



COLLEGE OF ENGINEERING BHUBANESWAR

Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.

[AFFILIATED TO BPUT, ODISHA]

www.coeb.ac.in

DEPARTMENT OF AUTOMOBILE ENGINEERING

Name of the course : Add-on course on CATIA V5
Course code :
Branch : Automobile
Semester : 7th
Duration : 40 hours

Learning Objective:

- ❖ To teach the students the industry-relevant concepts and tools used in top OEMs
- ❖ Students can learn about the CATIA V5 user interface and how to create 3D part models in CATIA V5 software.
- ❖ Students can learn how to create 2D drawings from 3D models existing models using a drafting workbench.

Course Outcome:

After completion of course the students will be able to:

CO1: Student will have advanced solutions for conceptual design, 3D modeling, and documentation.

CO2: Student will learn product designing, industrial designing and styling (optimize form, fit, & function and user experience), streamline 2D design, drafting, and documentation with powerful tools for layout, drawing, and 3D annotation.

CO3: Student will do assembly designing, sheet metal designing, and template based designing.

CO4: Student will have the knowledge to perform CAE geometry editing, comprehensive meshing, multi-CAE environments, fine element assembly management.

SYLLABUS

MODULE 1:

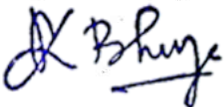
(14 hours)

CATIA as a CAD software :- Concept of Parametric Modeling, Feature Based Modeling, User Interface, Mouse operations, File types and Management, drawing profiles. Major user industries of Catia. Why Catia is preferred? Profile toolbar, operation (corner, chamfer, relimitations, transformations, project 3D element), constraints, types of constraints, workbench.

MODULE 2:

(14 hours)

Modeling of Machined component, Material Addition and Removal (Pad, Pocket, Shaft, Groove), Sketch and Positioned Sketch, Types of Fillets, Types of Chamfer, Types of Hole.


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Advance Design features :- Axis System, Types of draft, Shell, Stiffener, rib slot, Multisection solid, Removed multisection solid, Apply Material, Measure, Render. Multibody concept:- Standard example, Negative body concept (Boolean Operations)

MODULE 3:

(12 hours)

Introduction To Drafting & Detailing Theory:- (types Generative – Interactive), Initial Drafting setting, Sheet Background, Views (ortho, ISO), Dimensions (Types-Generate Dimension & Create Dimension). Annotations:- GD & T, Symbols, Note, Leaders, Table, Symbols (Machining, Roughness, Welding, Custom), Dress-up Toolbar. Surfacing Modeling based Plastic Component:- Environment.

Text Book:

1. CATIA V5 Workbook Release V5-6R2013, By Richard Cozzens, SDC Publisher
2. CATIA V5 Tutorials Mechanism Design & Animation Release 21, By Jonathan M. Weaver, Nader G. Zamani ISBN: 978-1-58503-762-9
3. CATIA V5 Tutorials Mechanism Design & Animation Release 19, By Jonathan M. Weaver, Nader G. Zamani, ISBN: 978-1-58503-591-5

Reference Text Book:

1. An Introduction to CATIA V5 Release 17, By Kirstie Plantenberg, ISBN: 978-1-58503-483-3, SDC Publication
2. Advanced CATIA V5 Workbook Release 16 Knowledgeware and WorkBenches, By Richard Cozzens, ISBN: 978-1-58503-321-8

Online resources:


1. www.aenor.es
2. www.iso.org
3. www.abgam.es

Evaluation Criteria

- Mandatory attendance of 75% for each student.
- Conduction of two internal assessments and students have to secure 50% marks in each assessment.
- Certificates will be awarded to each students fulfilling the above criteria.

Designed & developed by: Dr. Krishna & Dr. J. Hussain

Approved by:



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Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.

NOTICE

Department of Automobile Engineering Add On Course 2021-2022

Ref No: COEB/AE/2021/08

Date: 22.11.2021

It is hereby informed to all the students that the Department of Automobile Engineering is going to start the following Add-on courses for Academic year 2021-2022. All the students are instructed to enroll their names for the following courses on or before **30.11.2021**. The classes will be commenced from **06/12/2021** during 5.30pm to 7.30pm. You can contact the following course co-ordinators for enrolment and any queries.

Sl No.	Name of Add-on Course	Sem	Duration in hours	Name of the course co-ordinators
1.	Automotive Testing and Certification	3 rd	40	Prof. <i>ABIS. Kumar Nayak</i>
2.	Electric and hybrid vehicles	5 th	40	Prof. Jagannath Mohapatra
3.	CATIA V5	7 th	40	Dr. Sujit Kumar Khuntia

HOD

Automobile Engineering Department

Copy to:

1. Vice Chairman
2. Executive Director
3. Principal
4. All Notice Board.
5. A.O(Admin)
6. All HODs
7. Hostel, Security

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COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF AUTOMOBILE ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

