



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 2

TEACHING-LEARNING AND EVALUATION

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL
INDRA GANESAN COLLEGE OF ENGINEERING





Criteria2

Teaching-Learning and Evaluation

350

KeyIndicator-2.3.Teaching-Learning Process (40)

2019-2020

PARTICIPATIVE LEARNING
MECHANICAL ENGINEERING

Activity	Number of Students Attended	Page No.
Value Added Course(VAC)	106	3
TOTAL STUDENTS ATTENDED	106	-



Criteria2

Teaching-Learning and Evaluation

350

KeyIndicator-2.3.Teaching-Learning Process (40)

2019-2020

MECHANICAL ENGINEERING

PARTICIPATIVE LEARNING

VALUE ADDED COURSE



Indra Ganesan

COLLEGE OF ENGINEERING
Madurai Main Road (NH-45B), Manikandam, Tiruchirapalli- 620 012
Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai

Department of Mechanical Engineering

Academic Year 2019-2020 – Odd Semester

Date: 07.12.2019

DEPARTMENT CIRCULAR

Department of Mechanical Engineering of IGCE association with “CADD Centre, Trichy” is going to organize Value Added Course for all II and III, IV year students on “Evaluation of CREO” from 09.12.2019 to 13.12.2019. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.

Resource Person Details	<ol style="list-style-type: none">1. Mr. Prabahar Trainer CADD centre Trichy2. Mr. Jaya kumar Trainer CADD centre Trichy
Venue	Mechanical Seminar Hall, IGCE

HOD, MECH

PRINCIPAL

Cc:

- Principal office
- Class In charges - II, III & IV Year
- Class Room of II, III, IV Year
- Office File
- Notice Board

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.



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Value Added Course


“Evaluation of CREO”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	CREO Parametric Interface, Concepts, Managing Files in CREO	3	09.12.2019
2	Creating and Modifying Sketches, Extrudes and Chamfers	3	09.12.2019
3	Creating Revolves and Rounds	3	10.12.2019
4	Understanding Datum, Patterns	3	10.12.2019
5	Creating Sweep Features, Helical Sweep Features	3	11.12.2019
6	Creating Blends, Swept Blends, Copy and Paste Functionality	3	11.12.2019
7	Creating Shells, Draft, Holes, Ribs	3	12.12.2019
8	Relations and Parameters, Deleting, Suppressing	3	12.12.2019
9	Managing Design Intent, Analysing Mass Properties	3	13.12.2019
10	Assembling With Constraints, Drafting In CREO	3	13.12.2019
11	Test	1	13.12.2019
Total Hours Excluding Assessment		30	-


VAC Coordinator


HoD/MECH


Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
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Value Added course

“Evaluation of CREO”

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal
Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

STUDENTS PARTICIPATION LIST

S.No.	Reg.No	Student's Name	Year/ Branch
1	811216114001	Ajmalkhan K	IV/MECH
2	811216114002	Amar Praveen D	IV/MECH
3	811216114003	Anandaperumal P	IV/MECH
4	811216114004	Chinnappan A	IV/MECH
5	811216114005	Dayas Kumar M	IV/MECH
6	811216114006	Dhinakaran K	IV/MECH
7	811216114007	Dhinakaran S	IV/MECH
8	811216114008	Dinesh Babu M	IV/MECH
9	811216114009	Gobi P	IV/MECH
10	811216114010	Gopinath N	IV/MECH
11	811216114011	Gunaseelan G	IV/MECH
12	811216114012	Hariram S	IV/MECH
13	811216114013	Harish M	IV/MECH
14	811216114014	Karan K	IV/MECH
15	811216114015	Karthick A	IV/MECH
16	811216114016	Kingsley J	IV/MECH
17	811216114017	Kiruthikeyan P	IV/MECH
18	811216114018	Krishna Prakash N	IV/MECH
19	811216114019	Mahendran A	IV/MECH
20	811216114020	Mahendran K	IV/MECH
21	811216114021	Nagarajan K	IV/MECH
22	811216114022	Nambiyappan K	IV/MECH
23	811216114023	Nandha Kumar P	IV/MECH
24	811216114024	Naveen Kumar K	IV/MECH
25	811216114025	Palanisamy K	IV/MECH
26	811216114026	Pulamadan K	IV/MECH
27	811216114027	Ramkumar R	IV/MECH
28	811216114028	Robert A	IV/MECH

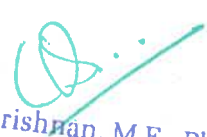


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S.No.	Reg.No	Student's Name	Year/ Branch
29	811216114029	Sasi Kumar S	IV/MECH
30	811216114030	Senthil Kumar B	IV/MECH
31	811216114031	Subash Salamon S	IV/MECH
32	811216114032	Tamilselvan C	IV/MECH
33	811216114033	Vairavel A	IV/MECH
34	811216114034	Vasudevan A`	IV/MECH
35	811216114035	Vengatraman V	IV/MECH
36	811216114036	Vignesh K	IV/MECH
37	811216114037	Yanatharan T	IV/MECH
38	811216114301	B.Gokul	IV/MECH
39	811216114302	S.Hariharan	IV/MECH
40	811216114304	J.Karunakaran	IV/MECH
41	811216114305	Manoj Kumar K	IV/MECH


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VAC Coordinator


HoB/MECH



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Report on Value Added Course

