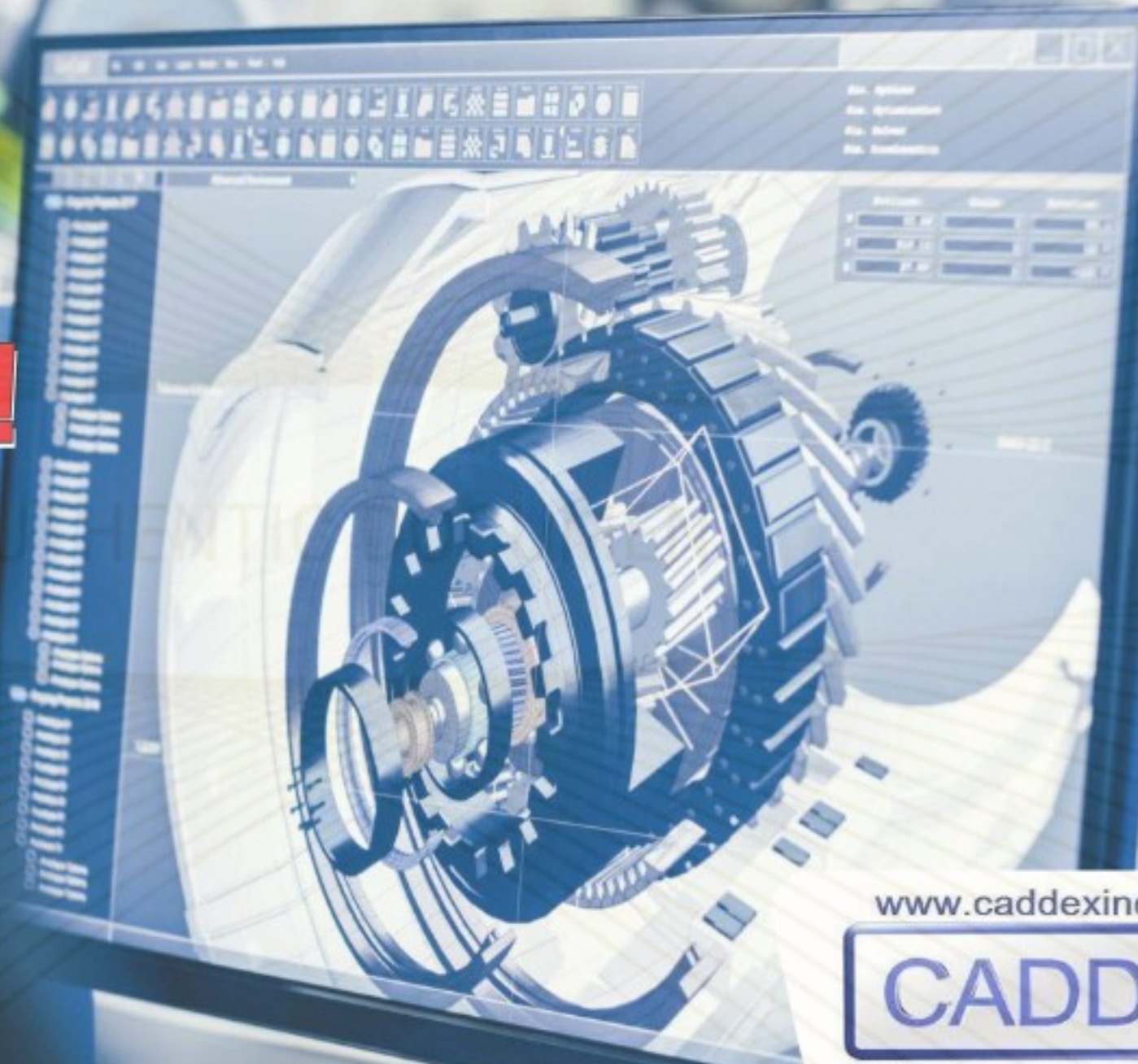


**BUILD**  
your career  
**WITH US!**



[www.caddexindia.com](http://www.caddexindia.com)

**CADDEX™**

SOFTWARE / TRAINING / CONSULTANCY / PLACEMENTS

**An ISO 9001 - 2008 Certified Company**



## ABOUT US



CADDEX is Asia's largest information technology training services company, creating skilled human resources in computer aided design, engineering, and product lifecycle management. The company has many centres in major cities and towns. Our courses are industry specific and aim to provide skill sets that are immediately relevant to the participant. Classroom activities are supplemented by practice sessions and projects, aided by our World Class Course Material. Successful participants will receive a CADDEX International Certificate, a true testimony of skill. All our certificates can be verified online, confirming the authenticity of the participant.

