Gopalan College of Engineering and Management

(ISO 9001:2015)

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DEPARTMENT OF AERONAUTICAL ENGINEERING

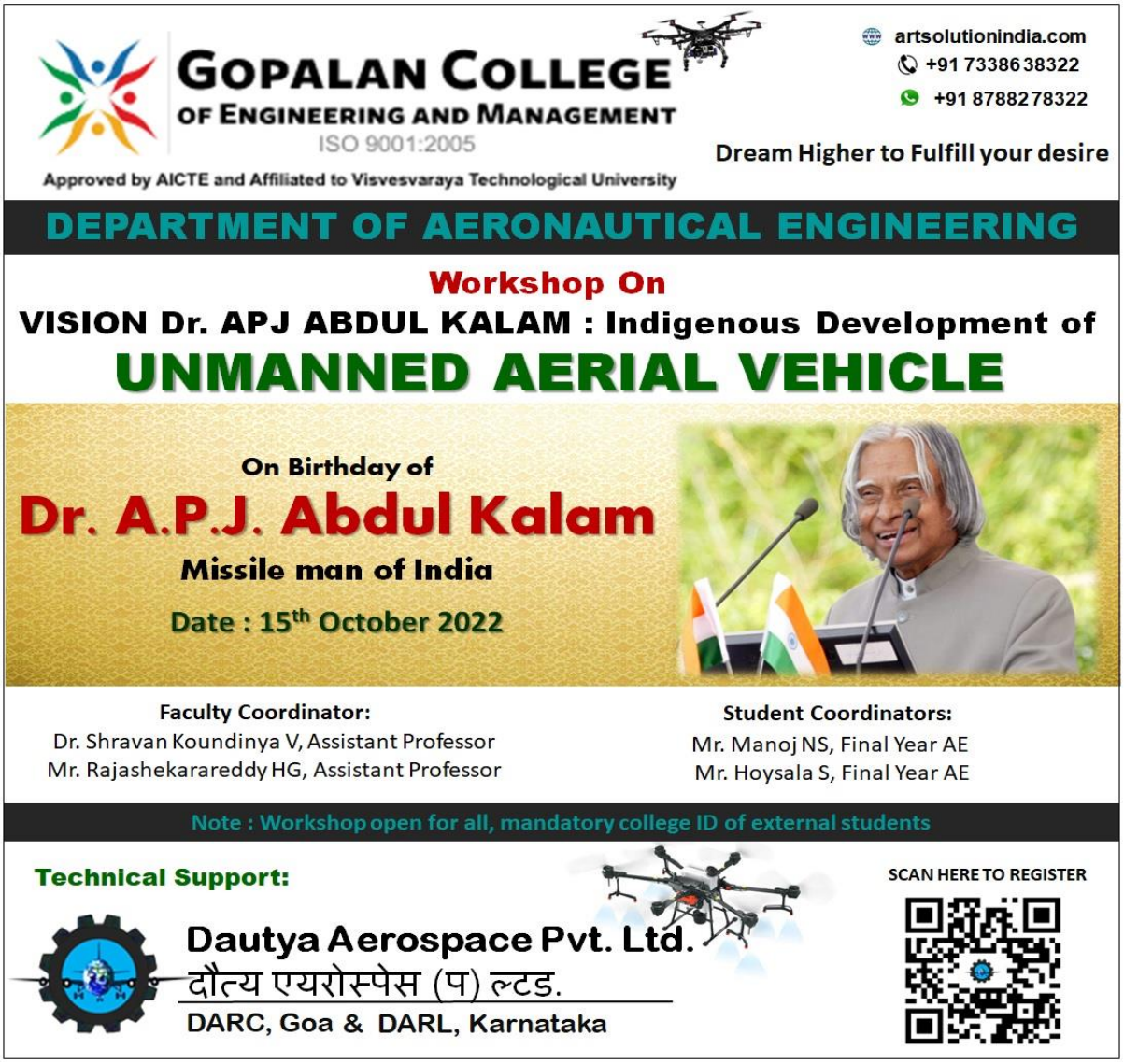
REPORT OF ACTIVITIES CONDUCTED BY SKILL LAB

A Workshop on

"INDIGENOUS DEVELOPMENT OF UNMANNED AERIAL VEHICLE"

A workshop on ***"Indigenous Development of Unmanned Aerial Vehicle (UAV)"*** was organized by the ***Skill Lab*** on ***15th of October, 2022***. The primary purpose of the workshop was to consider and discuss the potential of indigenous development of UAVs to meet requirements such as transportation systems, autonomous vehicles (automatic driving), Intelligent traffic control, and collaborative environmental perception, which require extensive data transmission and information exchange that are beyond the capability of conventional connected vehicles. The workshop was inaugurated by Dr. R Karuna Murthy, Academic Administrator, GCEM. ***Mr. Prashanth Radhakrishnan, CEO & Founder, Dautya Aerospace Pvt. Ltd. Goa & Bengaluru*** participated as resource person and threw light on flexibility and high manoeuvrability of UAVs that can quickly provide wireless connection to ground vehicles in the mobile environment. Post – presentation, hands on training was conducted for students on assembling and flying of agricultural drones. Prof. Rajshekharreddy and Dr. Shravan

Koundinya Vutukuru coordinated the workshop in which 159 students took active participation.



Outcome: The workshop, explored applications like transportation, autonomous vehicles, and intelligent traffic control. The event included presentations, hands-on training for assembling and flying agricultural drones, and had active participation from students.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Workshop on "Indigenous Development of Unmanned Aerial Vehicle"	**Date of Conduction:**	15/10/2022
Resource Persons:	***Mr. Prashanth Radhakrishnan***, CEO & Founder, Dautya Aerospace Pvt. Ltd. Goa & Bengaluru		

Sl. No.	Name of the Student	USN	Signature
1	Anil Kumar Nayaka M	1GD19AE002	
2	Anupama M Augustine	1GD19AE003	
3	Channamma	1GD19AE005	
4	Deepak G	1GD19AE006	
5	Ganavi G	1GD19AE009	
6	Gouthami N	1GD19AE010	
7	HOYSALA S	1GD19AE011	
8	Kruthika K	1GD19AE013	
9	Manoj N S	1GD19AE019	
10	Nisarga Mahesh M	1GD19AE021	
11	Omkaresh Ramesh	1GD19AE022	
12	Pooja S	1GD19AE026	
13	Priyanka G	1GD19AE028	
14	Rangaswamy S R	1GD19AE031	
15	Rashi Jain	1GD19AE032	
16	Saba afshaan A	1GD19AE034	
17	Soniya K	1GD19AE038	
18	Venu N	1GD19AE042	
19	Aishwarya Sharavana J	1GD20AE400	
20	A Pallavi	1GD20AE001	
21	Amrutha M	1GD20AE005	
22	Bhuvan Kumar R	1GD20AE008	
23	Dhamini S	1GD20AE009	
24	Dhana Raj D R	1GD20AE010	
25	Divyashree Harthi T	1GD20AE011	
26	Gagan D	1GD20AE012	
27	Hemashree DS	1GD20AE013	

