

SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai / Accredited by NAAC) Dindigul - Palani Highway, Dindigul - 624 002

DEPARTMENT OF MECHANICAL ENGINEERING

Value Added Courses Summary 2018-2019

Course Name **Course Duration** Year offered

Cad Modeling in Industrial Applications 45 hours

IV year Mechanical Students

Course Instructors

Dr.M.Sabareeswaran,

Professor/Mech. Engg, SSMIET Dindigul

Course Outcome

1. Students should be able to communicate design intent and specifications through technical documentation.

2. Students should be able to navigate the software's user interface efficiently.

3. Students should be capable of understanding and application of feature-based modeling techniques.

4. Students should be able to adhere the skills necessary to excel in industrial settings where CAD modeling plays a crucial role in design, manufacturing, and collaboration.

Self Framed

Course Type

Assessment Mode

Attendance

Number of Participants

Scheme of Exam

45 hours

40

Evaluation test through offline mode

Course Coordinator



HoD/Mech.Engg



Dr.D.SENTHIL KUMARAN, L.K., TL.D., MUSI Principal SSM Institute of Engineering and Technology Kuttathupatti Village Sindalagundu Pa Palam Read Dimergul 62- 500



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Dindigut- Palani Highway, Dindigut - 624 002.

Department of Mechanical Engineering

From,

Dr.M.Sabareeswaran,

Associate Professor.

SSM Institute of Engineering and Technology,

Dindigul

To

The Principal,

SSM Institute of Engineering and Technology,

Dindigul

Respected Sir,

Sub: Proposal for conducting value added course "Cad Modeling in Industrial Applications" for fourth year mechanical students-Reg

It is planned to conduct the training program on "Cad Modeling in Industrial Applications" for IV year Mechanical students from 11.09.2018 to 28.09.2018 between 5.00 PM and 6.00 PM. We assure that this will be very useful for the students to enhance their knowledge in the field of robotics,

Your approval is requested to conduct this program.

Thanking you

W. Judio 118

Course Coordinatornee,

ONOIGUL-524 00

HoD/Mech.Engg

Dr.D.SENTHH. AUMARAM, M.E., Ph.D., MOS,

Principal

SSM Institute of Engineering and Technology Kuttathupatti Village, Sindslagundu (Pc), Palam Road, Dindigul - 624 002.



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY *

Dindigul- Palani Highway, Dindigul - 624 002.

Department of Mechanical Engineering

11.09.2018

It is planned to conduct the training program on "Cad Modeling in Industrial Applications" for IV year Mechanical students from 11.09.2018 to 28.09.2018 between 5.00 PM and 6.00 PM. We assure that this will be very useful for the students to enhance their knowledge in the field of robotics. Those who are interested can register their names with Dr.M.Sabareeswaran on or before today 4.00 PM

ouring .

* OINDIGUL-625

Course Coordinator

HoD/Mech.Engg

Principal

Dr.D. SENTRIL MUMARAN, V.B., Ph.O., DUST Principal

SSM Institute of Engineering and Technology Kuttathupatti Village. Sine dagundu ir op.

Palam Road, Dindigut 624 002



SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY *

Dindigul- Palani Highway, Dindigul - 624 002.

Department of Mechanical Engineering

11.09.2018

Syllabus

"Cad Modeling in Industrial Applications"

Course Title: CAD Modeling in Industrial Applications (2018)

Instructor: Dr.M.Sabareeswaran

Course Description:

This course provides an in-depth exploration of Computer-Aided Design (CAD) modeling techniques as applied to industrial applications. Students will gain hands-on experience with industry-standard CAD software and learn to create 3D models for various industrial purposes.

