



ISO 9001:2008 CERTIFIED

CAD / CAM / CAE / CFD / IT

INDIA • USA • GERMANY • UK • MALAYSIA

# CAE Technology

We are a new-age engineering services provider with a growing presence across diverse industries. We are one of the fastest growing organizations in the global engineering service industry.

Driven by the spirit of innovation and commitment to the values of quality, service and reliability, we offer services at competitive price using the latest technology.

We bring with our expertise, the best infrastructure, state-of-art facilities, and a talent pool that comprises of an interdisciplinary team of highly qualified and experienced engineers, scientists providing collaborative engineering and R&D services.

## MISSION

"Always committed to delight our customers with High quality and Cost-effective Engineering services"

## VISION

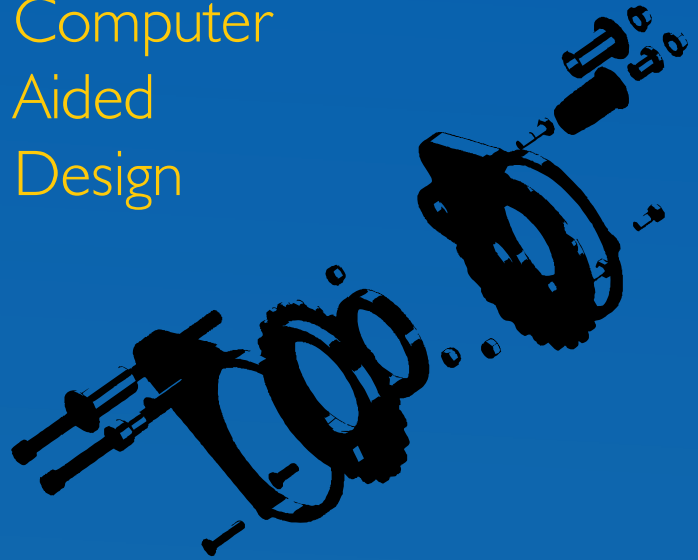
"To be a Premier Engineering Service provider and work towards achieving an effective global presence"

## INDUSTRIES WE CATER

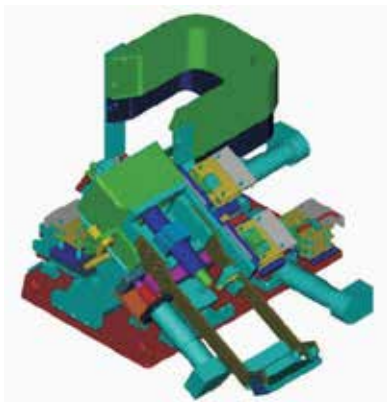
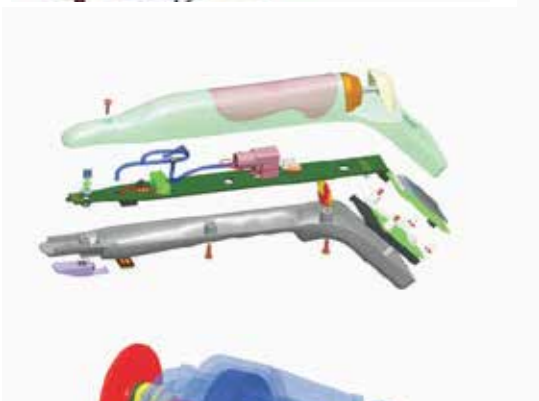
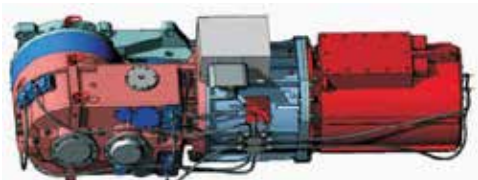




# CAD : Computer Aided Design



## Our Work:



Do you wish to reproduce superior quality 2D drawings and/or 3D models? Or convert your paper drawings into accurate DEG, DXF (or any other CAD format) for swift and effective editing in CAD? Are you looking to raise your productivity at lower cost? Are you looking to have your own extended design office? If so, we will be able to meet your expectations.

