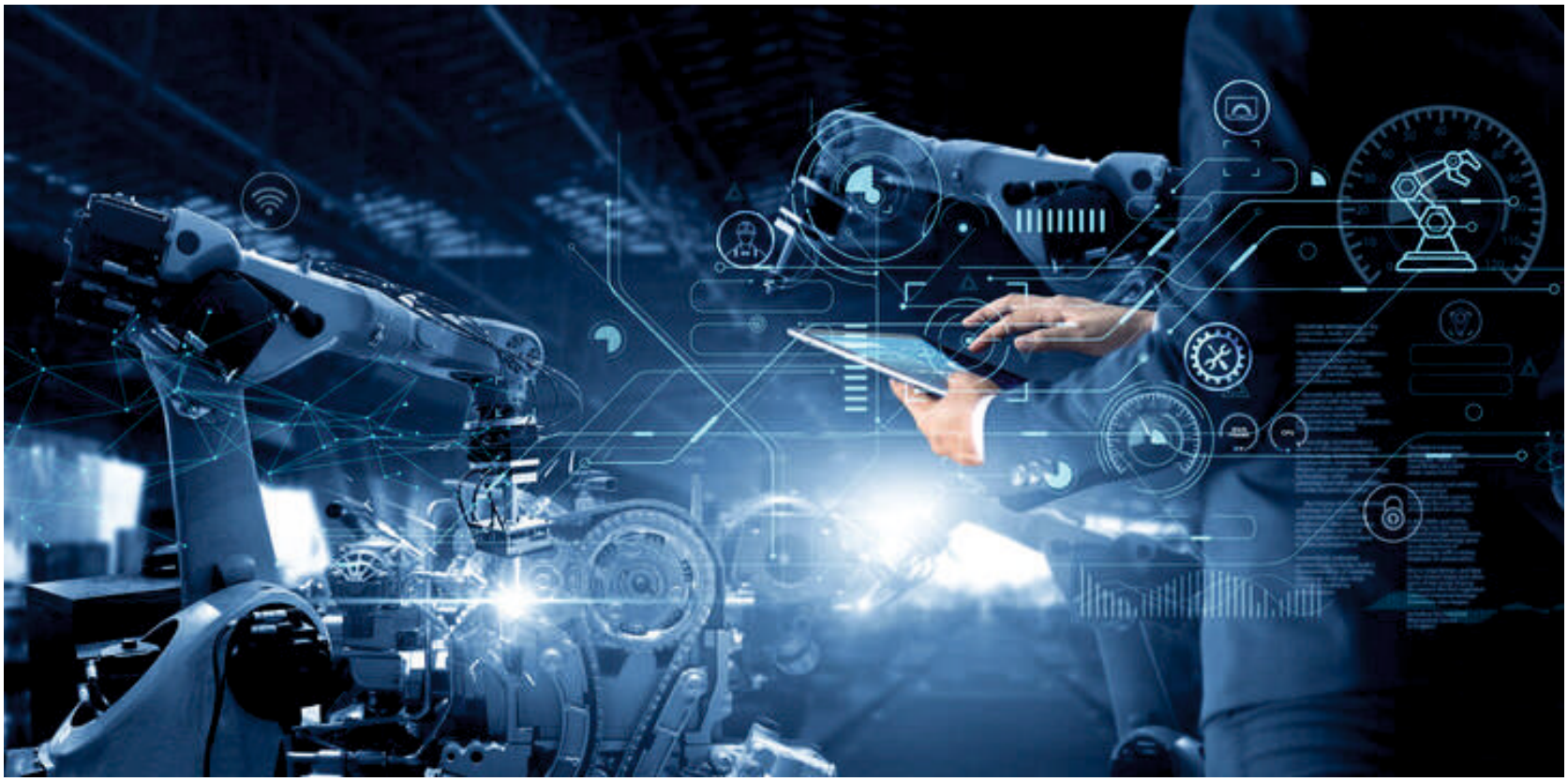
Industry Grade Simulation Software & ISO Grade Hardware Systems for Educational Institutes



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Ph.: +91 9325 111 066, E-mail: rkirani@indiasoft.co.in, www.indiasoft.co.in

MSME MICRO, SMALL & MEDIUM ENTERPRISES सूक्ष्म, लघु एवं मध्यम उद्यम

GeM Government e Marketplace

TEQIP III

MERITE

9001 ISO CERTIFIED

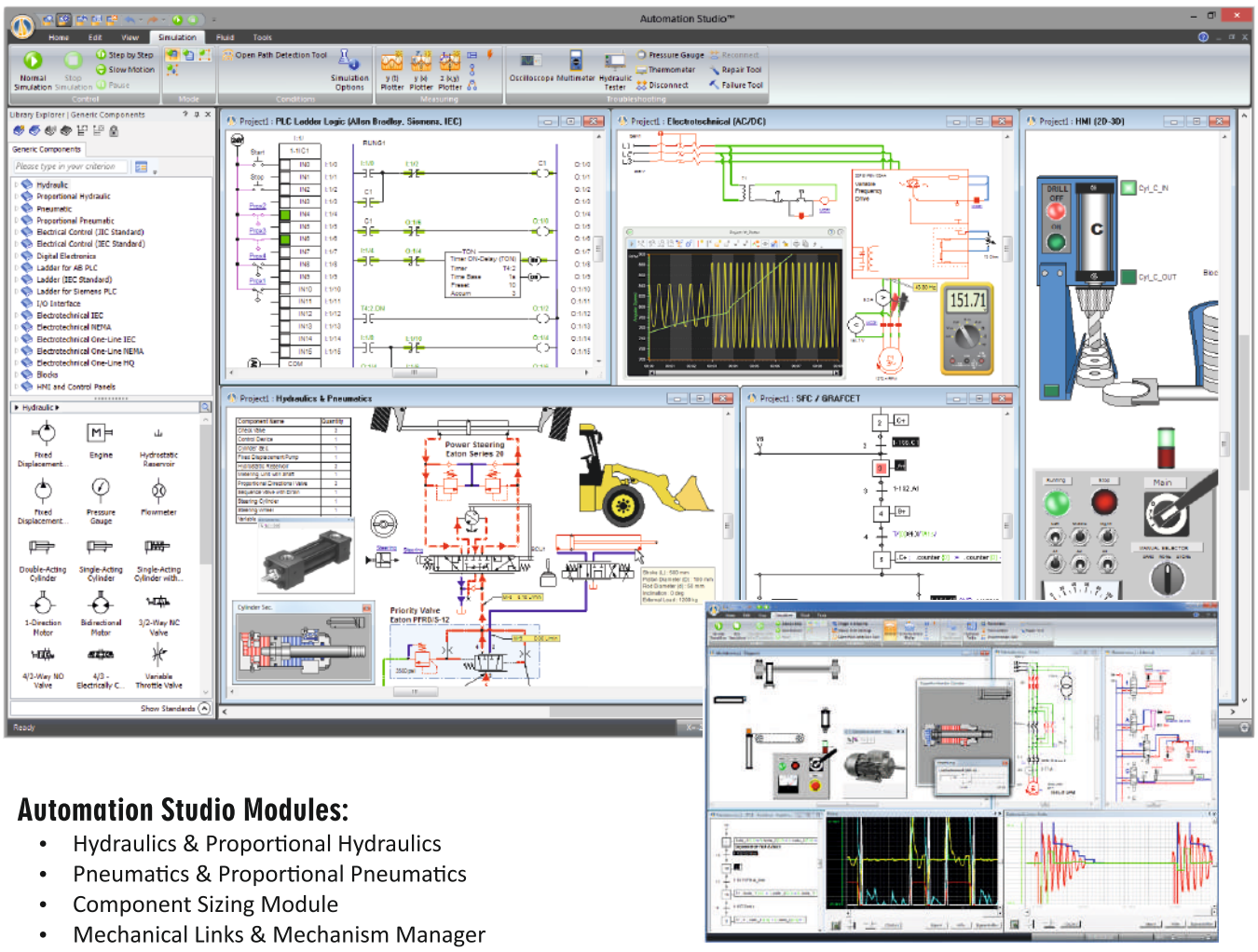
Hydraulics | Pneumatics | Mechatronics | PLC & Automation

