

CONTROL SYSTEMS ENGINEERING

TECHNOLOGY WITH COMMITMENT



ABOUT US

Control Systems Engineering (CSE) has emerged as on one of the leading engineering firms since 1987, specializing in the field of design and implementation of Process Control and Industrial Automation systems. Since it's inception, CSE has garnered the trust of companies across Pakistan, becoming a relaible partner in the successful integration of Industrial Control Systems and Process Instrumentation.

We are located in two big cities of Pakistan

- o Head Office in Lahore
- o Branch office in Karachi





Our core competency lies in our devoted and insightful team

Commitment to Quality

CSE is devoted to providing top quality products sourced from the best manufacturers specializing in industrial engineering, recognized globally for their excellence. Our commitment to quality is evident in our solutions oriented approach, ensuring customer satisfaction through outstanding reliability and performance.



At Control Systems Engineering, we aim to deliver comprehensive industrial automation solutions with exceptional services across all industries in Pakistan.

Our Complete Package Solution Includes

Design: Customizing automation systems tailored to your specific needs **Installation and Commissioning:** Expert implementation and start-up of automation systems

Repair: Providing reliable repair services to minimize downtime **Spare Parts Inventory:** Maintaining a robust inventory of spare parts to ensure quick replacements and continuity

ACTIVITIES

- Turn key projects (Electrical & Instrumentation)
- Marketing and Sales of Control and Field Instrumentation
- Design, Installation and Commissioning of Process
 Control Instruments
- Testing and Calibration of Control & Field Instruments
- Complete Solutions for Plant Automation (DCS, PLC and Field Instrumentation)
- Burners (Gas, Oil and Dual Fuel) & Combustion Control for Stacks
- Boilers & Furnaces Supply and Installation of Laboratory,
 Scientific, Analytical Equipment
- After Sales & Services



Clients







































































PRINCIPALS'

Aisenberg[®]

VAISALA

VENAS

Aisenberg (Eicmation)

Germany

AOIP France

Bentone, Sweden

Spain

Vaisala, Finland

Venas

寶儀	Baoyi, China	Kiln Shell Infrared Scanner and CCTV Monitoring System, etc.
*	E Instruments, Italy	Flue Gas Analyzer, Portable & IR Thermometer
Process Central by Innovation	EDIT France	Infrared moisture & Solid flow measurement system
F Fuji Electric	Fuji Electric, Japan	Process Controllers, Pressure Transmitters, Flowmeters, Gas Analyzers.
GIUSSANI	Giussani SRL, Italy	Pressure, Temperature & Process Calibrator, Temperature Bath
KROHNE > measure the facts	Krohne	Flowmeters, Level Transmitters, Temperature, Pressure, and Analytical Instruments
KELX Flow Control	Kelk	Globe Valves, Gate valves, Rotary Control Valve, Butterfly Valves, Linear Stem Motion Type Actuators,
OptaSense®	Optasense, UK	Distributed Acoustic Sensing System for Third Party Intrusion and Leak Detection
SCIYON	SCIYON	DCS, DEH, SIS (Safety Instrumented System), Actuator & Microgird System
VisionTIA	Vision TIR,	Kiln Shell Scanner, High-Temperature Thermal

Imaging Camera.

Measurement.

Explosion Proof Lights etc.

Online Refractometers, BRIXS/Concentration

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Globe Valves, Ball & Butterfly valves, Regulating Valve,

Sanitary Valves, Diaphragm Valve, Electric Actuators,

Data Acquisition System, Electrical Motor Control

Burners (Gas, Oil, Dual Fuel) Programmers, Flame

IR Thermometer, Calibration Measurement,

Sensors and Accessories

E INSTRUMENTS



E Instruments is a manufacturer, distributor and service provider of Test Equipments and Portable Emission Analysers working in the industry since past 25 years.

E Instruments has a reputation for safety, durability and has very strict standards of quality the company has an ISO 9001:2008 quality system in place which covers every aspect of it's activity

CSE introduced E Instruments' Gas Analyzers in Pakistan and sold more than 500 units to different Industries

E Instruments Infrared Thermometers are also very successful in Pakistan and almost all Glass Plants and many Cement Plant are using these

PRODUCTS

Some of the Main Productions Include:

Combustion & Emission Analyzers Process Calibrators

Ecoline 1400

Portable Combustion
Analyzer can be fitted with
upto 4 electrochemical
Sensors



IR Thermometers Thermal Image Camera

Ecoline IR

Portable Combustion & Emission Analyzer Measures upto 9





Fuji Electric System

Fuji Electric Systems has been one of the leading electric and instrumentation companies of Japan

Since 1994, CSE has been the exclusive representative of Fuji Electric Systems in Pakistan

CSE has sold thousands of transmitters, especially to Cement Plants, Sugar Mills, Oil & Gas, etc.