S.No	Cumulative Sessions	Topics Covered
1	1-2	Introduction to CAD and Industrial Design
		 Overview of CAD software
		 Understanding the role of CAD in industrial design
		 Introduction to industry standards and best practices
2	3-4:	Fundamentals of 2D Sketching and Constraints
		 Basic 2D sketching techniques
		 Applying constraints and dimensions
	.t. 2	 Sketch editing and modification
3 4	5-6	 Introduction to 3D Modeling
		 Transition from 2D to 3D modeling
		 Extrusions, revolutions, and sweeps
		 Creating basic 3D shapes
4	7-8	 Advanced 3D Modeling Techniques
		 Boolean operations
		 Lofting and sweeping in 3D
		 Introduction to parametric modeling
5	9-10	 Assemblies and Component Modeling
		 Building assemblies
		 Managing and organizing components
		 Exploded views and animations
5	11-12	Surface Modeling
	enginearing	 Creating and editing complex surfaces

SSE Institute of Engineering and Technology

Kuttashupatti Viliage Sindulagundu (Pol.,

Palani Road, Dindigul - 624 002.

		Blending and filleting surfaces Surface analysis and quality control
7	13-14	 Simulation and Analysis Finite Element Analysis (FEA) basics Stress analysis and simulation Optimization of designs
8	15-16	 Final Project and Presentations Applying learned skills to an industrial design project Presentation of final projects and peer review Recap and discussion on future trends in CAD for industrial applications

Course Coordinator

HoD/Mech.Engg

Principal

Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)

Principal

SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
Palani Road, Dindigul - 624 002.



-		
	2	
10	A	
	37	Ť

SSM INSTITUE OF ENGINEERING AND TECHNOLOGY DEPARTMENT OF MECHANICAL ENGINEERING

3 922115114000 Admithent Res. 1 9 9 9 9 9 9 9 9 9	
3 922151314000 AMAJATH AANIN M M P P P 4 922115144001 ARUN KUNARR T T P P P P 5 92211514401 BALAGURU K K K P P P P 7 92211514012 BALAGURU K K K P P P P 7 92211514012 BALAGURU K K K K P P P P 8 9221151402 BALAGURU K K K K P	12.09.2018 14.09.201815.09.201817.09.201917.00
4 9/2115114GOI PROPRIATE PROPROATE PROPROATE PROPROATE PRO	P P P D D D D D D D D D D D D D D D D D
5 922115114021 RADIO P	0 0 0 0 0 0 0 0
5 9 P	a a a a a a a a
6 92215514019 DINESH KUMARAM M P <td>4 4 4</td>	4 4 4
7 92115114021 GANESH KUMARR P P P P P P P P P P	a a a a a a a a
8 922115114029 MENNYMENTANUMELD P P P P P P P P P P P P P P P P P P	a
9 922115114034 (wkithikerana A	4 d d d d d
12 922115114053 Nivanischtann 8.45 P P P P P P P P P	a a a a
11 922115114050 Nirmal Kurnari R	a a a a
12 92211511400 Perthiban R	a a a a
13 922115114056 Perleanth R	a a a a
14 922115114015 Parkenthan B	0 0 0
15 202115114056 Perkanth	a a a a a
15 922115114075 Ramakrishvan 5	a a a a a a
12 922115114020 Ram Kumer Sabari V P P P P P P P P P	a a a a d a a d
12 922115114093 Sivakumar C	9 9 9 9 9
19 92215114094 Sivaranjan C	a a a a a a a a
S2215114100 SURYA M	a a a a a a a a a a a a a a a a a a a
92215514303 THRUMALISAMY M	a a a a a a a a a a a a a a a a a a a
1 922115114100 VENGATESMARAN M	a a a
222155143103 VENGATESWARAN M	a a a a
3 922115114030 Verwateswaran M P <td>a a a a</td>	a a a a
ST21151143103 WENKATESWARAN S	a a a a
STITESTIANS WIGNESSH	0 0 0 0 0 0 0
STATISTIATIS VIANA PRASATH	a a a a
922115114314 VUAVA VIGRIESWARAN A	P P P P P P P P P P
922115114116 VISHNU SURYA PRAKASH S	a a a a a a a a a
922115114312 VISWANATH 5	a a a a a a a
922115114318 VUVARAJ K	0 0 0
922115114302 ANAND	a a a a a a
922115114302 ANAND	a a a a a a a a
922115114305 DAVID XAVIER S	a a a a a a a a a a a a a a a a a a a
922155114307 KHADAR ARAFATH 1	a a a a a
922151124308 MAHENDRAM T	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
922115114310 PARTHASARATHY S P P P P P P P P P P P P P P P P P P	a a a a a a a a a a a a a a a a a a a
922115114311 PRABU KUMAR M P P P P P P P P P P P P P P P P P P	a a a a a
922115114313 RAVIKIRAN	a a a a a
922115114316 SURESH S A P P P A A P P P P P P P P P P P P P	a a a a a a a a a a a a a a a a a a a
922115114703 Moctial Sanjav	a a a
S22115114703 Moctial Sanjav P P P P P P P P P	a a a a
A. M. A. Coulty inchange	0.00
S. C.	a a a a
	0 0 0 0 0 0
	d d d d d
100	Dr.D. SINTELL FIRSTER WE SE WILLIAM
がある。	
(X Common State of the state of
TO THE PARTY OF TH	HoD/Mech.Engg www. usancie of Engineering and Technology
A Partition of the Part	Walter Charles of Charles Standard and Control of Contr