Automation Studio

Single Integrated Circuit Design, Simulation and Animation Software for Hydraulics, Pneumatics, Mechatronics, PLC, Digital Electronics, Electrical and Automation.

AUTOMATION STUDIO™

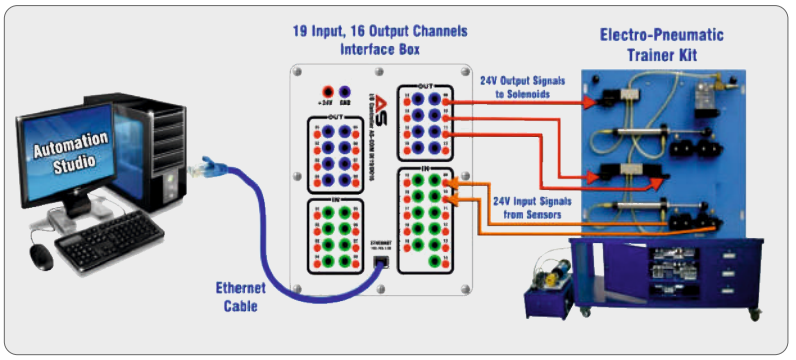
A Product of Famic Technologies Inc.



Automation Studio Modules:

- Hydraulics & Proportional Hydraulics
- Pneumatics & Proportional Pneumatics
- Component Sizing Module
- Mechanical Links & Mechanism Manager
- Electrical Controls
- Electrotechnical (A.C. & D.C.)
- One-Line Electrotechnical Diagram
- PLC- Allen Bradley™, Siemens™, IEC 1131-3
- HMI 2D/3D & and Control Panels
- SFC Grafcet IEC 61131
- Digital Electronics
- Diagnostics and Troubleshooting
- Bill of Materials (BOM) & Report Module
- OPC Client
- Manufacturers' Catalogues (Under AMC)
- Block Diagram
- Illustrated Libraries
- Embedded Views and Sequence Diagram
- Hardware I/O Interface Kit

Hardware Interface Kit:



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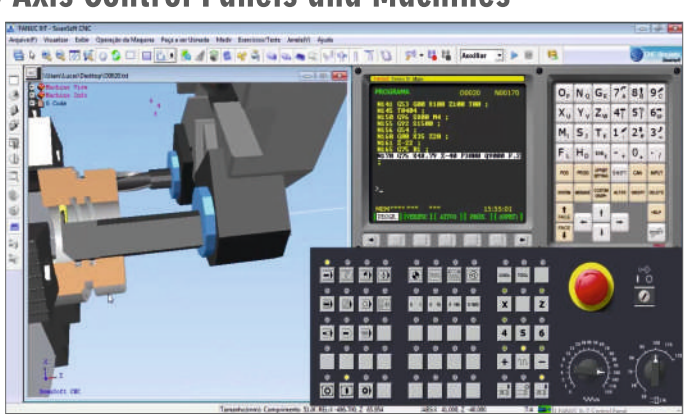
DigiCNC & CIMCO

CIMCO for guided CNC Turning & Milling Part Programming and Backplotting. DigiCNC for Controller Panel and Machine Simulation for 2/3/4/5 Axis Turning and Milling.

DigiCNC™

A CNC Simulator for 2, 2.5, 3, 4 and 5 Axis Control Panels and Machines



Control Panels Available: 2, 2.5 and 3 axis.

FANUC: FANUC0iM, FANUC0iT, FANUC0MD, FANUC0TD, FANUC18iM, FANUC18iT, FANUC18M, FANUC18T, FANUC21iT, FANUC21iM, FANUC0iMF, FANUC0iTF, FANUC0iMFPlus, FANUC0iTFPlus

SINUMERIK: SINUMERIK802SeM, SINUMERIK802SeT, SINUMERIK802S/C M, SINUMERIK802S/C T, SINUMERIK802DM, SINUMERIK802DT, SINUMERIK810D/840DM, SINUMERIK810D/840DT, SINUMERIK801, SINUMERIK828D M, SINUMERIK828D T, SINUMERIK808D M, SINUMERIK808D T, SINUMERIK840D M, SINUMERIK840D sl

MITSUBISHI: EZMotion-NC60 M, EZMotion-NC60 T, EZMotion-NC68 M, EZMotion-NC68 T, MITSUBISHI M70M, MITSUBISHI M70T, MITSUBISHI E70M, MITSUBISHI E70T, MITSUBISHI M80M

FAGOR: FAGOR 8055M, FAGOR 8055T, HAAS: HAAS VF, HAAS VM, HAAS ST, MAZAK: Mazak VCN 410A-II, Mazak QTN 100-II, HEIDENHAIN: Heidenhain iTNC530: MORI SEIKI: MORI SEIKI MSX-501III, MORI SEIKI MSX-850III

Control Panels Available: 4 and 5 axis.

FANUC: FANUC0iM, FANUC0iMF, FANUC0iMFPlus, FANUC18M, FANUC18iM, FANUC21iM

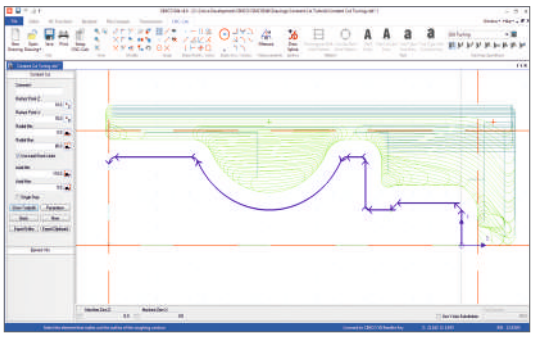
SINUMERIK: SINUMERIK828D M, SINUMERIK840D M, MITSUBISHI: MITSUBISHI M70M, HNC: HNC-210BM, HNC-818M, HNC-848B, FAGOR: FAGOR 8055M, HAAS: HAAS VM, Heidenhain: Heidenhain iTNC530

