



SATHYABAMA UNIVERSITY

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Organizes 3 Week Technical Training Programme on

Non-Destructive Testing (NDT)



19th June to 7th July 2017

**Following Fundamental Topics will be covered
including Hands on Training:**

- » Introduction to NDT
- » Typical Failure Mechanisms
- » Fracture Mechanics
- » Rheology
- » Viscosity Measurement
- » Different Types of NDT Methods

**OPEN TO ALL STUDENTS OF
SCHOOL OF MECHANICAL ENGINEERING**

For more details and Registrations Contact:

Mr.S.Lakshmisankar
Assistant Professor
Department of Mechanical Engineering
Mob: 97908 41997

Mr.P.Amith Kishore
Assistant Professor
Department of Mechanical Engineering
Mob: 98412 33295

www.sathyabamauniversity.ac.in

A Short Term course on Drafting and Modeling using CATIA V5

Course outline

Computer Aided Design (CAD) is the powerful tool in design and manufacturing industries with its flexibility, reliability, efficient and cost effectiveness. With the use of CAD software, one can easily visualize and see the final product at the design stage itself with the use of computer. The final product can be modified easily according to the need of application. **Sathyabama Institute of Science and Technology, Department of Mechanical Engineering** offers a course on Computer Aided Design (CAD) using CATIA V5 software. CATIA is a multi-platform software suite for CAD, CAM, CAE, PLM, etc. This software is developed by a French company Dassault Systems, which is one of the popular and powerful CAD packages available on PC platforms and also a general-purpose CAD program for Part and Assembly Models. One can customize the powerful drawing tool to suit their specific application. The course discusses about

COURSE CONTENTS

1. Value Added Program on Drafting and Modelling Using CATIA V5

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	Introduction-CATIA as 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?	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
2	Sketcher: Profile toolbar, operation (corner, chamfer, transformations, project 3D element), constraints, types of constraints, workbench.	Mr.J.Jeyajeevahan	3 hrs	
3	Modeling of Machined component – 1: Material Addition and Removal (Pad, Pocket, Shaft, and Groove), Sketch and Positioned	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall

	Sketch, Types of Fillets, Types of Chamfer, Types of Hole.			
4	Modeling of Machined component – 2: Pattern (Rectangular, Circular, User), Thread/Tap, Datum Features (Plane, Axes, Points), Simple Draft.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
5	Advance Design features :- Axis System, Types of draft, Shell, Stiffener, rib slot, Multi-section solid, Removed multi-section solid, Apply Material, Measure	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
6	Introduction To Multibody concept: Copy Paste, Paste special, Insert body, Boolean Operations (Add, remove, Intersect), Transformation (Translation, Mirror, Scaling, Affinity). Advance Features: Parameters, Formula, Relations, Design Table.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
7	Introduction to Drafting & Detailing Theory: (types Generative – Interactive), Initial Drafting setting, Sheet Background, Views (ortho, ISO), Dimensions (Generate Dimension & Create Dimension).	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall

8	Views:- (Aux, Section, Details, Clipping, Broken), View properties, DATUMS & Tolerance. Annotations: GD & T, Symbols, Note, Leaders, Table, Symbols (Machining, Roughness, Welding, Custom), Dress-up Toolbar.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
9	Surfacing Modeling based Plastic Component: Environment, Tool bars, Surface Creation (Extrude, Revolve, Sphere, and Cylinder), Surface Modification, Surface Editing (Trim, Split, Shape Fillet, Close Surface, and Thickness). Surfacing: Offset, Fill, Blend, Join, healing, Project-Combine.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
10	Introduction to Assembly: Types of assembly approach, Types of Constrains and DOF, placement of components in the Assembly, Manipulating Components, Assembly Drafting: Scene (Exploded View), Bill of material, Balloon creation, Graph Tree Reordering.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall

Course Outcome

On successful completion of this course students will be able to:

- Understand the concepts of CAD and CAD tools.
- Visualize 3D objects using 2D design data.
- Sketch of Orthogonal Projection using 3D Models
- Design and Create Part models and Assembly models
- Create Drafting from Part and Assembly Models.

Couse Handling Faculty

Mr.J.Jeyajeevahan
Assistant Professor
Department of Mechanical Engineering
Mob: 91769 01505

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY

DEPARTMENT OF MECHANICAL ENGINEERING

CHENNAI – 600119.