\$5.4 lestitute of Engineering and Technology Sattathapath Villege, Snadelagundu (Po), Palana Road, Dindigut-624 002.





SSM INSTITUTE OF ENGINEERING AND TECHNOLOGY

Dindigul-Palani Highway, Dindigul - 624 002.

Department of Mechanical Engineering

11.09.2018

Name of the Student

PRABU KUMAR M

RAVIKIRAN B

TAMIL MANI A MOTHILAL SANJAY

SURESH S

PARTHASARATHY S

Student Name List

S.No

36

37 38

39

40

Reg.No

922115114310

922115114311

922115114313

922115114316

922115114318

922115114703

S.No	Reg.No	Name of the Student
-	922115114002	ABHISHEK S
2	922115114006	AMJATH KAHN M
3	922115114007	ARUN KUMAR T
4	922115114011	BABU D
5	922115114012	BALAGURU K
6	922115114018	DINESH KUMAR M
7	922115114021	GANESH KUMAR P
8	922115114027	HENRY IMMANUVEL D
9	922115114034	KARTHIKEYAN A
10	922115114053	NAVANEETHAN B S
11	922115114057	NIRMAL KUMAR R
12	922115114060	PARTHASARATHI R
13	922115114061	PARTHIBAN B
14	922115114065	PRAKANTH Y
15	922115114075	RAMAKRISHNAN S
16	922115114078	RAM KUMAR SABARI V
17	922115114093	SIVAKUMAR C
18	922115114094	SIVARANJAN R
19	922115114100	SURYA M
20	922115114103	THIRUMALAISAMY M
21	922115114104	THIRUMURUGAN M
22	922115114107	VENGATESWARAN M
23	922115114109	VENKATESWARAN S
24	922115114110	VIGNESH M
25	922115114113	VIJAYA PRASATH N
26	922115114114	VIJAYA VIGNESWARAN
27	922115114116	VISHNU SURYA
28	922115114117	VISWANATH S
29	922115114118	YUVARAJ K
30	922115114301	AJITH KUMAR TS
31	922115114302	ANAND'A
32	922115114305	DAVID XAVIERS
33	922115114307	KHADAR ARAFATH I
34	922115114308	MAHENDRAN T

.Course Coordinator

HoD/Mech.Engg

*ONOIGUL-524 00

Or.D.SERTIN KINCHES M. L. Ph.J. (100)

SSR institute at Course and Technology Kuttathupatti Village, Sindalagundu (Po), Palani Road, Dindigul - 624 002.