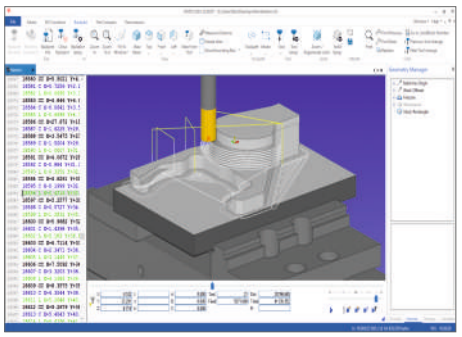
CIMCO

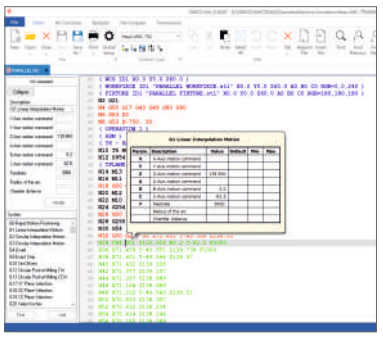
2, 2.5, 3, 4 and 5 Axis Turn and Mill Part Programming and Backplotting Simulation

CIMCO Features:

CIMCO Edit provides all the essential tools required for modern CNC program editing including drag-and-drop text editing, CNC code specific options and math functions. In additon, CIMCO Edit includes side-by-side file compare, mill/turn backplotter, NC code assistant and offers powerful add-ons for machine simulation, document management, 2D CAD/CAM, and more.





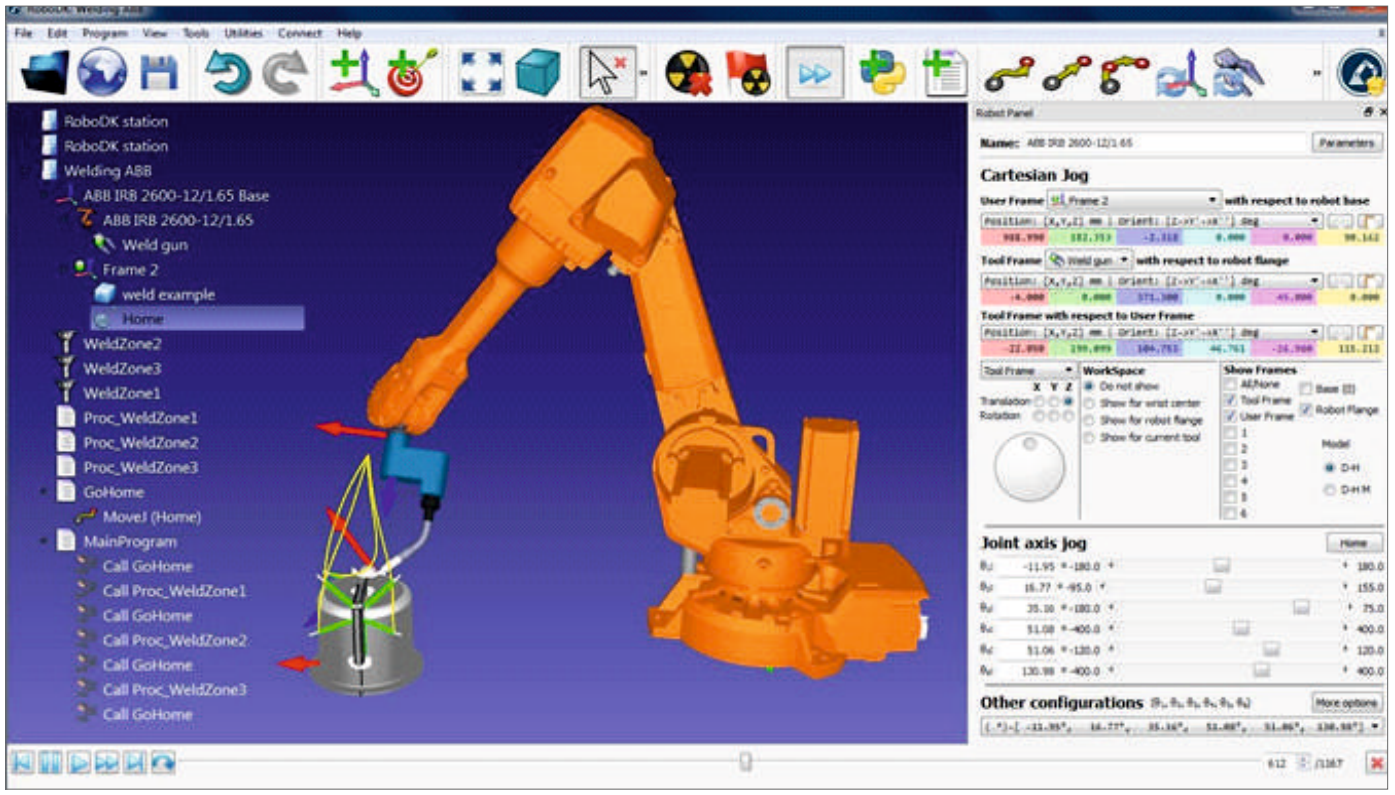


RoboDK

More than 500 Models and Brands of Industrial Robots. RoboDK is a Robotic Simulation Software for Multiple types and brands of Industrial Robots. Create a Robotic Cell, Program the Robot and Simulate.

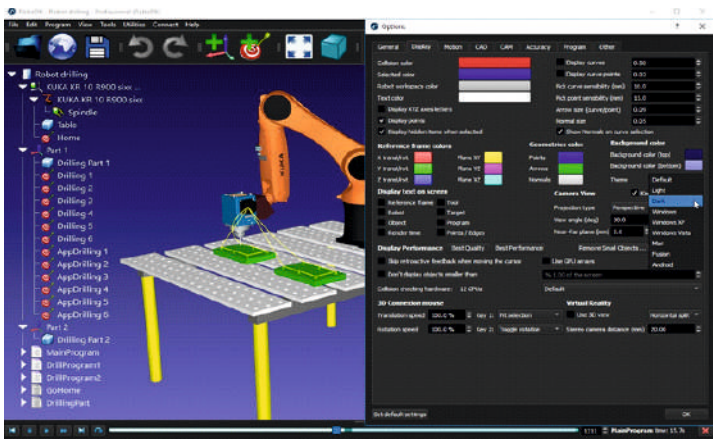
RoboDK

Industrial Robotic Cell Simulation Software



Features:

- More than 500 Industrial Robots02.Brands such as ABB, KUKA, Mitsubishi, Fanuc etc.
- 2, 3, 4, 5, 6 and 7 Axis Robots, SCARA, Articulated
- Finger, Vacuum Grippers. Pen, Stylus, Spray Gun Tools, Conveyors etc.
- More than 20 Ready Robot Cells for Simulation



Few Sample Experiments:

- Study of Various Industrial Robots and Tools
- Teach Pendant & Inv. Kinematics Parameters
- Custom Robots & Grippers from CAD Objects
- Pick Place, Assemble, Pelletizing
- Curve Path Follow, Point Follow
- Generate Robot Program using Post Processors
- Conveyor Belt
- Inspection, Spray Painting

