

COMPUTER AIDED ENGINEERING
COMPUTER AIDED ENGINEERING

COMPUTER AIDED DESIGNING
COMPUTER AIDED DESIGNING

ARCHITECTURAL ENGINEERING AND CONSTRUCTION
ARCHITECTURAL ENGINEERING AND CONSTRUCTION

ANIMATIONS
ANIMATIONS

3D MODELING
3D MODELING

3D PERSPECTIVES
3D PERSPECTIVES

P & ID
P & ID

COMPUTER AIDED MANUFACTURING
COMPUTER AIDED MANUFACTURING

BUILDING AUTOMATION
BUILDING AUTOMATION

FINITE ELEMENT ANALYSIS
FINITE ELEMENT ANALYSIS

FACILITIES MANAGEMENT
FACILITIES MANAGEMENT

COMPUTATIONAL FLUID DYNAMICS
COMPUTATIONAL FLUID DYNAMICS

STRUCTURAL ANALYSIS
STRUCTURAL ANALYSIS

PLANT DESIGN & ENGINEERING
PLANT DESIGN & ENGINEERING

WALKTHROUGHS
WALKTHROUGHS

3D FACTORY LAYOUT MODELING
3D FACTORY LAYOUT MODELING

VEHICLE TRACKING SYSTEMS
VEHICLE TRACKING SYSTEMS

SIMULATIONS
SIMULATIONS

ROADS & BRIDGES
ROADS & BRIDGES

PLC SIMULATIONS
PLC SIMULATIONS

INTERACTIVES
INTERACTIVES

GEOGRAPHICAL INFORMATION SYSTEMS
GEOGRAPHICAL INFORMATION SYSTEMS

BUILDING INFORMATION SYSTEMS
BUILDING INFORMATION SYSTEMS

FACTORY SIMULATIONS
FACTORY SIMULATIONS

PROJECT PLANNING
PROJECT PLANNING

GLOBAL POSITIONING SYSTEMS
GLOBAL POSITIONING SYSTEMS

3D LANDSCAPE
3D LANDSCAPE

3D HIGHWAY DESIGNS
3D HIGHWAY DESIGNS

DIGITAL TERRAIN MODELING
DIGITAL TERRAIN MODELING

FLEET MANAGEMENT
FLEET MANAGEMENT

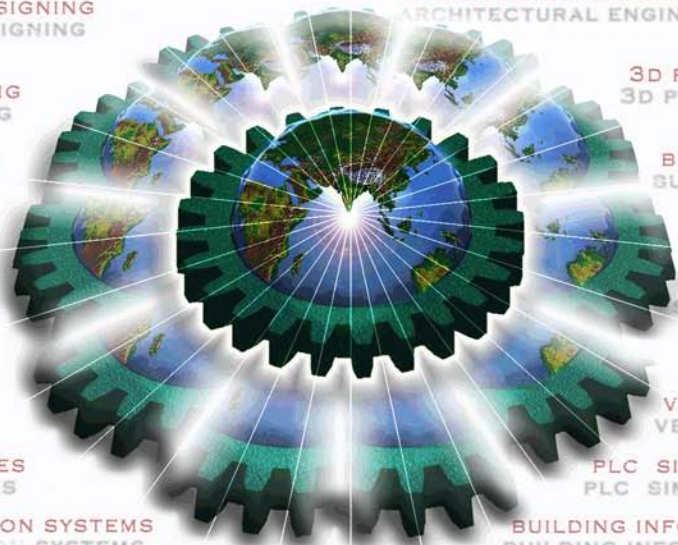
KINEMATIC & DYNAMIC ANALYSIS
KINEMATIC & DYNAMIC ANALYSIS

LAND INFORMATION SYSTEM
LAND INFORMATION SYSTEM

INFRASTRUCTURE MODELING AND INFORMATION
INFRASTRUCTURE MODELING AND INFORMATION



SUTECH SOLUTIONS
Designing the future



Introduction

SUTECH SOLUTIONS, an emerging global company which specializes in CAD/CAM/CAE, GIS/GPS/VTS, AEC/BIM/IMI, FLM/PDE with a vision of "Designing The Future" by building Futuristic Concepts using Creative Thinking and Innovative Ideas blended with High End Technology.