SSM INSTITU. F ENGINEERING AND TECHNOLOGY Dindigul-Palani Highway, Dindigul – 624002 DEPARTMENT OF MECHANICAL ENGINEERING

Assesment Mark Statement on CAD Modeling in Industrial Applications

S.No.	Univ Reg. No.	Name of the Student	Initial	Mark(100)
1	922115114002		S	80
7	922115114006	AM. ATH KAHN M	Σ	06
3	922115114007	ARUN KUMAR T	1	08
4	922115114011	BABUD	۵	58
22	922115114012	BALAGURU K	¥	06
9	922115114018	DINESH KUMAR M	Σ	08
7	922115114021	GANESH KUMAR P	<u>a</u>	100
∞	922115114027	HENRYIMMANUVEL D	۵	80
6	922115114034	KART-JIKEYAN A	A	86
10	922115114053	Navaneethan	8.5	85
11	922115114057	Nirmal Kumar	8	06
12	522115114060	Parthasarathi	œ	80
13	522115114061	Parth/ban	80	70
14	522115114065	Prakanth	>	500
15	522115114075	Ramakrishnan	S	80
16	522115114078	Ram Kumar Sabari	>	06
17	922115114093	Sivakumar	C	85
18	922215112094	Sivaranjan	œ	100
19	922115114100	SURYA	Σ	85
20	922115114103	THIRUMALAISAMY	Σ	80
21	922115112104	THIRLIMURUGAN	Σ	80
22	922115114107	VENGATESWARAN	Σ	07
23	922115114109	VENKATESWARAN	S	75
24	922115114110	VIGNESH	Σ	85
25	922115114113	VUAYA PRASATH	z	75
26	922115114114	VUAYA VIGNESWARAN	A	06
-27	922115114116	VISHINU SURYA PRAKASH	S	08
82	922115114117	VISWANATH	s	100
23	922:15114118	YUVARAJ	<u>×</u>	06
30	\$22:15114301	AJITH KUMAR	TS	85
31	922:15114302	ANAND	A	27
32	£22215114305	DAVIC XAVIER	s	08
33	522:15114307	KHADAR ARAFATH	_	06
34	522115112308	MAHENDRAN	F	85
35	522115112310	PARTHASARATHY	S	80
36	522115115311	PRABU KUMAR	Σ	02
37	52211511223	RAVIKIRAN	89	06
38	522115114316	SURESH	S	100
39	922115114318	TAMILMANI	٧	88
40	522115114703	522115114703 Moti-al Sanjay	ш	00

HOU/WECH.ENEG

Dr.D. SENTHIL KUMARAN, M.B., Ph.D., (NUS)

Principal
SSM Institute of Engineering and Technology
Kuttathupath Village Sindalagundu (Po),
Palani Road, Dindigul - 624 002.



Assessment test "Cad Modeling in Industrial Applications"

Title of the Value Added Course	CAD Modeling in Industrial Applications
Course Instructor	Dr.M.Sabareeswaran
Name of the Student	S. ABHISHEK
Register number of the Student	922115114002

Question 1:

Which of the following is a primary advantage of using Computer-Aided Design (CAD) in industrial applications?

- a) Increased production cost
 - b) Reduced design flexibility
 - c) Improved design accuracy
 - d) Slower product development

Question 2:

What does CAD stand for in the context of industrial applications?

- a) Centralized Automation Design
- b) Computer-Aided Design
 - c) Creative Algorithmic Development
 - d) Control and Analysis of Designs

Question 3:

Which CAD modeling technique is commonly used for creating 3D representations of objects?

- a) 2D Sketching
- b) Wireframe modeling
- e) Parametric modeling
- d) Isometric projection

Question 4:

What is the purpose of the extrusion feature in CAD modeling?

- a) To add material to an existing object
- b) To remove material from an existing object

CINOICUL-624 OCL

Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (MUS)

Principal

SSM Institute of Engineering and Technology

Kuttathopeth Village Statesperson (199)

Palam Road Contagnal (1990)

1

- c) To create a 3D object by pushing or pulling a 2D sketch
- d) To change the color of an object

Question 5:

Which file format is commonly used for exchanging CAD models between different software applications?

- a) PDF
- b) JPEG
- c) STL
 - d) TXT

Question 6:

In CAD modeling, what does the term "assembly" refer to?