## Why CADDEX

- Start to end industry specific skills
- World class courseware
- Placement assistance
- Student projects that fetch top grades in colleges
- Internationally recognised certificate
- Instructors certified by ITA
- Well distributed network
- Part time employment opportunities during your higher studies in the foreign universities
- The largest corporate CAD / CAM / CAE training provider in India
- Only International CAD training Institution in India

## Who Can Benefit?

- ▶ Mechanical Engineers
- ▶ Civil Engineers
- ▶ Electrical Engineers
- ▶ Architectural Engineers
- ▶ Automobile Engineers
- ▶ Aeronautical Engineers
- ▶ Manufacturing companies
- ▶ Construction companies
- ▶ Oil companies
- ▶ Graduates
- ▶ Government departments
- ▶ Utilities
- ▶ Archeologists
- ▶ Engineering / Diploma students
- ▶ ITI / School students



01

## CADDEX Master Diploma Program

CADDEX Master Diploma is the start to end, comprehensive program on CAD/CAM/CAE suitable for engineers who wish to build a career in core engineering profession. It is certain that engineers will get an employment or career growth after effective completion of this program.

02

## CADDEX Professional Program

CADDEX Professional course on CAD/CAM/CAE is suitable for engineers and experienced diploma engineers. This program will help engineers to improve the productivity skills and career growth. Participants will benefit greatly from this program and understand the latest technologies.

03

## CADDEX Diploma Program

CADDEX Diploma programs are best suited for the fresh diploma and engineering students. This program gives the basic understanding and facilitates participants to make designs comfortably.

04

## CADDEX Foundation Courses

This is the basic, entry-level program offered by CADDEX. This is best suited for students and graduates to have a clear understanding of CAD tools. This is the foundation on which all the vertical courses are built. This program is offered by all the centres in the CADDEX training network.

05

## CADDEX Special Courses

These programs are designed for those, who have good experience on CAD tools and willing to upgrade themselves to next level of technology in CAD/CAM/CAE





Learn Mechanical CADD

**Add a new  
dimension to your career.**





# AutoCAD 2D

- Introduction
- File management
- Orthographic drawings
- View management
- Display management
- Layer management
- Selection methods
- Parametric drawings
- Symbol creation using block
- BOM / Joinery details creation
- Isometric drawings
- Perspective drawings
- Annotations and Dimensions
- Team work
- Layout management
- Publish and Plot

Duration: 64 hrs

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## AutoCAD 3D

- 3D modeling concepts in AutoCAD
- Understand and use viewpoint and UCS
- Wireframe modeling
- Solid modeling & editing
- Mesh modeling & editing
- Surface modeling & editing
- Create & manage 2D views from 3D models
- Materials, lights & rendering
- Working with images
- Import and export

Duration: 40 hrs

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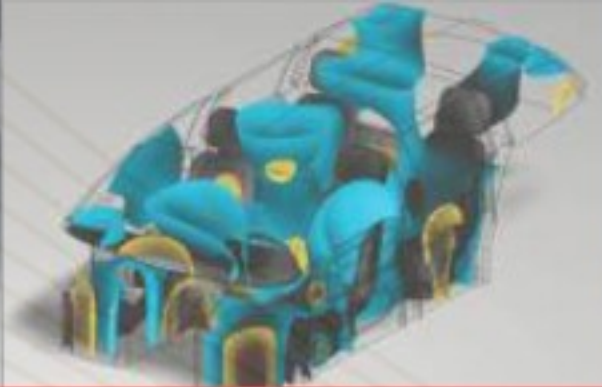
# MicroStation

- Introduction
- Understanding the interface
- MicroStation workflow
- Working with views
- Creating and modifying elements
- Annotation tools
- Dimensioning
- Working with levels
- Working with references
- Printing methods

