



**CONTROL &
AUTOMATION SYSTEMS**

Controls & Automation Systems W.L.L

کنترول اند اتومایشن سیستمز



We are the solution
We are Control &
Automation Systems



Industrial Automation

LV/MV/HV Electrical Solutions

EPCM / EPIC Projects

System Integration

Instrumentation & Electromechanical Trading

Industrial Support Services



ABOUT US

Control & Automation Systems with over a decade of experience in Middle East along with our subsidiary companies have been delivering repeatable success and contributing to a better tomorrow. With a strong ownership structure, qualified manpower & resource base with investments in equipments and expertise, we have built a reputation as a leading multi-disciplinary engineering company providing services to industries serving in Energy, Oil & Gas, Chemicals, Cement, Fertilizers, Steel, Power, Utility, Telecom, Infrastructure and related Industrial markets.

Turnkey EPCM / EPIC Projects

Industrial Automation

System Integrator

Panel Manufacturing & Electrical Integration

Electro-Mechanical Solutions

Plant Intelligent Solutions

Agency Sales Representation

Design & Engineering

Fire & Gas Systems

Plant Maintenance Support Services



WHO WE ARE

Control & Automation Systems is recognized by customers and employees alike for its flexibility and technical capability with cost effective solutions. We apply technological innovation and agile problem - solving to overcome complex challenges with multidisciplinary capabilities and extensive experience.

We are committed to safety, sustainability, and success in all we do, putting people and relationships first. Our focus is always on being a trusted service partner that delivers meaningful results. With over 100+ employees in the group we are committed to safety, sustainability, and success in all we do, putting people and relationships first.





CORE VALUES



CORE VALUES & MISSION

At Control & Automation Systems, we aim to deliver exceptional solutions that exceed expectations and redefine industries. We are committed to fostering an environment of creativity where diverse minds come together to solve complex challenges. We empower individuals and organizations to achieve their ultimate potential through unwavering dedication, innovation and integrity.

IN-COUNTRY VALUE (ICV)

Controls & Automation Systems is wholly focused on supporting In-Country Value Program(ICV). We are committed to employing local people, working with local Manufacturers, Suppliers, and developing local capabilities. We see our In-Country Value as a source of competitive strength, which enables us to maintain low costs, improve the availability of local suppliers and build stronger relationships with all our stake holders thus supporting the growth and diversification of the economy.



برنامج المحتوى الوطني





Industrial Automation

Established in 2014, Control & Automation Systems is actively involved in process and discrete automation projects. We specialize in the field of Controls, Plant Intelligent Systems, Automation, Instrumentation & Electrical Integration. Focusing on the industry requirements by automating the controls using PLC's/RTU's/SCADA/DCS from reputed brands, we provide customer-focused efficient solutions as an EPIC package to solve complex automation tasks. From Automation & Control to Engineering solutions, we operate in all market segments, providing a wide range of solutions to clients. We are associated with some of the leading manufacturers in PLC, HMI & SCADA to provide integrated control solutions to the industry



- ❖ Control system conceptual design & System Integration.
- ❖ Control system network design and development.
- ❖ Defining the control philosophy, cause & Effect matrix in collaboration with process designers.
- ❖ Commissioning and start-up service.
- ❖ Annual maintenance contract / on-call service support.
- ❖ Performing FEED and feasibility studies
- ❖ Writing detailed design specifications for new and replacement of SCADA systems
- ❖ SCADA system recommendations
- ❖ Engineering Design, installation & commissioning of SCADA systems
- ❖ Reverse engineering services for legacy systems
- ❖ Legacy system support and migration
- ❖ Provision of SCADA engineers for a day, week, year etc.
- ❖ SCADA modifications & system validation services
- ❖ Project management
- ❖ SCADA consultancy, training and service level agreements
- ❖ Custom built solutions for Original Equipment Manufacturer (OEM)
- ❖ Machine and factory automation with integrated motion control & safety technology
- ❖ Standalone, high available control system for process automation