Title:	Evaluation of CREO			
Resource Person:	Mr. Jayakumar & Mr. Prabahar, Trainer, CADD centre, Trichy			
Date of conduct from :	09.12.2019	To:	13.12.2019	Duration: 30 Hours
Organized Department :	MECHANICAL ENGINEERING			
Participant Year:	4	No. of Students Registered :	41	
Venue:	Mechanical Seminar hall			

Outcome of Value Added Course (VAC): At the end of the Course, Students can able to

- Know to explain the CREO Parametric Interface, Concepts.
- Know how to Creating and Modifying Sketches
- Learn and Demonstrate Datum, Patterns, basic commands
- Students are expected to learn the special tools like Creating Shells, Draft, Holes, Ribs.
- Know to recall Assembling with Constraints, Drafting in CREO.
- They receive required training on Animating Assemblies, Applying Mechanism to Assemblies, Creating Sheet Metal Work

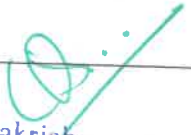
Assessment Process

- Students, who are securing more than 70% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$


VAC Coordinator


HOD MECH


Principal


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Sample Photo of Value Added Course

Title:	Evaluation of CREO			
Resource Person:	Mr. Jayakumar & Mr. Prabahar, Trainer, CADD centre, Trichy			
Date of conduct from :	09.12.2019	To:	13.12.2019	Duration: 30 Hours
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Sample Photo




VAC Coordinator


HOD MECH

Principal


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S.No.	Reg.No	Student's Name	Year/ Branch	DATE: 11.06.19		DATE: 12.06.19		DATE: 13.06.19		DATE: 14.06.19		DATE: 15.06.19		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
18	811216114018	Krishna Prakash N	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Krishna Prakash N
20	811216114019	Mahendran A	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Mahendran A
21	811216114020	Mahendran K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Mahendran K
21	811216114021	Nagaraian K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Nagaraian K
22	811216114022	Nambiyappan K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Nambiyappan K
23	811216114023	Nandha Kumar P	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	Nandha Kumar P
24	811216114024	Naveen Kumar K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Naveen Kumar K
25	811216114025	Palanisamy K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Palanisamy K
26	811216114026	Pulamadan K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Pulamadan K
27	811216114027	Ramkumar R	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Ramkumar R
28	811216114028	Robert A	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Robert A
29	811216114029	Sasi Kumar S	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Sasi Kumar S
30	811216114030	Senthil Kumar B	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Senthil Kumar B
31	811216114031	Subash Salamon S	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Subash Salamon S
32	811216114032	Tamilselvan C	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	Tamilselvan C
33	811216114033	Vairavel A	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	9	Vairavel A
34	811216114034	Vasudevan A	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Vasudevan A
35	811216114035	Vengatraman V	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Vengatraman V
36	811216114036	Vignesh K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	8	Vignesh K
37	811216114037	Yanatharan T	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Yanatharan T
38	811216114301	B.Gokul	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	B.Gokul
39	811216114302	S.Hariharan	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	S.Hariharan
40	811216114304	J.Karunakaran	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	J.Karunakaran
41	811216114305	Manoj Kumar K	IV/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Manoj Kumar K

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

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 IG Valley, Madurai Main Road
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P. Sankar
 HOD/MECH

[Signature]
 VAC Coordinator



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Department of Mechanical Engineering

Academic Year 2019-2020 – Odd Semester

VALUE ADDED COURSE ASSESEMENT SHEET

“Evaluation of CREO”

Dr. G. Balakrishnan, M.E., Ph.D.,
Principal

Indra Ganesan College of Engineering
IG Valley, Madurai Main Road
Manikandam, Trichy-620 012.

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	811216114001	Ajmalkhan K	IV/MECH	24	80	20	80	80
2	811216114002	Amar Praveen D	IV/MECH	30	100	18	72	86
3	811216114003	Anandaperumal P	IV/MECH	30	100	19	76	88
4	811216114004	Chinnappan A	IV/MECH	27	90	22	88	89
5	811216114005	Dayas Kumar M	IV/MECH	30	100	18	72	86
6	811216114006	Dhinakaran K	IV/MECH	30	100	20	80	90
7	811216114007	Dhinakaran S	IV/MECH	27	90	18	72	81
8	811216114008	Dinesh Babu M	IV/MECH	30	100	20	80	90
9	811216114009	Gobi P	IV/MECH	30	100	19	76	88
10	811216114010	Gopinath N	IV/MECH	30	100	19	76	88
11	811216114011	Gunaseelan G	IV/MECH	30	100	20	80	90
12	811216114012	Hariram S	IV/MECH	30	100	20	80	90
13	811216114013	Harish M	IV/MECH	27	90	22	88	89
14	811216114014	Karan K	IV/MECH	30	100	20	80	90
15	811216114015	Karthick A	IV/MECH	30	100	19	76	88
16	811216114016	Kingsley J	IV/MECH	30	100	19	76	88
17	811216114017	Kiruthikeyan P	IV/MECH	24	80	20	80	80



