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SAI RAM ENGINEERING COLLEGE INSTITUTE OF TECHNOLOGY

An Autonomous Institutions
West Tambaram, Chennai - 44



Department of Mechanical Engineering

Organizing

Five Days Certification Training Program on

2D DRAFTING & ELECTRIC VEHICLES

Hosting on Zoom

Date: 01-09-2021 to 05-09-2021

Time: 10.30 A.M to 12.00 Noon

Zoom ID: 875 450 2223 Passcode: DRAFTING
To Register click here: <https://tinyurl.com/SEC-drafting>

Who can Attend

STUDENTS WHO ARE WILLING TO JOIN ENGINEERING

Objectives of the Training Program

The objective of this Training Program is

- To teach users the basic commands and tools necessary for professional 2D drawing, design and drafting using AutoCAD.
- To make students design and build their own electric vehicles and charging stations.

After completing this course students will be able to

- Use AutoCAD for daily working processes and Industrial Applications.
- Navigate AutoCAD using some of the navigating tools.
- Understand the concept drawing techniques.
- Create various designs using Autocad Tools
- Make layers so as to control the visualisation of the object.
- Learn about various drawings and annotations.
- Plot or print the drawing.
- Understand about Mechanical & Electrical Components in Electric Vehicles
- Learn functions of the EV Components
- Know about Electrification Approaches of New EV vs Retrofitting
- Understand Retrofitting of Scooter, TVS XL and Ambassador Car

Program Schedule

Training Program - Day-1 (01-09-2021)

<p><u>Chapter 1: Starting Autocad</u></p> <ul style="list-style-type: none">→AutoCAD User Interface→AutoCAD Workspaces→AutoCAD Ribbon→Setting Drawing Unit	<p><u>Chapter 2: Basic Drawing Skills</u></p> <ul style="list-style-type: none">→2D Drawings Navigations→Lines, Circles, Rectangles.→Erasing, Undoing→Circles, Arcs, Polygons→Filleting and Chamfering Lines
<p><u>Chapter 3: Using Drawing Aids</u></p> <ul style="list-style-type: none">→Grid and Snap→Ortho and Polar Snapping→Polar Snap→Running Object Snap→Object Snap Tracking	<p><u>Chapter 4: Editing Entities</u></p> <ul style="list-style-type: none">→Move and Copy→Rotate and Scale→Arrays, Grip Editing→Trim and Extend→Lengthen and Stretch→Offset and Mirror

Training Program - Day-2 (02-09-2021)

<p><u>Chapter 5: Shaping Curves</u></p> <ul style="list-style-type: none">→Drawing and Editing Curved Polylines→Drawing Ellipses→Drawing and Editing Splines→Blending between Objects and Splines	<p><u>Chapter 6: Controlling Object Visibility</u></p> <ul style="list-style-type: none">→Changing Object Properties→Setting the Current Layer→Altering Objects' Layer Assignments→Controlling Layer Visibility→Applying Linetype→Assigning Properties by Object or by Layer→Managing Layer Properties
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Chapter 7: Organizing Objects

- Defining Blocks, Inserting Blocks
- Redefining Blocks, Editing Blocks
- Working with Groups

Chapter 8: Hatching and Gradients

- Specifying Hatch Areas
- Associating Hatches with Boundaries
- Hatching the Patterns
- Hatching the Gradients

Training Program - Day-3 (03-09-2021)

Chapter 9: Working with Blocks

- Working with Global Blocks
- Searching for Content Across Multiple Drawings
- Storing Content on Tool Pallets
- Referencing External Drawings & Images

Chapter 10: Creating and Editing Text

- Creating Text Styles
- Writing Lines of Text
- Writing and Formatting Paragraphs (MTEXT)
- Editing Text

Chapter 11: Dimensioning and Constraints

- Styling Dimensions
- Adding Dimensions
- Editing Dimensions
- Working with Geometric Constraints
Applying Dimensional Constraints and Creating User Parameters
- Making Parametric Changes to Constrained Objects

Chapter 13: Working with Layouts and Annotative

- Creating Annotative Styles and Objects
- Creating Layouts
- Adjust Floating Viewports
- Overriding layer Properties in Layout Viewports
- Drawing on Layouts

Chapter 14: Printing and Plotting

- Configuring Output Devices
- Creating & Using Plot Styles Tables
- Plotting in Modelspaces & Paperspace
- Exporting to an Electronic Format

Hands on Training

Training Program - Day-4 (04-09-2021)

(E-Vehicle)

- Mechanical & Electrical Components in Electric Vehicles (EV)
- Function of the EV Components
- Electrification Approaches of New EV vs Retrofitting

Training Program - Day-5 (05-09-2021)

- Retrofitting of Scooter, TVS XL and Ambassador Car
- Testing of Retrofitted Electric Vehicles

Trainers:

S. Krishnaraj, AP / Mech / SEC
A. Ravinthiran, AP / Mech / SEC
S. Ganapathy, AP / Mech / SEC
S. Siva Chandran, AP / Mech / SEC

S. Meganathan, AP / Mech/SIT
E. Balakrishnan, AP / Mech/SIT
R. Arunkumar, AP / Mech/SIT

Shri. Sai Prakash Leomuthu
Chairman & CEO / Sairam Institutions



Dr. K. Porkumaran
Director / Sairam Institutions



Dr. A. Rajendra Prasad
Principal
Sri Sairam Engineering College



Dr. K. Palanikumar
Principal
Sri Sai Ram Institute of Technology



Dr. B. Vijaya Ramnath
HOD / Mech
Sri Sairam Engineering College



Dr. S. Murali
HOD / Mech
Sri Sai Ram Institute of Technology