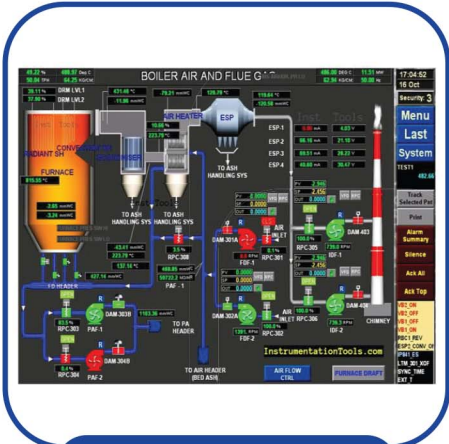


We provide full featured SCADA Solutions with PLC based control systems assisted with the features as below:

- ❖ Redundant and high available SCADA system
- ❖ Historian server
- ❖ Asset management system
- ❖ Disaster recovery system
- ❖ Cyber security
- ❖ ERP Interface
- ❖ Panel / Door mounted HMI, industrial monitor / PC
- ❖ Standalone, redundant SCADA station
- ❖ Large screen display
- ❖ Andon display for factory floor monitoring
- ❖ Products for high temperature installation
- ❖ HMI / operator control station for hazardous area installation
- ❖ Universal connectivity and IoT ready:
- ❖ High performance data capture
- ❖ 2D and 3D visualization
- ❖ Live, self-service dashboards
- ❖ Mission-critical redundancy
- ❖ Fault analytics and energy monitoring
- ❖ Advanced alarming
- ❖ Integrated SMS/e-mail alerts
- ❖ Cloud-ready and modular scalability
- ❖ Project development tools



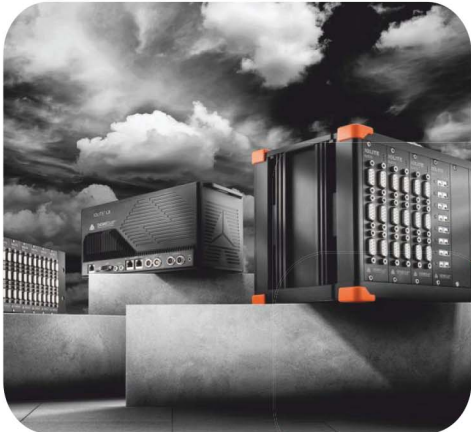
PLC



SCADA



DCS



Networking & Data Acquisition Systems

- Internet and Remote site connectivity
- Control, Data and Device networks
- Wireless Data communications
- Fiber optic, Ethernet, RS485 connectivity



HMI and Operator controls
Computer & Operator panel
Interface Programming

- PLC and Industrial Computer Systems
- Motor control centres, variable Frequency Drives
- Instrumentation and Sensors
- Electrical Control Panels
- Remote Terminal Units



Computer Hardware and Software

- Servers, Workstations, Industrial Computers, Thin Client Terminals
- Computer Peripherals
- Reporting and other Utility SW



Hardware and Software Control, Electrical and Instrumentation Control

- PLC and Industrial Computer Systems
- Motor Control Centres, Variable Frequency Drives
- Instrumentation and Sensors
- Electrical Control Panels
- Field Instruments



Networking and Communications Configurations

- Industrial Ethernet : Ethernet/Ip
- CIP, DFNT
- Controlet
- Fieldbus. Devicenet, Modbus
- RS232 Based DF1, DH485, DH+
- RS485 Based Modbus, DH485
- Network and Communication Integrity Testing
- Remote Terminal Units
- HMI & Operator controls
- Computer Hardware & Software



Software Development (PLC/DCS/HMI/SCADA)

- PLC/DCS Programming
- Library Development (Industry Standard)
- Safety Programming
- Batch Management & Control Programming
- HMI Development
- SCADA Development
- Historian & Information Server Configuration & Development
- Customized API Development for Controllers & SCADA
- Bridging and Reporting Applications
- Part21 CFR Compliance OT Applications
- Cross Platform Applications Engineering
- Integrated Testing at our PLC/DCS Lab