Batch: 2019 – 20

List of Participants

S.No.	Register No.	Name of the Student
1.	37150001	ABHISHEIK KUMAR. M
2.	37150002	ABINASH. J
3.	37150003	ABY MAMMEN VARGHESE
4.	37150004	ADARSH KUMAR
5.	37150005	ADDEPALLI KONDA SAI NAGA VAMSI VARDHAN
6.	37150006	ADESH. V
7.	37150007	AKASH. I
8.	37150008	ALAN SHAJI LUKOSE
9.	37150009	AMALADOSS VINOD CASTRO. C
10.	37150010	AMIRTHARAJAMANI. M
11.	37150011	ANDLURU NAVEEN REDDY
12.	37150032	BOBBA KARTHIK PAVAN CHOWDARY
13.	37150033	BODALA ARAVIND SWAMY
14.	37150034	BODAPATI RAVI NAGENDRA
15.	37150035	BOGAM SANTHOSH
16.	37150036	BOLISSETTY SURAJ
17.	37150037	BOOBALAN. L
18.	37150038	BOSCO AGNALD. R
19.	37150039	CHANDAVOLU VENKATA SAI KIREETI
20.	37150040	CHEBROLU LAKSHMI SRINIVASA PAVAN
21.	37150041	CHINTALA RAGHURAM
22.	37150042	CHUKKA HARSHVARDHAN REDDY
23.	37150043	DABBAKUTI THREE VENKATA SIVANAGA SAI
24.	37150044	DAREDDY TARUNANAND REDDY
25.	37150045	DAVIS LAZAR
26.	37150046	DEBAJYOTI BHATTACHARJEE

27.	37150058	EESHWAR. R. S
28.	37150059	EZHIL EDINBURGH KOMAGAN. A
29.	37150060	GADIRAJU CHARAN KRISHNA
30.	37150061	GOKULA KANNAN. V
31.	37150062	GOVARDHAN. B
32.	37150063	GOWSIK SARAN. R. S
33.	37150064	GUGGILAPU SRI HARSHA
34.	37150065	GUMMADEVALLI GOPINATH
35.	37150066	GUNDE DANIEL
36.	37150067	GURUPRAKASH. R
37.	37150068	GUTTULA BHAVANI KIRAN
38.	37150069	HABEEBULLAH. M. A
39.	37150070	HAMILTON V DE PAUL
40.	37150071	HARI PRASAD. N
41.	37150072	HARIHARAN. S
42.	37150073	HARISHPRASANNA. P
43.	37150074	HEMANTH. S
44.	37150102	KUNCHAPU SIVA KISHORE
45.	37150103	LAKSHMAN. N
46.	37150104	LINO VARUGHESE



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DEPARTMENT OF MECHANICAL ENGINEERING

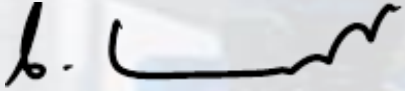
Organizes 3 Week Technical Training Program on

NON - DESTRUCTIVE TESTING (NDT)

19th JUNE to 7th JULY 2017

PARTICIPATION CERTIFICATE

This is to certify that Mr. Addagalla Sai Ashrith Ram of 3rd Year Mechanical has attended the 3 Week Training Program on **NON - DESTRUCTIVE TESTING (NDT)** organized by the Department of Mechanical Engineering, Sathyabama University, Chennai from 19th June to 7th July 2017.


Dr.A.KRISHNAMOORTHY
HOD MECHANICAL


Dr.S.PRAKASH
DEAN MECHANICAL



SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956) Accredited by NAAC (A Christian Minority Institution)

"ENTRY IS NOT IMPORTANT, EXIT IS IMPORTANT"

LEARN TODAY - LEAD TOMORROW

SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program on

DRAFTING AND MODELLING USING



24th July to 11th August 2017

Course Contents:

- ◆ Solidworks Essentials
- ◆ Practice with Interface and Tools
- ◆ Part Modelling
- ◆ Assembly Modelling
- ◆ Surface Modelling

For Registrations Contact:

Mr.T.Arunkumar
Assistant Professor
Department of Mechanical Engineering
Mob: 99945 24519

Mr.Nivin Joy
Assistant Professor
Department of Mechanical Engineering
Mob: 98848 43539

Drafting and Modelling Using Solidworks

Course outline

By completing this certificate students learn how to use Computer Aided Design (CAD) software to create 2D and 3D models and designs. Students develop competency in CAD software that is used in a variety of industries and occupations, including floor plans, mechanical drawings, technical drawings, engineering design, and other projects. The courses in this certificate build skill-sets that are in high demand in today's job market and can be used to reach career and/or academic goals. This certificate can provide students who are looking for employment the experience they need to stand out from the crowd. Students who are already employed discover that keeping up with the latest changes in CAD software increases their chances of career advancement.

