

DESIGN & ENGINEERING



Design appraisal with FEM Software on Advanced Graphics Work Station

- o C, C++, Visual Basic, Fortran, etc
- o Personal oracle
- o CA-Clipper
- o Autodesk SDK

OTHER SOFTWARE DEVELOPED (In-house)

- Pressure vessel design
- Heat exchanger design
- Pressure vessel component design
- FRP vessel design
- Pressure drop in pipelines
- Tube layout generation
- Template software for flow diagrams
- Design automation
- Project Management Software
- Multimedia Software
- Multimedia SLD Generation

MAJOR CLIENTS

- PSSK, Pravaranagar, Maharashtra
- Cyanides and Chemicals, Surat
- Sabero Organics Limited, Mumbai
- Parsin Chemicals Limited, Hyderabad
- Deepak Nitrates, Mumbai

CONTACT PERSON (Technical)

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FOR BUSINESS ENQUIRIES:

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- Delta Agro Chem, Vijayawada
- SCCL, Ramakrishnapur, Andhra Pradesh
- M/s Arya Vaidhyasala, Kottakal, Kerala
- Lupin, Mumbai
- NMDC, Hyderabad
- Gujarat Oleo Chem, Gujarat
- HZL, Udaipur
- NML, Jamshedpur
- BILT Chemicals, Karvar, Karnataka
- ADA, Bangalore
- SPIC Ld, Tuticorn
- NOCIL, Mumbai
- HCCL, Hyderabad
- JKBM, Ankleshwar
- Sudarshan Chemicals, Pune
- Punjab Agrochemicals Ltd., Chandigarh
- Voltas Ltd., Chemical Plant, Hyderabad
- Tantech Agrochemicals, Chennai
- Hindustan Insecticides Ltd., Rasayani, Maharashtra
- EID Parry, Chennai
- India Insecticides Ltd., Lucknow

LIST OF PROJECT ENGINEERING CONSULTANTS ASSOCIATED WITH IICT FOR IMPLEMENTATION OF IICT TECHNOLOGY PACKAGES

- GTZ, Germany
- TNO, Netherlands
- DNV Technical, Norway
- Dala Consultants, Mumbai
- Tata Consultants, Mumbai
- Humphreys & Glassgow, Mumbai
- Davy Powergas, Mumbai
- UHDE, Mumbai
- Resource projects, Mumbai
- Toyo Engineering, Mumbai
- R J Associates, Mumbai
- Chem Asea, New Delhi



DESIGN & ENGINEERING

Indian Institute of Chemical Technology
Tarnaka, Uppal Road, Hyderabad 500 007, INDIA



VISION AND GOALS

- To provide Mechanical Design & Engineering support in developing innovative global chemical process technologies in pursuit of excellence at the Institute
- To provide CAED and IT support to develop globally competitive and novel software useful in chemical and biochemical process plant engineering.
- To provide R&D facilities in application engineering and knowledge base creation
- To offer highly competitive training programmes on CAD in chemical process plant engineering

CORE COMPETENCIES AND ACTIVITIES

- Mechanical design and engineering of process plants at pilot and commercial scales
- Process plant safety, risk and hazard analysis in association with the Chemical Engineering Division
- CAED software development and design automation for plant engineering
- Engineering support to inhouse and other sister laboratories
- Training the personnel in FEM, CAED and Piping Engineering

CURRENT RESEARCH AREAS

- Development of Virtual Reality Sensors for Eye Ball tracking
- Virtual Reality Applications in process plant safety
- Design automation of chemical process equipment like heat exchangers, distillation columns, packed towers etc
- Design and engineering of Biotechnology Incubation Centre (BTIC)
- Equipment selection expert system
- Experimental test rig facility for rupture disc
- Software development for bellows and expansion joints



Design engineering and detailing of a process plant at CAED Centre

SERVICES AVAILABLE

- Detailed engineering of chemical process plants (commercial & pilot plant)
- Equipment design appraisal
- Remaining life assessment and life extension studies for process plant equipment
- Engineering software development and customization
- Creation of specialized engineering test facilities
- CAED-modeling and simulation
- Tailor-made training programmes in FEM, piping engineering, CAED and process plant engineering
- Digitization of existing drawings and designs
- Consultancy in setting up of design & simulation centers for R&D institutions
- Consultancy in CAED software requirement and testing

INFRASTRUCTURE

Hardware Facilities

- Network servers : 2
- Workstations (silicon graphics) : 3
- Large format scanning facilities : A4 to AO sizes
- Large format printing/plotting facilities : A4 to AO sizes (with full colour)
- Large format photocopying facilities : A4 to AO sizes

Software Facilities

- TEMA software for mechanical design of heat exchangers
- Pressure vessel design
- Finite element analysis packages (ANSYS & SDRC Ideas)
- CAE pipe-piping design and analysis package
- 2D and 3D drafting software (Autocad Mechanical Desktop)
- Software development tools



Stage inspection of R-Wood Pilot Plant for RRL, Bhopal