

## MAHARAJA INSTITUTE OF TECHNOLOGY THANDAVAPURA

Mysuru-Ooty Road, Just off NH 766, Nanjanagudutaluk, Thandavapura, Karnataka 571302 (Approved by AICTE, New Delhi, Recognized by Govt. of Karnataka, Affiliated to VTU, Belagavi)



## DEPARTMENT OF MECHANICAL ENGINEERING

### TRAINING REPORT

	Piyush Jha, CTO, Space Chase Pvt. Ltd, Bangalore
Name of the Trainers	Md Khaseem, UAV Engineer, Space Chase Pvt. Ltd.
Name of the Trainers	Bangalore
Type of Activity:	Short Term Training
Details of Activity:	Drone Technology-Fabrication, Simulation &
,	Flying
Venue:	CAD Lab/Classroom-201
Date:	04/04/2024 to 05/04/2024
Target Audience	II Semester Mechanical Engineering

Objectives of the Workshop:

The objective of Drone Workshop aimed at students is to catch them young and get them excited about Drones in specific & technology in general. These students will go on to bring about disruptive innovations in the future.

Day 1: April 4th, 2024

The session began with technical and theoretical aspects of aviation. The speakers gave a presentation and spoke about the Wright brothers- who were the first ones to commercialize the plane. A timeline of the development of human flight over time was also shown.

On covering all the required details of aviation, for the second half of the day, the participants were asked to pair up in groups of four and were provided with the necessary components to assemble a drone. This included a flight control board, sensors such as accelerometer, gyroscope, magnetometer, an ESP 8266 Wi-Fi module, brushless DC motors, etc. The Eduvance drone application was given to the students that involved augmented reality technology for easy understanding of building a drone.









# Outcomes of the two day workshop on Drone Fabrication and Flying" ✓ Design of the drone

- Construction of Drone
- ✓ Avionics Sub-system Integration and Calibration
- Test Flight
- Application to real time projects

Day 2: April 5th, 2024

The Speakers began the session by talking about the various components of a drone that included the flight control board, the sensors like an accelerometer, gyroscope, magnetometer, the electronic speed controller, etc. The materials of the various frames used for assembly, the different carbon composites were discussed.

For the next half of the day, the students were given a drone simulator using their PC and VR so that they get used to controlling the drone, move the drone while in flight, get it to rotate and keep it levitating in air. The students were taken to an open area of the campus and begin the actual aviation session of the drone, after which the students had got a hold over controlling the drone and the session was concluded for the day.













HEAD OF THE DEPARTMENT
Department Of Mechanical Engineering
sharaja Institute Of Technology Thandavapura
Mysuru



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## **DEPARTMENT OF MECHANICAL ENGINEERING**

HVAC TRAINING AND INTERNSHIP

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Radiant Cooling Technology			
1			

Industrial Guide Design Co-ordinater.

"GRAVITY", # 3484, 4th "H" Block, 80 Feet Road,

Banashankari 6th Stage, Raghuvanahalli, Bengaluru-560 062.

Internship Coordinator

Head of Departmen Mechanical Engineering



Date: 09/09/2023

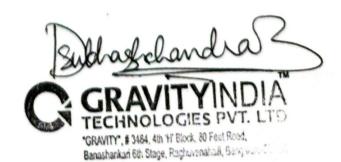
Ref No: SDC/MIT/I-23/008-D

# INTERNSHIP COMPLETION LETTER

This is to certify that

SI. No	USN	Name
1	4MN20ME001	ARJUN S
2	4MN20ME002	HERMAN BELSCHER J
3	4MN20ME003	KIRAN K M
4	4MN20ME004	KUMAR C S
5	4MN20ME005	NANDISH M
6	4MN20ME006	NAYANA N M
7	4MN20ME007	PRAJWAL K
8	4MN20ME008	R JEEVAN ARYA
9	4MN20ME009	RAGHAVENDRA
10	4MN20ME010	RAVIKIRAN K G
11	4MN20ME011	RAYAN KHAN
12	4MN20ME012	RHISTON JOEL LEWIS
13	4MN20ME016	D S SUPARNA
14	4MN20ME017	VEDHANTH G S
15	4MN20ME018	YASHWANTH S
16	4MN21ME400	AKHILA B
17	4MN21ME401	AMITH GOWDA N T
18	4MN21ME402	BHAGYA R .
19	4MN21ME403	CHANDRASHEKARA K
20	4MN21ME404	CHANDRASHEKHARA K S
21	4MN21ME405	DARSHAN Y K
22	4MN21ME406	M M PONNANNA
23	4MN21ME407	MADHUSUDAN M C
24	4MN21ME408	MLLIKARJUN K M
25	4MN21ME409	MANJUNATHA C
26	4MN21ME410	MOHAMMED ABU TALHA S
27	4MN21ME412	SANJAY M M
28	4MN21ME413	SHIVA S

