

# Accrescent engineers (Pvt) Limited

















# Company Profile

Accrescent Engineers was founded in the year 1999, on the principles of integrity, innovation and quality. Accrescent Engineers is one of the fastest growing companies in Pakistan, providing services in Electrical Designing, specializing in Power, Automation & BMS.

Accrescent Engineers offers expertise in electrical services, designing Industrial Automation, Control Process, & Instrumentation. Accrescent Engineers handles project ranging from one hour service calls to complex, multi-phased design / build projects.

Accrescent Engineers is a unique blend of experience, involved in installation, testing, commissioning, preventive maintenance, trouble shooting, projects designing, service of industrial plants, & Instrumentation, PLCs & SCADA (Supervisory control & data Acquisition).

Accrescent Engineers provides technical solutions with quality services and traditional values, with a team of expertise, backed by years of experience.

Accrescent Engineers enjoys a respectable place at the top of the technology pyramid. Here at Accrescent we believe in taking the time to listen to our clients, focusing on team work, co-ordination and doing it right the first time.

Our ultimate success lies not only in the quality of our work but in our commitment to the satisfaction of our customers.

We are proud to say we are;

## Marching Towards Success

# Vision Statement

To be a number one choice in the Industrial Electrical Products, and Power, Industrial, & Building Automation Products and Solutions, as well as being the recognized industry leader in Customer Care, quality and innovation.

Our Vision is to eventually grow ourselves into a Well known, Customer oriented, & Quality Conscious one stop Electrical & Automation Engineering Solutions, and Switchboard Manufacturing Company, which can offer a high degree of value added through its Application expertise and problem solving experience.

# Mission Statement

Accrescent Engineers stands for the Superior Services towards its Customers; offering the Highest Quality Products, Services, and Advancements, in the Electrical & Automation Engineering, and Switchgear technology by offering its integrated solutions, using innovative products, combined with unrivalled services and reliability nationwide.

## Chief Executive's Message





It gives me an immense pleasure to introduce Accrescent Engineers as one of the leading companies in the field of Power, Automation, & Building Management Systems. Since its foundation in 1999, we have been committed to offer services to our clients; creative, thoughtful, and technically rigorous solutions to their business challenges and concerns.

To respond to the varied needs of our clients, we have joined hands as

Alliance Integration Partner with **Schneider Electric** 

Authorized System Integrator with Alerton by Honeywell ARC-Infornnatique Merus Power BD Sensors Onicon

Value Added Reseller with **Eaton Power** 

The dedication of Accrescent's personnel to client service is legendary. We believe this zealous dedication separates us from the pack of other competitors. We spare no effort to listen and learn from our clients, to understand their needs and then to apply all our creative and intellectual energies to meet them. Nothing supersedes our client service in our business hierarchy.

Whether you are a prospective client, consultant or business partner, we hope you will conclude that Accrescent Engineers is the type of company you'd like to work with.

If you feel there is an opportunity for us to assist you with your business challenges, please contact us at any time.

Yours Truly Engr. Furqan Ur Rehman





# **POWER AUTOMATION**

# Substation Automation Systems Innovative solutions for reliable and optimized power delivery

Power & energy applications are becoming more and more critical as demands for electricity continue to increase worldwide....!

In the past power and control were two separate worlds. However, today, companies understand that in order to optimize their processes and reduce operating costs they need to implement strategies that include both.

Power Automation includes Substation Automation, Implementing dynamic load shedding strategies, Energy Management Systems, Automatic multi source changeover etc.

Advanced substation automation, protection and control solutions provide the real time performance required to meet today's grid reliability demands, industrial productivity imperatives and energy efficiency objectives Enhancing or upgrading existing protection and control schemes with state of the art substation automation solutions is an important requirement in an overall process optimization strategy.

Deploying advanced technologies, leveraging interoperability, designing a system to meet your needs now with the ability to migrate to higher level systems as your business demands are all essential to a successful substation automation implementation.





# **POWER AUTOMATION**

Substation Automation Systems Innovative solutions for reliable and optimized power delivery

#### **Success Stories:**

#### Intelligent Load Management System at Engro Fertilizer Pakistan

To accomplish the ILMS control system with minimum impact to ongoing operations, the company turned to Schneider Electric to be the main contractor. For help with automation programming, installations and migration, Schneider Electric called on Accrescent Engineers, an expe-rienced and knowledgeable Alliance partner in the region.