Course Outcomes

Upon successful completion of this course, students should be able to meet the program outcomes listed below:

- A. Effectively communicate technical ideas and problem- solving decisions with others.
- B. Demonstrate knowledge, techniques, skills, and use of the appropriate tool in mechanical design applications.
- C. Apply math, science, and engineering technology principles to solve problems in mechanical design.
- D. Use creativity in the design of mechanical components and systems.
- E. Recognize problems in mechanical design applications and develop appropriate solutions.
- F. Work productively as an individual and as a team member of a problem - solving team in an engineering environment.
- G. Recognize the need to stay current in the mechanical design career field.
- H. Demonstrate professional and ethical behavior.

Student Learning Outcomes

1. Proficiently use AutoCAD technology to produce drawings at professional industry standards.
2. Draw engineering parts and assemblies proficiently using SOLIDWORKS.
3. Apply dimensioning and tolerance techniques in drawings and in an assembly.
4. Develop professional drawings for machining and assembling including title blocks.

2. Value Added Program on Drafting and Modelling Using SolidWorks

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	Various products available in SolidWorks for Product Design & Assembly modelling. SolidWorks Graphical User Interface - Feature manager design tree, Callouts, Handles, Confirmation corner, mouse buttons, keyboard shortcuts, Command Manager, Hardware and Software requirements.	Mr.T.Arunkumar	3 hrs	Seminar Hall
2	Sketch Entities – Inference line, Centerline line, Line, Circle, Arc, Ellipse, Rectangle, Slots, Polygon, Ellipse, Partial Ellipse, Spline, Points, Text, Construction geometry ,	Mr.T.Arunkumar	3 hrs	Seminar Hall
3	Sketch Tools - Fillet, Chamfer, Offset, Convert entities, Trim, Extend , Mirror, Dynamic Mirror, Move, Copy, Rotate, Scale, Stretch, Sketch pattern Close Sketch To Model, Sketch picture, Relations - Adding Sketch Relation, Automatic relations, Dimensioning - Smart, Horizontal, Vertical, Ordinate, Horizontal ordinate, Vertical ordinate,	Mr.T.Arunkumar	3 hrs	Seminar Hall

	Align ordinate, Fully define sketch.			
4	Part Modeling Tools, Creating reference planes Creating Extrude features - Direction1, Direction2, From option, Thin feature, Applying draft, Selecting contours Creating Revolve features - Selecting Axis, Thin features, Selecting contours Creating Swept features-Selecting Profile and Path .	Mr.T.Arunkumar	3 hrs	Seminar Hall
5	Creating Loft features - Selecting Profiles, Guide curves. Selecting geometries - Selection Manager, Multiple Body concepts Creating Reference - points, axis, coordinates	Mr.T.Arunkumar	3 hrs	Seminar Hall
6	Creating curves - Split curve, Project curve, Composite curve, Curve through points, Helix and Spiral Creating Fillet features, Inserting Hole types	Mr.Nivin Joy	3 hrs	Seminar Hall
7	Creating Chamfer, Creating Shell, Creating Rib, Creating Pattern - Linear pattern, Circular pattern, Sketch driven pattern, Curve driven pattern, Fill pattern, mirror	Mr.Nivin Joy	3 hrs	Seminar Hall
8	Environment & Utilities - Working	Mr.Nivin Joy	3 hrs	Seminar Hall

	with views and manipulating views, Trouble shooting			
9	Assembly Modeling Tools Introduction to Assembly Modeling & Approaches – Top down and Bottom up approach Applying Standard Mates- Coincident, Parallel, Perpendicular, Tangent, Concentric, Lock, Distance, and Angle.	Mr.Nivin Joy	3 hr	Seminar Hall
10	Applying Advanced Mates – Symmetric, Width, Path Mate, Linear/Linear Coupler, Limit mate. Applying Mechanical Mates – Cam, Hinge, Gear, Rack Pinion, Screw, Universal Joint.	Mr.Nivin Joy	3 hr	Seminar Hall

Intended Outcomes for the course

1. Demonstrate competency with multiple drawing and modification commands in SolidWorks.
2. Create three-dimensional solid models.
3. Create three-dimensional assemblies incorporating multiple solid models.
4. Apply industry standards in the preparation of technical mechanical drawings.

Course Coordinator

Mr.T.Arunkumar
Assistant Professor
Department of Mechanical Engineering
Mob: 99945 24519

Mr.Nivin Joy
Assistant Professor
Department of Mechanical Engineering
Mob: 98848 43539

SATHYABAMA UNIVERSITY
DEPARTMENT OF MECHANICAL ENGINEERING

CHENNAI – 600119.