Electrical High/Medium/Low Voltage Solutions



Control & Automation Systems & its associates specialises in providing turnkey electrical solutions for various applications in Power, Energy, Cement, Oil & Gas, Infrastructure, Steel, Utility and Water Treatment sectors. The panels ranging from 6.6KV/11KV/22KV/33KV are designed, constructed assembled, integrated, tested and site commissioned by our technical team. We are a specialized team of engineers who are skilled in overhauling & refurbishing old panels and upgrading to new to custom based design requirements.

Our team's vast experience with an array of electrical distribution application from line supply to supply loads, is used by our team to provide attention to details while ensuring the best possible quality in work & system capability.



- ❖ Capacitor Banks
- ❖ Synchronizing Panels
- ❖ MV Soft Starter Panels
- ❖ MV Drive Panels
- ❖ Power Control Centres (PCC) & Motor Control Centres(MCC)
- ❖ Starter Control Panels for pumps, generators, water transfer set etc...
- ❖ HVAC Control Panels
- ❖ BMS & Alarm Annunciators Panels
- ❖ Source Change Over Panels – Automatic Transfer Switch(ATS), Automatic Mains Failure (AMF), Manual Changeover Panels
- ❖ HT VCB Panel / HT Panel Installation
- ❖ Ring Main Uits
- ❖ Package Sub Station
- ❖ DG Synchronization Panels
- ❖ Control & Relay Panels





Industrial Control Panels



Does your project require a custom controls solution? Control & Automation systems and its subsidiaries blend of control panel engineering and manufacturing capabilities provide you with a unique perspective on the process of control panel design & development. The key to integration of our control panels in to other systems are experience and methodology and we have both. Our engineers who are experts in panel designing and programming are committed to getting each system integration project on the right path at the beginning and seeing it through to successful completion.

We offer our services as EPIC/EPCM for any control systems thus offering single point solution including onsite installation, commissioning and Training.

- Process & Machine Control Panels and Systems
- Applications Consulting & Systems Design
- Drive/Motion Control/PLC Control Panels and Systems
- Control cabinets PLC & IO panels upgradation
- PLC/IO/HMI/MCC/IMCC & VFD panel design
- Well head control Panels
- Switchgear Panels



- Relay Control Panels
- Generator Control Panels
- Motor Control Centre Panels
- Power Control Centre Panels
- Telecommunication Panels
- VFD Panels
- Retrofitting and redesigning of Control Panels
- Complete Systems Documentation
- Testing to Client Specifications
- Field Support by Skilled Engineers



Our Services



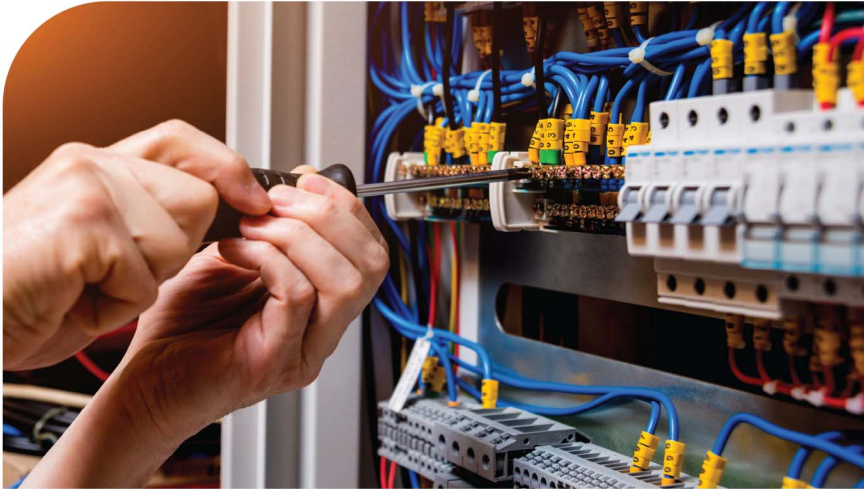
Control & Automation Systems offers a comprehensive range of services that complement our products and align with our customers' needs. From initial planning to post-commissioning support, including specialized third-party inspections, we provide tailored services to support each stage of your industrial automation journey.

