# Company **Profile**



**IESPL Integrated** Engimech **Solutions** Pvt. Ltd.

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Pvt. Ltd.

"IESPL" "Integrated Engimech Solutions Pvt. Ltd."

We are well focused on advance system and instrumentation technology to deliver innovation in automation through specialized services and solutions.

## **IESPL-Introduction**

#### IESPL's offerings:

- Automation Solutions for PLC / SCADA / DCS Systems.
- GPRS,GSM,M2M & WiFi Based Automation. \*
- Online Remote Monitoring & Control System.
- AC/DC/SERVO Drive based control panels.
- Thyristor based Temperature control panels for Electrical Furnaces, Ovens and Heating Equipments.
- Service support for all the services mentioned above.
- We also undertake system integration jobs for various industrial process control and Automation systems.
- ✓ We are manufacturing custom built Panels of power distribution as well automation systems with high quality automation products and including all standards.
  - As a Panel manufacturer we design and manufacture Panels like MCC, PCC, Distribution Panel, Starter & lighting power distribution.

- We also manufacture the automation panels including PLC, AC Drives, DC Drives, Servo Drives and HMI etc.
- ✓ We also offer A.C. Variable Frequency Drives, Servo drive, D.C. Drives as per required application such as Siemens, Parker (SSD), Schneider, Yaskawa, ABB, and Delta etc.
- ✓ We provide totally integrated automation with PLC, HMI, SCADA including Third Party integration using various protocols like ModbusRTU, ModbusTCP, Profibus, CANOpen and TCP-IP etc.
  - IESPL team has rich experience in several PLC and Software platform including Allen Bradley, Siemens, Delta, Schneider, Vipa as well as various SCADA software such as Wince, VijeoCitect and Movicon
  - We have also experience in implementation of several control and automation projects at various levels of plant from machine to process as well as system design including supply, installation and commissioning of PLC/SCADA system and field instruments.
- ✓ IESPL gives best temperature control solutions in heating applications through Thyristor based power control and precision PID Controller, Profiler, Chart Recorder like Gefran, Autonics, Yokogawa, Omron etc.
- ✓ IESPL provides service support for Retro Projects and customized automation with proper solution.
- ✓ IESPL also completes projects from basic to detail engineering including system architecture, documentation as well as complete installation and commissioning with best quality.

### Some of the areas where IESPL has experience and can provide solutions...

- Rolling Mill CRM, HRM, Cut to length, Slitter machine
- Gas heating and Electrical heating Based Annealing Furnace
- ❖ Harris M-300,4-colour Offset Paper Printing machine
- Crabtree 2 Color Offset Metal Printing Press
- ❖ SS Wire drawing machine
- ❖ Aluminum Pressure Die cast Machine
- ❖ BOPP & Polymer film stretching plant
- ❖ Bolt Forming Machine Automation
- ❖ Pasteurizer Control System of Dairy Industries
- Homogenizer Control System of Dairy Industries
- Cooper Planner Machine Automation
- GPRS Cloud Based Remote Control System With Data logging.
- Siemens Scada GPRS Based System of Waste water Collection Of ETP Plant.
- ❖ Industrial RO system-SWRO,CDRO, Ultra Filtration
- Retrofitting Of Metalize Machine
- PLC based Vertical Turret lath Machine
- ❖ PLC based Surface Grinding Machine of Foil Mill
- Siemens Scada Based C.I.P.System of Dairy Industries
- ❖ Siemens Scada System for 8 Zone Backing Furnace
- \* Retrofitting Of Skoda & Union make Boring machine
- ❖ 16 Color Rotary Screen Printing for Textile Industry
- ❖ PLC Based Head Box Control For Pulp & Paper Mill
- ❖ Ammonia based Refrigeration Plant Automation.
- Customize Development in Automation for OEM's.

IESPL aim to achieve maximum customer satisfaction with providing highest quality products and best automation solution & services.

