Ketan Vijay	P	P	P	P							
20	Khedkar Prajwal Sagar	P	A	P	P							
21	Kolhe Amit Baban	P	P	A	P							
22	Konde Shubham Rajendra	A	P	P	P							
23	Kulkarni Adwait Avinash	P	P	P	A							
24	Kulkarni Kaustubh Dhananjay	P	P	P	P							
25	Kundalkar Sejal Nikhil	A	P	P	P							

(Signature)

Course Co-ordinator



(Signature)

Head of Department
Head of Department
 Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Test on Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

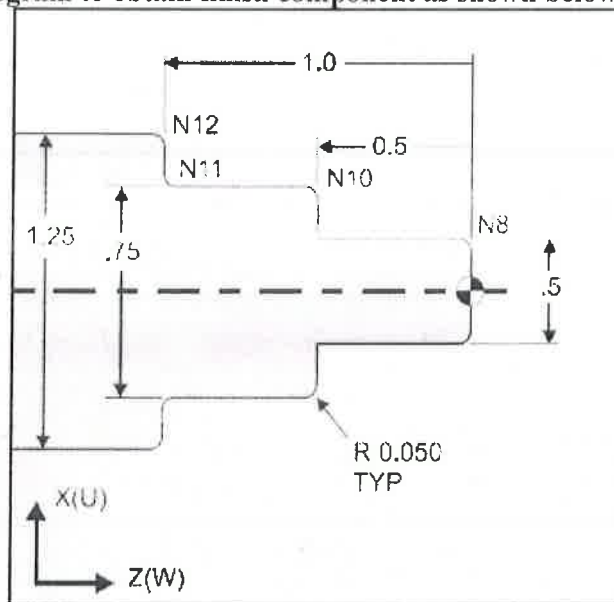
Academic Year: 2019-2020

SEM-II

Time: 2 Hrs

Marks: 50

Q1. Write CNC Part program to obtain finish component as shown below (50)



ANS:

```

O00042 (Linear G01 with Radius using R)
N1 G53 G00 X0. Z0. T0
N2 T101 (O.D. TOOL x .031 TNR)
N3 G50 S3000
N4 G97 S3000 M03
N5 G54 G00 X0.3 Z0.1 M08
N6 G96 S390
N7 G42 G01 Z0.10.01 (Tool nose compensation right)
N8 G01 X0.5 R-0.05
N9 G01 Z-0.5
N10 G01 X0.75 R-0.05
N11 G01 Z-1.0 R0.05 (R is to a positive X axis)
N12 G01 X1.25 R-0.05 (R- is to a negative Z axis)
N13 G01 Z-1.5
N14 G40 G00 U0.01 Z0.1 M09 (cancel tool nose comp)
N15 G53 G00 X0. Z0. T0
N16 M30
    
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Course Coordinator



Head of the Department
 Head of Department
 Dept. of Mechanical Engineering
 ZES's Zeal College of Engineering
 & Research, Pune-411 041



DEPARTMENT OF MECHANICAL ENGINEERING

**Test on Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing**

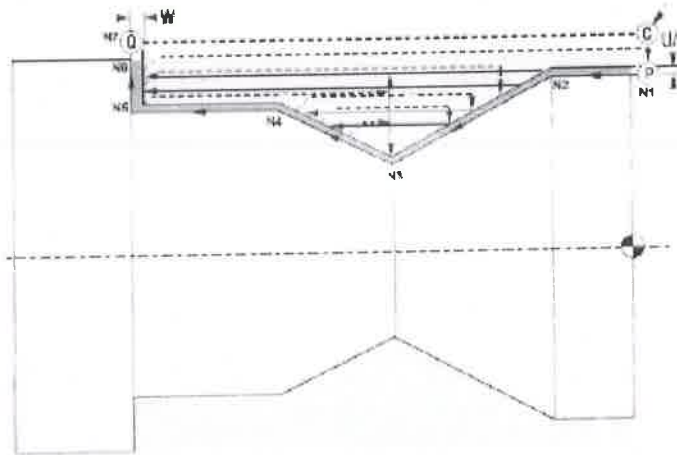
Academic Year: 2019-2020

SEM-II

Time: 2 Hrs

Marks: 50

Q1. Write CNC Part program to obtain finish component as shown below



ANS:

```

O00090
N101 G28 (FANUC TYPE II G71 ROUGHING
CYCLE)
N102 T101 (Roughing Tool)
N103 G50 S3000
N104 G97 S746 M03
N105 G54 G00 X2.1 Z0.1 (Start Position)
N106 G96 S380
N107 G71 P108 Q113 U0.02 W0.005 D0.05 F0.01
N108 G00 X1.75 Z0.1 (A G71 Type II has moves in both
X and Z in the P block)
N109 G01 Z0-.25 F0.006
N110 X1. Z-1.
N111 X1.5 Z-1.5
N112 Z-2.25
N113 G01 X2.1 (End of PQ part Definition)
N114 G97 S746 M09
N115 G28
N116 G28 (G70 FINISHING O.D.)
N117 T202 (Finishing Tool)
    