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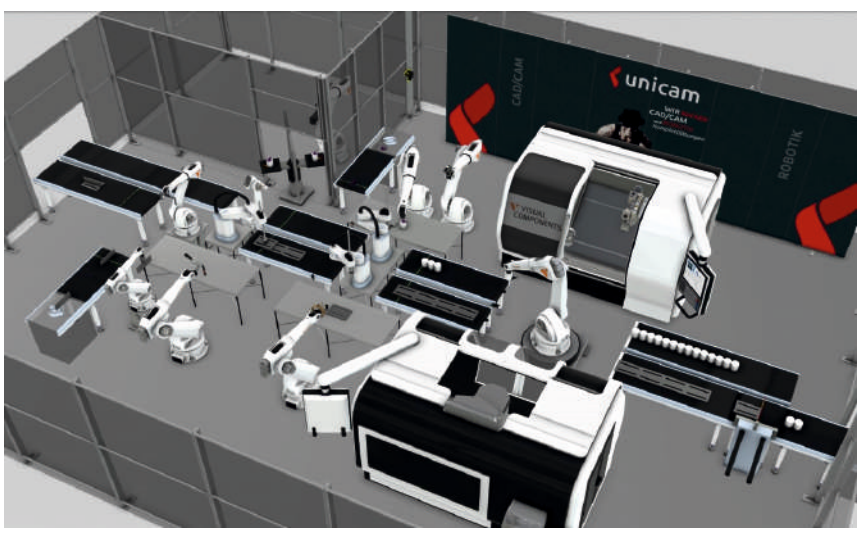
3D Manufacturing Automation | Robotics | CIM & FMS | 3D Factory and Throughput Analysis

Visual Components

A complete 3D Simulation Software for creating 3D Manufacturing Processes, CIM and FMS Systems and Robotics with a Large library for Robots, Conveyors, AGVs, CNC Machines with PLC and OPC Connectivity

VISUAL COMPONENTS

3D Factory, Manufacturing Automation. CIM & FMS and Robotics



Features:

- Simulate complete 3D Factory and analyze Throughput
- 3000+ Components
- More than 500 Industrial Robots4 . Brands such as ABB, KUKA, Mitsubishi, Fanuc etc.
- Conveyors, CNC Machines, ASRS, AGV and more
- PLC and OPC Connectivity
- 200+ Ready Models for Simulation
- Create Custom Machines

3D Layout Configuration & Process Modeling: Drag components from the eCatalog directly into the 3D world and connect. A simple and visual way of setting up simulation of your layouts. Define production flows.

eCatalog: Over 2,700 ready-to-use components, the eCatalog contains a robust library of virtual models of robots, machines, and equipment from dozens of leading brands in industrial automation.

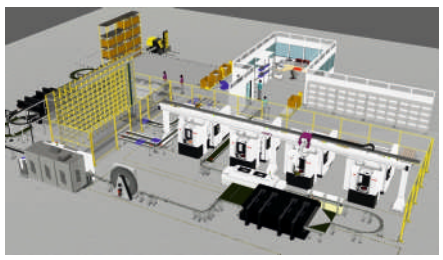
Statistics: Visualize simulation statistics using line, area, bar, or pie charts. Create, modify, and visualize simulation data in statistics dashboard. Data can be exported in PDF or Microsoft Excel data formats.

PLC Connectivity: Connect simulations with your control system using platform independent OPC-UA or supported vendor specific interfaces like Beckhoff.

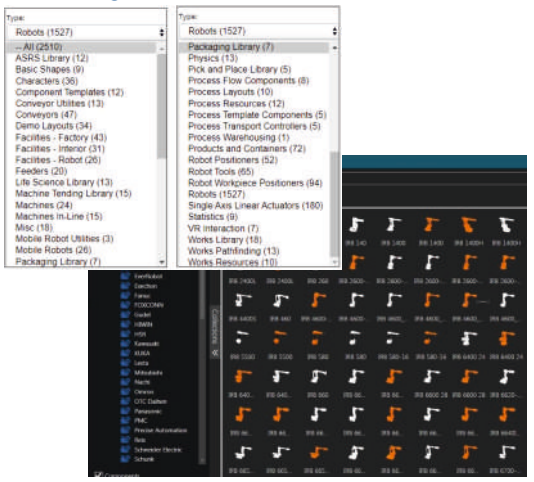
Robot Programming: Quickly teach and program the robots using offline robot programming (OLP) tools. Define, model and program your robot behavior with simple and easy to use robot teaching tools. Has built-in features for fast robot teaching, robot jogging, analyzing reachability and collisions, and defining robot logic.

Few Sample Experiments:

- 3D Manufacturing Automation Systems
- 3D Factory Layout, Process & Throughput
- Industrial Robotic Programming, Cell & System Level.
- Computer Integrated Manufacturing Systems (CIM)
- Flexible Manufacturing Systems (FMS)
- Digital Twin Systems



eCatalog:

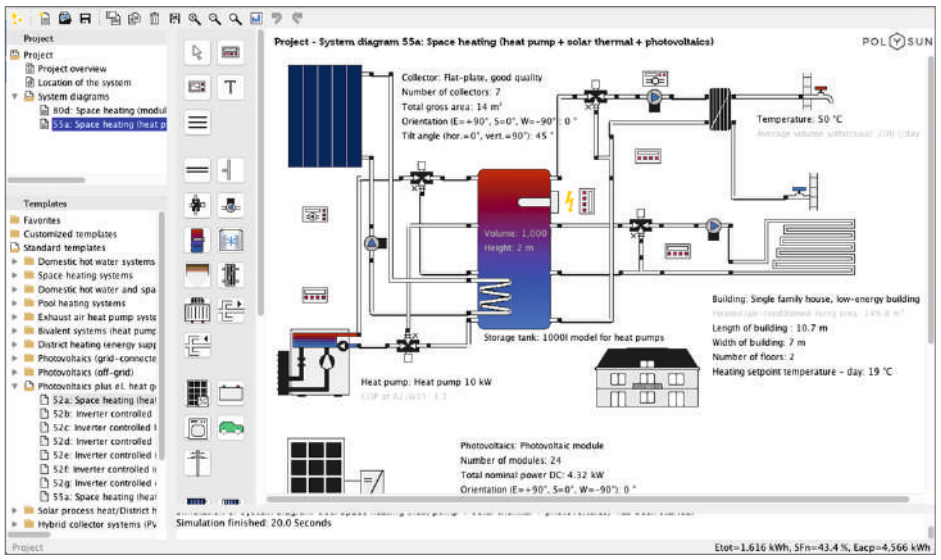


POLYSUN

Solar System Simulation software that enables to effectively simulate solar thermal, solar photovoltaic, PVT (Photovoltaic-Thermal), heat pumps, geothermal, and cogeneration systems

POLYSUN®

Solar thermal, Photovoltaic, Geothermal Simulator



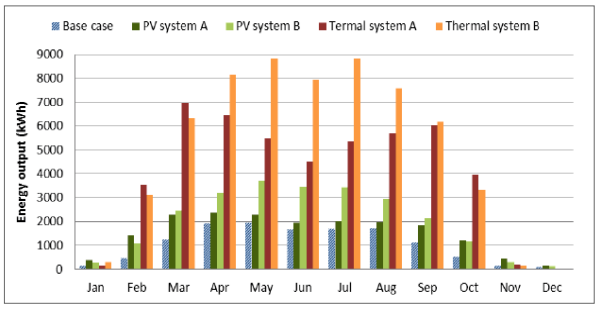
Polysun is Solar System Simulation software that enables to effectively Simulate Solar Thermal, Solar Photovoltaics, PVT (Photovoltaic-Thermal), Heat Pumps, Geothermal and Cogeneration Systems.