SUTECH's focus is to provide Innovative Services and Solutions in Computer Aided Engineering from Planning, Designing, Engineering and Analysis to Fabrication and Construction in the field of Architecture, Mechanical, GeoEngineering, Civil, Factory Design, Infrastructure and Plant Design Engineering, giving top priority to Quality blended with our value added services. Hence our team is well equipped with the latest and the best technology.

SUTECH's Team has a Blazing fire within to be much ahead of the present world, which made us more Adventurous, Innovative & Creative by thinking beyond Conventional lines, doing Something Different.

A strong inner drive with the "Never Say Die Attitude" and a great motivational punch line "Nothing Is Impossible" has made us go out of our way, to get many unique and very prestigious projects worldwide like:

- ✦ Bangalore Metro & Mono Rail (\$2 billion): Bangalore's Biggest Dream Project
- ✦ Project SeaBird (\$8.3 billion): India's prestigious Naval Base Project
- ✦ KSRTC-BRTS (\$0.25 billion): Revolutionary Technology in Road Transport System
- ✦ Durr Germany & Webb India: State of the art car assembly line (entirely designed in 3D)
- ✦ Prestigious Defence Projects: Making India Proud
- ✦ Scott Wilson: Highway Design in 3D
- ✦ Rites Limited: BRTS & Metro Station Designs
- ✦ Aircraft Tracking Systems: Making skies safe
- ✦ Vehicle Tracking, Navigation and Security Device: Full control of road on your finger tips
- ✦ Virtual Warfare System: Real time simulation of war equipment
- ✦ Presidency Group & Apna Sapna: State of the art Residential Complexes
- ✦ IDeck: Infrastructure Development Corridor
- ✦ Bosch Group & Yuken India: Animation / simulation of machines
- ✦ L & T Limited: Numerous Infrastructure projects
- ✦ MECON Limited: Numerous Infrastructure/ Steel plant/ GIS projects..... to name a few, with over 500 satisfied customers.

Sutech Always @ Your Service

COMPUTER AIDED DESIGNING & ENGINEERING

Sutech provides total Computer Aided Design and Engineering solutions in the field of Mechanical Engineering from Planning, Designing, Engineering and Analysis, to Fabrication and Construction, on all the latest and the best software available.

3D MODELING & ASSEMBLY

We provide services in 3D Modeling, which includes Surface Modeling, Solid Modeling, Parametric Modeling, Hybrid Modeling and Assembly with constraints to different parts. We also do Product Designing with texture finishing and effects to provide you with virtual real model of the product.

FINITE ELEMENT ANALYSIS &

COMPUTATIONAL FLUID DYNAMICS

We provide services, solutions and consultancy in the field of FEA and CFD which include STATIC, DYNAMIC, FREQUENCY, THERMAL, BUCKLING, NON-LINEAR, ADVANCE DYNAMICS, FATIGUE, FLUID FLOW and ELECTRO-MAGNETICS for components, structures and assemblies.

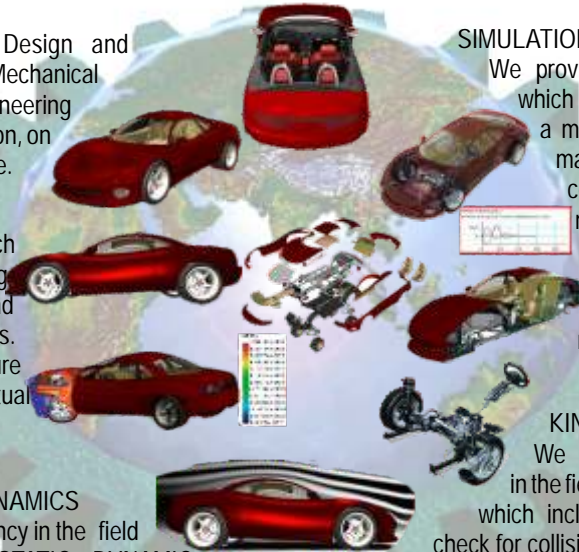
3D DIGITAL CONTENT CREATION : We create the entire content in 3D with Animations, Interactive 3D Animations, Step wise Assembly & Dismantling procedure, What if situations, Stepwise Working Procedure, Control System Simulation, Programmable logical control (PLC) Simulation, 3D Factory Simulation, Systematic stepwise Manufacturing Procedure, Machine Animation / Simulation, 3D training and manuals, Virtual Simulations, Virtual Reality Presentation etc.