We have the capability to make drawings for mechanical, and structural Engineering. Take up digitization job work of manually created drawings and undertake programming and customization, system management and configuration, animation and drawing management. Backed by a team of highly skilled engineers and drafts man we work on different platforms including high-end popular CAD program suites like CATIA, Pro-E, Uni Graphics, Auto CAD etc and can convert from one format to the other and translate CAD designs into all types of CAD data.

## Services We offer

- Concept Design
- Product Design
- 2D to 3D Conversion
- Part Modeling
- Assembly Modeling
- 2D Detailing
- Tolerance Analysis, Interference checks and Mass Property Calculation
- Fabrication Drawings
- Part list and Bill of Material (BOM) Generation
- Legacy Data Conversion/Migration
- Reverse Engineering / Re Engineering
- Engineering Change Orders / Requests

# CAE (FE Modeling and Analysis)

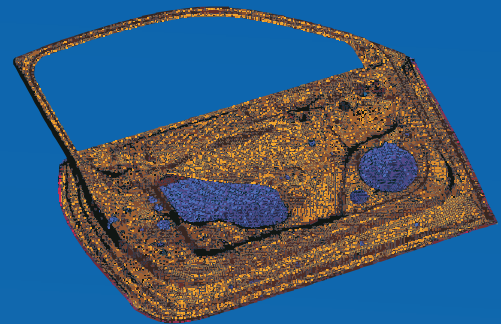
As a highly experienced engineering consulting firm, CAE Tech provides analysis services in a broad range of industries. CAE Technology has invested in keeping pace with the latest available CAE Computer-Aided Engineering predictive analysis, software programs and hardware platforms. CAE software tools can analyze the composition, robustness and performance of materials, components and assemblies.

CAE Tech provides virtual simulation, validation and optimization of products which is then compared against the real world. CAE Tech allows you to maximize design confidence, reduce need for expensive prototypes and compress the development cycle time.

## MESHING

CAE Tech provides with good quality meshing, an integral part of the computer-aided engineering (CAE) analysis process, which influences accuracy, convergence and speed of the solution.

→ Solid Modeling → Shell Modeling → Beam Modeling → Fluid Modeling



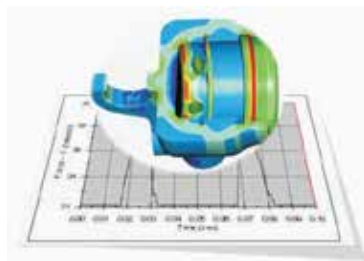
## FE ANALYSIS

We have extensive experience in specialized and advanced areas of engineering and analysis in the following areas.

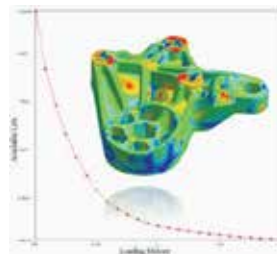
- Static Analysis: Linear, Nonlinear, Plasticity, Large deflection, and Multi-Body Contact Analysis
- Dynamic Analysis: Linear Modal and Transient Analysis, Nonlinear Transient Analysis with Multi-Body Contact & Buckling
- Thermal Analysis: Static and Transient
- Coupled Field Analysis: Structural-Thermal, Fluid-Structural and others
- Multi-Body Dynamics, Shock / Impact Analysis
- Electric and Magnetic Analysis
- Design Optimization (DOE)
- Fatigue Analysis: High-cycle and Low-cycle Fatigue, Stress and Strain Life approaches, and Linear Elastic Fracture Mechanics
- Rotor Dynamic Analysis
- Creep, Crack Propagation Analysis
- Composite Analysis
- Mold flow Analysis



Thermal Analysis



Dynamic Analysis



Fatigue Analysis



Crash Analysis

**NVH** : Body NVH, Chassis NVH, Power Train NVH, Break noise, Tire Noise, Exhaust System Acoustic Analysis, Noise Path and Source Identification, Experimental and CAE co-relation.