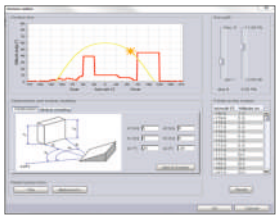
You can choose from more than 1,500 Pre-Prepared Simulation Systems & Templates of various combinations of PV, Thermal and PVT Systems. These can be directly used to simulate and conduct college practicals.

Features of Polysun:

- Validated models for solar thermal with templates like: Domestic hot water & space heating systems, Photovoltaic with Battery, Hybrid collector systems, Pool heating, Cogeneration, Electric vehicle charge by Photovoltaic energy
- Specify Horizon, Location, Sun & Shading data from Maps or Database
- Choose from 1,50,000 system components from exhaustive Manufacturers Catalogs for collectors, photovoltaics, batteries, heat pumps, inverters, etc.
- Polysun has Library of Indian Solar Panel & Collector Manufacturers: Vikram Solar, XL Energy Limited, Moser Baer Photovoltaic Ltd., Kotak Urja, Central Electronics Ltd, Adani Solar, Emmvee India,
- Polysun has Library of Worldwide Solar panel & Collector Manufacturers: Canadian Solar Inc., Sun Power Corp, TRINA SOLAR, Sunrain, YINGLI SOLAR, Neo Solar Power, Greenonetec, HHV Solar Technologies Pvt Ltd, and Mitsubishi Electric etc.
- Simulate the interaction of the energy system in dynamic time steps
- System Results, Reports & Charts: Energy Flow Diagram, irradiation onto collector, building heat losses, energy saving, fuel saving, reduction in Co2 emission, Investment cost, profitability calculation, Energy efficiency, Annual Total Energy Demand, Annual Total Energy Consumption

Polysun Designer intelligently combines applications to meet heating, cooling, electricity, and Electromobility (e-vehicles) requirements for integrated building of systems.
Using simple drag-and-drop you can build a solar system diagram with various components like solar collector, photovoltaic, battery, boiler, heat pump, electric grid detailer.





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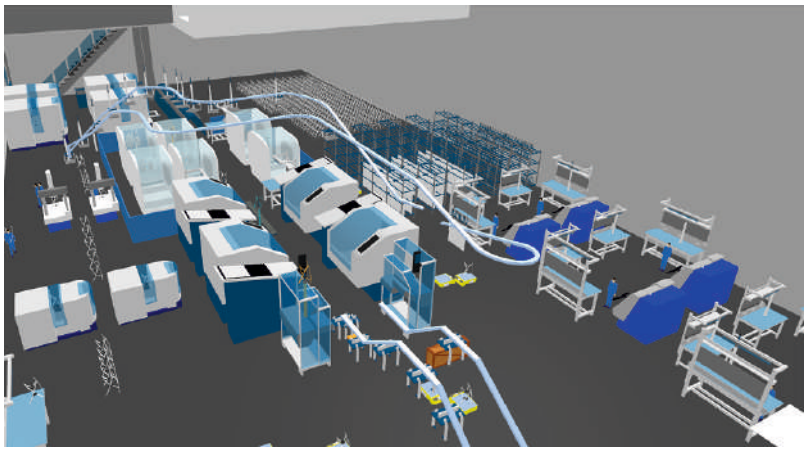
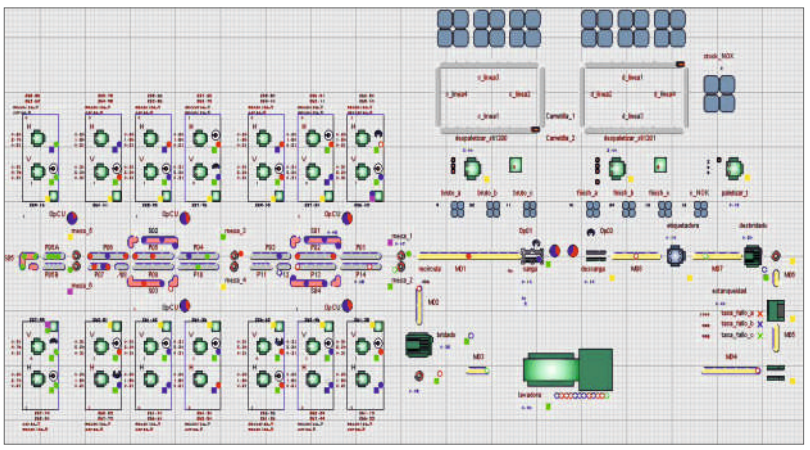
WITNESS

Witness is a Discrete Event Process / Factory Modeling, Simulation and Optimization software, applicable for domains such as Industrial Engineering, Operation Research, Supply Chain, Production Planning & Control.

WITNESS Horizon

Discrete Event Process Modeling, Simulation & Optimization





Witness uses multiple algorithm (6 algorithms) to get optimized results.

1. Six Sigma
2. Simulated Annealing
3. Mid Min Max
4. Hill Climb
5. Random Solution
6. Combination of All.

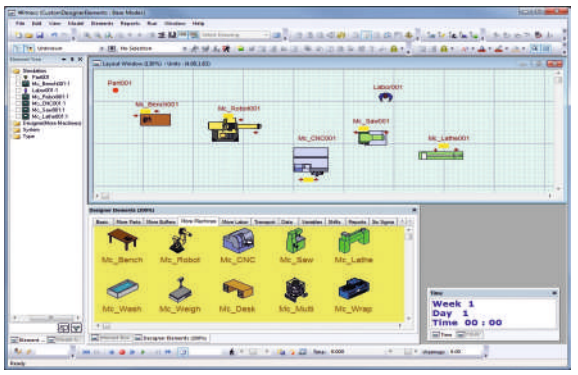
Exactly replicate your plant provided your data is correct.
Can apply graph/ statistical curve to worker.