#### **EBOP SCADA at Pakistan First Windfarm-FFCEL**

To accomplish the EBOP (Electrical Balance of Plant) for Pakistan first Windfarm, Accrescent awarded for complete SCADA system. Project includes Substation Automation on IEC61850, RMU Automation & communication interface with NTDC through IEC60870-104/101.

#### **Key clients:**

Engro Fertilizer Pakistan FFCEL Windfarm Zorlu Windfarm Dawood Hercules Fertilizer





# PROCESS AUTOMATION

### The only way to optimize production

Process Automation is now often applied primarily to increase Quality and Efficiency in production and manufacturing process.

The main focus of Accrescent Engineers is to provide customers with products and solutions for Instrumentation, Automation and optimization of Industrial Processes. The industries served, includes oil and gas, fertilizers, chemicals, pharmaceuticals, power, textile, pulp & paper, metals, and minerals & marine.

#### Success Stories:

- Reverse Osmosis Plant for Disaster Management Cell, UAE
- Emergency Shutdown System (ESD) at FFBL Pakistan

#### **Key Clients:**

- FFBL Pakistan limited
- K-Electric Private Limited
- Asia Petroleum Limited
- Matiari Sugar Mills

#### Did You Know?

Process Automation secures customer future, is to protect the operational integrity of their plants. It enhances the operational insight of their people and enables them to adapt easily and affordably to change.





# ENERGY EFFICIENCY & MANAGEMENT (WAGES )

The Perfect Way to Optimize your Energy Resources

#### World's Challenge

"Over the next decades, the world will be facing increasing challenges to supply energy in sufficient quantities, while reducing carbon emission levels. Saving and using energy more efficiently is the keytoaddressing these challenges."

Energy Efficiency & Management is the Solution to the World's Challenge....

Accrescent Engineers (Pvt.) Ltd. offers Schneider Electric's comprehensive response for residential, building, energy markets, with energy efficiency solutions that help you turn energy savings into growth..!

You can't manage what you can't measure...!

#### **Success Stories:**

#### **Getz Pharma**

The Industrial Sector is becoming more and more conscious to measure the cost of their utilities: Water Air Gas (e.g. Natural Gas, other gases or fuels etc.) Electricity, and Steam. Accrescent Engineers has successfully designed & implemented a powerful centralized system, to calculate the WAGES & comply with the LEED (Leadership in Energy & Environment Design) Certification at their facility.

#### **English Biscuits Manufacturer [ EBM ]**

Accrescent Engineers (Pvt.) Ltd. has proposed and implemented Energy Management & Efficiency Solution for electrical network, water, gas, and steam consumption, at their facility.





# **IBMS**

## (Integrated Building Management System)

#### **Environmental Management System (for Pharmaceutical Industry)**

In this modern era of technology, Integrated Building Management System (IBMS) is essential for any business infrastructure. Through IBMS, you can monitor and control a variety of systems and functions at an optimum level of efficiency. Integrated building management systems can reduce operating costs and also provide new business value through new services.

In accordance with the business world needs; Accrescent Engineers has been providing the following services under Integrated Building Management solutions:

- HVAC
- Lighting Control
- Security and Surveillance [ CCTV and Access Control ]
- Fire Alarm System
- Public Address System
- Vertical Transport System
- Parking Management System
- Data Centers
- Energy Management System

#### **DDC Controller and Global Controllers**

- Freely Programmable with BACnet MS / TP and IP Interfaces approved by BTL.
- Available with up to 170 I/O expansion option.
- HOA built-in Switch with Communicate at 115 Kbps high speed at MS / TP Interface with 1000 mbps at IP Interface.





# **IBMS**

#### (Integrated Building Management System)

#### **Advanced Workstation Software - Ascent Compass**

Part of Alerton's BACtalk™ Ascent product line, Compass is a comprehensive, powerfully designed new product that replaces Merton Building Suite, and Envision for BACtalk as the operator workstation of the future with remarkable features, as mentioned below;

#### ENERGY MANAGEMENT

Efficient equipment start times, sophisticated load optimization, and energy use monitoring that helps you track savings.

#### EASY TO USE

Configurable, tree style navigation.