### **AC Drive**

















### Advantages of AC Drive

- Controlled Starting Current
- Reduced Power Line Disturbances
- Lower Power Demand on Start
- Controlled Acceleration
- Adjustable Operating Speed
- Adjustable Torque Limit
- Controlled Stopping
- Energy Savings
- Reverse Operation

#### Typical **Applications**

- Packaging / converting
- Pulp & paper / forest products
- Petro-chemical
- · Baggage handling
- Aggregate / cement
- Food & Beverage
- operating pumps, fans, compressors and conveyor belts

**IESPL** 













### **DC** Drive





### SIEMENS



#### Advantages of DC Drive

- Controlled Starting Current
- Reduced Power Line Disturbances
- Lower Power Demand on Start
- Controlled Acceleration
- Adjustable Operating Speed
- Adjustable Torque Limit
- Controlled Stopping
- Energy Savings
- Reverse Operation

#### **Typical** Application

- Main drives for printing machines
- Rubber and plastics industry
- Traction and hoisting drives in the crane industry
- Lift and cableway drives
- Applications in the paper industry
- Shears drives in the steel industry
- Rolling mill drives
- Winder drives











### PLC- Programmeble Logical Controller













#### Advantages of PLC

- More Flexibility, Reliability, Security
- easy Implementing change and error correction
- Low price
- Monitoring results
- Visual observation
- Fast operating speed
- Simplification ordering parts
- Easy Documentation

#### Typical **Applications**

- Automobile industry
- General mechanical engineering
- Building of special machines
- Plastics processing
- Packaging industry
- Food,d Beverage industry
- Process engineering
- Fast counting/fairs with direct access on the hardware counters
- PID-Regulation with integrated functional module





### **HMI-Human Machine Interface**



















#### Advantages of **HMI**

- High resolution graphics of machinery and processes.
- Alarms & Trends (Real Time / Historical).
- Recipe Manager.
- Report printing.
- Process Messaging.
- Animate equipments and process instruments.
- Reduce the cost of hardware.
- Communication

#### **Typical Applications**

- HMI Communicate to PLC for proceess monitoring and control.
- Automobile industry
- General mechanical engineering
- Building of special machines
- Plastics processing
- · Packaging industry
- Food and Beverage industry
- Process engineering
- Fast counting/fairs with direct access on the hardware counters
- PID-Regulation with integrated functional module







"Supervisory Control and Data Acquisition" refers to a centralized system and this system is composed of various subsystems like Remote Telemetry Units, Human Machine Interface, Programmable Logic Controller and Communications.















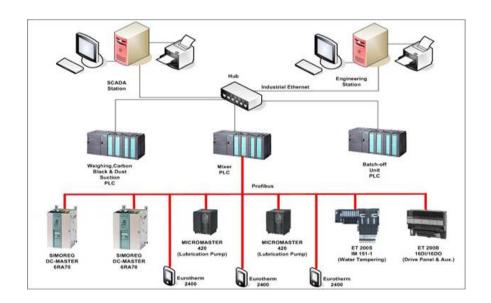


#### Features of **SCADA**

- Powerful SCRIPT
- Recipe Management
- Multi Levels of Security
- Alarms and Reports Management
- Variety of Graphics and Animations
- Extensive Data and Event Logging
- Real Time and Historical Trending
- Wizards for Screen Development
- Communication: One to one, Multi-Drop, Modem, Ethernet, TCP/IP
- Extensive Tags and Database Management

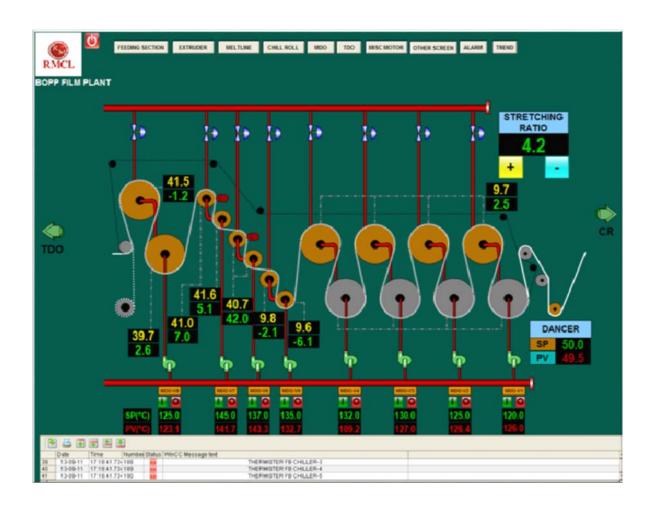
#### Features of **SCADA**

- Connectivity to EXCEL via DDE
- HTTP Web Server and Remote **Data Access**
- Excel Report Generator (Script Based)
- Advanced Component Library
- Open Data Based Connectivity (ODBC)
- OLE for Process Control (OPC Client)
- Software and Hardware Lock Support
- Alarm notification through SMS & Email