- a) A group of designers working together
- b) A collection of 2D sketches
- c) A combination of multiple 3D parts or components
 - d) The process of creating parametric models

Question 7:

What is the significance of parametric modeling in CAD?

- a) It allows for the creation of artistic designs
- b) It enables the use of mathematical equations to define object properties
 - c) It focuses on 2D representations only
 - d) It is mainly used for animation purposes

Question 8:

Which CAD tool is known for its parametric modeling capabilities and is widely used in industrial design?

- a) AutoCAD
- b) SolidWorks
 - c) Rhino
 - d) Blender

Question 9:

* DINDIGUL

What role does CAD play in the prototyping phase of product development?

SSM Institute of Eng. 25 and Technology
Palant Road, Dinargut - 624 002.

- a) It is not involved in prototyping
- b) It helps create physical models directly
- (c) It allows for virtual testing and visualization before physical prototyping
 - d) It only generates 2D drawings for prototypes

Question 10:

Which of the following is a benefit of using CAD in collaborative design?

- a) Limited access to design files
- b) Difficulty in version control
- c) Enhanced communication among team members
 - d) Slow data transfer between team members

Ouestion 11:

Which CAD modeling approach is based on defining geometric constraints and relationships between objects?

- a) Direct modeling
- b) Constraint-based modeling
 - c) Surface modeling
 - d) Mesh modeling

Question 12:

What is the purpose of rendering in CAD?

- To simplify complex models
 - b) To create 2D drawings
 - c) To generate realistic images of 3D models
 - d) To analyze stress and strain in designs

Question 13:

Which of the following is a disadvantage of using CAD in industrial applications?

- a) Increased design iteration speed
- b) Lack of precision in modeling
- c) Difficulty in learning and using CAD software
 - d) Limited support for parametric modeling

Question 14:



Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)
Principal

SSM Institute of Engagement and Technology Kuttathupath Village Sindalagundu (Po), Palam Road, Dindigul - 624 002.

4

What does the term "BOM" stand for in the context of CAD and industrial applications?

- a) Best Order Management
 - b) Bill of Materials
 - c) Basic Object Modeling
 - d) Binary Output Module

Ouestion 15:

What role does CAD play in the field of Computer-Aided Engineering (CAE)?

- a) It is not related to CAE
- b) It is used for documentation purposes only
- (c) It assists in simulating and analyzing designs
 - d) It focuses solely on 2D modeling

Question 16:

Which CAD feature allows designers to quickly make changes to a model without rebuilding it?

- a) Direct modeling
 - b) Parametric modeling
 - c) Assembly modeling
 - d) Surface modeling

Question 17:

What is the purpose of CAM (Computer-Aided Manufacturing) in the context of CAD?

- a) To create realistic renderings of designs
- b) To analyze stress and strain in designs
- c) To generate toolpaths for machining operations
 - d) To organize design files in a collaborative environment

Ouestion 18:

In CAD, what does the term "fillet" refer to?

- a) A type of 3D printer
- b) A rounded interior corner of an object
- c) The process of removing material from a model

d) A took used for 2D sketching

Dr.D. SENTHIL KIDER OF M.E., Ph.D., (NUS)

Pr. As and Tachnology

Kuitathupath Vina Annuagus Garana.

Paiani Road, Dinagas Garana.

Question 19:

Which CAD modeling technique is suitable for creating complex, organic shapes?

- a) Wireframe modeling
- b) Parametric modeling
- o) Surface modeling
 - d) Assembly modeling

: Question 20:

OWOIGUL-621

What is the significance of version control in CAD?

- a) It helps in creating multiple copies of a design file
- b) It ensures that only one person can work on a design at a time
- c) It keeps track of changes made to a design and allows for easy collaboration
- d) It restricts access to CAD software updates

DI.D. SENTIIL-KUMARAN, M.E., Ph.D., (NUS) Principal

SSM Institute of Engineering and Technology
Kuttathupatti Village Sindalagundu (Po), Palani Road, Dindigul - 624 002.

