



SATHYABAMA

INSTITUTE OF SCIENCE & TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

JEPPIAAR NAGAR, CHENNAI – 600119

www.sathyabama.ac.in

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

Organizes 3 Week Technical Training Programme on

Non-Destructive Testing (NDT)

20th August to 7th September 2018

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

- | | |
|------------------------------|----------------------------------|
| » Introduction to NDT | » Rheology |
| » Typical Failure Mechanisms | » Viscosity Measurement |
| » Fracture Mechanics | » 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

www.sathyabama.ac.in

.

VALUE ADDED COURSE

ON

Analysis of Engine performance and Emission Testing

28th January 2019 to 15th February 2019

COURSE CONTENTS

Course Outcome

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

- 1 Describe available resources for plant-based biodiesel production
- 2 Describe the productions methods for Biodiesel -Transesterification
- 3 Compare the prepared biodiesel's Properties with ASTM Standards
- 4 Demonstrate the Biodiesel fuel properties Testing.
- 5 Demonstrate the biodiesel production through pilot study
- 6 Conduct Engine study using biodiesel blends

Module	Topics	Name of the Faculty	No of Sessions	Venue
1	Overview of biofuels What are biofuels Different types of biofuels including ethanol, biodiesel, biogas and sustainable aviation fuels How biofuels are being used around the world Biofuel mandates and regulations Sustainability of biofuels	Dr.J.Hemanandh	3 hrs	Seminar Hall
2	Production of biofuels Biodiesel production Different types of feedstock Key technologies Costs of producing biofuels	Dr.J.Hemanandh	3 hrs	Seminar Hall

3	Characterisation Acid and Alkaline trans esterification Fuel properties testing as per ASTM Standards GC-MS Chromatography	Dr.J.Hemanandh	3 hrs	Seminar Hall
4	Practical Training After the presentations, the practical demonstration of following shall be made. Determination of fatty acid content Biodiesel production process Separation process Glycerol recovery Methanol Fuel Property Testing	Dr.J.Jayaprabakar	3 hrs	Seminar Hall
5	Engine Testing Blend Preparation using Ultra sonication Performance, Combustion and Emission analysis	Dr.J.Jayaprabakar	3 hrs	Seminar Hall

Course Coordinators

Dr.J.Hemanandh
Assistant Professor
Department of Mechanical Engineering
Mob: 94441 67753

Dr.J.Jayaprabakar
Associate Professor
Department of Mechanical Engineering
Mob: 99940 69306

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY**DEPARTMENT OF MECHANICAL ENGINEERING**

CHENNAI – 600119.

Participants list

S.No.	Register No.	Name of the Student
1.	3515008	Adharsh Radhakrishnan
2.	3515009	Aditya Viswanathan Pillai
3.	3515010	ADRIAN. M
4.	3515011	ADRINATH. J. S
5.	3515012	AJAI SUDARSAN. S
6.	3515045	Harish Kumarreddy Avula
7.	3515046	Baisani Sudheer
8.	3515049	BALAJI.A
9.	3515052	Viswakanth Bandaru
10.	3515053	Bandi Vedaraj Goud
11.	3515054	Bandlamuri Mahesh
12.	3515056	Baratam Sirish Mohan
13.	3515075	Cevaram Kalyan Kumar Reddy
14.	3515076	Lokeswar Reddy Capati
15.	3515078	Charan Raaj
16.	3515079	Charlapally Shashank Sharma
17.	3515082	Kashyap Chilakamarri
18.	3515084	Chinimilli Manovenkata Satyanarayana
19.	3515099	Desalanka Durga Sairam
20.	3515100	Desu Ajay Kumar
21.	3515101	DEVABHAKTUNI MAHENDRANATH CHOWDARY
22.	3515103	DHILIP KUMAR. R
23.	3515104	Dinesh Cg
24.	3515105	Divaakar S
25.	3515164	Narendra Kalasani
26.	3515165	Kalva Naga Srinish
27.	3515167	K V PAVAN KUMAR
28.	3515168	Kandanuru Jeelan Basha

29.	3515170	Teja Karanam
30.	3515171	Karri Sundara Ramareddy
31.	3515172	Karthick R
32.	3515190	Kopparapu Venkata Naresh
33.	3515191	Kopparthi Nandavardhan Reddy
34.	3515192	Hemanth Koppula
35.	3515194	Yashwanth Ventakasivasai Korupolu
36.	3515195	Sahul Kovilapati
37.	3515196	Krishna Chaitanya G
38.	3515198	Ksai Sarath Reddy
39.	3515199	Madhukar Kukkapalli
40.	3515200	Kulasekarapandian K
41.	3515202	K Vamsidhar Reddy
42.	3515260	Nilesh kumar
43.	3515262	Nirmalkumar M
44.	3515263	Nishanth Mathew Chegudi
45.	3515265	Palagani Midhilesh Reddy
46.	3515266	Palampalli Muni Prasad
47.	3515267	Palampalli Viswanatha Reddy
48.	3515320	Robert Jarvik Robert
49.	3515321	R Robert Samuel
50.	3515322	Rohit Rajeswaran
51.	3515323	Ruperao Rahul Varma
52.	3515326	Sairam Kare
53.	3515327	Nuthalapati Sai Sandeep
54.	3515328	Sravan Saikumar Samsani
55.	3515329	Sanepu Naga Ravi Teja