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				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
18	811216114018	Krishna Prakash N	IV/MECH	30	100	19	76	88
19	811216114019	Mahendran A	IV/MECH	30	100	19	76	88
20	811216114020	Mahendran K	IV/MECH	30	100	22	88	94
21	811216114021	Nagarajan K	IV/MECH	30	100	18	72	86
22	811216114022	Nambiyappan K	IV/MECH	30	100	22	88	94
23	811216114023	Nandha Kumar P	IV/MECH	27	90	22	88	89
24	811216114024	Naveen Kumar K	IV/MECH	30	100	20	80	90
25	811216114025	Palanisamy K	IV/MECH	30	100	18	72	86
26	811216114026	Pulamadan K	IV/MECH	30	100	19	76	88
27	811216114027	Ramkumar R	IV/MECH	30	100	20	80	90
28	811216114028	Robert A	IV/MECH	30	100	18	72	86
29	811216114029	Sasi Kumar S	IV/MECH	30	100	20	80	90
30	811216114030	Senthil Kumar B	IV/MECH	30	100	18	72	86
31	811216114031	Subash Salamon S	IV/MECH	30	100	20	80	90
32	811216114032	Tamilselvan C	IV/MECH	27	90	20	80	85
33	811216114033	Vairavel A	IV/MECH	27	90	18	72	81
34	811216114034	Vasudevan A`	IV/MECH	30	100	19	76	88
35	811216114035	Vengatraman V	IV/MECH	30	100	18	72	86
36	811216114036	Vignesh K	IV/MECH	24	80	20	80	80
37	811216114037	Yanatharan T	IV/MECH	30	100	18	72	86
38	811216114301	B.Gokul	IV/MECH	30	100	20	80	90
39	811216114302	S.Hariharan	IV/MECH	30	100	18	72	86
40	811216114304	J.Karunakaran	IV/MECH	30	100	20	80	90
41	811216114305	Manoj Kumar K	IV/MECH	30	100	20	80	90

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Name of the Student:

Year/Sem:

AU Register Number:

Value Added Course

“Evaluation of CREO”

MCO QUESTIONS (25X4 = 100 Marks)

1. Which one of the following is the sub process of CAD?
 - a) Manufacturing
 - b) both c and d
 - c) Design Engineering
 - d) Computer Graphics
2. Which one of the following is the sub process of CAM?
 - a) Network
 - b) All Of These
 - c) CAD
 - d) Manufacturing
3. Which model is the iterative process?
 - a) Ohsuga model
 - b) Pahl and Beitz model.
 - c) Shigley model
 - d) E-arle model
4. What is the other name of world coordinate system?
 - a) viewpoint.
 - b) universe
 - c) Hierarchical.
 - d) none of these.
5. Device coordinates system can be represented in terms of
 - a) pixels
 - b) foot
 - c) inch
 - d) All Of These
6. In right coordinate system, index finger represented as
 - a) y axis
 - b) reverse of z axis
 - c) x axis
 - d) z axis



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7. What is zooming?
 - a) scaling+translation+clipping
 - b) scaling+translation
 - c) scaling +clipping
 - d) translation+clipping
8. Which algorithm can give the value very accurately?
 - a) DDA algorithm
 - b) Bresenham 's algorithm
 - c) sutherland algorithm
 - d) both a and b
9. What happens that the scaling factor are less than 1?
 - a) both c and d
 - b) object is moved away the origin
 - c) reduce the size of the object
 - d) object is moved towards the origin
10. CAD Software consists of
 - a) system software
 - b) application software
 - c) both a and b
 - d) hardware
11. Fundamental reasons for implementing a CAD system is
 - a) To improve the quality design
 - b) To improve the performance
 - c) To increase the quantity
 - d) To define the problem and specification
12. Popular software packages used for modeling is
 - a) C++
 - b) AutoCAD, PROE
 - c) JAVA
 - d) FEA
13. The basic types of geometric transformations are
 - a) Translation
 - b) shearing
 - c) scaling
 - d) All the above
14. Drawing commands used in a CAD package is and most to be same.
 - a) Hexagon
 - b) Circle
 - c) Octagon.
 - d) line



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15. The method of selecting and enlarging portions of drawing on the display is termed as
- a) window
 - b) Clipping.
 - c) windowing
 - d) Screening.
16. Any parts of the geometry is not inside the window, it is made invisible by the graphics software through a process known as
- a) clipping
 - b) viewing transformation
 - c) windowing
 - d) none of these
17. Which of the following condition are applied while zooming or magnifying the object?
- a) $s_x > s_y$
 - b) $s_x < s_y$
 - c) $s_x = s_y$
 - d) all of these
18. What happen that the scaling factor is greater than 1?
- a) Reduce the size of the object.
 - b) Object is moved away from the origin.
 - c) Object is moved away the origin.
 - d) both a and c.
19. Which are the following are satisfied the features of line drawing algorithm?
- a) both b and c
 - b) line should terminate accurately at the end
 - c) line should appear straight
 - d) line should terminate accurately at the middle
20. Which one of the following characters affects the cost of the given tolerance?
- a) component size
 - b) Orientation.
 - c) Geometry.
 - d) Interference.
21. A tolerance grade was standardize by
- a) ISO 4000
 - b) ISO (BS4200)
 - c) both a and b
 - d) ISO (BS4500)
22. Which one of the following are transfer motions or forces from a source to an output?
- a) mechanism
 - b) simulation
 - c) Kinematics.
 - d) all of these



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23. Tolerance grades were specified in terms of
- a) microns
 - b) Meter
 - c) millimeter
 - d) none of these
24. The enveloped surface is known as.....
- a) female
 - b) smoothing
 - c) male
 - d) polishing
25. Which one of the following is the difference between the basic size of the mating parts?
- a) Allowance.
 - b) Tolerance.
 - c) Actual size.
 - d) Zero line.