SIMULATION

We provide services in the field of SIMULATION, which include Digital Simulation, PLC Simulation of a machine in which the entire working of the machine is shown graphically, including the control system and the response of the machine when different controls are activated. We provide simulation for the effect of different load conditions on Machines & Members. We also simulate working of machines in real time conditions.

KINEMATIC & DYNAMIC ANALYSIS

We provide services, solutions and consultancy in the field of KINEMATIC & DYNAMIC ANALYSIS, which include MOTION ANALYSIS of Assemblies to check for collision and interlocks, KINEMATIC ANALYSIS on the different members of the assembly with joints to check various load conditions on the members when it is in motion.



COMPUTER AIDED ARCHITECTURAL DESIGNING & ENGINEERING

COMPUTER AIDED ARCHITECTURAL

3D MODELING

Sutech provide services on 3D modeling of Buildings, Structures, Piping, Electrical, HVAC, Emergency and Facility Management Systems with Photorealistic visualization, 2D detailing, Estimations, etc. on an Architectural engineering software, so as to provide you with the latest and best services and solutions.

3D LANDSCAPE MODELING

We provide services on landscape designing wherein we build the exact 3D TERRAIN MODEL using the survey data to provide you with the exact replica of your site for your design.

FACILITIES MANAGEMENT / ASSET MANAGEMENT

We also provide services on FACILITIES MANAGEMENT / ASSET MANAGEMENT for your projects, so that you could manage your Buildings and Assets more efficiently.

BUILDING INFORMATION MODELING (BIM) Sutech provides its services on Building Information Modeling, by integrating all elements of a building into a single file which includes, the Exterior, Interior, Structures, HVAC, Fire, Emergency Systems, Electrical, Plumbing lines etc. and converting into a single 3D model. This provides you with a Comprehensive 3D Building Model which is very useful in Planning, Designing, Engineering and Analysis, to Fabrication and Construction. We provide these services using all latest and the best software in the industry.

WALKTHROUGHS AND ANIMATIONS

Our services include Interactive Walkthroughs, Animated Walkthroughs, Virtual Reality Modeling, Interior & Exterior design with light effects like solar lighting, night lighting and special lighting (spot lighting, area lighting, distant lighting, etc)

STRUCTURAL ANALYSIS

We at Sutech provide services on STRUCTURAL ANALYSIS, SEISMIC ANALYSIS using Finite Element Analysis techniques with static and dynamic load conditions to give you an optimum design for all your structures.

PROJECT PLANNING

We provide you with PROJECT PLANNING services with graphical representation of every stage of construction by integrating a Project Planning software with a graphics package to help you visualize the stepwise task in animation, so that you could understand and manage your projects better.



GEOGRAPHICAL INFORMATION SYSTEMS GLOBAL POSITIONING SYSTEMS

VEHICLE TRACKING SYSTEM & FLEET MANAGEMENT SYSTEM

We at Sutech integrate GIS with GPS systems to give a total solution in Vehicle Tracking System & Fleet Management System to track all your vehicles which are in motion. This helps you manage your fleet better, by providing you with every vehicle's location, speed, route, schedule etc.

3D GEOSPATIAL INFORMATION SYSTEMS (3DGIS) We provide services in design and operation of Intelligent cities and intelligent infrastructure. This is done by incorporating information systems with intelligent infrastructure, including land management, power generation and energy delivery, water and wastewater networks, roads, bridges, rail, communication networks and buildings.



DIGITAL ELEVATION MODELING(DEM)

We at Sutech create 3D terrain model using the survey data to give you the exact replica of the terrain so that you can do Volumetric Analysis, Layout Planning, Landscaping, Designing Drainage Systems, Hydrology etc.