Duration: 64 hrs

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# Inventor

- Autodesk Inventor User Interface
- 2D sketching
- 3D sketching
- Parametric Part Modeling
- Creating Work Features
- Editing Features
- Advanced Modeling Tools
- Creating I- Part, I- Features, I-Logic
- Assembly Design
- Bottom –Up Assembly
- Top- Down Assembly
- Creating Adaptive, Flexible components
- Creating Presentation File
- Creating Level of details Representation
- Understanding Simplified Assemblies
- Using Shrinkwrap
- Creating Skeleton Modeling
- Sheetmetal Design
- Surface Modeling
- Drafting & Detailing
- Freeform Modeling
- Inventor Studio

**Duration: 80 hrs**

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# SolidWorks

- Sketcher basics
- 3D sketching
- Part modeling
- Creating reference geometries
- Editing features
- Advanced modeling tools
- Configuration
- Design table/library features
- Import/export of files
- Surface overview
- Bottom-up assembly
- Top-down assembly
- Exploding assemblies
- Simulation/ Detailing
- BOM, balloon tools
- Sheet metal
- PDM Works
- Weldment

Duration: 80 hrs

CADDEX™





# SolidWorks Motion

- Types of Motion Studies
- SolidWorks Motion Capabilities
- SolidWorks Motion Entities
- Animation and Basic Motion
- Motion Simulation
- Using SolidWorks Motion for solving Particle Dynamics problems
- Using SolidWorks Motion for Solving Multibody Dynamics with examples
- Results Plots and Verification

**Duration: 40 hrs**

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# Creo/Parametric

- Creo/Parametric concepts
- Using the Creo/Parametric interface
- Creating sketcher geometry
- Creating extrudes, revolves, and ribs
- Selecting and editing
- Creating datum features
- Utilizing internal sketches and embedded datums
- Creating sweeps and blends
- Creating holes and shells
- Creating rounds, chamfers and drafts
- Variable section sweeps, helical sweeps and swept blends
- Creating patterns
- Group, copy, and mirror tools
- Measuring and inspecting models
- Advanced reference management
- Relations and parameters
- Layers, family tables & UDF
- Assembling with constraints
- Exploding assemblies
- Creating surface features
- Editing surface features in Creo/Parametric
- Creating drawing views
- Creating drawing details
- Using advanced assembly constraints
- Creating and using component interfaces
- Creating and using flexible components
- Using assembly features and shrinkwrap
- Replacing components in an assembly
- Understanding simplified reps
- Creating cross-sections, display styles, and combined views
- Substituting components by rep, envelope, and model
- Creating and using assembly structure and skeletons
- Introduction to sheet metal design
- Primary walls, secondary and unattached walls
- Unbend, bend back and cuts
- Notches and punches
- Sheet metal forms
- Bending & Unbending sheet metal geometry
- Converting solid parts
- Sheet metal drawings with flat states and bend order table

**Duration: 80 hrs**

**CADDEX™**





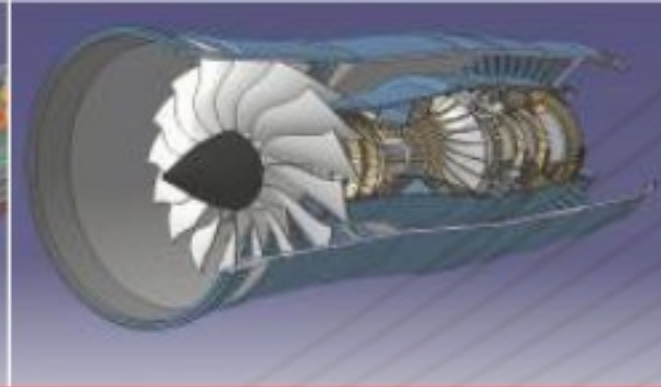
# CREO Simulate

- Theoretical Fundamentals
- Preparing a CAD Model
- Pre-processing
- Meshing
- Structural Static Analysis
- Modal Analysis
- Buckling Analysis
- Symmetry
- Thermal
- Assembly Analysis
- Dynamic analysis