Assessment test "Cad Modeling in Industrial Applications"

Title of the Value Added Course	CAD Modeling in Industrial Applications
Course Instructor	Dr.M.Sabareeswaran
Name of the Student	GANESH KUMAR P
Register number of the Student	922115114021

Question 1:

Which of the following is a primary advantage of using Computer-Aided Design (CAD) in industrial applications?

- a) Increased production cost
- b) Reduced design flexibility
- c) Improved design accuracy
 - d) Slower product development

Question 2:

What does CAD stand for in the context of industrial applications?

- a) Centralized Automation Design
- √ b) Computer-Aided Design
 - c) Creative Algorithmic Development
 - d) Control and Analysis of Designs

Question 3:

Which CAD modeling technique is commonly used for creating 3D representations of objects?

- a) 2D Sketching
- b) Wireframe modeling
- (c) Parametric modeling
 - d) Isometric projection

S. DINDIGU

Question 4:

What is the purpose of the extrusion feature in CAD modeling?

- a) To add material to an existing object
- b) To remove material from an existing object

Dr.D. SENTRIL KUMARAN M.E., Ph.D., (NUS)

President and Technology

SSM Institute of Engineering and Technology

Kuttathupath, vival augustaguna (Po),

Palaai Road, Dimangar 024 002.

C) To create a 3D object by pushing or pulling a 2D sketch d) To change the color of an object Question 5: Which file format is commonly used for exchanging CAD models between different software applications? a) PDF .b) JPEG c) STL d) TXT Question 6: In CAD modeling, what does the term "assembly" refer to? a) A group of designers working together b) A collection of 2D sketches (c) A combination of multiple 3D parts or components d) The process of creating parametric models Question 7:

What is the significance of parametric modeling in CAD?

- a) It allows for the creation of artistic designs
- (方) It enables the use of mathematical equations to define object properties
- . c) It focuses on 2D representations only
- d) It is mainly used for animation purposes

Question 8:

Which CAD tool is known for its parametric modeling capabilities and is widely used in industrial design?

- a) AutoCAD
- b) SolidWorks
 - ·c) Rhino ·
 - d) Blender

Question 9:

OINDIGUL-624.05

Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)

Principal

SSM Institute of Engineering and Technology Kuttathupatti Village Sindalagundu (Po), Palani Road, Dindigul - 624 002:

What role does CAD play in the prototyping phase of product development?

- a) It is not involved in prototyping
- b) It helps create physical models directly
- (c) It allows for virtual testing and visualization before physical prototyping
 - d) It only generates 2D drawings for prototypes

Question 10:

Which of the following is a benefit of using CAD in collaborative design?

- a) Limited access to design files
- b) Difficulty in version control
- c) Enhanced communication among team members
 - d) Slow data transfer between team members

Question 11:

Which CAD modeling approach is based on defining geometric constraints and relationships between objects?

- a) Direct modeling
- b) Constraint-based modeling
 - c) Surface modeling
 - d) Mesh modeling

Question 12:

What is the purpose of rendering in CAD?

- a) To simplify complex models
- b) To create 2D drawings
- (c) To generate realistic images of 3D models
 - d) To analyze stress and strain in designs

Question 13:

Which of the following is a disadvantage of using CAD in industrial applications?

- a) Increased design iteration speed
- .b) Lack of precision in modeling

SS DINDIGHT

-) Difficulty in learning and using CAD software
 - d) Limited support for parametric modeling

Question 14:

Dr.D. SENTHIL KILMADAN, M.E., Ph.D., INUS)

Press and Technology

SSM Institute of Suc. But and Technology

Kuttathunata vilias But again 024 002.

Palan. Roun, D. But again 024 002.

What does the term "BOM" stand for in the context of CAD and industrial applications?

- a) Best Order Management
- (b) Bill of Materials
 - c) Basic Object Modeling
 - d) Binary Output Module

Question 15:

What role does CAD play in the field of Computer-Aided Engineering (CAE)?

- a) It is not related to CAE
- b) It is used for documentation purposes only
- c) It assists in simulating and analyzing designs
 - d) It focuses solely on 2D modeling

Question 16:

Which CAD feature allows designers to quickly make changes to a model without rebuilding it?