ROADS, BRIDGES AND HIGHWAY DESIGNS

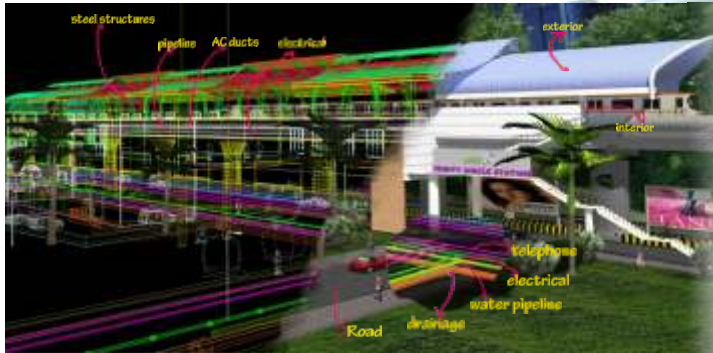
We help you create your Bridge/Road/Highway entirely in 3D using Digital Terrain Modeling on exact GPS coordinates and 3D modeling with all elements like Bridges, Drains, Curves, Junctions, Culverts etc and elevations, to provide you with the exact 3D replica of your highway. This model can be further used for Redesigning, Volumetric Analysis, Detailing & Walkthroughs for visual presentation.

We provide our services in the areas of

-  Defence & Intelligence Systems
-  Roads & Highway Networks
-  Location-Based Services
-  Navigation, Tracking & Security
-  Geospatial Information Management
-  Natural Resources Management
-  Electric and Gas Utility Network
-  Geospatial Web Publishing
-  Water & Wastewater Network
-  Planning and Engineering
-  Communication Networks
-  Public Transit Systems
-  Transport Departments
-  Land information Systems
-  Enterprise GIS
-  Facilities Management
-  Infrastructure Planning & Management
-  Image Processing and Image Handling
-  Emergency / Disaster Management



INFRASTRUCTURE MODELING & INFORMATION(IMI) BUILDING INFORMATION MODELING(BIM)



Infrastructure Modeling & Information(IMI): Sutech provides its software services for Infrastructure Projects by 3D Modeling & Integrating all elements of an infrastructure project. This includes 3D Terrain Model of site with underground data like cables, water, wastewater, electrical, communication, gas and other networks with exact GPS locations and depth; on-ground networks which include roads, surface drainage, lighting, security etc. Buildings & structures modeling with Building Information Modeling(BIM) techniques by integrating the Exterior, Interior, Structures, HVAC, Fire, Emergency Systems, Electrical & Plumbing lines etc into a single 3D model to facilitate you with a Comprehensive Infrastructure 3D Model. This would be very useful in Planning, Designing, Engineering and Analysis, to Fabrication, Construction and Post construction maintenance and in case of Emergencies & Disaster Management.

The main advantages are

- ✦ Very useful in Planning, Designing, Engineering and Analysis to Fabrication, Construction and Post Construction.
- ✦ 3D Models integrated into a single file, which can be Zoomed, Rotated and Navigated to see every details and information of each element, instead of searching and referring multiple drawing sheets to get a simple information.
- ✦ IMI is very useful in checking for any interferences or collisions at the design stage itself, between different departmental designs, thus saving a whopping 35% on design cycle time.
- ✦ Saves cost by over 20% by reducing errors at the time of construction.
- ✦ IMI is the integration of 3D model and Information, that allows the automatic generation of drawings, estimations and reports. It can further be used for Engineering Analysis, Schedule Simulation, Facilities Management, Project Planning and more, thus helping you make better-informed decisions.
- ✦ Intelligence or data can be added to each element so as to enable query, reporting, information, data analysis etc.
- ✦ With these 3D models you can generate sections from any angle and extract Plans, Elevations, Sections etc.
- ✦ With IMI nearly 50% of interaction is reduced compared to 2D drawing. With the 3D model the project will be so well coordinated and built, that you will receive very few questions, especially during the bidding & construction.
- ✦ Digital Terrain Model helps you understand the ground data in 3D and GPS helps you identify its exact location.
- ✦ You can view & analyze the required departmental models individually by switching layers.
- ✦ Very useful for Post construction maintenance and to know the exact locations in case of any failure.
- ✦ Very useful in case of Emergencies & Disaster Management.