Fuji's Continuous Emission Monitoring System (CEMS) Gas Analyser is installed in approximately 75% of Cement Plants in Punjab & Sindh

Transmitters and Controllers are highly popular in various industries and we have successfully replaced many other brands with Fuji

Fuji Analyzer Projects in Cement Mills

CSE has been successfully selling Fuji's Gas Analyzers in a number of Cement plants across Pakistan

Some of the big names are Bestway Cement, Dewan Cement. Kohat Cement

Kohat Cement is proudly equipped with Analyzer systems from 2016 till now.

In 2017, CSE has successfully installed & commission Fuji Gas Analyzers in Bestway Cement and Dewan Cement.





PRODUCTS

Fuji specializes in the following products

Transmitters

- Pressure Transmitters
- DP Transmitters
- Level Transmitters
- Flow Transmitters



Ultrasonic Flow Meter

Gas Analyzers

- Zirconia Oxygen Gas Analyzer
- Infrared Gas Analyzer













2022

2022 2022

2022

2019

2019

2017-18

2018

2018

2016

2015

2014

2013

2013

2011

2008

2008

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Fuji Instrumentation Projects			
Client	Project / Product	Year	
Interloop	Ultrasonic Flowmeter for Centralized Engineering	2023	
Faisalabad Oil Refinery	Complete Package of Transmitters for Oil Refinery	2022	

Complete Instrumentation 70 Ton Boiler

Complete Instrumentation for Distillery

Complete Instrumentation for Distillery

Complete Instrumentation for Distillery

Complete Distillery Instrumentation Unit #3

Complete Distillery & Boiler Instrumentation Unit #2

Continuous Emissions Monitoring System (CEMS)

Transmitter Package for Waste Heat Recovery Project

Gas Analyzer

Gas Analyzer

Gas Analyzer

Mircojet Recorder

Online Gas Analyzer

Online Gas Analyzer

Zirconia O2 Analyzer

Ultrasonic Flow Meter

CO2 Process Gas Analyzer

ICI Pakistan

ICI Pakistan

Flying Cement

ICI Soda Ash

Ramzan Sugar Mills

Madina Sugar Mills

Madina Sugar Mills

Tandlianwala Distillery

Bestway Cement

Hunza Suagr Mills

Pakistan Steel Mills

Mustehkam Cement

Gharibwal Cement

Pakistan Steel Mills

Bestway Cement

Sui Northern Gas Pipeline

Dewan Cement

Kohat Cement

Packages

FD&C

Madina Steel Mills

Gharibwal Cement Ltd.

Supply & Installation of Pressure Transmitters 2008 Pressure Transmitters 2008 **Pressure Transmitters** 2007

2005 24 Microjet Recorder Online Gas Analyzer for Kiln 2005



KROHNE

KROHNE is a world-leading manufacturer and supplier of innovative solutions for the process industry. Founded in 1921, this German based company, has a long standing reputation for excellence.

Since 2005, CSE has been the sole distributor of Krohne in Pakistan.

Our major achievements include successfully completing projects in some prominent companies such as Packages, Sitara Chemical, Fatima Fertilizer and PARCO to name a few, additionally we have provided comprehensive solutions to major distilleries including Tandlianwala Sugar Mills, Hunza Sugar Mills and Madina Sugar Mills.

Krohne flowmeters are renowned across various industries, including:

Sugar Mills & Distilleries
Oil and Gas
Fertilizers
Chemicals
Cement
Paper & Board
Textile Plants

Our Service team has successfully installed and commission Coriolis Mass Flowmeter OPMASS 2400 in PARCO in 2019 and 2nd Phase WOP Project in 2022. Optimass 2400 is



the world highest capacity Coriolis Mass Flowmeter for liquids and gases. With its twin or four straight tube design, the 2400 is ideally suited for custody transfer or fiscal metering in the oil and gas industry and bunkering operations.

It can also be used for bulk transfer applications with many other products such as syrup, molasses or raw chemicals up to 4,600 T/h / 169,000 lb/min. The 2400 features Entrained Gas management (EGM) for liquid applications, maintaining operation over a wide range for gas volume fractions and complex flow conditions.