VAC Coordinator



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Name of the Student: *nardha kumar.p*

Year/Sem: *IV / mech*

AU Register Number: *81216114023*

Value Added Course

“Evaluation of CREO”

22/95
Done

MCQ QUESTIONS (25X4 = 100 Marks)

- Which one of the following is the sub process of CAD?
a) Manufacturing
b) both c and d
c) Design Engineering
d) Computer Graphics
- Which one of the following is the sub process of CAM?
a) Network
b) All Of These
c) CAD
d) Manufacturing
- Which model is the iterative process?
a) Ohsuga model
b) Pahl and Beitz model.
c) Shigley model
d) E-arle model
- What is the other name of world coordinate system?
a) viewpoint.
b) universe
c) Hierarchical.
d) none of these.
- Device coordinates system can be represented in terms of
a) pixels
b) foot
c) inch
d) All Of These
- In right coordinate system, index finger represented as
a) y axis
b) reverse of z axis
c) x axis
d) z axis

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7. What is zooming?
a) scaling+translation+clipping
b) scaling+translation
c) scaling +clipping
d) translation+clipping
8. Which algorithm can give the value very accurately?
a) DDA algorithm
b) Bresenham 's algorithm
c) sutherland algorithm
d) both a and b
9. What happen that the scaling factor are less than 1?
a) both c and d
b) object is moved away the origin
c) reduce the size of the object
d) object is moved towards the origin
10. CAD Software consists of
a) system software
b) application software
c) both a and b
d) hardware
11. Fundamental reasons for implementing a CAD system is
a) To improve the quality design
b) To improve the performance
c) To increase the quantity
d) To define the problem and specification
12. Popular software packages used for modeling is
a) C++
b) AutoCAD, PROE
c) JAVA
d) FEA
13. The basic types of geometric transformations are
a) Translation
b) shearing
c) scaling
d) All the above
14. Drawing commands used in a CAD package isand Most to be same.
a) Hexagon
b) Circle
c) Octagon.
d) line


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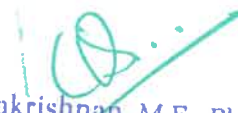


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15. The method of selecting and enlarging portions of drawing on the display is termed as
- a) window
b) Clipping.
c) windowing
d) Screening.
16. Any parts of the geometry is not inside the window, it is made invisible by the graphics software through a process known as
- a) clipping
b) viewing transformation
c) windowing
d) none of these
17. Which of the following condition are applied while zooming or magnifying the object?
- a) $s_x > s_y$
b) $s_x < s_y$
c) $s_x = s_y$
d) all of these
18. What happen that the scaling factor is greater than 1?
- a) Reduce the size of the object.
b) Object is moved away from the origin.
c) Object is moved away the origin.
d) both a and c.
19. Which are the following are satisfied the features of line drawing algorithm?
- a) both b and c
b) line should terminate accurately at the end
c) line should appear straight
d) line should terminate accurately at the middle
20. Which one of the following characters affects the cost of the given tolerance?
- a) component size
b) Orientation.
c) Geometry.
d) Interference.
21. A tolerance grade was standardize by
- a) ISO 4000
b) ISO (BS4200)
c) both a and b
d) ISO (BS4500)
22. Which one of the following are transfer motions or forces from a source to an output?
- a) mechanism
b) simulation
c) Kinematics.
d) all of these


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23. Tolerance grades were specified in terms of
- a) microns c) millimeter
- b) Meter d) none of these
24. The enveloped surface is known as.....
- a) female c) male
- b) smoothing d) polishing
25. Which one of the following is the difference between the basic size of the mating parts?
- a) Allowance. c) Actual size.
- b) Tolerance. d) Zero line.


VAC Coordinator


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Value Added Course

“Evaluation of CREO”

ANSWER KEY

1	b	6	a	11	a	16	a	21	d
2	b	7	a	12	b	17	c	22	a
3	a	8	b	13	d	18	d	23	a
4	b	9	a	14	b	19	a	24	c
5	a	10	c	15	c	20	a	25	a


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CADD CENTRE

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CENTRE**

Premier Plaza, No-122, II Floor, 5&44, Bharathiar Salai, Cantonment, Tiruchirappalli, 620001

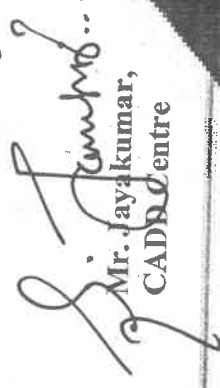
CERTIFICATE OF PARTICIPATION

This is to certify that Mr. Amar Praveen D of IV Year MECH has successfully completed the value added course on Evaluation of CREO organized by Department of Mechanical Engineering and IQAC of our institution in association with CADD centre from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2019-2020.



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Mr. Jayakumar,
CADD Centre



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Department of Mechanical Engineering

Academic Year 2019-2020 – Even Semester

Date: 28.05.2019

DEPARTMENT CIRCULAR

Department of Mechanical Engineering of IGCE in association with “NIT Siemens, Trichy” is going to organize Value Added Course for all II and III, IV year students on “**External Aerodynamics Simulations**” from 01.06.2019 to 05.06.2019. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.


Resource Person Details	<ol style="list-style-type: none">1. Mr. Mr. Suresh Trainer NIT Siemens Trichy2. Mr. Jaya Kumar Trainer NIT Siemens Trichy
Venue	Mechanical Seminar Hall, IGCE

HOD MECH

PRINCIPAL

Cc:

- Principal office
- Class In charges - II, III & IV Year
- Class Rooms-II, III, IV Year
- Office File.
- Notice Board.