**Duration: 40 hrs**

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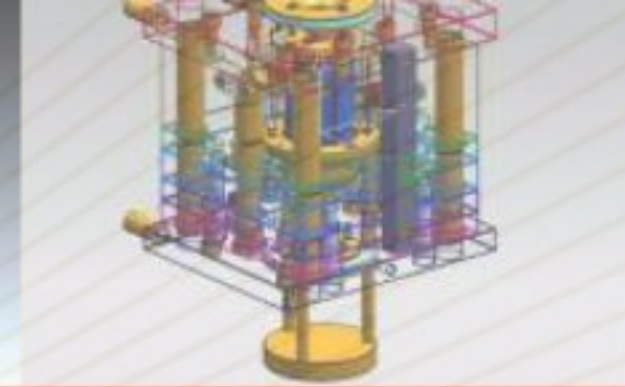
# CATIA

- CATIA user interface
- Creating and editing sketches
- Creating sketch based features
- Creating transformation features
- Creating dress up features
- Creating advanced replication tools
- Editing parts in assembly
- Creating surface features
- Generative sheetmetal design
- Drawing view generation
- Bill of materials, balloons
- Finalizing the drawing and printing
- Dress up on 2D Views
- Real time rendering

Duration: 80 hrs

CADDEX™





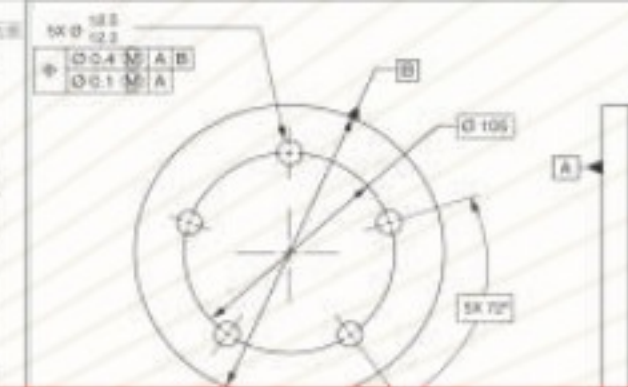
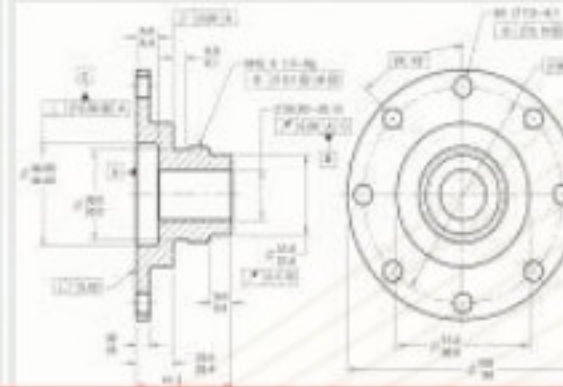
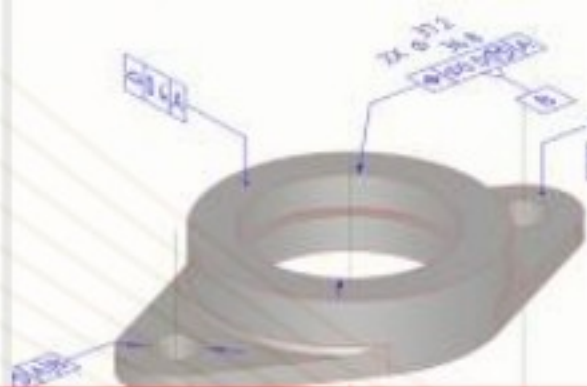
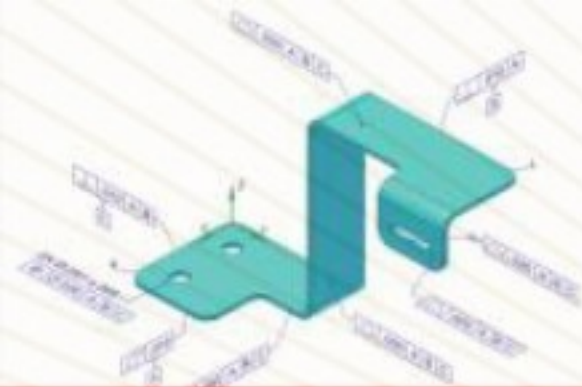
# NX CAD

- User interface
- Sketcher essentials
- Constraining sketches
- Datums
- Creating part features
- Editing parts
- Creating fundamental curves
- Editing curves
- Editing freeform features
- Basic assembly concepts
- Creating assemblies
- Positioning assembly components
- Assembly revisions and component replacements
- Assembly sequencing
- Assemblies - clearance and analysis
- Deformable components
- Part families
- Introduction to drafting
- Drawings and views
- Creating dimensions, notes and labels
- Plotting drawings