Bachelor degree in Mechanical Engineering, students of Maharaja institute of Technology, Thandavapura Mysore, are Successfully completed Internship at Gravity India Technologies Pvt Ltd, Raghuvanahalli, Banashankari 6<sup>th</sup> stage, Bengaluru, from 14-08-2023 to 09-09-2023. They worked as an intern during their internship.







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Report: on Summer Internship

Name of the Faculty	Prof. Prabodh Sai Dutt		
Type of Academic Activity:	Summer Internship		
Details of Academic Activity:	Introduction to CATIA (A Hands-On Tutorial Approach)		
Venue:	CAD Lab		
Date:	8/5/2023 to 3/6/2023		

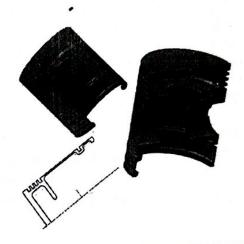
#### About the Program:

Department of Mechanical Engineering had organized Summer Internship " to the students of 4th semester of Mechanical Department from . Prof Prabodh Sai Dutt, Assistant Professor, MIT Thandavapura, was the trainer. The training program was held between 8/5/2023 to 3/6/2023

The Internship included an introduction of the main features in the 3D design software package Catia V5. Beside the basic tools of 3D design, a number of exercises and examples point to different construction strategies in several applications. In addition to the primary functions, methods for the concration of solid components and assemblings are explained and executed by also of different examples

Summer Internship Training targets

Sketch mode
Basic part design
Enhanced features of part design
Assembly design and product structure
Generating drawings
in important topics covered are as follows:
Sketch Work Modes
Simple Profiles & Constraints
Advanced Profiles & Sketch Analysis
Modifying Geometries & Relimitations



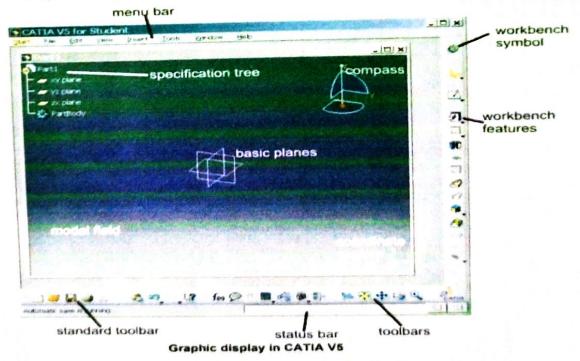
# Summer Internship Report







#### Graphic display



Summer Internship Coordinator

HoD





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## Report on two days hands on training on CFD

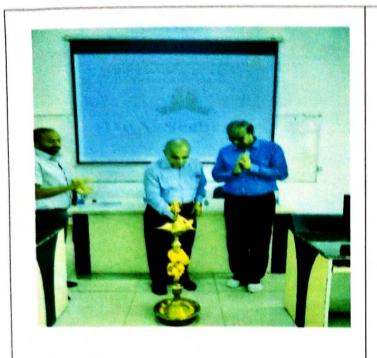
The department of mechanical engineering has organized two days hands on training on computational fluid dynamics using Ansys software on 18<sup>th</sup> and 19<sup>th</sup> November 2022 for final and prefinal year students of the department with the following objectives.

- To understand numerical flow simulation.
- To analyze the physical phenomena involved in fluid flow and heat conduction by computer numerical calculation and graphical display.
- To analyze problems involving fluid-fluid, fluid-solid or fluid-gas interaction.
- To simulate the action of thermo-fluids in a system.