As a full-service industrial automation integrator and dependable EPIC contractor, we assist customers through every phase of integration - from system customization, consultancy, and engineering documentation, to FAT, SAT, onsite commissioning, training, and annual maintenance. We also offer conversion and upgrade services, retrofitting older Process / Industrial Automation or Electromechanical equipment with advanced features to boost efficiency and production.

Our commitment to integrity and professionalism has built a reputation for reliable service and customer-centric solutions.



- ❖ Electrical & Instrument Maintenance
- ❖ Mechanical Maintenance
- ❖ Extended Power Upgrades (EPU)
- ❖ Plant Maintenance & Modifications
- ❖ Condition Monitoring Services
- ❖ Third Party Inspection Services
- ❖ Outages, Shutdowns, & Turnarounds
- ❖ Plant ID Systems (Barcoding, tagging)
- ❖ General & Speciality Construction Services
- ❖ Long Term Purchase agreements
- ❖ Rotating Equipment Retrofits
- ❖ Condition monitoring Services / Audits
- ❖ Annual Maintenance Contracts
- ❖ Capital, Maintenance & Modification projects
- ❖ Operation & Maintenance Training
- ❖ Thermographic Services
- ❖ Automation & System integration
- ❖ Spares, New components and services
- ❖ Calibration & Certification
- ❖ Project reports
- ❖ Feasibility Study
- ❖ HAZOP & HAZID
- ❖ Engineering and Designing
- ❖ Valve Maintenance / Retrofits / Upgrades
- ❖ Technical Support Agreements
- ❖ Call of Service Maintenance Contracts



Scope Development

At Control & Automation Systems project begins with the comprehensive evaluation of a company's process control system needs, gaining a thorough understanding of the process involved and the objectives set together, we examine alternative solutions and determine the cost-effectiveness of the project. Our team of experts identify the problem, define the objectives, outline the deliverables, estimate the resources, schedule the activities & communicate the scope.

Programming

Control & Automation Systems engineers are capable of turning your industrial automation dream in to a reality. Our team of engineers ensure each project is robust and compatible with existing systems. With certified & trained manpower, Control & Automation Systems and its associate partners are certified integrators of all major programming technologies.

Engineering Consultancy

We offer a complete technical document development and maintenance service that helps accomplish the content goals for your processes, products, and services. With each project vision and objective in mind, Control & Automation Systems determine the best components and configurations for the specific job. We are associated with various globally recognised third party specialists who review and certify specialised projects and reports like FEED, FDS, DBM's, SOW, PID's Site Survey Reports, QAQC Plans, Method statements and project specific engineering deliverables.

Customer Support

Control & Automation Systems has an array of qualified manpower who provide dedicated customer support. Our projects and sales team are available round the clock to support customers who are associated with us. We maintain spares and required stocks. Our Customer support engineers swiftly understand and resolve technical issues for our customers. They use their technical know-how to diagnose the problem based on customer feedback. Once they identify the issue, they guide the customer through the solution or take necessary actions to fix it. We also ensure effective communication happens which is key to understanding the problem and ensuring customer satisfaction

Project Documentation

Project deadlines are very critical and documentation plays a key role in project execution & completion. Control & Automation Systems through our corporate association with industry specialist offer services like Onsite and Offsite Verification of the engineering deliverables & As built. We offer services in preparation, review and approval of engineering deliverables & project specific reports for existing and new installation. We use latest software's to develop As-Built drawings in meeting clients specific design standards. Whatever your project documentation needs, we will help you create and share your documents with your team.