**CRASH** : Front Impact, Rear Impact, Side Impact, Head Impact, Seat Belt Anchorages, Child Seat Restraints.

**DURABILITY Analysis** : Integrated Durability Studies (from load calculation to life estimation).

# CAM

CAE Technology's team of experienced engineers can assist in optimizing the existing products for cutting costs, space and weight, by our innovative solutions providing you a fresh perspectives in to product manufacturing .

With our Service you get Improved Quality, Increased Productivity, Increased Flexibility & Reduced Costs.

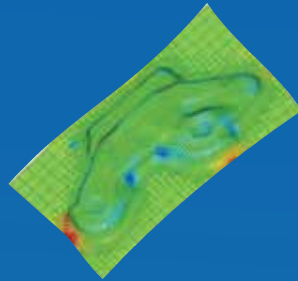
Our Expertise in cutting edge CAM technologies have helped us to maintain an edge over our competitors.

We offer Services in the following Areas:

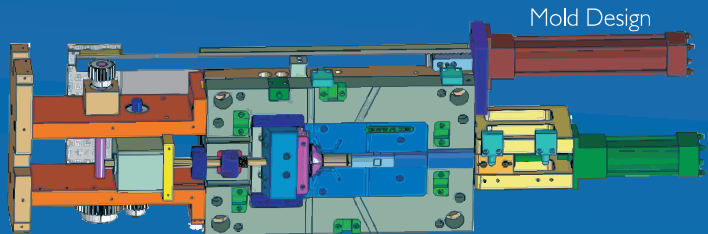
- Tool Design
- Jigs & Fixtures
- Mold Design
- Press Tool & Stamping Design
- NC-Path Generation
- Prototyping
- Rapid Prototyping
- Physical Prototyping
- Sheet Metal Die Design
- Sheet Metal Forming Analysis
- Plastic Injection Molding
- Manufacturing Process Development
- Generate the Optimized Path
- Simulate the Cutting Process
- Generate G & M codes suitable for Machine Controller



Tool & Die Design



Forming Analysis



Mold Design



CAE is equipped with latest Metrology facilities like :

- Computerized 3D Coordinate Measuring Machine
- Universal Measuring Machines
- Optical Profile Projector
- Surface Roughness Measuring Machine
- Height Masters, etc., and undertakes inspection of Tools/Components
- CNC - 3D Co-ordinate Measuring Machine
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# CFD

To meet the immense fluid flow needs in huge number of industries with various applications, CAE Technology provides its vast experience in CFD to visualize and predict physical phenomena related to flow.

We perform various forms of advanced fluid dynamics calculations involving complicated fluid flow and heat transfer physics, multi-phase flow, chemical reaction kinetics and moving mesh analysis.

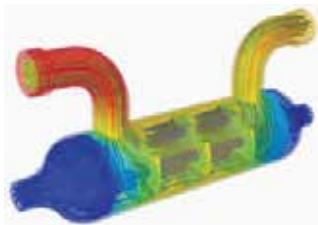
The insight you gain with CFD in CAE Technology allows you to make accurate predictions.

Meshing for CFD applications:

- Geometry generation and clean up
- Block Structured and Unstructured Grid Generation
- Tetrahedral, Hexahedral and Hybrid Meshing

Computational Fluid Dynamics :

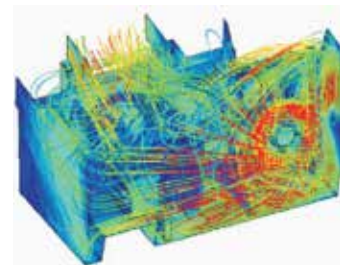
- Internal and External Flow
- Compressible and Incompressible Flows
- Steady and Transient Flow
- Electronic Component Cooling
- Rotory Machinery
- Fluid Structure Interaction
- Electro Mechanics
- Multi Phase Flows
- Irrotational to Swirling Flows involving Vorticity
- Calculations on fixed and moving mesh options for Turbo-Machinery applications
- Bubble Dynamics