#### The workshop flow is given below.

Sl no	Event	Resource Person	Time	
		Dr V Seshadri&	9.30 amto 9.45 am	
	Inauguration	Dr Y T Krishne Gowda		
DAY 1	Introduction to CFD	Dr V Seshadri	9.45 amto 10.30 am	
	Flow through pipeline	Prof.Mallikarjuna	11 amto 1.00 am	
	Flow through lid driven cavity	Dr Y T Krishne Gowda	1.45 pm to 3.45pm	
DAY 2	Flow through orifice	Prof.Yashwanth T	9.30 am to 10.30 am	
	Flow over a cylinder	Dr Y T Krisne Gowda	11 am to 1.00 pm	
	Flow over a cylinder	Dr Y T Krisne Gowda	1pm to 3.30pm	
	Official valedictory	Dr T Venkate Gowda	3.45 pm to 4.00 pm	

 The inauguration of the event is carried out by the main resource person Dr V Seshadri and principal of the institute Dr Y T Krishne Gowda by lightening the lamp.



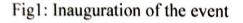




Fig 2:Felicitation of Dr V Seshadri

 The key speaker of the workshop Dr V Seshadri highlighted about importance and applications of CFD along with various methods of finite element analysis to solve the given problems.

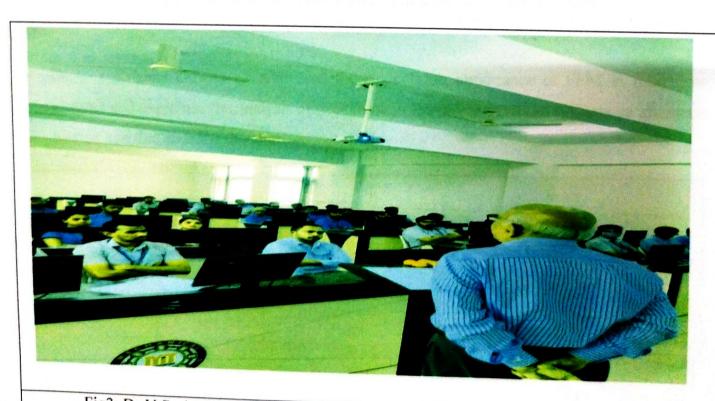
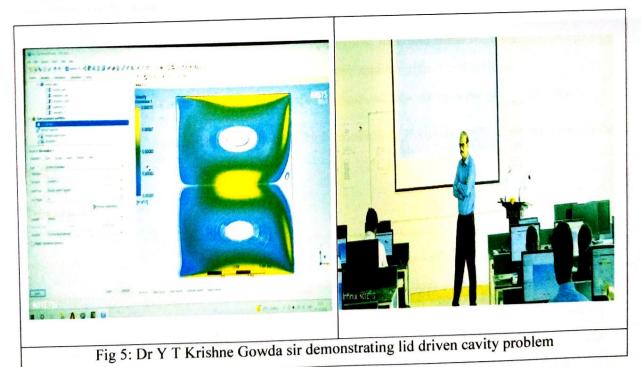


Fig3: Dr V Seshadri sir addressing the Gathering and introductory speech on CFD.

 Hands on session was initiated by Prof.Mallikarjuna whoexplained the various steps involved in ANSYS software and solved the problem of flow through pipe- an axisymmetric flow. Geometrical modeler, meshing, analyzing, solving and CFD post processing are the various stages involved in solving the problem are completely demonstrated by the professor.



Dr Y T Krishne Gowda sir addressed the students on importance of FEM in fluid flow analysis and explained the analysis of flow through led driven cavity to students on afternoon session and that ends the day one.



On day two the initial session was on Flow through orifice by prof. Yashwanth who
explained the details of the problem theoretically and solved the same on ANSYS fluent.



Fig 5: Prof. Yashwanth addressed students on orifice flow

 Post tea and post lunch session were again addressed by Dr Y T Krishne Gowda sir on the topic of flow over a cylinder.students analyzed the same on ANSYS fluent and understood the concept of stream lines contours and vectors of the flow.

#### Outcomes of the workshop

#### Students will be able

- To formulate problems which involve fluid flow, heat and mass transfer.
- To distinguish between various types of mesh and boundary conditions.
- To establish a simulation strategy under various situations by a proper CFD solver.

Finally, the day two was ended with the official valedictory done by Dr T Venkate Gowda head of the department.