28	K P Mohammed Nijal	1GD20AE014	
29	Keerthan K L	1GD20AE016	
30	Kiran C S	1GD20AE017	
31	Kumari Menaka Bharathi	1GD20AE018	
32	Neeraj P.S	1GD20AE020	
33	Puneeth M	1GD20AE021	
34	Rishith R Kumar	1GD20AE022	
35	S Karan	1GD20AE023	
36	Shabaaz Khan N	1GD20AE027	
37	Tejaswini S	1GD20AE032	
38	Tharun Surya D J	1GD20AE033	
39	Varun Reddy K	1GD20AE036	
40	Anil U Bhat	1GD21AE400	
41	Arpika Choubey	1GD21AE004	
42	Bhavana Sharama	1GD21AE007	
43	Gowtham Y V	1GD21AE011	
44	Jennifer Vasanth	1GD21AE014	
45	Kiran Kumari Bhatt	1GD21AE018	
46	Maheshwari M	1GD21AE019	
47	Manasa S	1GD21AE020	
48	Monesh Kumar P	1GD21AE021	
49	Patil Pranav Chatur	1GD21AE024	
50	Pavithra V	1GD21AE025	
51	Prity Sonar	1GD21AE027	
52	Rithik P	1GD21AE029	
53	Shashikumar	1GD21AE033	
54	Shekar G C	1GD21AE034	
55	Simiyon Raj	1GD21AE035	
56	Swathi O	1GD21AE038	
57	Syed Saheel	1GD21AE039	

A Guest Lecture on
"HIGHER EDUCATION AND RESEARCH OPPORTUNITIES ABROAD"

On the ***15th of November 2022***, the ***Skill Lab*** had the privilege of hosting a guest lecture by ***Professor Igors Tipans, Deputy Rector of Riga Technical University, Latvia***. The lecture was focused on the topic of ***"Higher Education and Research Opportunities Abroad"*** and was attended by a large number of students and faculty members.

Professor Tipans began the lecture by highlighting the importance of pursuing higher education and research opportunities abroad. He spoke about how international exposure can broaden an individual's perspective and provide them with the opportunity to gain a deeper understanding of different cultures and ways of life. He also mentioned how this experience can help one to become more adaptable and develop essential life skills such as independence and resilience. The professor then went on to talk about Riga Technical University and its reputation as a leading institution in the field of engineering and technology. He highlighted the university's strong research culture and the numerous research collaborations it has with international universities and industries. He also spoke about the various opportunities

available for students to engage in research projects and gain hands-on experience. One of the most interesting parts of the lecture was when Professor Tipans discussed the application process for higher education and research opportunities abroad. He emphasized the importance of preparing a well-structured resume, writing an effective cover letter, and taking the time to research the institution and the country.

The lecture concluded with a question-and-answer session, where students and faculty members had the opportunity to ask Professor Tipans questions about higher education and research opportunities abroad. The professor was able to provide valuable insights and advice on a wide range of topics, including student visa requirements, the cost of living in different countries, and the challenges one might face while pursuing higher education abroad.

Outcome: Overall, the guest lecture by Professor Igors Tipans was a great success, and the students and faculty members who attended left feeling inspired and motivated to pursue higher education and research opportunities abroad. The information and insights provided by the professor were highly informative and helpful, and many students expressed an interest in pursuing opportunities at Riga Technical University in the future.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Guest Lecture on "Higher Education and Research Opportunities Abroad"	**Date of Conduction:**	15/11/2022
Resource Persons:	***Prof. Igors Tipans,*** Deputy Rector of Riga Technical University, Latvia		

Sl. No.	Name of the Student	USN	Signature
1	Deepak G	1GD19AE006	
2	Deepu Darshan K	1GD19AE007	
3	Ganavi G	1GD19AE009	
4	Gouthami N	1GD19AE010	
5	Kishore K	1GD19AE012	
6	Kruthika K	1GD19AE013	
7	M Tharun	1GD19AE014	
8	Madhava Naidu Ha	1GD19AE015	
9	Mahima Bejgum	1GD19AE017	
10	Manoj M R	1GD19AE018	
11	Pooja A	1GD19AE025	
12	Pooja S	1GD19AE024	
13	Pooja S	1GD19AE026	
14	Praveen R	1GD19AE027	
15	Priyanka G	1GD19AE028	
16	Pruthvish	1gd19ae029	
17	Rakshith P	1GD19AE030	
18	Rangaswamy S R	1GD19AE031	
19	Rashi Jain	1GD19AE032	
20	Ruksar Khanum Bj	1GD19AE033	
21	Saba Afshaan A	1GD19AE034	
22	Shyamala C N	1GD19AE036	
23	A Pallavi	1GD20AE001	
24	B R Suraj	1GD20AE007	
25	Dhana Raj D R	1GD20AE010	
26	Divyashree Harthi T	1GD20AE011	
27	Gagan D	1GD20AE012	

28	Hemashree DS	1GD20AE013	
29	K P Mohammed Nijal	1GD20AE014	
30	Kavansagar	1GD20AE015	
31	Keerthan K L	1GD20AE016	
32	Kiran C S	1GD20AE017	
33	Kumari Menaka Bharathi	1GD20AE018	
34	M Pthashwan Sarathi	1GD20AE019	
35	Rishith R Kumar	1GD20AE022	
36	S Karan	1GD20AE023	
37	Shaestha Taranum	1GD20AE028	
38	Shubham Sai Samal	1GD20AE029	
39	Skanda Navada P	1GD20AE030	
40	Syed Sulthan K	1GD20AE031	
41	Tejaswini S	1GD20AE032	
42	Tharun Surya D J	1GD20AE033	
43	Vadakkerkara R Roopesh	1GD20AE034	
44	Varshini A R	1GD20AE035	
45	Shankar R Hawaldar	1GD21AE401	
46	Adarsh H	1GD21AE001	
47	Ankita Nandanwad	1GD21AE002	
48	Ankith Kumar Padhy	1GD21AE003	
49	Arpika Choubey	1GD21AE004	
50	Arpithabindu R N	1GD21AE005	
51	Darshan K	1GD21AE009	
52	Gowtham Y V	1GD21AE011	
53	Gudalkar Pratish	1GD21AE012	
54	Jagreet Brahma	1GD21AE013	
55	Jennifer Vasanth	1GD21AE014	
56	Kj Harshitha	1GD21AE015	
57	K S Harisha	1GD21AE016	

A Technical Talk on

"INTRODUCTION TO ROCKETS & MISSILES, ISRO'S ONGOING PROJECTS AND CAREER PROSPECTS"

On ***13th of December, 2022***, a technical talk on ***"Introduction to Rockets & Missiles, ISRO's ongoing projects, and career prospects"*** was organized by ***Skill Lab*** of Aeronautical Engineering Department. The talk was delivered by ***Professor Elangovan Rajgopalan***, former ISRO Scientist. The purpose of the technical talk was to provide the students with an introduction to the field of rockets and missiles and to give them an insight into the ongoing projects at ISRO and the career prospects in this field.