3D FACTORY / PLANT LAYOUT MODELING & SIMULATION

3D Factory / Plant Layout Modeling & Simulation (FLM)

Sutech offers its 3D Modeling & Analysis services, in which the whole factory with all its elements are 3D modeled to exact scale. This facilitates a perfect design by checking for any interference/overlapping, simulating it to check for any collision between moving members, load bearing capacity of structural members and above all viewing the whole factory in 3D with rotation and navigation features.

Sutech is qualified to offer big manufacturers / process plants flexible & scalable services for planning, designing, engineering, constructing, operating, and maintaining their manufacturing facilities.

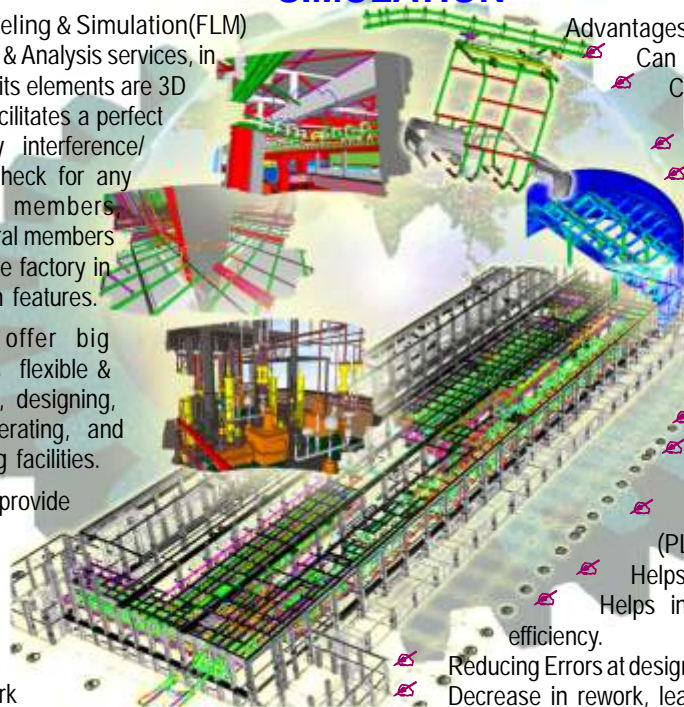
In Factory Layout Modeling we provide

- ✎ 3D Model of Buildings
- ✎ 3D Model of Structures
- ✎ 3D Model of Conveyors
- ✎ 3D Model of Equipments
- ✎ 3D Model of Machinery
- ✎ 3D Model of Piping Network
- ✎ 3D Model of Electrical Network
- ✎ 3D Model of Material Handling Systems.

...and integrate into a single file.

Advantages

- ✎ Can navigate and rotate to view in 3D.
- ✎ Check for Interference, Collision, Overlapping at design stage saving 45% on design cycle time.
- ✎ Get the Bill of Material for the entire factory.
- ✎ Very helpful in Redesigning or Relocating different elements.
- ✎ Helpful in optimizing, rerouting and hence reducing lean time.
- ✎ Simulate the movement of the entire factory for checking Collision.
- ✎ Structural Analysis of different Load bearing units.
- ✎ Doing Piping & Flow Analysis.
- ✎ Simulate the working of PLC, Machinery & factory.
- ✎ Simulating Programmable Logic Controller (PLC) - program.
- ✎ Helps in well coordinated and informed decision.
- ✎ Helps in Optimizing factory layout for production efficiency.
- ✎ Reducing Errors at design stage hence saving 20% on construction cost.
- ✎ Decrease in rework, leading to substantial cost savings.
- ✎ Shortened duration of product line reconfiguration and modification.
- ✎ Access to accumulated design information for later maintenance.
- ✎ Beneficial in case of Emergencies & Disaster Management.
- ✎ Very useful in Post Construction maintenance.



Always @ your service



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