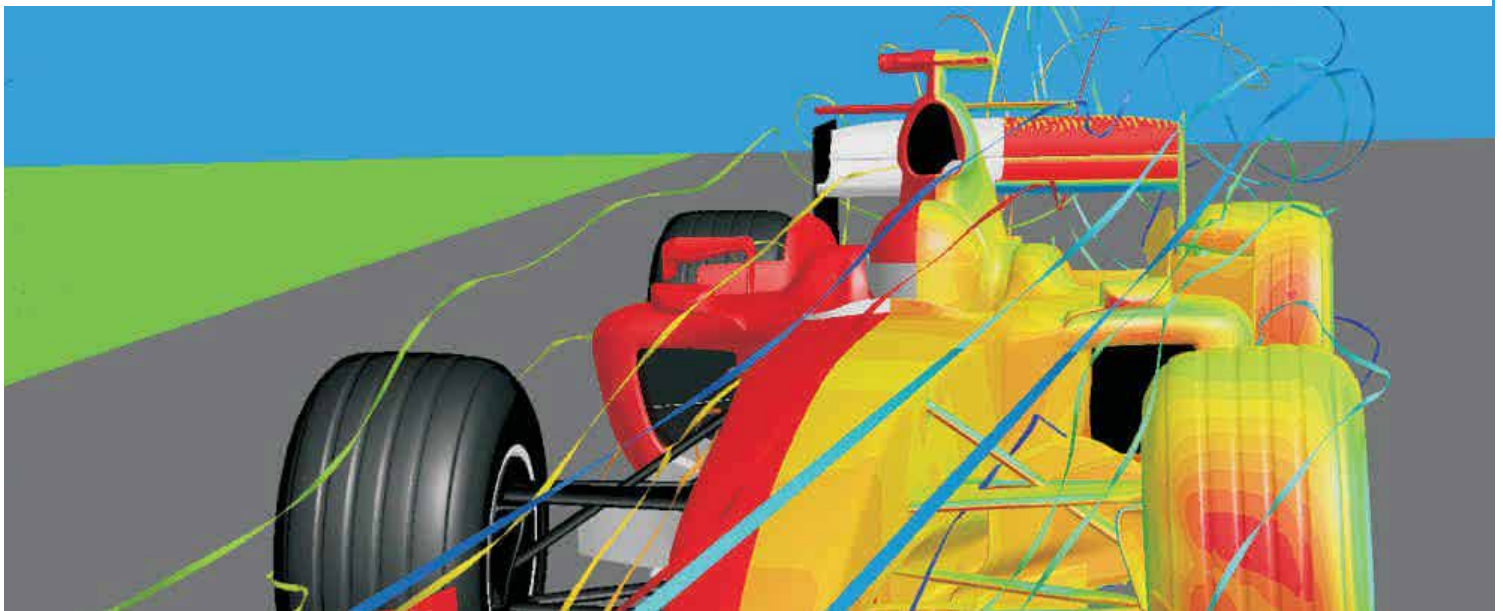
Heat Exchanger



Pump



Engine Room Flow



# STRUCTURAL ENGINEERING

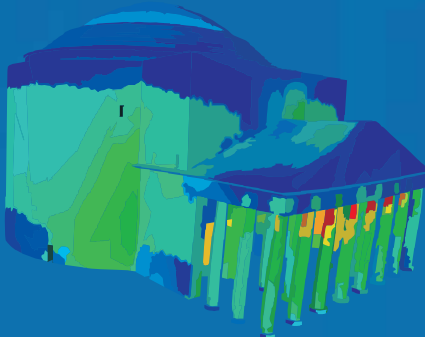


CAE TECHNOLOGY INDIA PVT LTD has been providing Clients, Architects, Owners, Contractors and Manufacturers with various consulting and design services relating specifically to Technological Structures for Industries (Like Power Plants, Petrochemicals, Mills, oil & Gas Refineries), Water Retaining Structures, Multi-tower complexes and High-Rise buildings. We will be instrumental in the implementation of our client's vision while insuring compliance with the highest quality of technical and performance requirements.