In his talk, Professor Rajgopalan provided a detailed introduction to the field of rockets and missiles, covering various aspects such as the history of rocket technology, the principles of rocket propulsion, and the various types of rockets and missiles. He also spoke about the various missions and projects undertaken by ISRO and the technologies used in these missions. The professor also spoke about the career prospects in the field of rocket and missile

technology, including the skills and qualifications required for a successful career in this field. He emphasized the importance of innovation and creativity in this field and encouraged the students to pursue their interests in this area. The students were given an opportunity to ask questions and clarify their doubts about the field of rockets and missiles and ISRO's ongoing projects. Professor Rajgopalan was highly approachable and answered all the questions with patience and clarity.

The technical talk on "Introduction to Rockets & Missiles, ISRO's ongoing projects and career prospects" was a highly informative and educational event that was well received by the students and faculty members. Professor Rajgopalan's knowledge and expertise in the field of rockets and missiles was highly evident, and the students were able to gain a deeper understanding of this field and its career prospects. The talk provided the students with valuable insights into the field of rockets and missiles and ISRO's ongoing projects, which will go a long way in promoting their interest in this field. The students were highly motivated by the talk and many expressed their desire to pursue a career in this field.

Outcome: Professor Rajgopalan delivered an informative talk on rockets, missiles, and ISRO's projects. The session covered history, propulsion principles, missions, and career prospects. The students gained insights, clarified doubts, and expressed increased interest in pursuing a career in the field of rockets and missiles.Overall, the technical talk was a highly positive event for the students of the department and will contribute to their education and development in the field of rockets and missiles.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Technical Talk on "Introduction to Rockets & Missiles, ISRO's Ongoing Projects and Career Prospects"	**Date of Conduction:**	13/12/2022
Resource Persons:	***Professor Elangovan Rajgopalan***, former ISRO Scientist		

Sl. No.	Name of the Student	USN	Signature
1	Arpika Choubey	1GD21AE004	
2	Bhavana Sharama	1GD21AE007	
3	Gowtham Y V	1GD21AE011	
4	Jennifer Vasanth	1GD21AE014	
5	Kiran Kumari Bhatt	1GD21AE018	
6	Maheshwari M	1GD21AE019	
7	Manasa S	1GD21AE020	
8	Monesh Kumar P	1GD21AE021	
9	Patil Pranav Chatur	1GD21AE024	
10	Pavithra V	1GD21AE025	
11	Prity Sonar	1GD21AE027	
12	Rithik P	1GD21AE029	
13	Shashikumar	1GD21AE033	
14	Shekar G C	1GD21AE034	
15	Simiyon Raj	1GD21AE035	
16	Swathi O	1GD21AE038	
17	Syed Saheel	1GD21AE039	
18	A Pallavi	1GD20AE001	
19	Amrutha M	1GD20AE005	
20	Bhuvan Kumar R	1GD20AE008	
21	Dhamini S	1GD20AE009	
22	Dhana Raj D R	1GD20AE010	
23	Divyashree Harthi T	1GD20AE011	
24	Gagan D	1GD20AE012	
25	Hemashree DS	1GD20AE013	
26	K P Mohammed Nijal	1GD20AE014	

27	Keerthan K L	1GD20AE016	
28	Kiran C S	1GD20AE017	
29	Kumari Menaka Bharathi	1GD20AE018	
30	Neeraj P.S	1GD20AE020	
31	Puneeth M	1GD20AE021	
32	Rishith R Kumar	1GD20AE022	
33	S Karan	1GD20AE023	
34	Shabaaz Khan N	1GD20AE027	
35	Tejaswini S	1GD20AE032	
36	Tharun Surya D J	1GD20AE033	
37	Varun Reddy K	1GD20AE036	
38	Anil U Bhat	1GD21AE400	
39	Anil Kumar Nayaka M	1GD19AE002	
40	Anupama M Augustine	1GD19AE003	
41	Channamma	1GD19AE005	
42	Deepak G	1GD19AE006	
43	Ganavi G	1GD19AE009	
44	Gouthami N	1GD19AE010	
45	HOYSALA S	1GD19AE011	
46	Kruthika K	1GD19AE013	
47	Manoj N S	1GD19AE019	
48	Nisarga Mahesh M	1GD19AE021	
49	Omkaresh Ramesh	1GD19AE022	
50	Pooja S	1GD19AE026	
51	Priyanka G	1GD19AE028	
52	Rangaswamy S R	1GD19AE031	
53	Rashi Jain	1GD19AE032	
54	Saba afshaan A	1GD19AE034	
55	Soniya K	1GD19AE038	
56	Venu N	1GD19AE042	
57	Aishwarya Sharavana J	1GD20AE400	

A Workshop on

"CATIA: SKETCHING, PART DESIGN AND ASSEMBLY"

A workshop on ***"CATIA: Sketching, Part Design and Assembly"*** was held ***every Friday*** at CAAD laboratory organized by the ***Skill Lab*** and conducted by ***Mr. Rajashekharreddy H G***, ***Assistant Professor, GCEM.*** The purpose of the workshop was to provide the students with hands-on experience in using CATIA, a computer-aided design software widely used in the field of engineering and product design. The workshop covered various aspects of the software, including sketching, part design, and assembly.

The workshop was attended by 78 students, who were eager to learn about CATIA and its various features. Mr. Rajashekharreddy H G provided a step-by-step explanation of the various concepts and techniques involved in sketching, part design, and assembly. The students were given hands-on training in using CATIA, starting with the basics of sketching and gradually moving on to more advanced concepts such as part design and assembly. The students were highly engaged in the workshop and were able to apply the concepts they learned to create their own designs.

The workshop on “CATIA: Sketching, Part Design and Assembly” was a highly educational and interactive event that was well received by the students. The hands-on training provided by the workshop will go a long way in promoting the students' knowledge and skills in using CATIA, which is a valuable tool in the field of engineering and product design. The students were highly motivated by the workshop and expressed their desire to participate in similar events in the future.