Field Commissioning

- ❖ On-site start-up services ensure a successful and timely completion. Providing supervision and project management support maintains quality control. Again, the equipment and devices are tested in accordance to pre approved commissioning procedures facilitating a smooth and easy start-up.
- ❖ Field instrumentation Installation Inspection, Loop Testing & Tuning (FF, 4-20mA, Wireless Pressure/Flow/DP/Level/Temperature Transmitters, Thermocouples & wells, Orifice plates, On-off valves, Heat/Gas/Flame detectors & Manual call points, Control valves, Analyser, Metering system, Modular instruments etc.)
- ❖ Commissioning, Qualification and Validation (CQV) team support
- ❖ Instrument Impulse and Pneumatic Supply tubing & fittings, Isolation Valves, Manifolds, Stanchions support for field instruments installation inspections
- ❖ Logic testing and support for On site modifications
- ❖ Integrated Site Acceptance Testing (SAT)
- ❖ Software & Hardware modifications
- ❖ Design Change Request, Approvals and Implementation
- ❖ System Start-up, Health check and Process stabilization
- ❖ Configuration of data-logging & reporting

AMC Service and Support

- ❖ Permanent on - site maintenance support
- ❖ On-call site maintenance support
- ❖ Control system audits & recommendations for corrective procedures
- ❖ Multi-vendor control system hardware & software support
- ❖ Technical liaison with original equipment manufacturer
- ❖ Firmware version control & repository management
- ❖ Software version control & repository management
- ❖ Preventive and corrective maintenance
- ❖ Spare parts inventory management
- ❖ Control system additions & modifications
- ❖ Hot cut over planning & implementation
- ❖ Condition Monitoring & Thermography Services



Consultancy & Training



- Design and Engineering
- Third party Inspection Services
- Provide project reports and Deliverables
- Specialised Engineering Consultancy Services
- Engineering Documentation
- Onsite & Offsite Calibration Services
- OEM FAT, SAT & Commissioning Support services
- Project specific training requirements
- Condition monitoring consultancy
- Project based trainings for maintenance personnel
- Project based training during FAT & SAT
- System trainings for O & M personnels

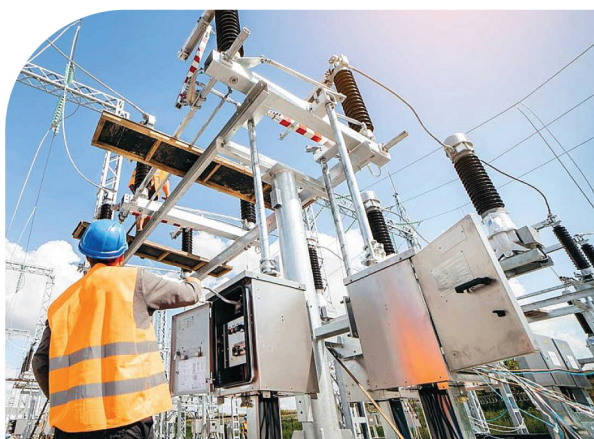
Manpower Specialist



- Commissioning Engineers
- Planning Engineers
- QA/QC Inspectors
- Automation/ System integration Specialist
- Third party Inspectors
- Consultancy Specialists
- Fire & Gas Engineers
- Condition Monitoring Engineers
- Electrical & Instrument Engineers
- Safety Engineers
- Discipline specialist Engineers
- Calibration Technicians
- E & I Technician



Project Management



Control & Automation Systems has the skill to develop and optimize multifaceted engineering projects both Onshore & Offshore. As an EPIC Contractor we undertake all tasks regarding project controls and project planning. We have a highly skilled team of Project Managers & Site engineers and engineering consultants who take responsibility and manage projects through their life cycle stages, starting from project pre-planning, feasibility tests, concept planning, designs & layouts, procurement, construction, and commissioning. Our team of Project managers & engineers specialise in delivering exceptional quality works to a diverse clientele both Onshore & Offshore industries. We have earned the distinctive reputation of being a reliable and trustworthy partner in the industry with an excellent track record.