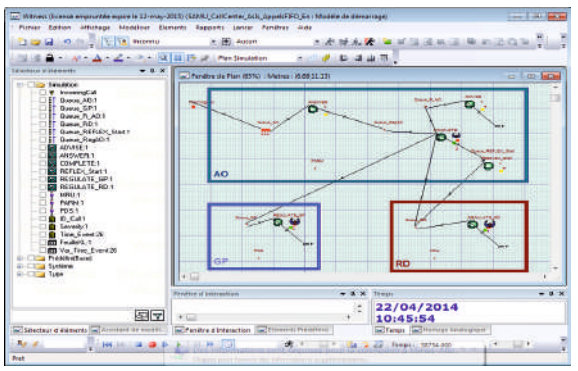
WITNESS is used for the following purposes:

1. Bottleneck identification
2. Inventory cost control
3. Production Flow
4. Line Balancing
5. Process Optimization
6. Sustainability
7. Plant layout
8. Graphical/Statistical output
9. Six Sigma

Witness Features:

- Witness addresses various manufacturing automation related problems like layout planning, bottleneck identification, inventory control cost, sustainability, production flow, line balancing, process optimization.
- We can build models in witness using elements like machines , labours, conveyor, buffers, beds, bench, etc. and perform what if analysis.
- Each element can be defined in detail with parameters such as Machine Cycle Time, Buffer Capacities, Batch Sizes, Labour Allotment, Distribution Graphs and many more depending on the element.
- Comprehensive reports can be generated such as Work in Progress, Completed Batches, Cycle Times and many more.





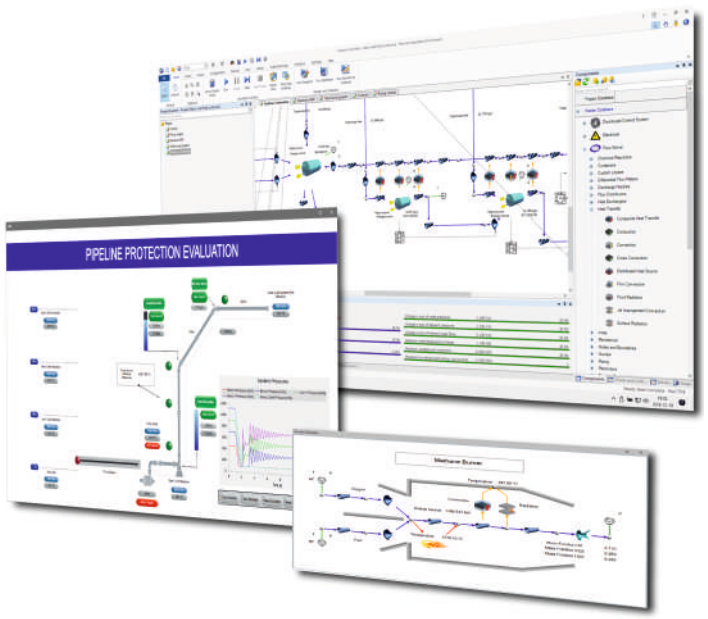
Thermodynamics | Thermal Engg | Heat Transfer | RAC | Power Plant Engg | Turbo Machinery

FLOWNEX

FLOWNEX is an integrated simulation software used for the design, simulation and optimization of complete thermal-fluid systems. Simulate complete systems in steady state and transient modes.

FLOWNEX® SIMULATION ENVIRONMENT

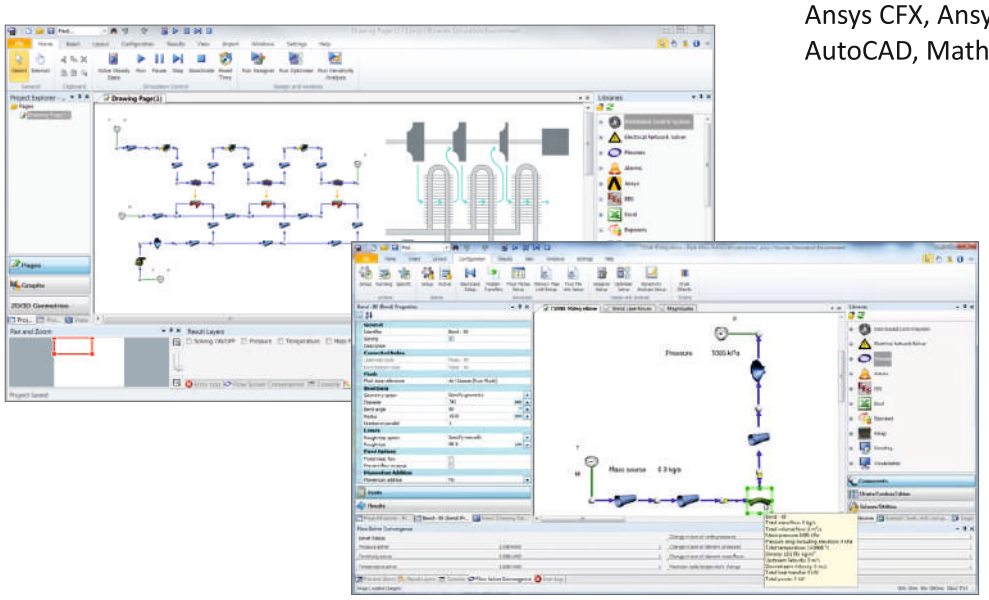
Thermodynamic Design, Modeling, Simulation, Analysis & Optimization



Flownex is an integrated simulation software used for the design, simulation and optimization of complete thermal-fluid systems such as:

- Gas, steam or combined cycle power plants.
- Gas and compressed air networks.
- Oil and gas distribution networks.
- Gas turbine combustion chambers.
- Refrigeration Systems
- Aircraft air conditioning & distribution networks.
- Heat exchanger networks.
- Conduction - Composite plane & cylindrical wall.
- Convection - Heat transfer through tube/fin
- Heat exchanger - Parallel flow e/Counter flow
- Supercritical power cycle.
- Organic Rankin power cycle.
- Water or fuel distribution networks.
- Ventilation systems.

FLOWNEX is a thermo- fluid simulation software package used to predict, design, analyse and optimise flow rates, temperatures and heat transfer in fluid systems.
Simultaneous integrated simulation of:
Incompressible fluid networks, Compressible fluid networks, Two phase fluid networks, Non condensable fluid networks, Slurry fluid networks, Gas Mixtures, Heat transfer, Control System, Electrical system.



Distinguished features of FLOWNEX:

- Steady-state & dynamic modelling and optimizing.
- Perform real time simulation.
- Solve simple as well as complex fluid systems.
- Heat transfer through solid structures.
- Monte Carlo and water hammer analyses.
- Easy to import fluids from DW sim & NIST RefProp.
- Capable of interfacing with other software like Ansys CFX, Ansys fluent, OPC Matlab, lab View, AutoCAD, MathCAD.

FLOWNEX Modules:

- Basic Thermal fluid module
- Advanced Thermal module
- Design and analysis module
- Transient module
- Control module
- Electrical module
- Expendability module
- API module

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PLC | Hydraulics & Pneumatics | Sensors | HMI & SCADA | MPS & Smart Factory | IIoT |

Mechatronics Laboratory

A complete suite of ISO Industry Grade Hardware Systems and Software to cover all the Teaching and Laboratory requirements for subject of Mechatronics as per various state University curriculum and AICTE norms.