Outcome: The workshop on “CATIA: Sketching, Part Design and Assembly” was a highly educational and interactive event that was well received by the students. The hands-on training provided by the workshop will go a long way in promoting the students' knowledge and skills in using CATIA, which is a valuable tool in the field of engineering and product design. The students were highly motivated by the workshop and expressed their desire to participate in similar events in the future. Overall, the workshop was a highly positive event for the students of the department and will contribute to their education and development in the field of engineering and product design.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Workshop on "CATIA: Sketching, Part Design and Assembly"	**Date of Conduction:**	Every Friday
Resource Persons:	***Mr. Rajashekharreddy H G***, Assistant Professor, GCEM		

Sl. No.	Name of the Student	USN	Signature
1	Anil Kumar Nayaka M	1GD19AE002	
2	Bhimashanker	1GD19AE004	
3	Channamma	1GD19AE005	
4	Deepak G	1GD19AE006	
5	Deepu Darshan K	1GD19AE007	
6	Ganavi G	1GD19AE009	
7	Gouthami N	1GD19AE010	
8	Kishore K	1GD19AE012	
9	Kruthika K	1GD19AE013	
10	M Tharun	1GD19AE014	
11	Madhava Naidu Ha	1GD19AE015	
12	Mahima Bejgum	1GD19AE017	
13	Manoj M R	1GD19AE018	
14	Naveen M	1GD19AE020	
15	Omkaresh Ramesh	1GD19AE022	
16	Pavana CN	1GD19AE023	
17	Pooja A	1GD19AE025	
18	Pooja S	1GD19AE024	
19	Pooja S	1GD19AE026	
20	Praveen R	1GD19AE027	
21	Priyanka G	1GD19AE028	
22	Pruthvish	1gd19ae029	
23	Rakshith P	1GD19AE030	
24	Rangaswamy S R	1GD19AE031	
25	Rashi Jain	1GD19AE032	
26	Ruksar Khanum Bj	1GD19AE033	
27	Saba Afshaan A	1GD19AE034	

28	Shyamala C N	1GD19AE036	
29	A Pallavi	1GD20AE001	
30	B R Suraj	1GD20AE007	
31	Bhuvan Kumar R	1GD20AE008	
32	Dhamini S	1GD20AE009	
33	Dhana Raj D R	1GD20AE010	
34	Divyashree Harthi T	1GD20AE011	
35	Gagan D	1GD20AE012	
36	Hemashree DS	1GD20AE013	
37	K P Mohammed Nijal	1GD20AE014	
38	Kavansagar	1GD20AE015	
39	Keerthan K L	1GD20AE016	
40	Kiran C S	1GD20AE017	
41	Kumari Menaka Bharathi	1GD20AE018	
42	M Pthashwan Sarathi	1GD20AE019	
43	Neeraj P.S	1GD20AE020	
44	Puneeth M	1GD20AE021	
45	Rishith R Kumar	1GD20AE022	
46	S Karan	1GD20AE023	
47	Shaestha Taranum	1GD20AE028	
48	Shubham Sai Samal	1GD20AE029	
49	Skanda Navada P	1GD20AE030	
50	Syed Sulthan K	1GD20AE031	
51	Tejaswini S	1GD20AE032	
52	Tharun Surya D J	1GD20AE033	
53	Vadakkerkara R Roopesh	1GD20AE034	
54	Varshini A R	1GD20AE035	
55	Varun Reddy K	1GD20AE036	
56	Anil U Bhat	1GD21AE400	
57	Shankar R Hawaldar	1GD21AE401	
58	Adarsh H	1GD21AE001	
59	Ankita Nandanwad	1GD21AE002	

60	Ankith Kumar Padhy	1GD21AE003	
61	Arpika Choubey	1GD21AE004	
62	Arpithabindu R N	1GD21AE005	
63	Darshan K	1GD21AE009	
64	Gowtham Y V	1GD21AE011	
65	Gudalkar Pratish	1GD21AE012	
66	Jagreet Brahma	1GD21AE013	
67	Jennifer Vasanth	1GD21AE014	
68	Kj Harshitha	1GD21AE015	
69	K S Harisha	1GD21AE016	
70	Kartikkumar Nagappa Mungali	1GD21AE017	
71	Kiran Kumari Bhatt	1GD21AE018	
72	Maheshwari M	1GD21AE019	
73	Manasa S	1GD21AE020	
74	Monesh Kumar P	1GD21AE021	
75	Nuhingmon Subba Limboo	1GD21AE022	
76	P Steven Joel	1GD21AE023	
77	Patil Pranav Chatur	1GD21AE024	
78	Pavithra V	1GD21AE025	

A Workshop on

“MATLAB FOR AERONAUTICAL/ AEROSPACE APPLICATIONS”

A ***"Workshop on MATLAB for Aeronautical/Aerospace Applications"*** was held at GCEM ***every Friday*** organized by the ***Skill Lab*** and was conducted by ***Mr. Praveen N, Assistant Professor, Dept. of Aernoautical Engineering***. The purpose of the workshop was to familiarize students and professionals with the use of MATLAB in the field of aeronautical and aerospace engineering. Mr. Praveen then went on to cover the basics of MATLAB programming, including variables, arrays, functions, and scripts. He also discussed advanced topics such as plotting, image processing, and optimization techniques. The Workshop on "MATLAB for Aeronautical/ Aerospace Applications" was a successful event that provided valuable insights into the use of MATLAB in the field of aeronautical and aerospace engineering. The participants appreciated the opportunity to learn about the various tools and techniques available in MATLAB and how they can be applied in their work.

The Workshop familiarized participants with MATLAB's use in the field. Mr. Praveen covered programming basics, advanced topics like plotting and optimization, and showcased its application in aeronautical and aerospace engineering. Participants valued the insights gained and appreciated the practical relevance of MATLAB tools and techniques.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Workshop on "MATLAB for Aeronautical/ Aerospace Applications"	**Date of Conduction:**	Every Friday
Resource Persons:	***Mr. Praveen N***, Assistant Professor, GCEM		

Sl. No.	Name of the Student	USN	Signature
1	Deepak G	1GD19AE006	
2	Deepu Darshan K	1GD19AE007	
3	Ganavi G	1GD19AE009	
4	Gouthami N	1GD19AE010	
5	Kishore K	1GD19AE012	
6	Kruthika K	1GD19AE013	
7	M Tharun	1GD19AE014	
8	Madhava Naidu Ha	1GD19AE015	
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10	Manoj M R	1GD19AE018	
11	Pooja A	1GD19AE025	
12	Pooja S	1GD19AE024	
13	Pooja S	1GD19AE026	
14	Praveen R	1GD19AE027	
15	Priyanka G	1GD19AE028	
16	Pruthvish	1gd19ae029	
17	Rakshith P	1GD19AE030	
18	Rangaswamy S R	1GD19AE031	
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20	Ruksar Khanum Bj	1GD19AE033	
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22	Shyamala C N	1GD19AE036	
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25	Dhana Raj D R	1GD20AE010	
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27	Gagan D	1GD20AE012	
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36	S Karan	1GD20AE023	
37	Shaestha Taranum	1GD20AE028	
38	Shubham Sai Samal	1GD20AE029	
39	Skanda Navada P	1GD20AE030	
40	Syed Sulthan K	1GD20AE031	
41	Tejaswini S	1GD20AE032	
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43	Vadakkerkara R Roopesh	1GD20AE034	
44	Varshini A R	1GD20AE035	
45	Shankar R Hawaldar	1GD21AE401	
46	Adarsh H	1GD21AE001	
47	Ankita Nandanwad	1GD21AE002	
48	Ankith Kumar Padhy	1GD21AE003	
49	Arpika Choubey	1GD21AE004	
50	Arpithabindu R N	1GD21AE005	
51	Darshan K	1GD21AE009	
52	Gowtham Y V	1GD21AE011	
53	Gudalkar Pratish	1GD21AE012	
54	Jagreet Brahma	1GD21AE013	
55	Jennifer Vasanth	1GD21AE014	
56	Kj Harshitha	1GD21AE015	
57	K S Harisha	1GD21AE016	
58	Kartikkumar Nagappa Mungali	1GD21AE017	

