CADD Master 5C
Autodesk Authorised Training Centre

AUTODESK
Authorized Training Centre
Authorized Certification Centre

We Changed ur thinking, it Changed ur Life...

ANSYS

Training Details

Course Code	: HCCC13
Course Name	: ANSYS
Duration	: 2 Months
Eligibility	: Diploma / BE / ME (MECH) / ITI / +2 / Equivalent

Syllabus:

Introduction Of Ansys :

- ❖ Ansys APDL
- ❖ Jobnames and Preferences
- ❖ Utility Menu
- ❖ Task Steps
- ❖ Action Sub Steps
- ❖ Picking Graphics

Introduction Of FEA :

Finite Element Analysis

- ❖ Degrees of Freedom
- ❖ Boundary Conditions
- ❖ Areas for Application of FEA
- ❖ FEA through ANSYS

Element Shapes :

- − Point Element
- − Line Element
- − Area Element

CADD Master 5C
Autodesk Authorised Training Centre

AUTODESK
Authorized Training Centre
Authorized Certification Centre

We Changed ur thinking, it Changed ur Life…

- Volume Element

Applicable AnsysProducts :

- ❖ Ansys Mechanical
- ❖ AnsysMultiphysics
- ❖ Ansys Professional
- ❖ Asnys Structural
- ❖ Ansys LS-DYNA

Types Of Analysis :

- ❖ Structural Analysis

Linear

- - Static
- - Modal
- - Transient
- - Buckling
- - Non Linear
- ❖ Thermal Analysis

Steps of Ansys:

- ❖ Preprocessor
  - - Element Type
  - - Real Constants
  - - Material Properties
  - - Modeling
  - - Meshing
  - - Loading and boundary conditions
- ❖ Solution
  - - Analysis Type
  - - Define Loads
  - - Solve
- ❖ General Postprocessor
  - - Read Results
  - - Plot Results(Stress, Strain etc…)

Address:
163 C/1, First Floor, Kamarajar Salai,
NP TVS Showroom Opp., Ganesh Theatre Signal,
Santha Pettai Bus Stop Near,
Madurai – 625 009.

99443 35447
99944 37733
e mail   : caddmaster5c@gmail.com
website :www.caddmaster5c.com
facebook: www.facebook.com/caddmaster5c/

Modeling :

- ❖ **Keypoints**
  - On working plane
  - In Active CS
  - On Line
  - On Line w/Ratio
  - KP between KPs
  - Fill between KPs
  - KP at centre
- ❖ **Lines**
  - Straight Line
  - Tangent to Line
  - Tan to 2 Lines
  - Normal to Line
  - Norm to 2 Lines
  - At angle to line
  - Angle to 2 Lines
- ❖ **Arcs**
  - Through 3 KPs
  - By End KPs & Radius
  - By Cent & Radius
  - Full Circle

- ❖ **Splines**
  - Spline thru Locs
  - Spline thru KPs
  - Segmented Spline
- ❖ **Line Fillet**
- ❖ **Areas> Arbitrary**
  - Through KPs
  - By Lines
  - By offset
- ❖ **Rectangle**
  - By 2 Corners
  - By Centr&Cornr
  - By Dimensions

Address:
163 C/1, First Floor, Kamarajar Salai,
NP TVS Showroom Opp., Ganesh Theatre Signal,
Santha Pettai Bus Stop Near,
Madurai – 625 009.

99443 35447
99944 37733
e mail   : caddmaster5c@gmail.com
website :www.caddmaster5c.com
facebook: www.facebook.com/caddmaster5c/

- ❖ **Circle**
  - Solid Circle
  - Annulus
  - Partial Annulus
  - By End Points
  - By Dimensions
- ❖ **Polygon**
  - Triangle
  - Square
  - Pentagen
  - Hexagon
  - Septagon
  - Octagon
  - By Inscribed Rad
  - By Circumscr Rad
  - By Side Length
  - By Vertices
- ❖ **Area Fillet**
- ❖ **Volumes > Arbitrary**
  - Through KPs
  - By Areas
- ❖ **Block**
  - By 2 corners & Z
  - By Centr,Cornr,Z
  - By Dimensions
- ❖ **Cylinder**
  - Solid Cylinder
  - Hollow Cylinder
  - Partial Cylinder
  - By End pts & Z
  - By Dimensions
- ❖ **Prism**
  - Triangle
  - Square
  - Pentagonal
  - Hexagonal
  - Septagonal
  - Octagonal

Address:
163 C/1, First Floor, Kamarajar Salai,
NP TVS Showroom Opp., Ganesh Theatre Signal,
Santha Pettai Bus Stop Near,
Madurai – 625 009.

99443 35447
99944 37733
e mail   : caddmaster5c@gmail.com
website :www.caddmaster5c.com
facebook: www.facebook.com/caddmaster5c/

CADD Master 5C
Autodesk Authorised Training Centre

AUTODESK.
Authorized Training Centre
Authorized Certification Centre

We Changed ur thinking, it Changed ur Life…

- By Inscribed Radius
- By Circumscr Rad
- By Side Length
- By Vertices

❖ **Sphere**
- Solid Sphere
- Hollow Sphere
- By End Points
- By Dimensions

❖ **Cone**
- By Picking
- By Dimensions

❖ **Torus**

❖ **Nodes**
- On Working Plane
- In Active CS

❖ **Elements**
- Elem Attributes
- Auto Numbered

❖ **Operate > Extrude > Areas**
- Along Normal
- By XYZ Offset
- About Axis
- Along Lines

❖ **Lines**
- About Axis
- Along Lines

❖ **Key points**
- About Axis
- Along Lines

❖ **Extend Line**

❖ **Booleans**
- Intersect
- Add
- Subtract
- Divide
- Partition

- ❖ **Scale**
- ❖ **Move/Modify**
  - Key points
  - Lines
  - Areas
  - Volumes
  - Nodes
- ❖ **Copy**
  - Key points
  - Lines
  - Areas
  - Volumes
  - Nodes
- ❖ **Reflect**
  - Key points
  - Lines
  - Areas
  - Volumes
  - Nodes
- ❖ **Check Geometry**
- ❖ **Delete**

Plot Ctrls

- Pan Zoom Rotate
- Numbering
- Style
- Window Controls
- Animate
- Plot
- Replot
- Multi – plots

Work Plane

- Display Working Plane
- WP Settings
- Offset WP By Increments
- Offset WP to
- Align Wp With

Address:
163 C/1, First Floor, Kamarajar Salai,
NP TVS Showroom Opp., Ganesh Theatre Signal,
Santha Pettai Bus Stop Near,
Madurai – 625 009.

📞 **99443 35447**
   99944 37733
e mail   : caddmaster5c@gmail.com
website :www.caddmaster5c.com
facebook: www.facebook.com/caddmaster5c/

Element Type

- Add/Edit/Delete

Real Constants

- Add/Edit/Delete
- Thickness Functions

Material Props

- ❖ Material Library
- ❖ Material Models

Meshing

- Mesh Attributes
- Mesh Tool
- Size Controls
- Clear

Loads

- Analysis Type
- Define loads
- Load Step Opts

Import and Export