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N118 G50 S3000
N119 G97 S690 M03
N120 G54 G00 X2.1 Z0.1 (Start Position)
N121 G96 S410
N122 G70 P108 Q113 (Finishing Cycle)
N123 G97 S746 M09
N124 G28
N125 M30
    
```

Course Coordinator



Head of the Department
Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

**Evaluation details of Hands on Training on Computer Aided Manufacturing
(CAM) –CNC Programming , Simulation & Manufacturing**

Academic Year: 2019-2020

Duration of Course: 32 Hours (07/01/2020 to 05/03/2020)

SEM-II

Sr. No.	Name	Programming (30)	Simulation (20)	Total Marks (50)
1	ABANAVE VAISHNAV SUKHADEV	24	16	40
2	AMLE SHRIPAD NANDKUMAR	25	17	42
3	AYWALE SAGAR ARJUN	23	16	39
4	BAIG ASHRAF ALTAF	26	18	44
5	KATORE ATISH RAJARAM	27	18	45
6	MORE ROHIT SANJAY	24	16	40
7	SAMBHAJI SHIVAJI NIVANGUNE	23	17	40
8	PILLAI RUSSEL RICHARD	22	18	40
9	NIRBHAVANE SUNNY VILAS	21	17	38
10	ZADE VIVEK SHANKAR	22	16	38
11	BHOSLE PRASHANT PANDURANG	23	18	41
12	MUSALE SAINATH MANIKRAO	26	18	44
13	NAIK KRISHNA VISHWANATHRAO	27	18	45
14	GARAD VAIBHAV JAIWANTRAV	26	17	43
15	RUSHIKESH BHUJAJI GAWALI	24	15	39
16	GHADGE AMOL BALIRAM	22	16	38
17	YOGESH DNYANDEV MANE	23	18	41
18	YADAV KETAN CHANDRASHEKHAR	17	14	31
19	ABNAVE SHREEDHAR MARUTI	22	15	37
20	ITEKAR SHRIKANT RAMESH	24	14	38
21	PATIL AKHIL CHANDRAKANT	27	18	45
22	PAGARE HARSHAD DILIP	28	16	44
23	SONAWANE DHANRAJ KAILAS	27	17	44
24	SHAIKH MOHAMMAD HUMRAN RAFIQUEAHMED	26	15	41
25	SANGLE MIHEER SANJAY	22	16	38

Course Coordinator



Head of the Department
Head of Department

Dept. of Mechanical Engineering
ZES's Zeal College of Engineering
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ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA**



DEPARTMENT OF MECHANICAL ENGINEERING

**Hands on Training on Computer Aided Manufacturing (CAM) –CNC
Programming , Simulation & Manufacturing Summary Report**

Academic Year: 2019-20
Class: B.E.

Semester: II

Title of Activity/Event	Hands on Training on Computer Aided Manufacturing (CAM) –CNC Programming , Simulation & Manufacturing															
Date of Activity/Event	07/01/2020 to 05/03/2020															
Name of Expert/Trainer	Prof. M.R. Kalyanshetti															
Objective	The objective of this workshop was to communicate different CNC Programming , Simulation & Manufacturing in Industry															
Summary	<p>To meet the industry's requirement from manufacturing sector, CNC machining and programming plays an important role. To enhance student's expertise in the field of machining, a 32hrs Hands on training program on CNC Programming, Simulation & Manufacturing was scheduled. The hands-on training was conducted in two batches for final year mechanical engineering students at Machining excellence center of zeal college of engineering and research Pune.</p> <p>The training was scheduled from 07/01/2020 to 05/03/2020. The first week of training was class room sessions in which students were trained to write a program for manufacturing specified product drawing. Second week consists of practical on Master CAM Software to enhance student's expertise in file format, unit setting, 2D drawing generation for turning operation, Raw material setting & Tool parameters. Further in the third week of session students were exposed to DO-NC Simulator. Through these sessions they were able to work with simulators in Tool offset settings, Tool management, Tooling parameters and MPP generation. In the last week of training students work on CNC Machine to manufacture the job as per requirement.</p> <p>At the end a test was conducted to examine students' progress in CNC Machining. This program was conducted by Prof. Mahendra Kalyanshetti in the guidance of HOD Mechanical Engineering Department at Machining Excellence center of Zeal College of Engineering and Research Pune.</p>															
POs/PSOs Attained	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3	PSO 4
	✓	✓	✓	✓	✓	✓	✓				✓	✓	✓	✓	✓	✓



CERTIFICATE

OF APPRECIATION

PROUDLY PRESENTED TO

ABANAVE VAISHNAV SUKHADEV

Has successfully completed the training course of

HANDS-ON-TRAINING On Computer Aided Manufacturing (CAM)

The course was scheduled from 07/01/2020 to
05/03/2020 under CAD CAM CAE Excellence center at
Department of Mechanical Engineering, Zeal College of
Engineering and Research Pune



Dr. A. B. Ubale
HEAD OF DEPARTMENT



Dr. A. M. Kate
PRINCIPAL