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Value Added Course

“External Aerodynamics Simulations”

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to the subject of engineering and design working in the automotive field	3	01.06.2020
2	Illustrated explanations of the physical principles involved	3	01.06.2020
3	Vehicle Aerodynamics, through its coupling to energy efficiency, is important in the creation of a sustainable society.	3	02.06.2020
4	Fundamental theories of Fluid Dynamics	3	02.06.2020
5	Vehicle Aerodynamic applications.	3	03.06.2020
6	Aerodynamic design of passenger- and commercial vehicles.	3	03.06.2020
7	Different tools used to optimize and evaluate Aerodynamic performance.	3	04.06.2020
8	Aerodynamic properties of a vehicle, by analysing wind tunnel and CFD results	3	04.06.2020
9	Suggest Aerodynamic improvements to an existing design.	3	05.06.2020
10	Thermal Management, Aeroacoustics, Contamination, and Climate Comfort.	3	05.06.2020
11	Exam	1	05.06.2020
Total Hours Excluding Assessment		30	-


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HoD/MECH



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Value Added Course

“External Aerodynamics Simulations”

STUDENTS PARTICIPATION LIST

S.No.	Reg.No	Student's Name	Year/ Branch
1	811218114001	Abinash P	II/MECH
2	811218114002	Ajith Kumar M	II/MECH
3	811218114003	Arun Pandian M R	II/MECH
4	811218114004	Alaguraja M	II/MECH
5	811218114005	Balasubramani K	II/MECH
6	811218114006	Dineshkumar K	II/MECH
7	811218114007	Ganesapandy K	II/MECH
8	811218114009	Karthikeyan R	II/MECH
9	811218114010	Murugappan P	II/MECH
10	811218114011	Prasanth R	II/MECH
11	811218114012	Praveen A	II/MECH
12	811218114013	Rabin Singh X	II/MECH
13	811218114014	Ramesh.M	II/MECH
14	811218114015	Renish Bharathi S	II/MECH
15	811218114016	Santhosh K	II/MECH
16	811218114017	Sathish Selva A	II/MECH
17	811218114019	Vasanth D	II/MECH
18	811218114020	Vikram S	II/MECH
19	811218114021	Vishnu B	II/MECH
20	811218114022	Yogavishuvabarathi G	II/MECH
21	811218114023	Vigneshwaran C	II/MECH
22	811218114301	Dharmaseelan M	II/MECH
23	811218114302	Mahamuni R	II/MECH
24	811218114303	Naveen Kumar T	II/MECH
25	811218114304	Ramakrishnan M	II/MECH
26	811218114306	Subeekshiseeth Prasana D	II/MECH
27	811217114001	S.Abdul Yasin	III/MECH
28	811217114002	R.Ajithkumar	III/MECH
29	811217114003	S.Anandha Kumar	III/MECH
30	811217114004	M.Ananth	III/MECH
31	811217114005	R.Chellaiah	III/MECH



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S.No.	Reg.No	Student's Name	Year/ Branch
32	811217114006	C.Devarajan	III/MECH
33	811217114007	S.Dhamotharan	III/MECH
34	811217114008	A.Dhanussh	III/MECH
35	811217114009	C.Dharanidharan	III/MECH
36	811217114010	N.Dharman	III/MECH
37	811217114013	M.Hariharasudhan	III/MECH
38	811217114014	A.Jawagar	III/MECH
39	811217114015	Karthick S	III/MECH
40	811217114016	D.Madhan	III/MECH
41	811217114018	M.Mohammed Faizal	III/MECH
42	811217114019	S.Mohanraj	III/MECH
43	811217114020	R.Munishwaran	III/MECH
44	811217114021	P.Murugan	III/MECH
45	811217114022	P.Ponnar	III/MECH
46	811217114023	M.Prakash	III/MECH
47	811217114025	M.Rajamuni	III/MECH
48	811217114026	La.Ramanathan	III/MECH
49	811217114027	G.Sairam	III/MECH
50	811217114028	R.Sankaralingam	III/MECH
51	811217114030	M.Selvakumar	III/MECH
52	811217114031	A.Shameer	III/MECH
53	811217114032	D.Sivakumar	III/MECH
54	811217114033	A.Sriram	III/MECH
55	811217114034	S.Thirumurugan	III/MECH
56	811217114035	A.Vengatesh	III/MECH
57	811217114036	M.Venkatesh	III/MECH
58	811217114037	P.Vinayagamoorthy	III/MECH
59	811217114038	B.Vinothraja	III/MECH
60	811217114039	D.Yugesh	III/MECH
61	811217114301	K.Arun	III/MECH
62	811217114302	K.Santhosh Kumar	III/MECH
63	811217114303	R.Thirumoorthi	III/MECH
64	811217114012	R.Hariharan	III/MECH
65	811217114029	C.Sarathkumar	III/MECH


VAC Coordinator


HoD/MECH

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Report on Value Added Course

Title:	External Aerodynamics Simulations		
Resource Person:	Mr. Suresh, Trainer. NIT Siemens, Trichy	Mr. Vijay Trainer NIT Siemens, Trichy	
Date of conduct from :	01.06.2020	To: 05.06.2020	Duration: 30 Hours
Organized Department :	MECHANICAL ENGINEERING		
Participant Year:	2,3	No. of Students Registered :	65
Venue:	Mechanical Seminar hall		

Outcome of Value Added Course (VAC): At the end of the Course, Students can able to

- Know to explain the design working in the automotive field.
- Know how to illustrated explanations of the physical principles involved
- Students are expected to learn and practice the Vehicle Aerodynamic applications.
- Know to recall Aerodynamic improvements to an existing design.
- They receive required training on Thermal Management, Aeroacoustics, Contamination, and Climate Comfort.