Batch: 2017 – 18

Participants list

S.No.	Register No.	Name of the Student
1.	3515035	Srisai Arja
2.	3515036	ARSATH AHAMED. B
3.	3515037	ARUL ANTONY. A
4.	3515038	ARUN KUMAR. P
5.	3515039	Arun Rupan C
6.	3515045	Harish Kumarreddy Avula
7.	3515046	Baisani Sudheer
8.	3515049	BALAJI.A
9.	3515052	Viswakanth Bandaru
10.	3515076	Lokeswar Reddy Capati
11.	3515078	Charan Raaj
12.	3515079	Charlapally Shashank Sharma
13.	3515082	Kashyap Chilakamarri
14.	3515084	Chinimilli Manovenkata Satyanarayana
15.	3515085	Chinta Balasairam Manideep
16.	3515086	Satish Chinthapalli
17.	3515087	Venkatasuneel Choudary Chirumalla
18.	3515088	Chitimireddy Venkatasai Nagendra Kumar
19.	3515112	Edric Jenishan S
20.	3515130	GUNDA SRIRAMANJANEYULU
21.	3515134	Triloknath Chowdary Gurrapu
22.	3515135	Haneefa J
23.	3515137	Harish G
24.	3515138	Harish Raj V
25.	3515139	Harish Srinivasalu
26.	3515140	Heamnath V

27.	3515141	Sandeep Indupalli
28.	3515144	Jallepalli Eswar Prasad
29.	3515317	Rayasam Vijay Kumar
30.	3515318	Reuben Romel
31.	3515319	Shrawan Sudharshan Rikkamalle
32.	3515320	Robert Jarvik Robert
33.	3515321	R Robert Samuel
34.	3515322	Rohit Rajeswaran
35.	3515323	Ruperao Rahul Varma
36.	3515326	Sairam Kare
37.	3515327	Nuthalapati Sai Sandeep
38.	3515328	Sravan Saikumar Samsani
39.	3515329	Sanepu Naga Ravi Teja
40.	3515330	Sanjana Kallat
41.	3515356	Shubham Raj
42.	3515357	SHUBHAM RAWAT



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(Established under section 3 of UGC Act, 1956)

**SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING**

**ORGANIZES TRAINING PROGRAMME ON
DRAFTING AND MODELLING USING SOLIDWORKS**

24th JULY to 11th AUGUST 2017

PARTICIPATION CERTIFICATE

This is to certify that Mr. Chinimilli Manovenkata Satyanarayana of 3rd Year
Mechanical has attended the Training Programme on **DRAFTING AND MODELLING**
USING SOLIDWORKS organized by the Department of Mechanical Engineering,
Sathyabama University, Chennai from 24th July to 11th August 2017.

**Dr.G.ARUNKUMAR
HOD MECHANICAL**

**Dr.S.PRAKASH
DEAN MECHANICAL**



SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

Accredited with Grade "A" by NAAC

SCHOOL OF MECHANICAL ENGINEERING DEPARTMENT OF MECHANICAL ENGINEERING

Organizes Training Program on

DRAFTING AND MODELLING USING



22nd January to 9th February 2018

Course Contents:

- ◆ Introduction to CATIA Tools
- ◆ Part Modelling
- ◆ Generative Shape Design
- ◆ Assembly Modelling
- ◆ Kinematic Simulation

FREE REGISTRATION

CERTIFICATE WILL BE PROVIDED

For more details and Registrations Contact:

Mr.J.Jeyajeevahan

Assistant Professor

Department of Mechanical Engineering

Mob: 91769 01505

NON-DESTRUCTIVE TESTING

Course Objectives:

The main objectives of this course is to introduce the concept of non-destructive testing among the students and make them understand various types of non-traditional practices available for manufacturing industry.

Course Outcomes

Student must be able to

select an appropriate NDT technique as per requirement.

set various process parameters and control the NDT process for the desired output parameters.

find the internal flaws in the material by NDT and take measures to eliminate them.

solve various problems encountered like leakage, cracks, blowholes etc with the manufacturing process by analyzing the data.

make use of modern tools and software for analyzing and solving real life problems.

introduce environmental friendly solutions to achieve organizational sustainability.