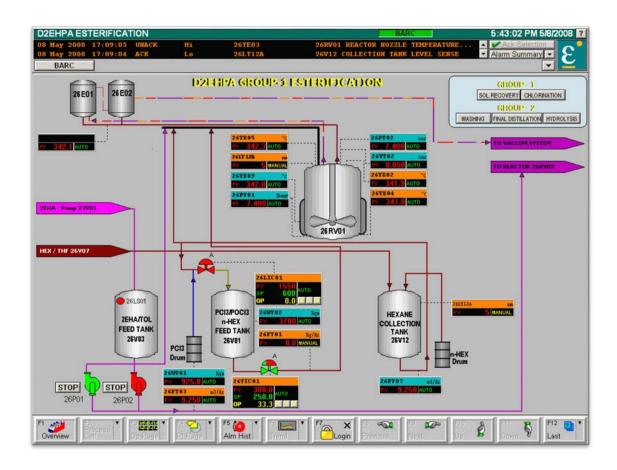








Pvt. Ltd.

















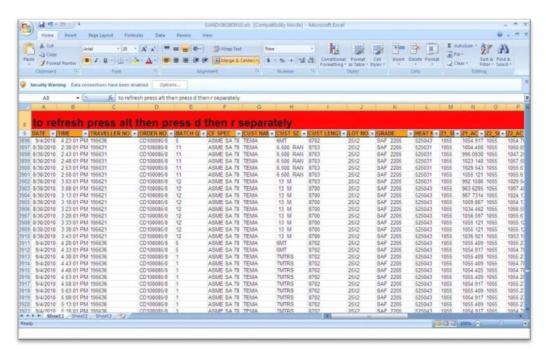
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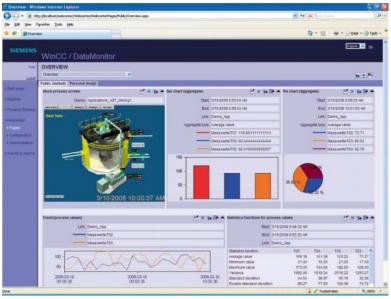






#### Process Report Generate in Microsoft Excel





## **Temperature Controller**

**Temperature control** is a process in which change of temperature of a space is measured or otherwise detected, and the passage of heat energy into or out of the space is adjusted to achieve a desired average temperature.

#### PID temperature controllers are applied in

- Extrusion Heating
- Industrial ovens,
- Plastics injection machinery
- Hot stamping machines
- Packing industry
- Process industry



























## **Thyristor Power Controller**

**Better Temperature Control**-deliver short burst to match power demand.

*Eliminates Temperature fluctuations-*sense change in supply and adjust power deliver to prevent power fluctuations.

Increase production-built in diagnostics power and partial load failure detection allow preventative maintenance before total failure and costly shutdowns of process.

**Lower maintenance costs-**no moving part and plug in design increases heating elements lifetime-reduced thermo mechanical stress.

**Process protection-** current and power limit protects process and heating elements.

**Lower energy costs**-allow plant wide energy monitoring which reduce peak demand.







Eurotherm



















## Chart and Paperless Graphical Recorder

Chart recorder is an electromechanical device that records an electrical or mechanical input trend onto a piece of paper (the chart). Chart recorders may record several inputs using different color pens and may record onto strip charts or circular charts.

#### Paperless Graphic Recorder

- Easy, Secure and Adaptable Data Recording
- Full color, high resolution, touch screen display
- Batch functionality
- Remote view and configuration
- Local printing







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## **Ac Drive Base Control Panel**













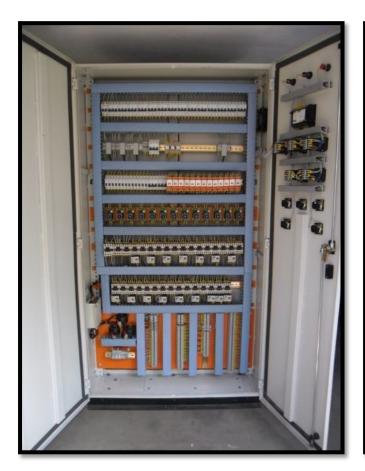
## **Starter Panel**







## **Customise Control Panel**











# **PLC Base Control Panel**









## **GPRS Base Control Panel**



















## Remote Pendant Unit











# Digital Dc Drive Base Panel