59	Kiran Kumari Bhatt	1GD21AE018	
60	Maheshwari M	1GD21AE019	
61	Manasa S	1GD21AE020	
62	Monesh Kumar P	1GD21AE021	
63	Nuhingmon Subba Limboo	1GD21AE022	
64	P Steven Joel	1GD21AE023	
65	Patil Pranav Chatur	1GD21AE024	
66	Pavithra V	1GD21AE025	

A Technical Talk on

“GATE: PREPARATION AND FUTURE PROSPECTS”

A ***"Technical Talk on GATE: Preparation and Future Prospects"*** was organized by the ***Skill Lab*** on ***14th of December, 2022*** and was conducted by ***Mr. Saviraj A S,*** who is an Assistant Professor at the institute. The talk was aimed at providing guidance and information to students about preparing for the Graduate Aptitude Test in Engineering (GATE) and the future prospects of GATE qualification. GATE is a highly competitive examination that is conducted annually by the Indian Institutes of Technology (IITs) on behalf of the National Coordination Board - GATE, Department of Higher Education, Ministry of Human Resource Development (MHRD), Government of India. The examination is designed to test the comprehensive understanding of various undergraduate subjects in engineering and technology.

Mr. Saviraj started the talk by providing an overview of GATE and its significance, including the eligibility criteria and the various streams in which it is conducted. He then went on to discuss the key topics that are covered in the GATE examination and how to prepare for them effectively. He emphasized the importance of understanding the fundamentals of the subject and recommended the use of study materials such as textbooks, practice questions, and mock tests. The speaker also discussed the future prospects of GATE, including the opportunities for higher studies and the career benefits of having a GATE qualification. He highlighted the various institutes and organizations that accept GATE scores for admission to Master's programs and PhD programs, as well as for recruitment in various Public Sector Undertakings.

Outcome: The Technical Talk on "GATE: Preparation and Future Prospects" was a well-received event that provided valuable insights and guidance to the participants. The talk was successful in creating awareness about the significance of GATE and the opportunities that it provides. The participants appreciated the opportunity to learn about the examination and the future prospects of GATE qualification and expressed their gratitude to Mr. Saviraj for his informative presentation.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A Technical Talk on "GATE: Preparation and Future Prospects"	**Date of Conduction:**	14/12/2022
Resource Persons:	***Mr. Saviraj A S,*** Assistant Professor, GCEM		

Sl. No.	Name of the Student	USN	Signature
1	Arpika Choubey	1GD21AE004	
2	Bhavana Sharama	1GD21AE007	
3	Gowtham Y V	1GD21AE011	
4	Jennifer Vasanth	1GD21AE014	
5	Kiran Kumari Bhatt	1GD21AE018	
6	Maheshwari M	1GD21AE019	
7	Manasa S	1GD21AE020	
8	Monesh Kumar P	1GD21AE021	
9	Patil Pranav Chatur	1GD21AE024	
10	Pavithra V	1GD21AE025	
11	Prity Sonar	1GD21AE027	
12	Rithik P	1GD21AE029	
13	Shashikumar	1GD21AE033	
14	Shekar G C	1GD21AE034	
15	Simiyon Raj	1GD21AE035	
16	Swathi O	1GD21AE038	
17	Syed Saheel	1GD21AE039	
18	A Pallavi	1GD20AE001	
19	Amrutha M	1GD20AE005	
20	Bhuvan Kumar R	1GD20AE008	
21	Dhamini S	1GD20AE009	
22	Dhana Raj D R	1GD20AE010	
23	Divyashree Harthi T	1GD20AE011	
24	Gagan D	1GD20AE012	
25	Hemashree DS	1GD20AE013	
26	K P Mohammed Nijal	1GD20AE014	
27	Keerthan K L	1GD20AE016	

28	Kiran C S	1GD20AE017	
29	Kumari Menaka Bharathi	1GD20AE018	
30	Neeraj P.S	1GD20AE020	
31	Puneeth M	1GD20AE021	
32	Rishith R Kumar	1GD20AE022	
33	S Karan	1GD20AE023	
34	Shabaaz Khan N	1GD20AE027	
35	Tejaswini S	1GD20AE032	
36	Tharun Surya D J	1GD20AE033	
37	Varun Reddy K	1GD20AE036	
38	Anil U Bhat	1GD21AE400	
39	Anil Kumar Nayaka M	1GD19AE002	
40	Anupama M Augustine	1GD19AE003	
41	Channamma	1GD19AE005	
42	Deepak G	1GD19AE006	
43	Ganavi G	1GD19AE009	
44	Gouthami N	1GD19AE010	
45	HOYSALA S	1GD19AE011	
46	Kruthika K	1GD19AE013	
47	Manoj N S	1GD19AE019	
48	Nisarga Mahesh M	1GD19AE021	
49	Omkaresh Ramesh	1GD19AE022	
50	Pooja S	1GD19AE026	
51	Priyanka G	1GD19AE028	
52	Rangaswamy S R	1GD19AE031	
53	Rashi Jain	1GD19AE032	
54	Saba afshaan A	1GD19AE034	
55	Soniya K	1GD19AE038	
56	Venu N	1GD19AE042	
57	Aishwarya Sharavana J	1GD20AE400	

An online competition on

“AIRCRAFT SKETCHING” for Pre-University Students

A National Level online competition on ***"Aircraft Sketching"*** was organized by the ***Skill Lab*** of Department of Aeronautical Engineering in the month of ***February, 2023*** for Pre-University students. The competition aimed to encourage students to showcase their creativity and technical skills in aircraft sketching and design. The competition was held online, and participants were able to submit their entries through an online platform. The competition consisted of two rounds, with the first round being an online submission of aircraft sketches, and the second round being an online presentation of the sketches. Participants were asked to submit their sketches of an aircraft of their choice, along with a brief description of the design and its features. The sketches would be evaluated by a panel of judges who were experts in the field of aerospace engineering and design. The winner of the competition would be announced at the end of the second round. The winner would be selected based on the overall score of their submission and presentation. The winner would be awarded a certificate and a cash prize, and all participants will receive certificate of participation.

Outcome: The online competition on "Aircraft Sketching" aims to provide Pre-University students with the opportunity to showcase their skills and creativity in aircraft design. The participants appreciated the opportunity to learn about aircraft sketching and design, and the competition was well received by the students and their families. The department is planning to hold similar events in the future, and are looking forward to encouraging more students to participate in these events.

“Young Engineers’ - Camp 2023”

The Young Engineers - Camp 2023 was a skill development program conducted by ***Skill Lab, Department of Aeronautical Engineering*** from ***April 24, 2023 to April 29, 2023***. The camp aimed to provide hands-on training and theoretical knowledge to 5th to 9th standard students of Gopalan International School. The program covered various aspects of ***Aeronautics, Aerodynamics, Rocket Science, Wind Tunnel and Aero Modelling***. The sessions were conducted by experienced professionals in the field to inspire and educate young minds about the fascinating world of aviation and engineering.