Assessment Process

- Students, who are securing **more than 70% on total score** and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$


VAC Coordinator


HoD/MECH


Principal


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Sample Photos of Value Added Course

Title:	External Aerodynamics Simulations				
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Date of conduct from :	01.06.2019	To:	05.06.2019	Duration:	30 Hours
Organized Department :	MECHANICAL ENGINEERING				
Participant Year:	2,3	No. of Students Registered :	65		
Venue:	Mechanical Seminar hall				

Sample Photo



M. Suresh
VAC Coordinator

P. Ramesh
HoD/MECH

G. Balakrishnan
Principal

G. Balakrishnan
Dr. G. Balakrishnan, M.E., Ph.D.,
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Department of Mechanical Engineering

Academic Year 2019-2020 – Even Semester

STUDENTS ATTENDANCE LIST

Value Added Course

“External Aerodynamics Simulations”

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S.No.	Reg.No	Student's Name	Year/ Branch	DATE: 01.06.20		DATE: 02.06.20		DATE: 03.06.20		DATE: 04.06.20		DATE: 05.06.20		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
1	811218114001	Abinash P	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
2	811218114002	Ajith Kumar M	II/MECH	✓	✓	✓	✓	a	a	✓	✓	✓	✓	08	
3	811218114003	Arun Pandian M R	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
4	811218114004	Alaguraja M	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	
5	811218114005	Balasubramani K	II/MECH	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	10	
6	811218114006	Dineshkumar K	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
7	811218114007	Ganesapandy K	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
8	811218114009	Karthikeyan R	II/MECH	✓	✓	✓	a	✓	✓	✓	✓	✓	✓	09	
9	811218114010	Murugappan P	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
10	811218114011	Prasanth R	II/MECH	✓	✓	✓	✓	✓	a	✓	✓	✓	a	08	



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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
11	811218114012	Praveen A	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
12	811218114013	Rabin Singh X	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
13	811218114014	Ramesh.M	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
14	811218114015	Renish Bharathi S	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	
15	811218114016	Santhosh K	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
16	811218114017	Sathish Selva A	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
17	811218114019	Vasanth D	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
18	811218114020	Vikram S	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
19	811218114021	Vishnu B	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
20	811218114022	Yogavishuvabarathi G	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	08	
21	811218114023	Vigneshwaran C	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
22	811218114301	Dharmaseelan M	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
23	811218114302	Mahamuni R	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
24	811218114303	Naveen Kumar T	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	
25	811218114304	Ramakrishnan M	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
26	811218114306	Subeekshiseeth Prasana D	II/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	
27	811217114001	S.Abdul Yasin	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
28	811217114002	R.Ajithkumar	III/MECH	✓	✓	✓	✓	a	a	✓	✓	✓	✓	08	[Signature]
29	811217114003	S.Anandha Kumar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
30	811217114004	M.Ananth	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
31	811217114005	R.Chellaiah	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
32	811217114006	C.Devarajan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	[Signature]
33	811217114007	S.Dhamotharan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	[Signature]
34	811217114008	A.Dhanussh	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
35	811217114009	C.Dharanidharan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
36	811217114010	N.Dharman	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
37	811217114013	M.Hariharasudhan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
38	811217114014	A.Jawagar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
39	811217114015	Karthick S	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
40	811217114016	D.Madhan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
41	811217114018	M.Mohammed Faizal	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
42	811217114019	S.Mohanraj	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]
43	811217114020	R.Munishwaran	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	[Signature]
44	811217114021	P.Murugan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	[Signature]

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S.No.	Reg.No	Student's Name	Year/ Branch	DATE: 01.06.20		DATE: 02.06.20		DATE: 03.06.20		DATE: 04.06.20		DATE: 05.06.20		NO OF SESSIONS ATTENDED	SIGNATURE OF THE STUDENT
				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
45	811217114022	P.Ponnar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>P.Ponnar</i>
46	811217114023	M.Prakash	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>M.Prakash</i>
47	811217114025	M.Rajamuni	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>M.Rajamuni</i>
48	811217114026	La.Ramanathan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>La.Ramanathan</i>
49	811217114027	G.Sairam	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>G.Sairam</i>
50	811217114028	R.Sankaralingam	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>R.Sankaralingam</i>
51	811217114030	M.Selvakumar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>M.Selvakumar</i>
52	811217114031	A.Shameer	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>A.Shameer</i>
53	811217114032	D.Sivakumar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>D.Sivakumar</i>
54	811217114033	A.Sriram	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	<i>A.Sriram</i>
55	811217114034	S.Thirumurugan	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>S.Thirumurugan</i>
56	811217114035	A.Vengatesh	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>A.Vengatesh</i>
57	811217114036	M.Venkatesh	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>M.Venkatesh</i>
58	811217114037	P.Vinayagamoorthy	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	09	<i>P.Vinayagamoorthy</i>
59	811217114038	B.Vinothraja	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>B.Vinothraja</i>
60	811217114039	D.Yugesh	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>D.Yugesh</i>
61	811217114301	K.Arun	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	<i>K.Arun</i>

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
62	811217114302	K.Santhosh Kumar	III/MECH	✓	a	✓	✓	✓	✓	✓	✓	✓	✓	09	R. Pr
63	811217114303	R.Thirumoorthi	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	C. K
64	811217114012	R.Hariharan	III/MECH	✓	✓	✓	✓	✓	✓	a	a	✓	✓	08	Let
65	811217114029	C.Sarathkumar	III/MECH	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	Tr