#### DYNAMIC

Creates systems that are easy to upgrade and improve.

#### FLEXIBLE

Converts legacy displays and graphics to current standard file formats.

#### HTML 5 Compatible

HTML5 format allows users to view web content on multiple devices without using Flash and third party plugins.







# Accrescent Engineers (Pvt.) Limited Presents Schneider Electric BUSWAY System IEC Standard 61439-6

#### **BUSBAR TRUNKING SYSTEM (Sandwich Type)**

Involves distribution of electrical power using set of Copper / Aluminum bus bars enclosed in suitable enclosure with high degree of protection against any ingress of foreign bodies.

Accrescent Engineers has been a pioneer Company to Design, Supply, Install, and Testing & Commissioning of this valuable solution on turnkey basis. Being a market leader, Accrescent Engineers has so far done more than 60 projects all over Pakistan.

#### **Major Key Features**

On-site installation times are reduced compared to hardwired systems, thus leading to cost savings.

It provides increased flexibility in design and versatility with regard to future modifications.

Distribution busbar distributes power along its length through tap off points which used for tap off units. Tap offs Units can normally be added or removed with busbar live, eliminating production down time.

For higher ratings of power distribution we need to have multiple runs of cable. In such conditions unbalanced distribution of current takes place and causing overheating of some cable. This is completely avoided in the Busway Systems.





# Accrescent Engineers (Pvt.) Limited Presents Schneider Electric BUSWAY System IEC Standard 61439-6

**Types and Rating of Busways** 

#### **High Power Busways**

800 to 6300 Amps Available in Copper /Aluminum with Bi-Metal Contact

#### **Medium Power Busways**

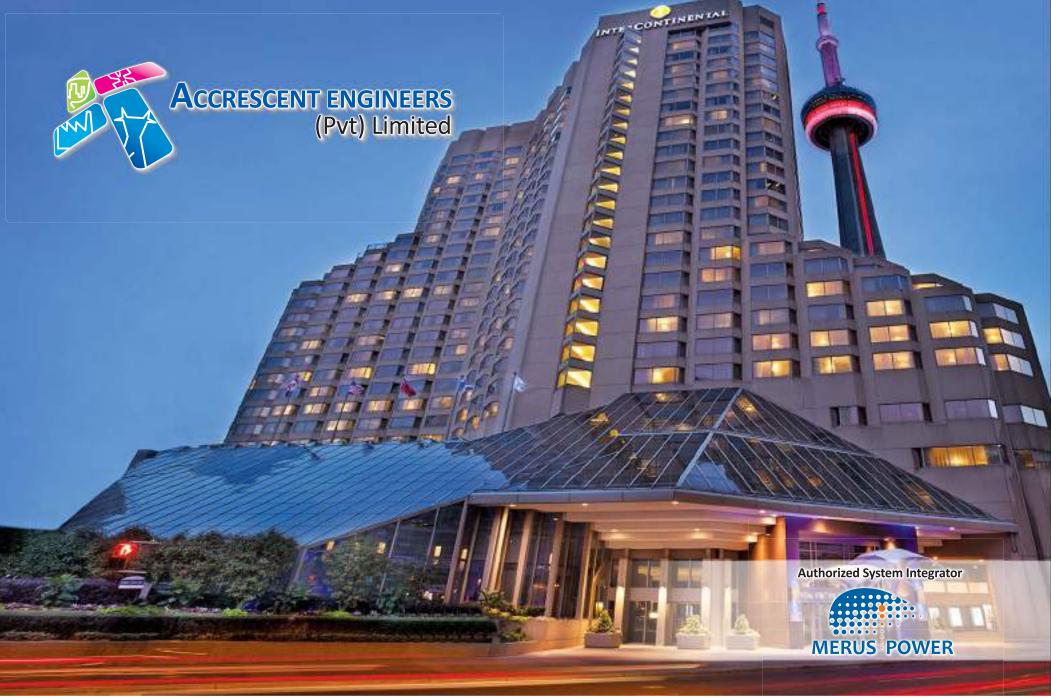
100 to 630 Amps Available in Copper /Aluminum with Bi-Metal Contact

#### **Lighting Power Busways**

20 to 63 Amps Available in Copper /Aluminum

#### **Application**

- Transformer / Switchboard connection
- Horizontal distribution, from the substation to the loads in workshop
- Vertical distribution, from the substation to the loads of each high rise floor
- Lighting application, in Park place, supermarket, exhibition center, & metro etc.