Day 1: April 24, 2023

The camp began with a session on the ***“Basic Science Behind Aeronautics”*** conducted by ***Dr. G. Ramesh, Dean Research, GCEM***. The session introduced the participants to the atmosphere and properties of air. The difference between aeronautics and aerostatics was also explained. Following the theoretical session, ***Mr. R. Jini Raj, Assistant Professor - AE*** conducted a hands-on training session where the students had fun making paper planes and learned about range, endurance, and manoeuvrability.

Day 2: April 25, 2023

On the second day, Dr. G. Ramesh conducted a session on ***"Aircraft Aerodynamics"***. The participants were introduced to powered and unpowered flight, aircraft parts, controls, and manoeuvres. This was followed by a hands-on training session by Dr. G. Ramesh where the students learned about lift and drag calculations and had the opportunity to make rubber band-powered gliders.

Day 3: April 26, 2023

Mr. Varun Reddy, 6th Semester, Aeronautical Engineering conducted a session on ***"Rocket Science"***. The participants had the exciting opportunity to make water bottle rockets and learn about overcoming range limitations. This session allowed the students to experience the principles of propulsion and the fun of designing and launching their own rockets.

Day 4: April 27, 2023

The fourth day focused on ***"Wind Tunnel".*** Mr. R. Jini Raj conducted a session where the basic principles and components of a wind tunnel were explained. The participants learned about different models and calculating airspeed. They also had the opportunity to visualize the behaviour of airflow, providing valuable insights into aerodynamics.

Day 5: April 28, 2023

A session on ***"Aero Modeling"*** was conducted by Mr. Varun Reddy. The participants gained a basic understanding of RC planes and drones. A demonstration on drone piloting was given, allowing the students to witness firsthand the capabilities and controls of these advanced aerial vehicles.

Day 6: April 29, 2023

The final day of the camp focused on hands-on training. Mr. Varun Reddy conducted a session where the participants had the opportunity to build their own RC planes. The students also received a demonstration on RC plane piloting, allowing them to witness the results of their efforts and experience the thrill of flying their creations.

Outcome: The Young Engineers - Camp 2023 organized by Skill Lab was a successful program that provided valuable knowledge and hands-on experience to young students interested in aeronautics and engineering. The camp sessions, conducted by Dr. G. Ramesh, Mr. R. Jini Raj, and Mr. Varun Reddy, covered a wide range of topics, including the science behind aeronautics, aircraft aerodynamics, rocket science, wind tunnel principles, and aero modeling. The participants gained theoretical knowledge, practical skills, and a deeper appreciation for the field of aviation. The camp not only inspired the students but also fostered their curiosity and passion for engineering.

LIST OF STUDENTS WHO PARTICIPATED AS RESOURCE PERSONS			
Title:	"Young Engineers' - Camp 2023"	**Date of Conduction:**	24/04/2023 – 29/04/2023

Sl. No.	Name of the Student	USN	Signature
24	Gagan D	1GD20AE012	
25	Kavansagar	1GD20AE015	
37	Varun Reddy K	1GD20AE036	
45	Hoysala S	1GD19AE011	

Skill Enhancement Program in
CATIA, SOLIDWORKS, XFLR5, JAVA FOIL, QBLADE, ANSYS FLUENT & MATLAB

The Skill Enhancement Program, held from ***17th May 2023 to 2nd June 2023***, organized by the ***Skill Lab*** of Aeronautical Engineering Department aimed to provide students with practical experience and proficiency in various software tools used in engineering and design such as ***CATIA, SOLIDWORKS, XFLR5, JAVA FOIL, QBLADE, ANSYS FLUENT, and MATLAB.***

Objectives:

The program had clear and specific objectives cantered around the utilization and proficiency development in the mentioned software tools. The objectives were as follows:

Gain Familiarity with CATIA: The objective was to familiarize students with CATIA, a comprehensive CAD software widely used in engineering and design. The aim was to develop proficiency in 3D modeling, assembly design, and simulation capabilities offered by CATIA.

Develop Proficiency in SOLIDWORKS: The program aimed to enhance the skills of the students in SOLIDWORKS, a powerful CAD software extensively used for product design and engineering. The objective was to gain hands-on experience in creating complex 3D models, conducting simulations, and generating engineering drawings.

Learn and Apply XFLR5 and JAVA FOIL: The program aimed to introduce students to XFLR5 and JAVA FOIL, specialized software tools used in aerodynamics for airfoil design and performance analysis. The objective was to understand the principles of aerodynamics, generate airfoil designs, and assess their performance using these tools.

Acquire Proficiency in QBLADE: The objective was to gain proficiency in QBLADE, a software tool used for wind turbine rotor blade design and analysis. The aim was to learn the functionalities of QBLADE and apply it to analyze rotor blade performance parameters.

Gain Hands-on Experience with ANSYS FLUENT: The objective was to develop practical skills in using ANSYS FLUENT, a widely used computational fluid dynamics (CFD) software. The aim was to learn how to set up fluid flow simulations, analyze results, and interpret data for engineering applications.

Enhance MATLAB Proficiency: The program aimed to enhance the proficiency of students in MATLAB, a powerful numerical computing software. The objective was to develop skills in data analysis, algorithm development, and simulation using MATLAB for engineering applications.

Methodology

The program followed a structured approach to achieve the objectives. It included workshops, project assignments, and mentorship sessions to provide hands-on training and guidance. The methodology ensured steady progress and skill development in each software tool.

Day 1: May 17, 2023 & Day 2: May 18, 2023

CATIA Familiarity: Participants gained familiarity with CATIA through practical sessions and guidance from ***Mr. Jini Raj R, Assistant Professor - AE***. The basics of 3D modeling, assembly design, and simulation using the software were taught. By the end of the program, participants were able to create complex 3D models and simulate their behavior.