Expert Labs by IndiaSoft

Complete ISO & Industry Grade Expert Laboratory Solutions for Mechatronics

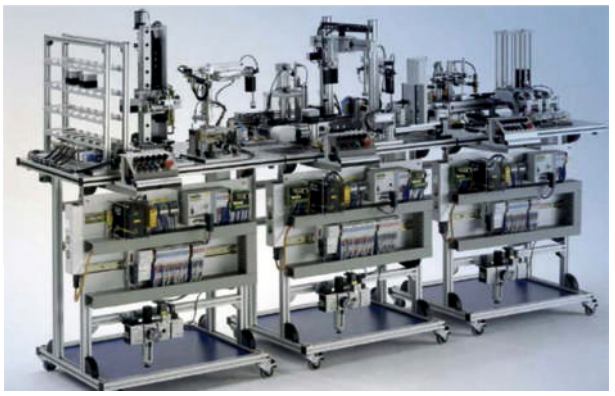
Deliverables:

- Electro & PLC Based Hydraulic Pneumatic Trainer Systems
- Proportional PID Feedback Pneumatic Trainer System
- PLC Trainer System with 19 Static Experiment Panels and Three Real Applications
- Sensors Trainer Kit
- HMI & SCADA Trainer System with Experiments
- Table Top Mini MPS System with LAN and Cloud based IIoT
- Table Top PLC Operated Sorting System
- Flexible Manufacturing System, Multiple Station Modular Production System
- Smart Factory with 6 Axis Robot, IIoT and Digital Twin System
- Automation Studio Simulation Software with Hardware IO Kit.

Smart Factory with 6 Axis Robot, Digital Twin and IIoT

HMI System with Experiments

Table Top Sorting FMS System



Multi - Station Modular Production System

IIoT Training System with Mini Modular Production System

AUTOMATION STUDIO Simulation Software

PLC with Applications & Sensors Trainer System

Industrial 6 Axis Robot Cell | SCARA | Welding Robot | CIM & FMS Systems | Simulation

Robotics & Manufacturing Automation Laboratory

Industry Grade Robotic Hardware Training Systems and Simulation Software for the Curriculum requirements of subjects of Industrial Robotics and Manufacturing Automation.

Expert Labs by IndiaSoft

Industry Grade Robotic Cells and Manufacturing Automation Systems

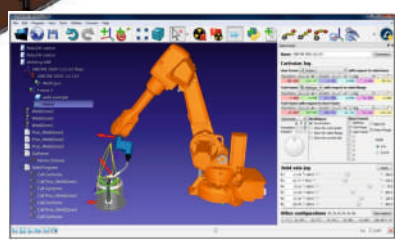
Deliverables:

- 6 Axis Industrial Robotic Cell with Multiple Experiment Tables, Grippers, Teach Pendant and IIoT
- SCARA Robotic Cell with Weighing, Sorting, Material Handling and Storage, IIoT and Digital Twin
- Single 6 Axis Industrial Robot Welding Cell with Experiments.
- Flexible Manufacturing System with IIoT and Digital Twin System
- Computer Integrated Manufacturing System with IIoT and Digital Twin System.
- RoboDK Industrial Robotics Simulation Software.

6 Axis Industrial Robotic Cell

SCARA Robotic Cell

Welding Robotic Cell



RoboDK Simulation Software

CIM/FMS System with 6 Axis Industrial Robot for Material Handling

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Solar Technology Laboratory

A combination of Solar PV Hardware training systems, Solar Cell Spectral Response and Carrier Lifetime and Industry Grade Solar PV, Thermal Simulation Software.

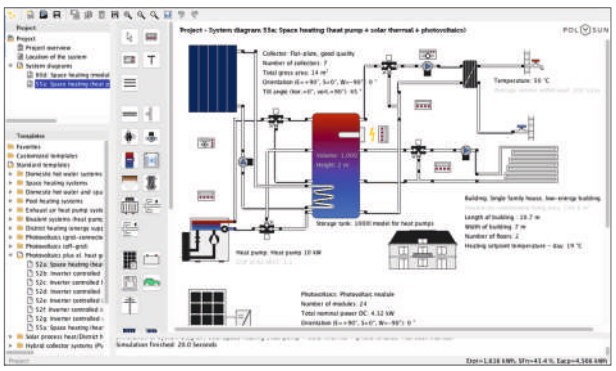
Expert Labs by IndiaSoft

Solar Training Systems and Solar Simulation Software

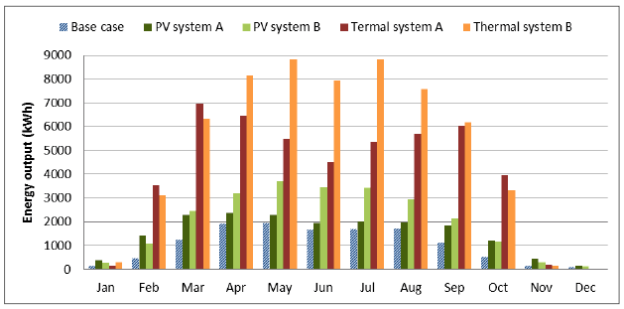
Deliverables:

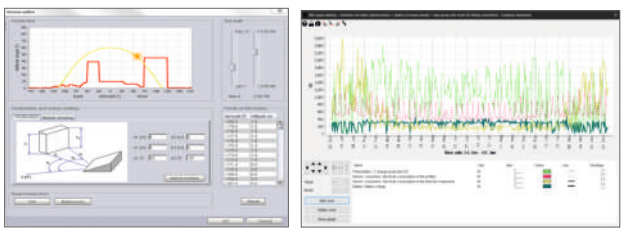
- Solar Cell Experiment Panels
- Instrumentation Power Supply Panel
- SCR Actuator, Sensor, Signal Conditioning Panel
- DC, Inverter, MPPT, Lamp Load Panels
- Spectral Response & Carrier Lifetime Measurement Setup
- POLYSUN PV, PVT, Thermal Simulation Software