- √a) Direct modeling
- b) Parametric modeling
 - c) Assembly modeling
 - d) Surface modeling

Question 17:

What is the purpose of CAM (Computer-Aided Manufacturing) in the context of CAD?

- a) To create realistic renderings of designs
- b) To analyze stress and strain in designs
- c) To generate toolpaths for machining operations
 - d) To organize design files in a collaborative environment

Question 18:

ONDIGUL-624 00

In CAD, what does the term "fillet" refer to?

- a) A type of 3D printer
- 6) A rounded interior corner of an object
 - c) The process of removing material from a model

d) A tool used for 2D sketching

Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS)

SSM Institute of Engineering and Technology Kuitathupatti Village, Sindalagundu (Po), Palani Road, Dindigul - 624 002.

Question 19:

Which CAD modeling technique is suitable for creating complex, organic shapes?

- a) Wireframe modeling
- b) Parametric modeling
- c) Surface modeling
 - d) Assembly modeling

Question 20:

*Olybigut.62

What is the significance of version control in CAD?

- a) It helps in creating multiple copies of a design file
- b) It ensures that only one person can work on a design at a time
- c) It keeps track of changes made to a design and allows for easy collaboration
 - d) It restricts access to CAD software updates

WITH DAN M.E., Ph.D., [NUS] Dr.D.SENTHU SSM Institute of England 125 and Technology Kuntathupatti Vilias associagnicau (Poj.

Palani Road, Dinoigui - 624 002.

Assessment test "Cad Modeling in Industrial Applications"

Title of the Value Added Course	CAD Modeling in Industrial Applications
Course Instructor	Dr.M.Sabareeswaran
Name of the Student	R. NIRMAL KUMAR
Register number of the Student	922115114057

Question 1:

Which of the following is a primary advantage of using Computer-Aided Design (CAD) in industrial applications?

- (a) Increased production cost
 - b) Reduced design flexibility
 - c) Improved design accuracy
 - d) Slower product development

Question 2:

What does CAD stand for in the context of industrial applications?

- a) Centralized Automation Design
- b) Computer-Aided Design
- c) Creative Algorithmic Development
- d) Control and Analysis of Designs

Question 3:

Which CAD modeling technique is commonly used for creating 3D representations of objects?

- a) 2D Sketching
- b) Wireframe modeling
- c) Parametric modeling
 - d) Isometric projection

ONOIGUL-624 002

Question 4:

What is the purpose of the extrusion feature in CAD modeling?

- a) To add material to an existing object
- b) To remove material from an existing object

Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (MUS)
Principal
SSM Institute of Engineering and Technology
Kuttathupatti Village, Sindalagundu (Po),
Palani Road, Dindigul -624002.

- (c) To create a 3D object by pushing or pulling a 2D sketch
 - d) To change the color of an object

Question 5:

Which file format is commonly used for exchanging CAD models between different software applications?

- a) PDF
- b) JPEG
- -c) STL
 - d) TXT

Question 6:

In CAD modeling, what does the term "assembly" refer to?

- a) A group of designers working together
- b) A collection of 2D sketches
- c) A combination of multiple 3D parts or components
- d) The process of creating parametric models

Question 7:

What is the significance of parametric modeling in CAD?

- a) It allows for the creation of artistic designs
- b) It enables the use of mathematical equations to define object properties
 - c) It focuses on 2D representations only
 - d) It is mainly used for unimation purposes

Question 8:

Which CAD tool is known for its parametric modeling capabilities and is widely used in industrial design?

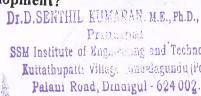
- a) AutoCAD
- b) SolidWorks
 - c) Rhino
 - d) Blender

Question 9:

What role does CAD play in the prototyping phase of product development?