**Duration: 80 hrs**

**CADDEX™**





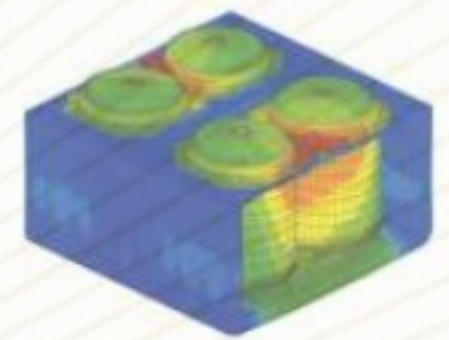
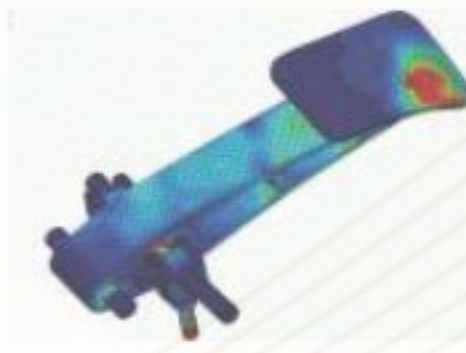
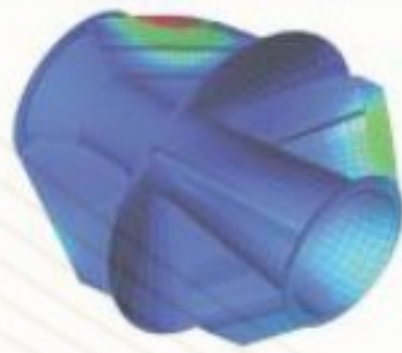
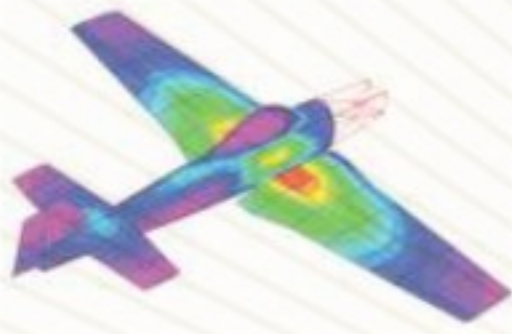
# GD&T

- Dimensions and drawings
- Tolerance dimensioning
- Ways of expressing tolerance
- IT grades
- Introduction to "ASME Y14.5M-1994"
- GD&T rules
- Maximum Material Condition of a feature of size
- Least Material Condition of a feature of size
- Concept of virtual condition
- Concept of bonus tolerance
- Planar datums
- Modifiers and symbols
- Tolerance types

Duration: 16 hrs

CADDEX™





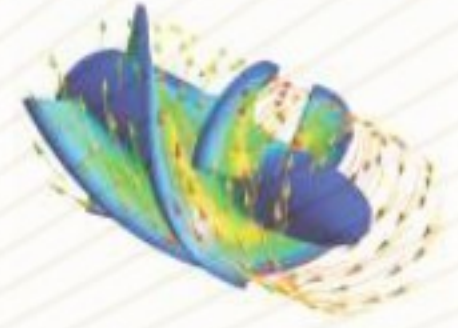
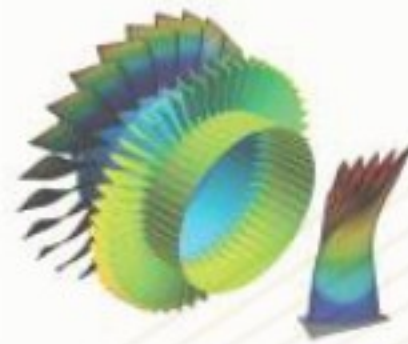
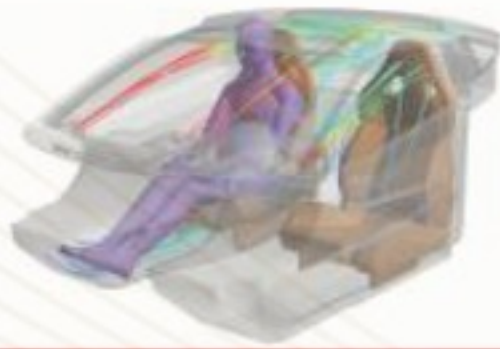
## NX Nastran