Solar Panel Training System

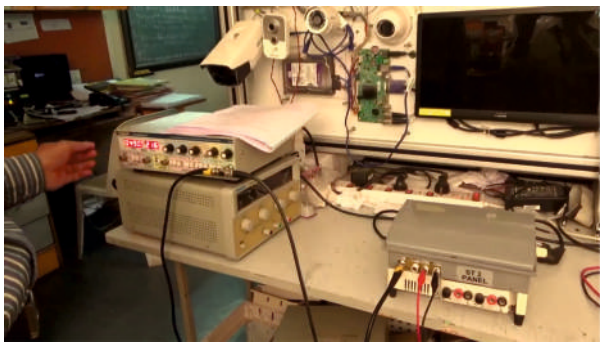


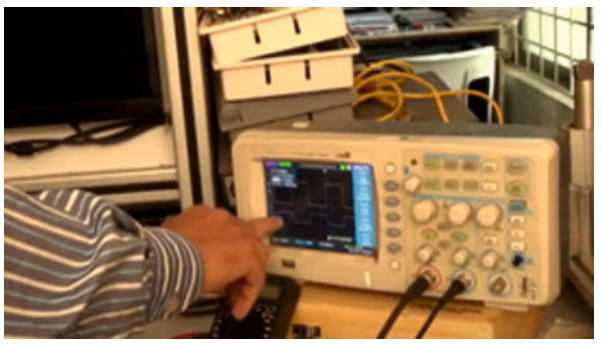
POLYSUN Simulation Software



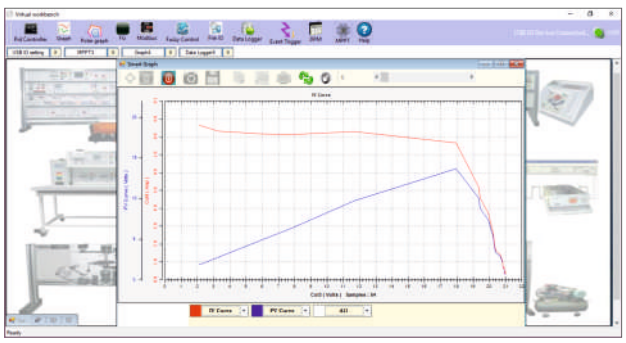


POLYSUN Sun Azimuth, Shading Data and Output Graphs



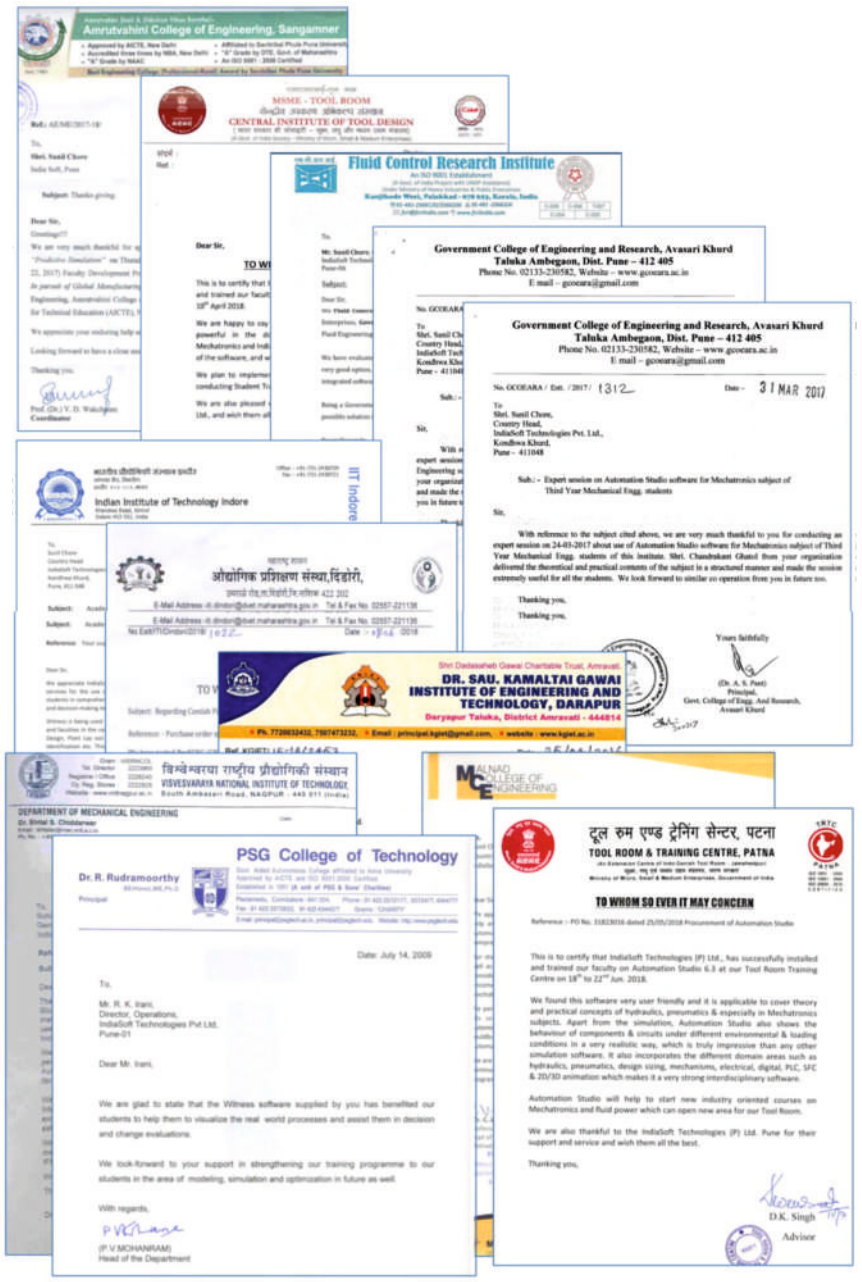


Spectral Response & Carrier Lifetime System



PC Interface for Hardware Solar Trainer

Client Testimonials



Partial List of Government Clients

MSME Tool Rooms

NSIC KOLKATA, MSME Ludhiana,
CITD Hyderabad, IDTR Jamshedpur
IGTR Ahmedabad
Indo Danish Tool Room Jamshedpur
TRTC Patna

DTE Maharashtra:

CNC Simulator Software
Hydraulics & Pneumatics Simulator
Solid Works CAD Software
Various Faculty Development Programs (FDP)

DVET & Government Institutes:

CNC Simulator, Maharashtra, 33 Institutes
CNC, CAM & Electronics Simulator, Goa.
FTI (Foreman Training Institute) Bangalore
FCRI (Fluid Control Research Institute) Pallakad
HAL Training Academy, Ojhar, Nashik

TEQIP – World Bank

Kurukshetra University, Haryana
Malnad College of Engineering, Hassan
GCoE Chandrapur
Government College of Engineering, Karad
Bharati Vidyapeeth CoE Pune
BMS College of Engineering, Bangalore

IIT's and NIT's

NIE, Mysore, IIT Delhi, NIT Jalandhar
IIT Kharagpur, IIT (ISM) Dhanbad, VNIT Nagpur, NIT Meghalaya, NIT Trichy, IIT Guwahati, NIT Silchar, IIT Tirupati NIT Surathkal, IIT Indore

Many More…

Partial List of Clients

MNNIT Allahabad, Don Bosco Industrial Institute Mumbai, IIT ISM Dhanbad, NIT Andhra Pradesh, Nirmla University, R & D Dighi Pune, BITs Pilani, Manipal Institute of Technology
Veltech Chennai, ITI Sangli & Wardha (Via. ITI Aundh), Islamic University, Kashmir, NIT Trichi
COEP, College of Engineering Pune, CET Bhubaneswar, MBM Engineering College Jodhpur, MNIT, Rajarambapu Inst. of Tech., Rajaramnagar Islampur, R V College of Engineering Bengaluru, TPGIT, Vellore, NIT Surathakal
CET Bhubaneswar UCET Bikaner, HAL Nashik IIT Tirupati, VNIT Nagpur MPKV Rahuri, MIT Pune, IET Lucknow, YMCA Faridabad, NIT Srinagar
Kashmir University, D Y Patil, Akurdi and Pimpri, Walchand COE, NIT Silchar, BIT Mesra, Jadavpur University (Kolkata), IIT Guwahati, NIT Meghalaya, IIT (ISM) Dhanbad, Walchand College of Engineering (Sangli), Govt. ITI Kalwan (Nashik), Central University of Karnataka

Many More…

BITS Pilani Hyderabad Campus
MANIPAL INSTITUTE OF TECHNOLOGY MANIPAL
A Constituent Institution of Manipal University