We will provide the highest quality services in the Structural Design and Detailing by:

- Facilitating successful designs through faithful application of technical expertise, More Reliable Software's and Experience.
- Insuring the reputation and integrity of our clients by maintaining an objective balance between Technical Economical and Detailing requirements
- Providing practical design solutions for all project challenges ranging from the typical and simple to the most unique and difficult.
- Facilitating more economic and easy means of design implementation.

## OUR STRUCTURAL ENGINEERING SERVICE INCLUDES:



- Analysis & Design of Metal(Steel) and Reinforced Concrete Framed Structures.
- Design of Substructure and drawings for Shallow, Raft, Pile and Machine foundations.
- Structural Connection Design.
- Detail drawings for Erection for Steel Structures.- Column base, Pipe Racks, Roof Truss etc.
- Seismic Design & Detailing for RC Structures.
- Design and Detailing of Water tanks, Retaining walls, Culverts, etc.
- Design Checking of Outsourced Structures.
- Rebar Detailing & Bar Bending Schedule.
- Preparation of Cost Estimation and BOM.
- Structural Analysis and Design Package Includes Staad Pro, ETABS, Excel Macro, etc.
- Structural Drafting and Detailing Package Includes Autocadd, X-Steel, and Microstation.

We provide Engineering Calculations and Drawings in full compliance with International Standards: (Sample listing only – numerous other codes are applied as needed).

Indian Standards, British Standards, ACI, AISC: ASTM, Euro, SABIC STANDARDS, etc.

# INFORMATION TECHNOLOGY

CAE Technology provides affordable solutions to global organizations seeking software application development, JAVA,.NET & PHP programming, AJAX programming, web design and web development services, search engine optimization, Oracle applications-commerce solutions & consultancy services among others.

**OS'S:** Android, Windows, Mac OS

**LANGUAGES:** HTML5, CSS/CSS 3, JavaScript, PHP, XML

**DATABASES:**MySQL, Oracle,

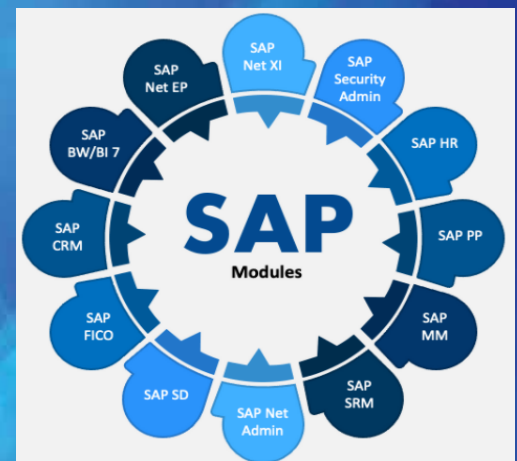
**DEVELOPMENT FRAMEWORKS:**jQuery, jQuery mobile, jQuery UI, Laravel, CodeIgniter, Yii 2, CakePHP, Zend and other PHP framework

**DEVELOPMENT PLATFORMS:**Java SE/EE, LAMP PHP/MySQL

**APPLICATIONS AND WEB SERVERS:**Apache, JBoss, TomCat, Oracle

## IT SERVICES

Application Development  
Maintenance Reengineering Testing,  
Enterprise Solutions,  
Implementation Systems  
Integration



## WEB DEVELOPMENT

UI interfaces, databases  
Server–web site interaction  
Web applications & RIAs  
Web-stores and e-commerce sites  
Custom website and CMS

# WORLDWIDE LOCATIONS

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