Day 3: May 19, 2023 & Day 4: May 22, 2023

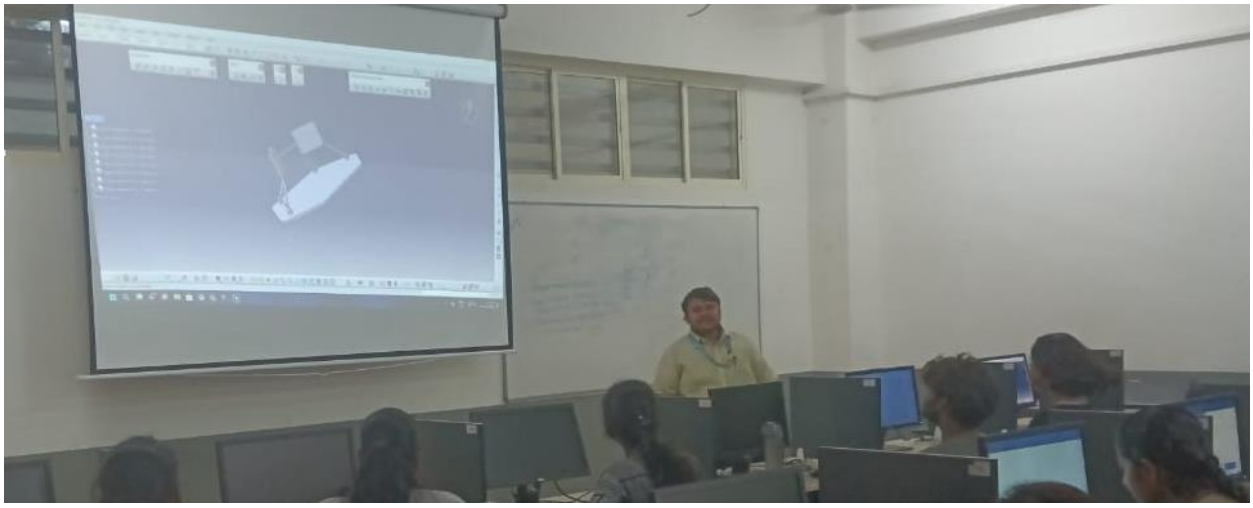
SOLIDWORKS Proficiency: Under the guidance of ***Dr. Konada Sirikonda Mallik, Assistant Professor – AE***, participants developed proficiency in SOLIDWORKS. Practical projects provided hands-on experience in creating intricate 3D models, conducting simulations, and generating engineering drawings. This experience enhanced participants' understanding of product design and engineering principles.

Day 5: May 23, 2023 & Day 6: May 24, 2023

XFLR5 and JAVA FOIL: With the guidance of ***Mr. Praveen N***, ***Assistant Professor – AE,*** participants learned to use XFLR5 and JAVA FOIL for airfoil design and performance analysis. Practical exercises enabled participants to apply these tools and analyze the performance of airfoils.

Day 7: May 25, 2023 & Day 8: May 26, 2023

XFLR5 and JAVA FOIL: Under the guidance of Mr. Jini Raj R and ***Mr. Suraj S Rao, Assistant Lab Instructor – AE***, participants were introduced to XFLR5 and JAVA FOIL for airfoil design and performance analysis. The session focused on the principles of aerodynamics and how these tools can be utilized to generate airfoil designs and assess their performance. Practical exercises provided hands-on experience in using XFLR5 and JAVA FOIL, analyzing airfoil characteristics, and optimizing their performance.



Day 9: May 27, 2023

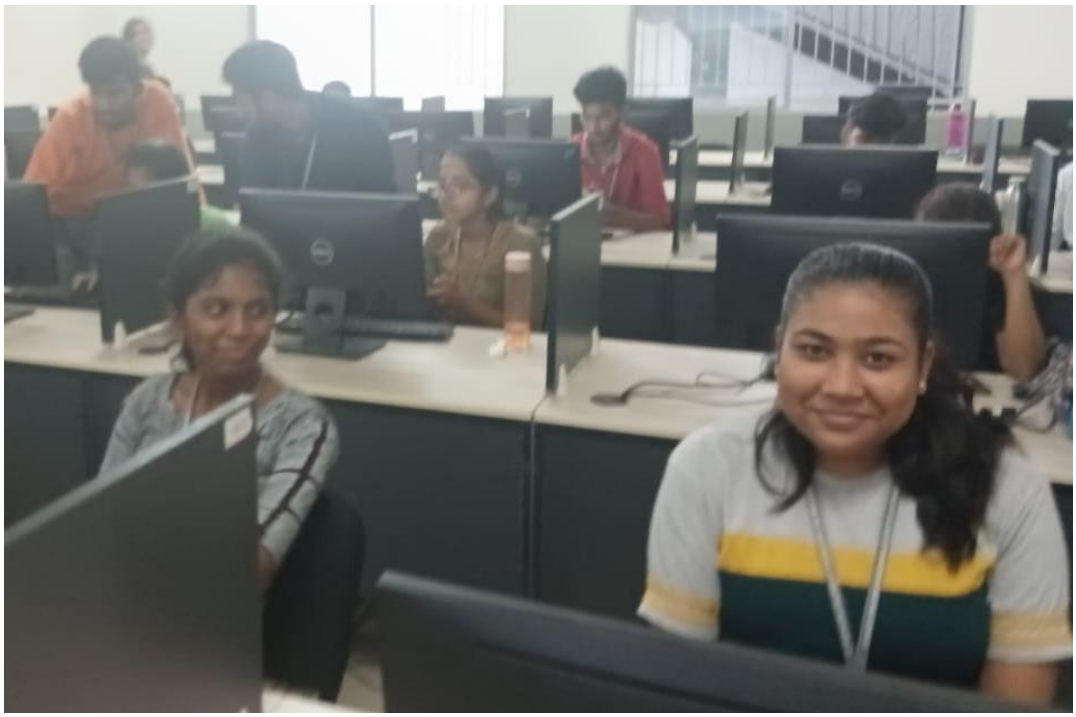
QBLADE: Continuing with the topic of aerodynamics, participants learned about QBLADE, a software tool used for wind turbine rotor blade design and analysis. Mr. Jini Raj R and Mr. Suraj S Rao guided the participants through the functionalities of QBLADE and its applications in analyzing rotor blade performance parameters. Practical exercises helped participants gain practical knowledge in utilizing QBLADE to optimize wind turbine designs, considering factors such as lift, drag, and power output.

Day 10: May 29, 2023

MATLAB Proficiency: Under the guidance of Mr. Praveen N. and Mr. Suraj S Rao, participants explored MATLAB, a powerful numerical computing software. The session focused on the basics of MATLAB programming, data analysis, algorithm development, and simulation for engineering applications. Hands-on exercises enhanced participants' proficiency in MATLAB and equipped them with the skills necessary to tackle engineering problems using this versatile software.

Day 11: May 30, 2023

CATIA Sketching and Part Design: Dr. Konada Sirikonda Mallik and Mr. Suraj S Rao led a session on sketching and part design using CATIA software. The focus was on developing proficiency in creating 2D sketches, converting them into 3D models, and performing part design operations. Participants learned to utilize the various tools and features offered by CATIA to create complex designs and assemblies.



Day 12: May 31, 2023

CATIA Drafting and Assembly: Building upon the previous session, Dr. Konada Sirikonda Mallik and Mr. Suraj S Rao conducted a session on drafting and assembly using CATIA software. Participants gained practical experience in generating engineering drawings, applying geometric dimensioning and tolerancing (GD&T) principles, and assembling components into a complete product.

Day 13: June 1, 2023

CATIA Wireframe Modelling: Another session led by Dr. Konada Sirikonda Mallik and Mr. Suraj S Rao focused on wireframe modeling in CATIA. Participants learned how to create wireframe models, which are essential for conceptualizing and visualizing complex geometries. The session enabled participants to represent surfaces, curves, and edges accurately using CATIA's wireframe modeling capabilities.