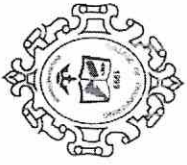
②

Programme: B Tech in AUTOMOBILE ENGINEERING		Semester: 7 th		Academic Year : 2021-22		Sheet No:	
Name of the Course: CATIA V5		Course Code (if any):					
Sl No.	Reg. No.	Name of the Students	Date	Date	Date		
1	1801219010	ANMOL KULLU	13/12/21	13/12/21	14/12/21	15/12/21	
2	1801219030	BIJAYA KUMAR MAJHI	Anmol Kullu Bejaya kumar majhi	Anmol Kullu Bejaya kumar majhi	ABS Bejaya kumar majhi	Anmol Kullu Bejaya kumar majhi	
3	1801219048	DIBYA RANJAN MOHARANA	D.R. Moharana	D.R. Moharana	D.R. Moharana	D.R. Moharana	
4	1801219053	GAUTAM MOHANTY	Gautam Mohanty	Gautam Mohanty	ABS Gautam Mohanty	Gautam Mohanty	
5	1801219060	JAGANNATH MUNDA	ABS	Jagannath Munda	Jagannath Munda	Jagannath Munda	
6	1801219072	LOKESH KUMAR PANDA	Lokesh kumar Panda	Lokesh kumar Panda	Lokesh kumar Panda	Lokesh kumar Panda	
7	1801219090	NIHAR RANJAN JENA	Nihar Ranjan Jena	ABS	Nihar Ranjan Jena	Nihar Ranjan Jena	
8	1801219115	RAJKUMAR TARAI	Rajkumar Tarai	Rajkumar Tarai	Rajkumar Tarai	Rajkumar Tarai	
9	1801219135	SATYAM SRINIBAS MANIA	Satyam S. Mania	Satyam S. Mania	Satyam S. Mania	Satyam S. Mania	
10	1801219174	YASABANTA DAS	Yasabanta Das	Yasabanta Das	Yasabanta Das	Yasabanta Das	
11	1801219175	ADITYA NARAYAN SAHOO	Aditya Narayan Sahoo	Aditya Narayan Sahoo	Aditya Narayan Sahoo	Aditya Narayan Sahoo	
12	1801219176	BACHAN BHOI	ABS	Bachan Bhoi	Bachan Bhoi	Bachan Bhoi	
13	1801219177	DEVENDER KUMAR KISHAN	D.K. Kishan	D.K. Kishan	D.K. Kishan	D.K. Kishan	
14	1801219178	PRIYANKA CHATURVEDI	P. Chaturvedi	P. Chaturvedi	P. Chaturvedi	P. Chaturvedi	
15	1801219179	RAJAT RANJAN PANDA	R. Ranjan Panda	R. Ranjan Panda	ABS R. Ranjan Panda	R. Ranjan Panda	
16	1801219180	SIDHARTH SANKAR SAHU	Sidharth Sankar Sahu	Sidharth Sankar Sahu	Sidharth Sankar Sahu	Sidharth Sankar Sahu	
17	1801219181	SOUMYA RANJAN NATH	S. R. Nath	S. R. Nath	S. R. Nath	S. R. Nath	
18	1801219182	SUBHANKAR MOHANTY	Subhankar Mohanty	Subhankar Mohanty	Subhankar Mohanty	Subhankar Mohanty	
19	1801219183	UTKAL KESHARI JENA	U.K. Jena	U.K. Jena	U.K. Jena	U.K. Jena	



(Signature)

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Certificate of Completion


This is to certify that Mr./Ms. RAJAT RANJAN PANDA, student of the Department


of Automobile Engg. semester Seventh bearing registration number 1801219179


has successfully completed the ADD-ON Course titled CATIA V19

conducted at College of Engineering Bhubaneswar in the academic year 2021-22.

TRUE COPY


Course-Coordinator


Principal


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Certificate of Completion


This is to certify that Mr./Ms. SIDHARTH SANKAR SAHU, student of the Department


of Automobile Engg. semester Seventh bearing registration number 1801219180


has successfully completed the ADD-ON Course titled CATIA V20

conducted at College of Engineering Bhubaneswar in the academic year 2021-22.

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Course-Coordinator


Principal


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Certificate of Completion


This is to certify that Mr./Ms. SOUMYA RANJAN NATH, student of the Department


of Automobile Engg. semester Seventh bearing registration number 1801219181


has successfully completed the ADD-ON Course titled CATIA V21

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

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Course-Coordinator


Principal


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Certificate of Completion

This is to certify that Mr./Ms. SUBHANKAR MOHANTY, student of the Department

of Automobile Engg. semester Seventh bearing registration number 1801219182

has successfully completed the ADD-ON Course titled CATIA V22

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

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Course-Coordinator

Principal

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Certificate of Completion

This is to certify that Mr./Ms. UTKAL KESHARI JENA, student of the Department
of Automobile Engg. semester Seventh bearing registration number 1801219183
has successfully completed the ADD-ON Course titled CATIA V23
conducted at College of Engineering Bhubaneswar in the academic year 2021-22.

TRUE COPY


Course-Coordinator


Principal


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