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INSTITUTE OF SCIENCE AND TECHNOLOGY
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SCHOOL OF MECHANICAL ENGINEERING
DEPARTMENT OF MECHANICAL ENGINEERING

ORGANIZES 3 WEEK TECHNICAL TRAINING PROGRAMME ON
NON-DESTRUCTIVE TESTING (NDT)

20th August to 7th September 2018

PARTICIPATION CERTIFICATE

This is to certify that Mr.ADIVISHNU MALLIKHARJUNA RAKESH of 3rd Year
Mechanical has attended the Training Programme on **NON-DESTRUCTIVE TESTING**
(NDT) organized by the Department of Mechanical Engineering, Sathyabama Institute of
Science and Technology, Chennai from 20th August to 7th September 2018.

Dr.G.ARUNKUMAR
HOD MECHANICAL

Dr.S.PRAKASH
DEAN MECHANICAL



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SCHOOL OF MECHANICAL ENGINEERING DEPARTMENT OF MECHANICAL ENGINEERING

Organizes a 3 Week Exhaustive Training on **ANALYSIS OF ENGINE PERFORMANCE AND EMISSION TESTING**

28th January to 15th February 2019

Course Modules:

- » Study of combustion with different fuel blends
- » Study of pressure volume plot and indicated power
- » IP, IMEP, FP indication, combustion analysis
- » Study of BTE and SFC
- » Compression ratio
- » Injection Timing
- » Injection Pressure
- » Emission Analysis
- » Smoke Density



OPEN TO ALL STUDENTS OF SCHOOL OF MECHANICAL ENGINEERING

(Registrations will be on a First Come First Serve basis)

For more details and Registrations Contact:

Dr.J.Hemanandh

Assistant Professor

Department of Mechanical Engineering

Mob: 94441 67753

Dr.J.Jayaprabakar

Associate Professor

Department of Mechanical Engineering

Mob: 99940 69306

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.J.Jeyajeevahan	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.J.Jeyajeevahan	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, Align ordinate, Fully define sketch.	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
4	Part Modeling Tools, Creating reference planes Creating Extrude features – Direction1,	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall

	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 .			
5	Creating Loft features – Selecting Profiles, Guide curves. Selecting geometries – Selection Manager, Multiple Body concepts Creating Reference - points, axis, coordinates	Mr.J.Jeyajeevahan	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.J.Jeyajeevahan	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.J.Jeyajeevahan	3 hrs	Seminar Hall
8	Environment & Utilities - Working with views and manipulating views, Trouble shooting	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall
9	Assembly Modeling Tools Introduction to Assembly Modeling & Approaches – Top down and Bottom up approach Applying Standard Mates- Coincident, Parallel, Perpendicular, Tangent, Concentric,	Mr.J.Jeyajeevahan	3 hrs	Seminar Hall

	Lock, Distance, and Angle.			
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.J.Jeyajeevahan	3 hrs	Seminar Hall

Course Coordinator

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: 2018 – 19

Participants list

S.No.	Register No.	Name of the Student
1.	3615021	ANTONY JACKWIN. J
2.	3615023	ARAVIND SRI KRISHNA. B. R. S.
3.	3615025	ARNAB MALLIK
4.	3615031	ASHISH KUMAR TIWARI
5.	3615034	BALACHANDAR. R
6.	3615035	BALACHANDAR. V
7.	3615037	BANREDDY SATHISHKUMARREDDY
8.	3615038	BAVISETTI VENKATA KISHOR BABU
9.	3615039	BHARADWAJ PARUVADA
10.	3615040	BHARADWAJ SRIHARI
11.	3615041	BHARATH. K
12.	3615043	BHUMIREDDY SREEDHAR REDDY
13.	3615044	BOBBITI VIKAS REDDY
14.	3615059	CHITTAMURU NIKHIL
15.	3615060	CHITTURI DINESH KRISHNA KUMAR
16.	3615061	CHURCHILL AMAL RAJ. S
17.	3615063	DANIEL. K
18.	3615064	DEEPAK KUMARESH. K. S.
19.	3615065	DEEPAK VIGNESHWARAN. N
20.	3615066	DEERAJ. B
21.	3615067	DEVARAJ. M
22.	3615068	DEVARAPALLI SATISH
23.	3615071	DHATCHINAMOORTHY. R
24.	3615085	GOPINATH. K
25.	3615086	GORLE JITENDRA