Day 14: June 2, 2023

ANSYS Fluent - Steady Flow Analysis: Mr. Jini Raj R and Mr. Suraj S Rao conducted a session on the importance of studying flow analysis through ANSYS Fluent, a widely used computational fluid dynamics (CFD) software. Participants learned how to set up fluid flow simulations, define boundary conditions, analyze results, and interpret data for engineering applications. The session provided valuable insights into understanding and predicting fluid behavior.

Day 15: June 3, 2023

ANSYS Fluent - External Flow Analysis: Continuing with ANSYS Fluent, Mr. Jini Raj R and Mr. Suraj S Rao focused on external flow analysis. Participants gained practical experience in simulating and analyzing the flow of fluids around external objects, such as airfoils and bodies. This session enhanced participants' understanding of aerodynamic principles and their application in real-world scenarios.

Outcome: The program resulted in participants gaining proficiency in these software tools, developing practical skills in engineering applications, and acquiring knowledge in areas such as 3D modeling, aerodynamics, computational fluid dynamics, and numerical computing.

Sample Certificate for the Participants

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	Skill Enhancement Program in CATIA, SOLIDWORKS, XFLR5, JAVA FOIL, QBLADE, ANSYS FLUENT & MATLAB	**Date of Conduction:**	17/05/2023 – 02/06/2023
Resource Persons:	***Mr. Jini Raj R,*** Assistant Professor, GCEM ***Dr. Konada Sirikonda Mallik,*** Assistant Professor, GCEM ***Mr. Praveen N,*** Assistant Professor, GCEM ***Mr. Suraj S Rao***, Assistant Lab Instructor, GCEM		

Sl. No.	Name of the Student	USN	Signature
1	Ankith Kumar Padhy	1GD21AE002	
2	Arpika Choubey	1GD21AE004	
3	Bhavana Sharama	1GD21AE007	
4	Gowtham Y V	1GD21AE011	
5	Jennifer Vasanth	1GD21AE014	
6	K J Harshitha	1GD21AE015	
7	K S Harisha	1GD21AE016	
8	Kiran Kumari Bhatt	1GD21AE018	
9	Maheshwari M	1GD21AE019	
10	Manasa S	1GD21AE020	
11	Nuhingmon Subba Limboo	1GD21AE022	
12	P Steven Joel	1GD21AE023	
13	Patil Pranav Chatur	1GD21AE024	
14	Pavithra V	1GD21AE025	
15	Prity Sonar	1GD21AE027	
16	Rithik P	1GD21AE029	
17	Shashikumar	1GD21AE033	
18	Shekar G C	1GD21AE034	
19	Suraj Diyali	1GD21AE037	
20	Swathi O	1GD21AE038	
21	Akash S Govekar	1GD22AE400	
22	Charan R	1GD22AE401	
23	Jakkapalli Kunal Ramkrushan	1GD22AE402	
24	Shashank P	1GD22AE403	

A ONE-DAY WORKSHOP ON
ADVANCED VIBRATION ANALYSIS

Skill Lab, Department of Aeronautical Engineering of Gopalan College of Engineering and Management in collaboration with ***Enmaz Engineering Services Pvt. Ltd***. in Bangalore, organized a one-day workshop on ***Advanced Vibration Analysis on June 16, 2023***. Esteemed experts with extensive knowledge and experience in the field delivered informative technical talks and conducted hands-on sessions.

The workshop commenced at 9:30am with a warm welcome and an introduction to the participants. During the morning session, ***Dr. V Shankar, Ex - scientist from NAL***, delivered a technical talk as the keynote speaker, focusing on ***"Introduction to Vibration Testing".*** He emphasized the significance of vibration analysis in various engineering domains and explained the equipment used to assess the reliability of structures and systems.

Mr. D.S. Ramakrishna, Chief Technology Officer at Enmaz Engineering Services Pvt. Ltd. in Bangalore, delivered a technical talk on ***"Applications of Vibration Testing in Aerospace, Defence, and Automobile Fields, including Special Areas".*** He discussed the applications of vibration analysis in fields such as aerospace, automobile, railways, power, manufacturing, and miscellaneous industries like food and jewellery. Mr. Ramakrishna

explained the importance of vibrations for flutter analysis in aircraft and strain measurements. Additionally, he explored the vital role played by vibration analysis in qualification testing, design verification and auditing, condition monitoring, structural analysis, production testing, shock, and crash testing.

Following the technical talk session, Mr. Ramakrishna conducted hands-on sessions. In the first session, he demonstrated experimental vibration analysis on an aircraft structure. The afternoon session began with a hands-on session where each participant conducted vibration testing under Mr. Ramakrishna's guidance. The workshop concluded with Mr. Ramakrishna and Dr. V. Shankar explaining the analysis of vibration testing results to the participants.

Outcome: The workshop on vibration testing provided students with valuable knowledge, industry insights, and potential career prospects. They gained in-depth understanding of techniques and applications, broadening their knowledge base. The practical relevance and networking opportunities enriched their educational and professional development, benefiting their future endeavors.

LIST OF BENEFICIARIES OF THE ACTIVITY

Title:	A One-Day Workshop On "Advanced Vibration Analysis"	**Date of Conduction:**	16/06/2023
Resource Persons:	***Dr. V Shankar,*** Ex - scientist from NAL ***Mr. D.S. Ramakrishna,*** Chief Technology Officer, Enmaz Engineering Services Pvt. Ltd.		

Sl. No.	Name of the Student	USN	Signature
1	Babai Nath	1GD21AE006	
2	Patil Pranav Chatur	1GD21AE024	
3	Nishanth	1GD21AE030	
4	Jennifer	1GD21AE014	
5	Shashank	1GD22AE403	
6	Charan	1GD22AE401	
7	Akash	1GD22AE400	
8	Ankita	1GD21AE002	
9	Syed Saheel	1GD21AE039	
10	Darshan	1GD21AE009	
11	Adarsh	1GD21AE001	
12	Arpika	1GD21AE004	
13	Pavithra	1GD21AE025	
14	Prity Sonar	1GD21AE027	
15	Kiran Kumari Bhatt	1GD21AE018	
16	Steven Joel	1GD21AE023	
17	Maheshwari	1GD21AE019	
18	Harisha	1GD21AE016	
19	Rithik	1GD21AE029	
20	Harshitha	1GD21AE015	
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22	Piyush Kumar	1GD21AE026	
23	Suraj Diyali	1GD21AE037	
24	Manasa S	1GD21AE020	
25	Swathi	1GD21AE038	
26	Ankit Kumar	1GD21AE003	

27	Shekar G C	1GD21AE034	
28	Shashikumar	1GD21AE033	
29	Karthik Kumar	1GD21AE017	
30	Tarun V	1GD21AE040	
31	Shaestha Taranum	1GD20AE028	
32	Hemashree	1GD20AE013	
33	Dhamini	1GD20AE009	
34	Tejaswini	1GD20AE032	
35	Anil Bhat	1GD21AE400	