PRODUCT RANGE OF THE KROHNE GROUP

VARIABLE AREA FLOW METERS



CORIOLIS MASS FLOWMETERS



TEMPERATURE MEASUREMENT



MAGNETIC FLOW METERS



VORTEX FLOW METERS



LEVEL TRANSMITTERS





K-Electric

Sitara Chemical Industries

Bulleh Shah Packaging Pvt Ltd

Descon Engineering

Madina Steel Mills

Madina Distillery

RYK Mills Ltd

ICI Pakistan (Soda Ash)

PAChem Global Pvt Ltd.

Indus Sugar Mills Limited

Tandlianwala Sugar Mills

Masood Textile Mills

Ramzan Sugar Mills

Madina Sugar Mills

OGDCL

Bestway Cement

Fatima Fertilizer Company Ltd

Instrumentation Projects

2024

2023

2023

2022

2022

2022

2022

2021

2021

2021

2020

2020

2019

2019

2019

2018

2018

2018

2018

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Client	Project	Year
JDW Sugar Mills	Complete Distillery Instruments Project	2024
Fatima Fertilizer Company Ltd	Magnetic Flow Meters	2024
PARCO	Magnetic Flow Meters & Signal Converters	2024

Magnetic Flow Meters & Signal Converters

Magnetic Flow Meter (for Generation Plants)

70T Boiler Instrumentation Project with DCS

Complete Distillery Instruments Project

Intech Process Automation FZCO Coriolis Mass Flowmeter for HSD & Mogas LDS wop Project

Flow Meters

Intech Process Automation FZCO Coriolis Mass Flowmeter for HSD & Mogas LDS Project

K4 Project with supply of Mag. Flowmeters & Temp. Sensors

OCC Line3 Mag. Flowmeters Project for Pulp & Water

Boiler Level Indicator with High Pressure Transmitter

Mag. Flowmeters & RTDS for FFE Automation Project

Mag. Flowmeters for Water & Waste Water pipeline

Complete Distillery Project with Instrumentation & DCS

Complete Distillery Project with Instrumentation & DCS

Vortex Flowmeters for Air Flow measurement

Dakhni Level Transmitters Replacement Project

Complete Distillery & Bio Gas Instruments Project

Instrumentation Package for Chemical Plant

Bio Gas Tank Level measurement Project

Magnetic Flow Meters & Rota Meters



Interloop Limited

Hunza Sugar Mills (Pvt) Itd

Lotte Pakistan PTA Ltd

Shahmurad Sugar Mills

Fatima Fertilizer Company Ltd

MOL Pakistan Oil & Gas CO B.V

Fauji Fertilizer Company Limited

Prescon Descon International Ltd

Fauji Fertilizer Bin Qasim Limited

Pakarab Fertilizers (Pvt) Ltd.

Fatima Sugar Mills Limited

OGDCL

Packages Limited

Sitara Peroxide Ltd.

Unicol Limited.

Packages Limited

Instrumentation Projects

Client	Project	Year
Shah Murad Sugar Mills	Complete Distillery Instruments Project	2017
Pak Ethanol	Complete Distillery Instruments Project	2017
Madina Sugar Mills	Complete Distillery & Boiler automation Project with DCS	2016
Nishat Group	Mass Flow Meter	2015
Tandlianwala Sugar Mills	Complete Distillery Project with Instruments	2014
Nishat Mills Ltd	Vortex Flowmeters for Steam & Gas Flow measurement	2013

Mass Flow Meters

Magnetic Flow Meters

Magnetic Flow Meters

Magnetic Flow Meters

Package of Flowmeters & Parts

P.M 6 Flowmeters for Pulp & Water

VA Flow Meters

Magnetic Level Indicators

Complete Package of Flowmeters

Vortex Flow Meters (For Air, Steam & RAW water

Ultrasonic Flow Meter for Gas measurement

Magnetic Flow Meters & Magnetic Level Indicator

Supply of 400 Mag. Flowmeter for Pm7 Paper Machine

Complete Instruments for Hydrogen Peroxide Plant

Distillery Project with Flowmeters & Level Transmitters

Complete Package of Magnetic, Level & Transmitters

2013

2012-13

2012

2010

2010

2009

2008

2008

2008

2008

2007-08

2007

2007

2006

2006

2006

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DCS In Pakistan

CSE and Supcon partnered in 2005 for almost 12 years and have successfully commissioned a number of DCS/ PLC projects all over Pakistan in Industries such as Sugar, Cement, Chemical Pulp & Paper, Power plants etc.