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HoD/MECH



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Name of the Student:

Year/Sem:

AU Register Number:

Value Added Course

“External Aerodynamics Simulations”

MCQ QUESTIONS (25X4 = 100 Marks)

- For which of these Mach numbers is flow considered to be hypersonic?
 - $M < 1$
 - $M > 5$
 - $M = 1$
 - $1 < M < 5$
- How is the shock layer in case of hypersonic flow?
 - Thick
 - Thin.
 - Non existent
 - Increases with increasing Mach number
- In hypersonic flow, the shock waves often merge with the viscous boundary layer.
 - True
 - Sketches.
 - False
 - Origin.
- How is the shock over a blunt body at hypersonic speed?
 - Conical.
 - Curved
 - Diamond.
 - Oblique.
- What is the entropy gradient at the nose region of a slender body at hypersonic flow?
 - Very high
 - Very low
 - Negligible
 - None of the above.
- What is viscous dissipation?
 - Loss of kinetic energy due to viscous effect
 - Increase in kinetic energy due to increase in temperature

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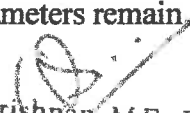
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- b) Loss of potential energy due to viscous effect d) Frictional drag
7. How does viscous dissipation affect temperature inside the boundary layer?
a) Increases c) No change
b) Decreases d) First increases, then decreases
8. At which flow regime does aerodynamic quantities such as coefficient of pressure, lift become independent of Mach number?
a) Subsonic c) Transonic
b) Hypersonic d) Supersonic
9. Which boundary condition applied at the surface to non dimensionize the governing equations?
a) $V \cdot n = 0$ c) $V - n = 0$
b) $V \cdot (V \times n) = 0$ d) $V \times (V \times n) = 0$
10. Boundary condition $V \cdot n = 0$ is applied at the surface to non dimensionize the governing equations when fluid is being transferred.
a) True c) False
b) Can't predict d) None of the above
11. Mach number independence for conical cylinder is achieved at a lower Mach number compared to the sphere.
a) False c) True
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12. Which of these does not result in two or more flows being dynamically similar?
a) Streamlines are geometrically similar c) The shape of the blunt body is same
b) Length of the body is same d) Non dimensional parameters remain same
13. Why is hypersonic similarity parameter essential?


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13. Why is hypersonic similarity parameter essential?
- a) Supersonic flow over wedges c) Hypersonic flow over cone
b) Hypersonic flow over flat plate d) Hypersonic flow over slender bodies
14. Two bodies holding hypersonic similarity at small angle of attack need the values of γ and M_{∞} to be same.
- a) M_{∞} c) True.
b) False d) $M_{\infty} \gamma$
15. Hypersonic similarity is applicable for only irrotational flow?
- a) No change. c) False
b) True. d) Dissimilar.
16. For which range of values is the hypersonic similarity rule valid for very slender bodies?
- a) $K = 0.5$ to infinity. c) $K > 1.5$.
b) $0.5 < K < 1.5$. d) $2 < K < 1000$.
17. At higher temperatures, the assumption of a calorically perfect gas is valid.
- a) True c) False
b) invalid d) No changes
18. What is specific heat a function of at high temperatures?
- a) Time. c) Entropy.
b) Density. d) Temperature.
19. At high temperatures, what does dissociation of molecule mean?
- a) Atoms break away from molecular structure c) Protons and neutrons break away
b) Electrons break away from the atom d) Electrons jump to the higher energy state

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Value Added Course

“External Aerodynamics Simulations”

ANSWER KEY

1	d	6	a	11	a	16	a	21	d
2	b	7	a	12	b	17	c	22	a
3	a	8	b	13	d	18	d	23	a
4	b	9	a	14	b	19	a	24	c
5	a	10	c	15	c	20	a	25	a


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Name of the Student: *Bala Subramanian*

Year/Sem: *4 / mech*

AU Register Number: *81121844005*

Value Added Course

“External Aerodynamics Simulations”

MCO QUESTIONS (25X4 = 100 Marks)

18
25

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- b) Loss of potential energy due to viscous effect d) Frictional drag
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20. How many thermal degrees of freedom is there for a diatomic molecule having translation energy?
 a) 3 b) 4. c) 5. d) 6.
21. How many degrees of freedom is there for a CO₂ molecule with rotational kinetic energy?
 a) 5 b) 6 c) 3 d) 2
22. For a single atom what is the total energy a sum of?
 a) Translation and electronic energy b) Electrical and vibrational energy c) Translation and rotational energy. d) Rotational, electronic and translation energy.
23. What is a ground state?
 a) Energy when gas is at absolute zero b) State where energies are non – existent c) Energy when gas is at 273.15 K d) State where only translation energy exists
24. In a boson particle, how many elementary particles are present inside a molecule?
 a) Odd number b) Zero c) Even number d) Imaginary number
25. What are the particles which obey Fermi – Dirac statistics called?
 a) Fermions. b) Bosons. c) Leptons. d) Quarks.


