# **ELECTRICAL, PROCESS INSTRUMENTATION & AUTOMATION SOLUTIONS**



TURNKEY E & | PACKAGES

E & I SYSTEM INTEGRATION

PROCESS AUTOMATION SOLUTIONS

PLC SYSTEMS & REMOTE MONITORING

FIRE & GAS DETECTION SYSTEMS

MCC/VFD PANEL MANUFACTURE

**BMS/ACCESS CONTROL/CCTV** 

**HVAC CONTROLS** 

**AUTOMATION** 

FIELD INSTRUMENTS & VALVES











PLC & DCS

SCADA, Telemetry & RTU

Instrumentation Packages

Safety Systems-ESD/F&G/HIPPS

Switchboard & MCCs

LV/MV Switchgears & Drives

Control Panel Manufacturing

**Project Management** 

Engineering & Design

**Building Management System** 

Facility & Assets management Sys.

Variable speed drives

Integrated FAT Services

Turnkey Contracting, Installation

**Support Services** 

Quality & HSE

# PLC&DCS

LENNART is an accessible and customer focused company with customer satisfaction as our first priority. Local Technical support facilities are vitally important to our Clients and satisfying this requirement wherever is possible at the heart of our operating philosophy.

We offer the complete package to satisfy your need for Turnkey solutions. We have the expertise and resources to meet your entire project Electrical, control, Instrumentation and Electromechanical requirements rom consultancy services and detailed design, through highest Quality Engineering, Manufacture, Testing & commissioning to the vitally important long-term support and care for your systems.

Our capabilities include redundant systems, integration to third party systems and multiprotocol communication. LENNART has developed expertise in almost all major industrial automation software products and communication technologies. We have extensive knowledge on projects incorporating various latest and traditional communication protocols such as Ethernet, Modbus, Controlnet, Devicenet, Profibus, Fieldbus etc.

We are extremely proud of our status as an official Solution Provider for major automation OEMs. We take great care to insure that our vendor relationships are aimed at providing our customers with the very best solutions for their applications. Some of our customers have specific guidelines for documentation and structure and we pay very careful attention to these requirements to make sure they get the program they expect.



### **ENGINEERING DESIGN**

The complete project engineering service is provided in house by LENNART from detailed design to as built project documentation. We comply fully with relevant international standards, and maintain the full range of modern project engineering tools.

Our engineers and programmers ensure project success by adhering to our structured project methodology. To start with we get a thorough understanding of your processes & goals and create a detailed design of the solution based on our engineering standards. We develop the control system in modules and incrementally test each module in simulation.



### PROJECT MANAGEMENT

Professional project management is central to Lennart's execution philosophy. We address all aspects of the project life cycle and a dedicated project manager provides a single point of contact between client and Lennart's execution team. Lennart has an ON-TIME and ON-BUDGET execution philosophy, ensuring timely and successful completion of your project. Driven by the goals of on-budget and on-time delivery, we assign a project management team with the knowledge, tools and resources in place to drive project success.

The project management incorporates engineering and final design for the execution part of the project. The team takes the responsibilty in freezing the drawing and documentations with the client inline with the requirement which will be subsequently adhered by the installation and commissioning team in totality. The team utilizes the state-of- the-art software to plan, execute and monitor the project without any deviation until handling over the project to the authorities.



### INTEGRATED FAT SERVICES

Factory Acceptance Testing (FAT) is a key to any project managed by LENNART. LENNART has the full capability to simulate the process and integrate third party equipment in our factory. Simulation saves time and money during start-up and ensures that your system will function effectively when abnormal situations arise. A fully integrated FAT leads to a smooth and trouble free commissioning at site. During the FAT stage, we invite the customer to our facility to participate in a simulation and validation of the control system before it is installed at the site. This is the customer's first real opportunity to validate what was stated in the functional specification.

### **QUALITY**

Quality Control is a serious business at Cimac and our quality system is in accordance with ISO 9001:2009. The quality system is endorsed by the senior management team and implemented by personnel at all levels. Our HSE policy reflects our concern and ongoing commitment to Health & Safety of personnel and minimizing environmental impact.

### **SUPPORT**

LENNART understands your need for high quality 24 hour customer care and support – where you are, when you need it. We maintain a dedicated support team of site – experienced technicians and project engineers and continue to invest in our network of local support offices. Support services can include all aspects of post delivery customer care – from simple first line response on demand,to structured, defined, periodic maintenance



### **SCADA SYSTEMS**

LENNART provides a powerful RTU based solution that integrates the power of the Programmable Logic Controller with the flexibility of Telemetry, in combination with modern communication technologies. Lennart Automation Solutions satisfy all your needs relating to Telemetry.