# POWER QUALITY IMPROVEMENT SOLUTION

The Smartest way to ensure Efficiency & Reliability of your Power / Electrical System, with enhanced equipment's' life, resulting in desired Improved Productivity.

Accrescent Engineers in collaboration with Merus Power Finland, provide a wide range of world leading power quality solutions for dynamic reactive power compensation, active harmonic filtering and power protection.

#### **Power Quality Analysis:**

Accrescent Engineers Pvt Ltd have a team of professionals who acquire a complete training from Merus Power (Finland) for Power Quality Analysis, We have a vast experience of analyzing power quality in different industrial sectors i.e. Textiles, Pharmaceutical, Cements, O&G etc. Complete Reporting of the power quality including recommendation for the right FACT solution is provided to the client.

#### Range of FACTs Devices:

Accrescent Engineers have a complete range of FACTs devices used in providing solution related to power quality problems within the electrical system.

#### **Active Harmonic Filters:**

Merus active harmonic filters are a versatile solution, easily tailored to deliver power factor improvement, voltage variation control, flicker mitigation and load balancing functionality.





# POWER QUALITY IMPROVEMENT SOLUTION

The Smartest way to ensure Efficiency & Reliability of your Power / Electrical System, with enhanced equipment's' life, resulting in desired Improved Productivity.

#### **SVCs**

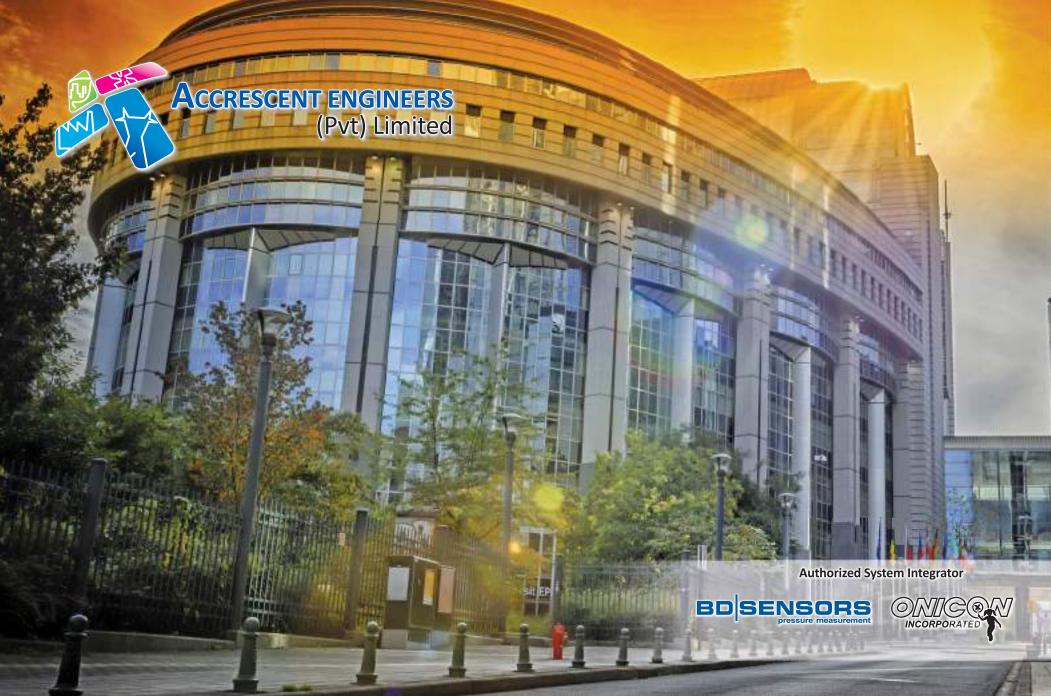
Static Var Compensator (SVC), another part of the Merus FACTS family, is built on proven thyristor technology. Fast reactive power compensation with Merus SVC ensures effective flicker mitigation and voltage variation control in steel plants.

#### Static Compensators (STATCOM)

Static Compensators (STATCOMs) are part of the Merus FACTS product family and built on modern IGBT power electronics technology. Merus STATCOMs are designed to provide real time reactive power compensation and active harmonic filtering in demanding applications.