- Finite element analysis
- NX Nastran overview
- Geometry abstraction
- Geometry idealization
- Specifying materials
- Meshing the geometry
- Model checking process
- Defining boundary conditions
- Solving the FE model
- Post-processing the solution
- Generating reports
- Import and export of model data
- Applying contact and gluing conditions
- Linear static analysis
- Modal analysis
- Buckling analysis
- Response analysis
- Thermal analysis
- Nonlinear static analysis
- Assembly FEM
- Optimization study

Duration: 80 hrs

CADDEX™





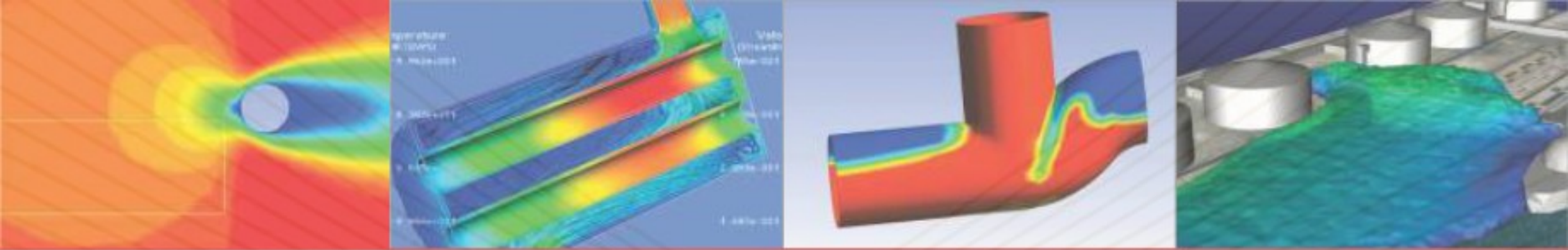
# ANSYS Workbench

- Introduction to CAE
- General Procedure involved in FEA
- GUI of ANSYS Workbench
- Working on a Project
- CAD modeling using ANSYS Workbench
- Defining and Assigning Materials
- Generating the mesh
- Optimizing the model to refine mesh
- Working with different boundary conditions
- Surface and Line Models
- Static Structural analysis
- Modal analysis
- Buckling analysis
- Thermal analysis
- Coupled Field (Thermal Stress)
- Post Processing

Duration: 80 hrs

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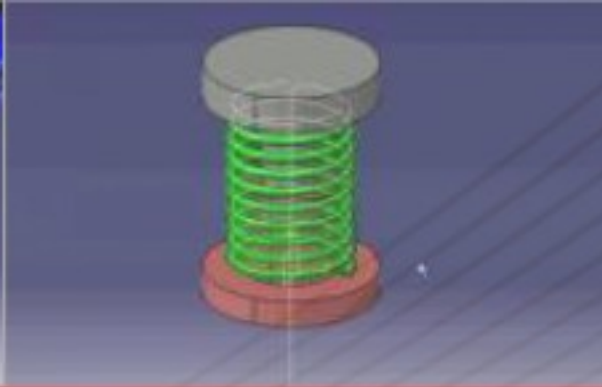
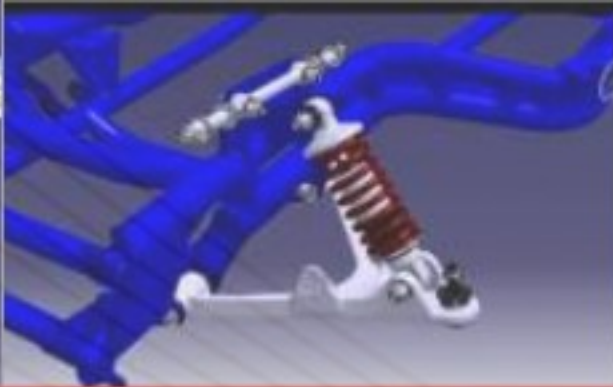
# ANSYS Fluent

- Basics of CFD
- Flow mixing
- Heat Transfer
- Transonic Flow
- Multiple Species
- Turbulence Modelling
- Periodicity
- Radiation and convection models
- Siphoning