3. Value Added Program on Hands on practice of Non-Destructive Testing

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	Radiography: Principle of radiography, types of radiography, equipments for neutron radiography, x-ray radiography, equipments for x-ray radiography, advantages and applications of fluoroscopy and photo fluoroscopy	Mr.S.Lakshmisankar	5 hrs	Seminar Hall
2	Electromagnetic methods: Principle of electromagnetic	Mr.S.Lakshmisankar	5 hrs	Seminar Hall

	testing, mathematical analysis, flaw detection in conductors, various types' of instruments used and advantages of various electromagnetic methods for crack detection etc.			
3	Ultrasonic methods: Principle of ultrasonic testing, generation of ultrasonic waves, equipment details for ultrasonic checking, methods of wave propagation, methods of flaw detection, various methods of ultrasonic testing, advantages of ultrasonic methods for flaw detection and crack location	Mr.S.Lakshmisankar	5 hrs	Seminar Hall
4	Holography: Principle of holography, method of holographic recording, method of holographic reconstruction, advantages of this technique and applications of holographic methods for non-destructive testing.	Mr.P.Amith Kishore	5 hrs	Seminar Hall
5	Liquid penetrant testing: Principle of liquid penetrates	Mr.P.Amith Kishore	5 hrs	Seminar Hall

	testing, types of dyes and penetrants used in this testing technique and application of liquids for detecting sub-surface defects.			
6	Magnetic particle testing: Principles of magnetic particle testing, details of equipments used and methods of crack detection by magnetic particle testing Hardness testing: Brinell hardness testing, Rockwell hardness tests, shore hardness testing, Vicker hardness testing and theory behind various hardness testing methods.	Mr.P.Amith Kishore	5 hrs	Seminar Hall

Course Coordinator

Mr.S.Lakshmisankar
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Mr.P.Amith Kishore
Assistant Professor
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DEPARTMENT OF MECHANICAL ENGINEERING

CHENNAI – 600119.

Batch: 2017 – 18

Participants list

S.No.	Register No.	Name of the Student
1.	3515002	Aanish Akshaya Mary
2.	3515006	Adda Dinesh
3.	3515007	Addagalla Sai Ashrith Ram
4.	3515008	Adharsh Radhakrishnan
5.	3515009	Aditya Viswanathan Pillai
6.	3515010	ADRIAN. M
7.	3515011	ADRINATH. J. S
8.	3515012	AJAI SUDARSAN. S
9.	3515049	BALAJI.A
10.	3515052	Viswakanth Bandaru
11.	3515053	Bandi Vedaraj Goud
12.	3515054	Bandlamuri Mahesh
13.	3515056	Baratam Sirish Mohan
14.	3515057	Hareesh Batchu
15.	3515068	Bollavaram Shashank Reddy
16.	3515069	Vishnu Vardhan B
17.	3515071	BONDA NARASIMHA SAI KRISHNA
18.	3515072	Bucupalli Shivakalyan Reddy
19.	3515085	Chinta Balasairam Manideep
20.	3515086	Satish Chinthapalli
21.	3515087	Venkatasuneel Choudary Chirumalla
22.	3515088	Chitimireddy Venkatasai Nagendra Kumar
23.	3515089	Ashok Kumar Chittibomma
24.	3515090	Akash Joshi Anandrao
25.	3515091	Sai Sreeram Chundru
26.	3515093	Sreekanth Sreekanth

27.	3515094	DANDU PRUDHVI AKESH VARMA
28.	3515097	Surya Dasari
29.	3515099	Desalanka Durga Sairam
30.	3515100	Desu Ajay Kumar
31.	3515101	DEVABHAKTUNI MAHENDRANATH CHOWDARY
32.	3515103	DHILIP KUMAR. R
33.	3515104	Dinesh Cg
34.	3515105	Divaakar S
35.	3515172	Karthick R
36.	3515173	Karthik M
37.	3515174	Narendra Karuturi
38.	3515175	Kasagani Rama Krishna
39.	3515177	Sasi Kiran Katherapalle
40.	3515178	Kaveti Venkateswara Rao
41.	3515179	Kenny Roy E
42.	3515180	Kevin J
43.	3515181	KEVIN SABU
44.	3515182	King Sivabalan A
45.	3515267	Palampalli Viswanatha Reddy
46.	3515277	Penikalapati Ravi Kiran
47.	3515278	Penmetsa Venkatasatya Prudhvi Raju
48.	3515279	Philip Thomas
49.	3515281	Polisetti Durga Sai Naga Raju



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This is to certify that Mr. RANGASAMUDRAM ANIL KUMAR REDDY of 4th Year
Mechanical has attended the Training Program on **DRAFTING AND MODELLING**
USING CATIA organized by the Department of Mechanical Engineering, Sathyabama
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DEAN MECHANICAL