The first DCS project was commissioned in M/s Sitara Chemical Industries Limited in 2006 which was a 200t/d Caustic Soda project.



Bestway formerly known as (MCL) DCS revamping project is the biggest project of CSE in Pakistan till now. We offered the latest developed WebField ECS-100 DCS consisting of 7 Control Stations, 9 Operator Stations, 2 Engineer Station, and 2 redundant Data Servers. The total I/O quantity reaches to 6,954, and other 3,776 points were integrated in the system through Profibus DP communication interfaces.

SCIYON

CSE has now introduced SCIYON's DCS in Pakistan. For past 30 years SCIYON has developed a range of products including DCS, PLC, SIS and more.

CSE has successfully installed SCIYON's DCS System in Matol & Madina Steel Mills.



DCS Projects In Pakistan

1980

1292

1654

420

1474

400

408

3300

386

8500

2018

2018

2017

2016

2016

2016

2015-16

2015

2015

2015

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No.	. Client	Project	Total I/Os	Year
01	Madina Steel Mills	DCS System for 70 Ton Boiler Automation	216	2023
02	Matol Distillery	DCS System for Distillery	530	2022
03	Madina Sugar Mills	Shifting of E.D.U Section (Distillery)	300	2021
04	Madina Sugar Mills	DCS System Extension for FFE 6 Nos.	256	2021
05	Madina Sugar Mills	FFE's / Boilers	1100	2018

Distillery Unit I

Distillery Unit III

Oil Tank Level Management System

IEM-II Phase 2 Evaporation Plant

210 MW Power Plant - Up-Gradation

100,000 Liter / day Distillery, Biogas & Boiler

DCS Monitoring for New Calcium Chloride Plant

25 TPD Caustic Soda Plant - Micro XL Upgradation

4000 TPD Cement Line - S5 Up-Gradation

IFM-III

06

07

08

09

10

11

12

13

14

15

Ramzan Sugar Mills

Madina Sugar Mills

Ittehad Chemical Ltd

Al Noor Oil Termianl

Madina Sugar Mills

Ittehad Chemcials

Sitara Chemicals

Nimir Chemicals Ltd.

Bestway Cement (Hattar)

Wapda Muzzafargarh Unit 5

DCS Projects In Pakistan

No.	Client	Project	I/Os	Y
16	Ittehad Chemical Ltd	75 TPD Caustic Soda Plant IEM-II	956	2
17	Shakarganj Sugar Mills Ltd.	35 T/H High Pressure Boiler & 3MW Turbine	222	2
18	Sitara Chemical Industries	200 TPD Caustic Soda new plant	844	2
19	Hattar Chemical Plant	Complete Plant automation using SUPCON DCS	27840	2
20	Olympia Chemical Limited	Coal based 1*75 T/D Boiler DCS Project	704	:

174 MW Turbine Up-gradation Project

VMS & Load Management System

Caustic Solidification Plant Unit IV

Wapda Faisalabad 8*25MW Power Plant

Complete 200 T/D Pulp Plant Automation Project

M-IV 167T/D Ion exchange caustic soda with VMS

Complete 3300 T/D Mustehkam Cement DCS Project

80T/H Boiler DCS Project (Replace ABB System)

BMR-II 210T/D Ion Exchange Caustic Soda Project

40,000T/Y Hydrogen Peroxide DCS Project

WAPDA Kotri Power Plant

FARUKI Pulp Mills Ltd

Ittehad Chemical Ltd

WAPDA Faisalabad Power Plant

Sitara Chemical Industries

Sitara Chemical Industries

Bestway Cement Limited

Sitara Peroxide Limited

Sitara Chemical Industries

Dewan Salman Fiber Limited

21

22

23

24

25

26

27

28

29

30

'ear

5952

3100

166

5776

194

1150

7500

196

354

768

2014

2013

2013

2012

2012

2011-12

2011-12

2011

2010-11

2010

2010

2008

2008

2007

2006

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OptaSense[®]

a QinetiQ company

About OptaSense

OptaSense established in 2007 in UK, is delivering significant business value worldwide with ground breaking technologies utilizing Distributed Fibre optic sensing (DFOS).