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Department of Mechanical Engineering

Academic Year 2019-2020 – Even Semester

VALUE ADDED COURSE ASSESEMENT SHEET

“External Aerodynamics Simulations”

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S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	811218114001	Abinash P	II/MECH	30	100	20	80	90
2	811218114002	Ajith Kumar M	II/MECH	24	80	22	88	84
3	811218114003	Arun Pandian M R	II/MECH	30	100	18	72	86
4	811218114004	Alaguraja M	II/MECH	27	90	22	88	89
5	811218114005	Balasubramani K	II/MECH	30	100	18	72	86
6	811218114006	Dineshkumar K	II/MECH	30	100	22	88	94
7	811218114007	Ganesapandy K	II/MECH	27	90	18	72	81
8	811218114009	Karthikeyan R	II/MECH	30	100	19	76	88
9	811218114010	Murugappan P	II/MECH	30	100	19	76	88
10	811218114011	Prasanth R	II/MECH	24	80	20	80	80



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				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
11	811218114012	Praveen A	II/MECH	30	100	22	88	94
12	811218114013	Rabin Singh X	II/MECH	30	100	22	88	94
13	811218114014	Ramesh.M	II/MECH	27	90	18	72	81
14	811218114015	Renish Bharathi S	II/MECH	30	100	22	88	94
15	811218114016	Santhosh K	II/MECH	30	100	18	72	86
16	811218114017	Sathish Selva A	II/MECH	30	100	19	76	88
17	811218114019	Vasanth D	II/MECH	30	100	20	80	90
18	811218114020	Vikram S	II/MECH	30	100	22	88	94
19	811218114021	Vishnu B	II/MECH	24	80	18	72	76
20	811218114022	Yogavishuvabarathi G	II/MECH	30	100	22	88	94
21	811218114023	Vigneshwaran C	II/MECH	30	100	20	80	90
22	811218114301	Dharmaseelan M	II/MECH	30	100	22	88	94
23	811218114302	Mahamuni R	II/MECH	27	90	22	88	89
24	811218114303	Naveen Kumar T	II/MECH	30	100	18	72	86
25	811218114304	Ramakrishnan M	II/MECH	30	100	22	88	94
26	811218114306	Subeekshiseeth Prasana D	II/MECH	30	100	20	80	90

(Signature)
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27	811217114001	S.Abdul Yasin	III/MECH	30	100	22	88	94
28	811217114002	R.Ajithkumar	III/MECH	24	80	18	72	76
29	811217114003	S.Anandha Kumar	III/MECH	30	100	22	88	94
30	811217114004	M.Ananth	III/MECH	30	100	18	72	86
31	811217114005	R.Chellaiah	III/MECH	27	90	22	88	89
32	811217114006	C.Devarajan	III/MECH	27	90	18	72	81
33	811217114007	S.Dhamotharan	III/MECH	30	100	19	76	88
34	811217114008	A.Dhanussh	III/MECH	30	100	19	76	88
35	811217114009	C.Dharanidharan	III/MECH	30	100	20	80	90
36	811217114010	N.Dharman	III/MECH	30	100	22	88	94
37	811217114013	M.Hariharasudhan	III/MECH	30	100	22	88	94
38	811217114014	A.Jawagar	III/MECH	30	100	18	72	86
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41	811217114018	M.Mohammed Faizal	III/MECH	30	100	19	76	88
42	811217114019	S.Mohanraj	III/MECH	27	90	20	80	85

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43	811217114020	R.Munishwaran	III/MECH	30	100	22	88	94
44	811217114021	P.Murugan	III/MECH	30	100	18	72	86
45	811217114022	P.Ponnar	III/MECH	30	100	22	88	94
46	811217114023	M.Prakash	III/MECH	30	100	20	80	90
47	811217114025	M.Rajamuni	III/MECH	30	100	22	88	94
48	811217114026	La.Ramanathan	III/MECH	30	100	22	88	94
49	811217114027	G.Sairam	III/MECH	30	100	18	72	86
50	811217114028	R.Sankaralingam	III/MECH	30	100	22	88	94
51	811217114030	M.Selvakumar	III/MECH	30	100	22	88	94
52	811217114031	A.Shameer	III/MECH	30	100	20	80	90
53	811217114032	D.Sivakumar	III/MECH	27	90	22	88	89
54	811217114033	A.Sriram	III/MECH	30	100	18	72	86
55	811217114034	S.Thirumurugan	III/MECH	30	100	22	88	94
56	811217114035	A.Vengatesh	III/MECH	30	100	18	72	86
57	811217114036	M.Venkatesh	III/MECH	27	90	22	88	89
58	811217114037	P.Vinayagamoorthy	III/MECH	30	100	18	72	86

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				No. of Session Attended	Attendance Mark(100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
59	811217114038	B.Vinothraja	III/MECH	30	100	19	76	88
60	811217114039	D.Yugesh	III/MECH	30	100	19	76	88
61	811217114301	K.Arun	III/MECH	30	100	20	80	90
62	811217114302	K.Santhosh Kumar	III/MECH	27	90	22	88	89
63	811217114303	R.Thirumoorthi	III/MECH	30	100	22	88	94
64	811217114012	R.Hariharan	III/MECH	24	80	18	72	76
65	811217114029	C.Sarathkumar	III/MECH	30	100	22	88	94


VAC Coordinator


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HoD/MECH

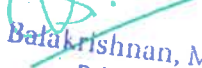
NIT SIEMENS

Tanjore Main Road, NH67, near BHEL, Tiruchirappalli, Tamil Nadu 620015




CERTIFICATE OF PARTICIPATION

This is to certify that Mr.M.Venkatesh of IV Year MECH has successfully completed the value added course on "External Aerodynamics Simulations" organized by Department of Mechanical Engineering and IQAC of our institution in association with NIT SIEMENS from 11 June 2019 to 15 June 2019 (5 days) during the Academic year 2019-2020.


Dr. G. Balakrishnan, M.E., Ph.D.
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