Signatures:

	Lader.
Prof. Mallikarjuna	Dr. T.Venkate Gowda
Training Co-Ordinator	HoD



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#### DEPARTMENT OF MECHANICAL ENGINEERING

Report: on Summer Internship

Name of the Faculty	Dr. T V Venkategowda and Prof. Prabodh Sai Dutt
Type of Academic Activity:	Summer Internship
Details of Academic Activity:	Introduction to AUTOCAD (A Hands-On Tutorial Approach)
Venue:	CAD Lab
Date:	1/11/2023 to 30/11/2023

#### About the Program:

Department of Mechanical Engineering had organized Summer Internship " to the students of 5<sup>th</sup> semester of Mechanical Department from . Prof Prabodh Sai Dutt, Assistant Professor, MIT Thandavapura, was the trainer. The training program was held between 1/11/2023 to 30/11/2023

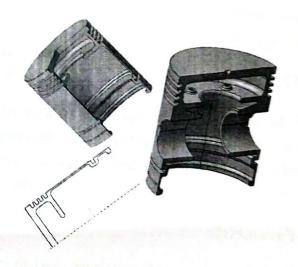
The Internship included an introduction of the main features in the 3D design software package. Beside the basic tools of 3D design, a number of exercises and examples point to different construction strategies in several applications. In addition to the primary functions, methods for the generation of solid components and assemblings are explained and executed by use of different examples

## Summer Internship Training targets

- ✓ Sketch mode
- ✓ Basic part design
- ✓ Enhanced features of part design
- ✓ Assembly design and product structure
- ✓ Generating drawings

The important topics covered are as follows:

- ✓ Sketch Work Modes
- ✓ Simple Profiles & Constraints
- ✓ Advanced Profiles & Sketch Analysis

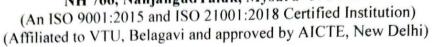




Summer Internship Coordinator

HoD.







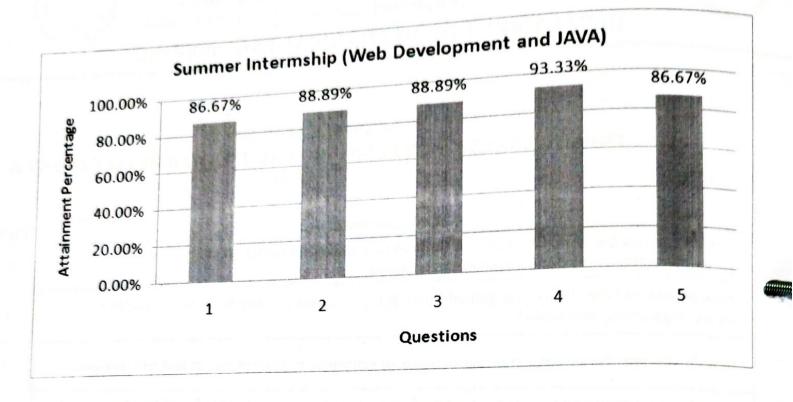
# DEPARTMENT OF MECHANICAL ENGINEERING

# ACADEMIC YEAR 2022-23 IMPACT ANALYSIS ON SUMMER TRAINING(WEB DEVELOPMENT & JAVA)

Questionnaire		
1. How do you rate the ability you gained through this summer training to analyze complex engineering problems reaching substantiated conclusions	2	
2. How do you rate the ability you gained through this summer training to design solutions for complex engineering problems?	3	
3. How do you rate the summer training in terms of relevance to current trends and technologies?	5	
4. How do you rate the knowledge you gained on topics like society, health & safety relevant to the professional engineering practice?	6	
5. How do you rate the understanding you gained through this talk in terms of societal and environmental contexts	7	

SI no	Student name	USN	Q1	Q2	Q3	Q4	Q5
1.	Bhavyashree	4MN21ME002	4	4	4	4	4
2.	Bhoomika M	4MN21ME003	4	5	4	4	3
3.	Darshan H M	4MN21ME004	4	4	4	4	3
4.	Jnanesh K M	4MN21ME006	5	5	5	5	5
5.	Madan P	4MN21ME009	5	5	5	5	5
6.	Namitha N	4MN21ME013	5	5	5	5	5
7.	Anirudda Sharma M	4MN22ME401	4	5	5	5	5
8.	Bhavani P K	4MN22ME402	4	4	5	5	5
9.	Prajwal N	4MN22ME409	4	3	3	5	4

Impact Value	4.33	4.44	4.44	4.67	4.33
Percentage	86.67%	88.89%	88.89%	93.33%	86.67%



Internship Coordinator 8-19. 01 |12/2023 HOD