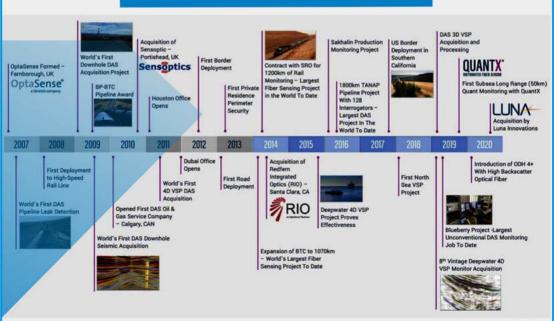
OptaSense has grown to over 150 people, has filed about 120 patents and has offices across USA, Canada and Middle East. Utilizing fibre-optic cables that already run along most roads, railways, pipelines and seafloors, OptaSense uses Distributed Acoustic Sensing (DAS) to hear and feel the surroundings.



Major milestones include:

- •The world's first Distributed Acoustic Sensing (DAS) pipeline leak detection
- •The world's first DAS downhole acquisition project
- •The world's first DAS downhole seismic acquisition
- •The world's largest fiber-sensing rail monitoring project
- •The world's largest fiber-sensing pipeline monitoring project

Company Milestones



OptaSense®

a QinetiQ company

OptaSense in Pakistan

Converts standard telecom fibre optic cable into a highly effective acoustic sensor over long distances.

Picks up sound via ground vibrations using:
Buried fibre
Interrogator Unit
User Display (map, charts, audio)

In 2017, Deployed Third Party Intrusion detection system in MOL Pakistan over their 34 Km Makori East pipeline from their Main Gas Facility to Makori Well Heads.



In 2018, we deployed Third Party Intrusion System and Perimeter Intrusion Detection System with CCTV Integration on their 42 Km Mardankhel Pipeline.

•In 2021, deployed TPI System in Existing Maramzai and Mamikhel Flow Line

•In 2021, Installated and Commissioned TPI Detection System on Manzalai Field and Trunklines



VENAS

Venas International Co., Ltd is a global leader in commercial and industrial LED lighting. Founded in 2008 in Guangdong, China, Venas is a LED industry pioneer in the design and manufacturing of linear LED T8 lamps.

Since that time, Venas has grown to be one of the highest volume manufacturers of all types of T8 and T5 lighting as well as a wide array of LED retrofit kits and luminaires for interior and exterior applications.

Most of Venas products are approved by ATEX and IECEX.

The Venas Hazardous Location series provides a complete range of certified explosion-proof lighting including fixed and portable work lights, flood lights, area lights, emergency lights, distribution panels, junction boxes, cable glands, etc

They are suitable for all kinds of Hazardous Locations including the petrochemical industry, chemical industry, food industry, mining locations, and many more.



VAISALA

Vaisala (K-Patents)

Vaisala K-Patents^{*} Process Refractometers are used for inline liquid measurements to enable efficient process control and industrial automation. Vaisala is a global leader in measurement instruments and intelligence for climate action

Process refractometers became part of Vaisala in 2019, following the acquisition of K-PATENTS, a leading innovator with over 40 years of experience in designing and manufacturing industrial process refractometers to cater to a wide range of applications.

CSE has been working with K-Patents since 2003 as their exclusive distributor. CSE has installed Process Refractometers in Nestle, Nimir Chemicals and Faruki Pulp Mills. CSE provided NESTLE with their first K-Patents Refractometer in order to measure the TDS content in their milk products.

Vaisala has been recognized in 2025's first edition of TIME's "World's Best Companies Sustainable Growth" study.

PRODUCTS

PR-23 GP for the General Industry

PR-23 SD with SafeDrive[™] system for the Pulp & Paper Industry

PR-23 A Sanitary Refractometer for the food industry PR-23 W for the Chemical Industry.



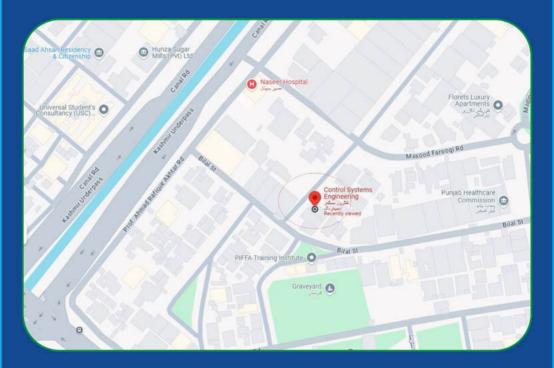
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