Dr.D. SENTHIL KUMARAN, M.E., Ph.D., (NUS)

SSM Institute of Eng. or ang and Technology Kuttathupath Village manelagunou (Po),





- a) It is not involved in prototyping
- b) It helps create physical models directly
- It allows for virtual testing and visualization before physical prototyping
 - d) It only generates 2D drawings for prototypes

Ouestion 10:

Which of the following is a benefit of using CAD in collaborative design?

- a) Limited access to design files
- b) Difficulty in version control
- c) Enhanced communication among team members
 - d) Slow data transfer between team members

Question 11:

Which CAD modeling approach is based on defining geometric constraints and relationships between objects?

- √ a) Direct modeling
- b) Constraint-based modeling
 - c) Surface modeling
 - d) Mesh modeling

Question 12:

What is the purpose of rendering in CAD?

- a) To simplify complex models
- b) To create 2D drawings
- c) To generate realistic images of 3D models
 - d) To analyze stress and strain in designs

Question 13:

Which of the following is a disadvantage of using CAD in industrial applications?

- a) Increased design iteration speed
- b) Lack of precision in modeling

ALL DINDIGO

- c) Difficulty in learning and using CAD software
 - d) Limited support for parametric modeling

Question 14:

Sen institute of Engagement and Technology
Kullathupatu Village, Suddlagundu (Po),
Palani Road, Dindigul - 624 002.

What does the term "BOM" stand for in the context of CAD and industrial applications?

- a) Best Order Management
- (5) Bill of Materials
- Hc) Basic Object Modeling
 - d) Binary Output Module

Question 15:

What role does CAD play in the field of Computer-Aided Engineering (CAE)?

- a) It is not related to CAE
- b) It is used for documentation purposes only
- c) It assists in simulating and analyzing designs
 - d) It focuses solely on 2D modeling

Question 16:

Which CAD feature allows designers to quickly make changes to a model without rebuilding it?

- √a) Direct modeling
- b) Parametric modeling
 - c) Assembly modeling
 - d) Surface modeling

Question 17:

What is the purpose of CAM (Computer-Aided Manufacturing) in the context of CAD?

- a) To create realistic renderings of designs
- b) To analyze stress and strain in designs
- c) To generate toolpaths for machining operations
 - d) To organize design files in a collaborative environment

Question 18:

In CAD, what does the term "fillet" refer to?

- (a) A type of 3D printer
 - b) A rounded interior corner of an object
- (C) The process of removing material from a model
 - d) A tool used for 2D sketching

Technology technology to the state of Engineers of Engine

Dr.D.SENTHIL KURRUNAN, M.E., Ph.D., (NUS)

SSM Institute of Engagest ag and Technology Kuttathupath Villag and Alagund Palani Road, Dinuigut 024 004.

Question 19:

Which CAD modeling technique is suitable for creating complex, organic shapes?

- a) Wireframe modeling
- b) Parametric modeling
- c) Surface modeling
 - d) Assembly modeling

Question 20:

What is the significance of version control in CAD?

- a) It helps in creating multiple copies of a design file
- b) It ensures that only one person can work on a design at a time
- c) It keeps track of changes made to a design and allows for easy collaboration
 - d) It restricts access to CAD software updates

R. Nirmel Grown



Dr.D.SENTHIL KUMARAN, M.E., Ph.D., (NUS) Principal SSM Institute of Engineering and Technology Kuttathupatti Viilage, Sindalagundu (Po),

Palani Road, Dindigul - 624 002.



SM Institute of Engineering and Technology

(Approved by AICTE, New Delhi / Affiliated to Anna University, Chennai)

Dindigul – Palani Highway, Dindigul – 624 002



of IV Year Mechanical Engineering, SSM Institute of Engineering and Technology, has successfully completed the This is to Certify that S.ABHISHEK(922115114002) Value Added Course Entitled "CAD MODELING IN INDUSTRIAL APPLICATIONS" in the year of 2018-2019 odd semester.

Jan W

Faculty Incharge



pro-Shrift Reaches, 8.8, Pep. (808)

SSM lestivate of Laymeeting and Technology Rutethappeti Village, Sindalagundu (Po), Palani Read, Dindigul - 624 002.

Principal