26.	3615102	JASTI MOHAN KRISHNA
27.	3615103	JASWANTH. C. P.
28.	3615105	JAYA PRAKASH. A
29.	3615106	JEEVA. B
30.	3615109	JONES MARTIN. J
31.	3615110	JOSEPH AMRISH LOBO. N
32.	3615112	JUTUR VENKATA PRASAD
33.	3615113	JUVVANTHULA VENKATA SRIDHAR REDDY
34.	3615164	MORLA NARENDRA KUMAR
35.	3615165	MUDDARAPU JASWANTH REDDY
36.	3615166	MUKESH KUMAR. S
37.	3615167	MUNI SAI PREETHAM
38.	3615169	MUTHUKUMAR. S
39.	3615170	MYNAMPATI BALASUBRAMANYAM
40.	3615171	NAIR AKHIL AJAYKUMAR
41.	3615172	NALI ROHIT
42.	3615173	NALI SAI RAKESH
43.	3615174	NALLAMILLI JNANA SAI VAMSIDHAR REDDY
44.	3615175	NAMA SAITEJA
45.	3615193	PESALA SAI MANOJ
46.	3615194	PETLA RAMA NARASIMHAM



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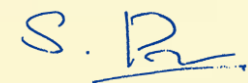
ANALYSIS OF ENGINE PERFORMANCE AND EMISSION TESTING

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This is to certify that Mr. DEVABHAKTUNI MAHENDRANATH CHOWDARY of 4th Year Mechanical has attended the 3 week Training Programme on **ANALYSIS OF ENGINE PERFORMANCE AND EMISSION TESTING** organized by the Department of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai from 28th January to 15th February 2019.


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

Organizes Training Program on

DRAFTING AND MODELLING USING



17th September to 5th October 2018

Course Contents:

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

For Registrations Contact:

Mr.J.JEYAJEEVAHAN

Assistant Professor

Department of Mechanical Engineering

Mob: 91769 01505

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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 Contents:

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 hrss	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.S.Lakshmisankar	5 hrs	Seminar Hall
5	Liquid penetrant testing: Principle of liquid penetrates	Mr.S.Lakshmisankar	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.S.Lakshmisankar	5 hrs	Seminar Hall

Course Coordinator

Mr.S.LAKSHMISANKAR
Assistant Professor
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DEPARTMENT OF MECHANICAL ENGINEERING

CHENNAI – 600119.

Batch: 2018 – 19

Participants list

S.No.	Register No.	Name of the Student
1.	3615003	ADHARSH. A
2.	3615004	ADIVISHNU MALLIKHARJUNA RAKESH
3.	3615009	AJITH. N
4.	3615010	AKASH DEB NATH
5.	3615011	AKASH KUMAR. S
6.	3615012	AKHIL SAJEEVU
7.	3615013	AKSHAY SETHU
8.	3615015	AMAN. N
9.	3615016	AMARJIT ROY
10.	3615017	AMIDELA HARISH
11.	3615047	BOYA SAI PAVAN KALYAN
12.	3615048	BOYAPALLE RAKESH KUMAR REDDY
13.	3615049	BRIAN WILFER. P
14.	3615050	BUYYA VENKATA SAI KRISHNA
15.	3615051	CHALLA APPARAO
16.	3615054	CHIMAKURTHY VENKATA SUBRAMANYAM
17.	3615055	CHINTA KOTA NAVEEN
18.	3615071	DHATCHINAMOORTHY. R
19.	3615072	DHEEBAN. S
20.	3615073	DINESH. R
21.	3615076	ELAVENDHAN. E
22.	3615077	ENIYAVAN. G
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30.	3615113	JUVVANTHULA VENKATA SRIDHAR REDDY
31.	3615115	KANAKALA NARASIMHA MURTHY
32.	3615117	KANTIPUDI NARASIMHA
33.	3615118	KARNATI JASWANTH REDDY
34.	3615135	LINGAMPALLY SAI KUMAR
35.	3615136	LOGESH. S
36.	3615141	MADHUBALAN. G
37.	3615142	MANIKANDAN. G
38.	3615143	MANIKANTA SATISH KUMAR. P
39.	3615144	MANOHAR MAHATO
40.	3615146	MANOJPRASAD KALAI SELVAN
41.	3615147	MARIA JAMES. I
42.	3615165	MUDDARAPU JASWANTH REDDY
43.	3615166	MUKESH KUMAR. S
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ORGANIZES TRAINING PROGRAMME ON
DRAFTING AND MODELLING USING SOLIDWORKS

17th SEPTEMBER to 5th OCTOBER 2018

PARTICIPATION CERTIFICATE

This is to certify that Mr. BAVISETTI VENKATA KISHOR BABU of 3rd Year
Mechanical has attended the Training Programme on **DRAFTING AND MODELLING**
USING SOLIDWORKS organized by the Department of Mechanical Engineering,
Sathyabama Institute of Science and Technology, Chennai from 17th September to 5th
October 2018.

Dr.G.ARUNKUMAR
HOD MECHANICAL

Dr.S.PRAKASH
DEAN MECHANICAL