Duration: 40 hrs

CADDEX™





# CATIA Kinematics

- Kinematics Overview
- Graphic User Interface of CATIA Kinematics
- Basic mechanism process
- Creating Joints
- Motion Transfer Joints
- Rotating Joints
- Complex Joints
- Converting Constraints into Joints
- Generating Mechanisms
- Simulating Mechanisms
- Evaluating Mechanisms
- Swept Volume

Duration: 24 hrs

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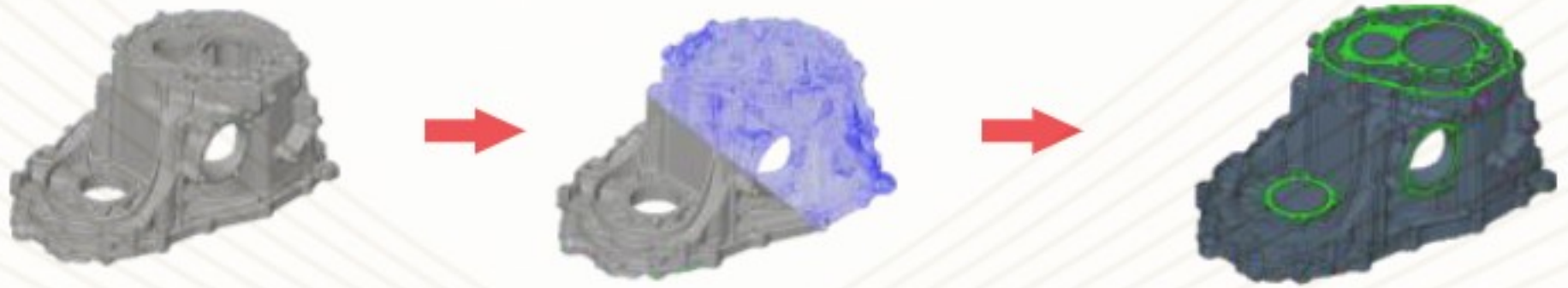
# 3D Printing

- Introduction of 3D Printing
- Evolution of 3D Printing
- About Additive Manufacturing
- General procedure of 3D Printing
- 3D CAD File formats
- Stereo lithography files
- Various Printing technologies (SLA, SLS, FDM, Poly jet printing, Color jet Printing, SHS, SLM, LOM, Multi jet Printing, DLP)
- FDM in detail
- Preparation of print ready file using Plasto 200
- Operating Plasto 200 - Live demonstration
- STL principles
- Object Placement
- Print Settings
- Material Properties
- Manual Controls
- Project

**Duration: 24 hrs**

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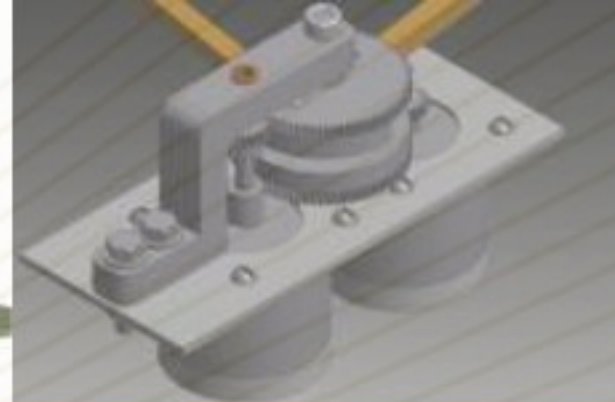
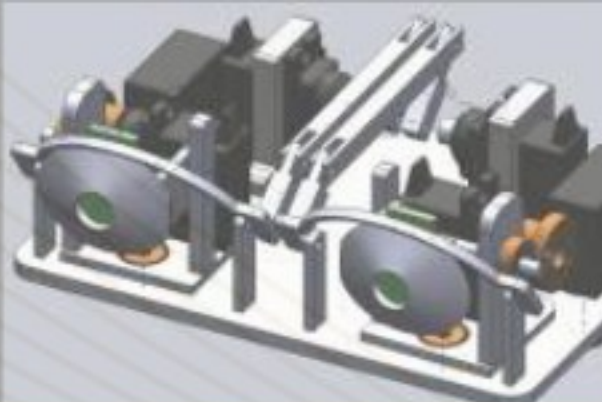
# Reverse Engineering