As a leading industrial automation technology provider, LENNART is widely recognized in implementing Telemetry solutions. Our proactive approach and technology expertise enables us to implement fully automated systems ranging from field devices to highly sophisticated control and SCADA (Supervisory Control and Data Acquisition) systems.

CONTROL PANEL MANUFACTURING

LENNART's experience and thorough knowledge of industrial standards allows us to produce control panels that are dependable, practical, and maintainable. We construct and install panels for our own internal integration needs as well as manufacture from third party designs. Lennart also has a huge storage and inventory control facility where control equipment and related manufacturing accessories are stocked.

This considerably saves time in the procurement cycle during a manufacturing schedule where equipment available in "stock" can be used to proceed with the manufacturing. Equipments, which are frequently rotated in a manufacturing cycle, are stored in a relative quantity. The stocks range from control products like PLC equipment to manufacturing accessories like cables, terminals etc.

### INSTRUMENTATION PACKAGES

LENNART provides complete instrumentation package covering all aspects of Instrument design, purchasing, documentation, installation, calibration and testing for the total work package.

We have established relationships with major manufactures, ensuring we comply with your approved vendors list or recommend suitable best of breed suppliers to meet your specifications.

Lennart's capabilities to deliver 'ready-for-installation' systems requiring minimal on-site modifications and smooth system handover. A very strict adherence to installation standards and procedures and a qualified site team ensures the highest quality of installation of the instruments.

Our SCADA application in the Control Centre performs centralized alarm management, data trending, operator display and control. The SCADA technology enables communications with a range of wired (lease line, dial-up line, fiber, ADSL, cable) and wireless media. (licensed radio, GSM, Satellite and GPRS).

They allow traditional remote monitoring mechanism such as precise registration of events, alarm management, multi-communications, and interlancing with all types of specific local equipment.





# Striving towards future greener world



### VARIABLE SPEED DRIVES

LENNART's VSD solution is based on Integrated Architecture and Open Design concepts to provide you with the possibility of a Single Window Solution. This includes Low Voltage and Medium Voltage systems for Speed Control and Starting of Motors for a range of applications. Harmonic Studies and Compliance to relevant IEC as well as G 5.0 standards are offered to complete the package. Our Services include Complete and fully integrated Drive Control System Packages, Drive System Modernization and Retrofits, Line Studies - Analysis and Recommendations, Project Management, Engineering -Installation - Startup and Drive System Service and Support.

### MEDIUM VOLTAGE GEARS & SWITCH GEAR

LENNART offers a complete range of medium voltage switch gear for primary and secondary distribution developed from customer requirements. Our solutions incorporate leading-edge technology to support customers evolving needs. We provide 11kv high tension power distibution system, distribution transformers for various voltages, switch gear panels, motor control centre, soft starters, variable frequeny drives, generator sets.



### SWITCHBOARD & MCCs

LENNART is unique amongst expert Control Systems Integrators in providing integrated Electrical Power and Control solutions. The key feature includes Intelligent Communication Systems in Power Distribution and Motor Controls without compromising key electrical criteria such as Type-tested designs, compliance to specified levels of degree of protection and segregation. The electrical designs are based on Fully Type Tested Assemblies upto Form IV Type 7. Going one step ahead the intelligent / SMART function allows plant control & data gathering at the plant central system. The switch gear products / components used are high quality multi-vendor products. The MCC is pre tested and pre configured at the factory as per relevant international standards.



### TURNKEY CONTRACTING

LENNART provides complete contracting & installation services including Installation services for MV/LV Power Systems, Control Systems, Field Wiring, Termination, Mobilization and Demobilization of equipment, Loop Checking and Testing. LENNART has an in house team of site commissioning engineers and technicians. Equipped with state-of-the-art tools and portable commissioning instruments the site works are setup conforming to the best engineering practices. Our integrated commissioning team offers the advantages of a single point of responsibility for the commissioning of the entire project.



### FIRE SAFETY SYSTEMS-ESD/FNG/HIPPS

LENNART has been providing complete safety solutions including Emergency Shutdown (ESD), Process Shutdown, (PSD), Fire & Gas Detection (F&G), and High Integrity Protection System (HIPPS) logic-solvers. Lennart offers a range of TUV certified and SIL rated safety products — both programmable and solid state logic types, Switchboards.