Engineering, Procurement, Installation & Commissioning

- ❖ Installation & Commissioning of Electrical, Instrumentation & Mechanical systems
- ❖ Process Control Instrumentation
- ❖ Plant Automation
- ❖ Process Analysers, Analysers Shelter and Integration
- ❖ Fire and Gas Systems
- ❖ Installation of Remote Instrument Enclosures
- ❖ Process Control Field Instruments
- ❖ Gas Detection Systems Installation
- ❖ Fire Alarm and Fire Control Installation
- ❖ Integration of Analyzers in Shelters
- ❖ Plant Refurbishment and Retrofitting
- ❖ Controls up gradation
- ❖ Plant E&I modification
- ❖ Shutdown projects
- ❖ Minor Plant modifications
- ❖ Electrical Heat Tracing System Testing & Commissioning
- ❖ Electrical Testing & Inspection in Hazardous Areas
- ❖ Transformer Testing
- ❖ Electrical Testing & Inspection
- ❖ Switchgear (HV & LV) and MCC Testing
- ❖ UPS System, Battery/Charger Testing
- ❖ Field Instrument Testing & Inspection
- ❖ Design, Fabrication, Installation & Commissioning of Metering Skids
- ❖ Rotating Equipments – Pumps, Motors, Compressors, Generators, Turbines etc..
- ❖ Power substation upgrades
- ❖ Heat Exchangers, Cranes, Boilers, Incinerators, Valves etc..



Trading



Control & Automation Systems with a focus as a trading & channel partner catering energy, industrial & Infrastructure sectors has been continuously growing over a decade establishing itself as a strategic and prominent supplier of Instrumentation, Electrical and Mechanical components. Having been associated with some of the world’s leading manufacturers as their representatives & channel partner we have been instrumental in bringing high quality products to the market to support the country’s ongoing projects and infrastructure developments.

Pressure	Temperature	Flow	Level
Gauges	Sensors(Mech/Elec.)	Flow meters	Gauges(Mech.)
Chart Recorders	Thermometers	Indicator	Indicator
Transmitters	Transmitters	Transmitters	Transmitters
Switches	Switches	Switches	Switches
Controllers	Controllers	Integrators	
Diaphragm seals	Chart Recorders	Nozzles	
Orifice plates	Thermo wells	Primary Flow Elements	





- Hand Held Measuring Instruments
- Calibration Instruments & Test Benches
- SS Enclosures/Aluminium/ Ex Enclosures
- Laboratory, Vibration Analyzers
- Gas Detectors & Testers (ToxicGases11·2S/COIO)
- Detectors (Smoke/Flame/Thermal)
- PAGA Communication Systems
- Instrumentation Valves, Manifolds & Bulk Fittings
- Control Valves
- SOV & Accessories
- SS Tubes and Fittings
- Instrumentation Tools & Tackles
- Cable Trays & Fittings



- Electrical Power Cables
- Instrumentation Cables
- Hazardous Area Junction Boxes & Enclosures
- Wellhead Control Panels
- Liquid/Gas Metering Skid Packages
- Mechanical Valve Interlocks
- Corrosion Probes /Corrosion Monitoring System
- Pigging System/Safety Shields
- Control System Upgrades for Turbo Machinery
- Calibrators & Simulators
- Electric Actuators/LimitSwitches/Positioners
- Valves (Gate/Globe/Buttrefly/DBB)

Industries Served



CEMENT



CHEMICAL



DAIRY PLANT



FOOD & BEVERAGE



OIL AND GAS



PHARMACEUTICAL



POWER / ENERGY



PULP AND PAPER



WATER & WASTE WATER



STEEL



TELECOMMUNICATION



FERTILIZER



We believe in creating experiences that inspire

OUR CLIENTS



Our Business Associates

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