- Reverse Engineering
- Process in Reverse Engineering
- Reverse Engineering Hardware and Software
- Getting Started
- Processing the point cloud data
- Importing cloud data
- Creating and editing scans
- Editing Scans
- Curve creation
- Creating surfaces from curves (QSR)
- Completing the surfaces with GSD

Duration: 40 hrs

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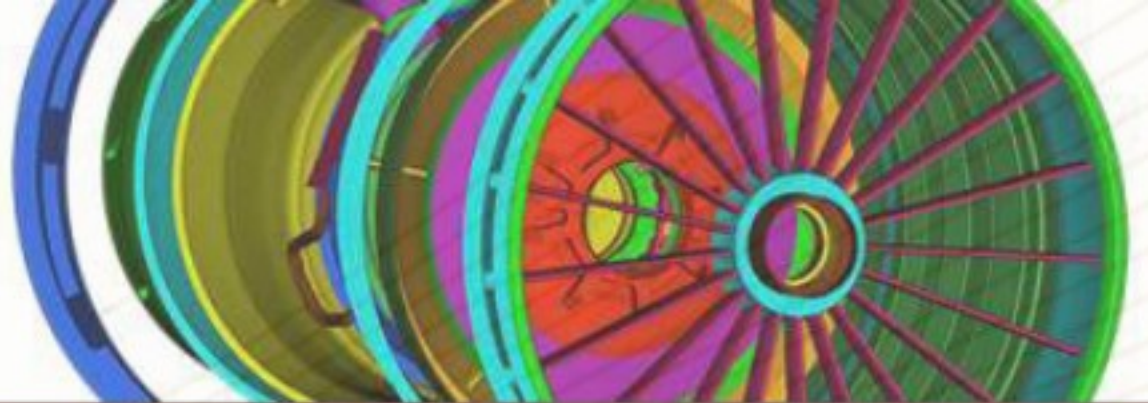
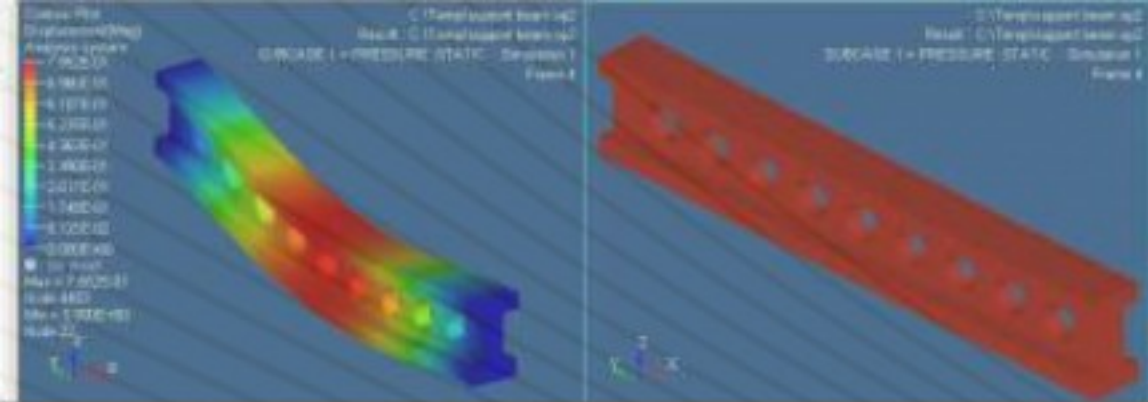


## NX CAM

- The operation navigator
- Manufacturing operations and postprocessing
- Wizards and shop documentation
- Planar milling - introduction and profiling
- Engrave text
- Face milling
- Cavity milling
- Z-level milling
- Thread milling
- Area milling
- Radial cutting
- Surface area cutting
- Engraving
- Contour profiling
- Common parameters
- Rough and finish turning
- Centerline drilling
- Groove and thread operations
- Multiple spindles and IPW

Duration: 40 hrs

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# HYPERMESH

- Introduction to FEM
- Brief on Meshing
- Basic interaction with Hypermesh
- Preparing geometry for meshing
- Shell meshing
- Tetra meshing
- Quality
- Assemblies: welding and swapping parts
- Analysis Setup
- Hypermesh Solver Interfaces
- Review, Test and Project Discussion

Duration: 40 hrs

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AUTHENTIC DOCUMENT



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