In today's hectic society, CCTV has become the lynchpin of modern security. It not only provides a clearly visible crime deterrent, but it is simple to install, simple to maintain and easy to operate. It has proven to be an effective tool in an integrated security strategy and it is easily expandable, as well. A CCTV system can make you safer than ever before. No other company in the tri-state area provides the fully integrated CCTV-based security solutions that we do.

Lennart is a Systems Integrators and having a leading name in complete business security, from CCTV systems to data and network protection and so much more. You can say goodbye to sleepless nights due to security concerns. A system from Lennart allows you to concentrate on your business.

### **BULDING MANAGEMENT SYSTEM**

LENNART brings its application knowledge to intelligence for buildings and homes. Our Solutions include both classical and innovative approaches for integrated Facilities Control, Energy Management, Billing and Remote Monitoring and Control. We provide solutions including BMS(building management systems), ACS(access control systems), CCTV, Fire & safety systems.





Lennart offers ranging from simple projects, such as securing one access for several people to more complex security projects with fundamental security problems and custom. Most successful access control systems operate independently of BMS due to different operation requirements. It is common practice to have a separate access control system that has the ability to share strategic information with a BMS in order to make automated decisions and share alarm monitoring and graphical displays. Even though the differences between both systems are vast, they share one common element - data.

Smooth and flexible definition of who has access when and where, History of events, Real-time event and alarm follow-up, Real-time report in case of evacuation and calamities. Configurable user roles and user menus, Configurable anti-passback supervision on doors and areas, Automatic time-based opening of blockages, Graphic security overview including door positioning and locations, Suitable for all kinds of obstacles, such as doors, barriers, turnstiles, etc, Access control through RFID badge, iButton (Dallas button) or fingerprint, CCTV integration.



No matter where you are in the world your building requires heating, ventilation or air conditioning (HVAC) to provide a comfortable productive environment for your occupants. However HVAC isn't cheap, it accounts for approximately half of typical buildings total energy consumption. So making sure your system is running as efficiently as possible is critical to your buildings operational costs. HVAC controls from the brain and nerves of a HVAC system, monitoring Interior conditions and responding to load changes in a coordinated fashion providing comfort and energy efficiency. Energy management is no different than most other business tasks. If you can measure it, you can manage it. The more you measure, the better you can manage. These days it is becoming advantageous to measure energy usage in great detail, with building owners measuring consumption wherever they can.

### **SOLAR POWER EPC**

Lennart Solar designs, engineers, manufactures, and installs all type of solar mounting systems for commercial and utility scale solar projects. This single-source responsibility is focused on delivering value throughout the solar value chain. As a specialist in ground mount, roof mount, landfill, and custom designed speciality solar structures, Lennart provides best-in-class solar racking solutions and project management capabilities to serve project developers and system integrators. When EPCs and project developers across the globe need dependable, low-maintenance, cost effective mounting solutions, they look towards us. Our leading-edge solar structures are designed to mount any type of solar module to help you harness the maximum potential of solar power.





Home automation gives you access to control devices in your home from a mobile device anywhere in the world. The term may be used for isolated programmable devices, like thermostats and sprinkler systems, but home automation more accurately describes homes in which nearly everything -- lights, appliances, electrical outlets, heating and cooling systems -- are hooked up to a remotely controllable network. From a home security perspective, this also includes your alarm system, and all of the doors, windows, locks, smoke detectors, surveillance cameras and any other sensors that are linked to it. The other main characteristic of cutting-edge home automation is remote monitoring and access. While a limited amount of one-way remote monitoring has been possible for some time, it's only since the rise in smartphones and tablets that we've had the ability to truly connect to our home networks while we're away. With the right home automation system, you can use any Internet-connected device to view and control the system itself and any attached devices.

### LENNART SOLUTION PARTNERS







































## LENNART PROCESS INSTRUMENTATION AND AUTOMATION SYSTEMS CO



No:96, East Coast Road, Panaiyur, Chennai-600119. Tamilnadu , India.



+91 44 2453 1795



info.automation@lennartgroup.com



www.lennartautomation.com







E & I Contracts . C & I Packages . Process Automation . Panel Manufacturing . Panel Assembly and Integration. Fire & Gas . BMS/ACS/ CCTV .