#### **Uninterrupted Power Quality (UPQ)**

Merus Uninterrupted Power Quality (UPQ) is an innovative concept, combining the functionalities of an active harmonic filter and a UPS into a single robust solution. UPQ protects mission critical processes from supply interruptions and voltage sags while maintaining supply voltage quality by compensating harmonic currents and the reactive power fluctuations of non linear loads.





# **INSTRUMENTATION**

The Way to ensure Process Accuracy through Precise Measurements.

The Capacity of Instrumentation;

- 1) Supply of Process Measuring Instruments & Valves.
- (a) Flow Measuring Instruments
- (b) Level Measuring Instruments
- (c) Pressure Measuring Instruments
- (d) Temperature Measuring Instruments
- (e) Water Analysis Instruments
- (f) Control Valves
- (g) Solenoid Valves
- (h) Pressure Regulators
- i) Safety & Relief Valves
- (j) Check Valves
- (k) Photo Sensors
- (I) Proximity Sensors
- 2) Process Instruments Installation services for customer supplied third party Instruments & Plants.
- 3) Consultation services for Process Instrumentation.





# **INSTRUMENTATION**

The Way to ensure Process Accuracy through Precise Measurements.

- Complete flow metering of WAGES (Water, Air, Gas, Electricity & Steam)
   Monitoring System at Getz Pharma, Karachi.
- ✓ Edible Oil Storage Monitoring System at Hilal Foods, Karachi.
- Instrumentation of Automatic Fuel Filling Systems for Diesel Generators at Multiple locations all over Pakistan.
- Flow metering of Generator Heat Recovery System at MCB Tower, Karachi.
- Completed service contract of Installation & Commissioning of 250+ instruments at SSP-3 Plant of Novatex, Karachi.
- Ongoing service contract of Installation & Commissioning of 500+ instruments at new production line at Attock Cement, Hub.
- Ongoing service contract of Installation & Commissioning of instruments and sensors of new state of the art, fully automatic paint shop at Indus Motors Company, Karachi





# HRA SWITCHGEAR

Quality Engineering at Competitive Cost

HRA Switchgear is an Electrical Engineering company, established in 2010, that specializes in the manufacturing, modification, and maintenance of Switchboards, Motor Control Centers, and PLC / DDC Based Control Panels.

HRA Switchgear takes pride to have a dedicated team of professionals, with a vast industry experience in the Switchgear and Control Panel Engineering. The HRA Switchgear's customer oriented culture motivates our employees to do their best for our customers, and has eventually earned HRA Switchgear, the acknowledgement, appreciation, and above all the satisfaction of our valued customers.

HRA Switchgear holds an excellent design department, staffed with the qualified Engineers. The design work is carried out on the state of the art computer systems, using AUTOCAD/EPLAN softwares etc, allowing us to produce excellent documentation for each individual project.

Our technological and research capacity in terms of professional skills and resources will continue to be a great source of our strength and makes our infrastructure more powerful.

HRA Switchgear is a sister concern of Accrescent Engineers (Pvt.) Limited.





# FIELD SERVICES & PROJECTS

Supply, Installation, Testing & Commissioning of Plant, Power House and Substation Equipment

Accrescent Engineers provides contracting services from equipment installation to plant in-stallation. Accrescent Engineers possesses full engineering capabilities of designing, manufacturing, installation, testing, commissioning of LV Switchgears, MCC & Control Panels, Bus Trunking System, & Cable Trays etc.

We have been hearing continuous cries for knowledgeable and competent professionals to sup-port the installation, maintenance, expansion, and repair of conventional as well as new tech-nology systems.

As a full service electrical contractor, Accrescent Engineers employs a crew of in house trained and experienced Engineers, Supervisors & Technicians, covering a wide range of electrical & automation expertise. Our strength lies in the installation and service of Substation Equipment, Power House, Electrical Distribution Systems, Sandwich type imported Bus Bar Trunking System, Lighting Systems, machine wiring & motor control; we have also developed exceptional expertise in designing & installation of Generator Synchronizing Panels & Process Interlocking etc.

"Energizing the World!"



## CLIENTELE

## Customers, Projects & Industry Exposure

- ✓ Agha Khan University Hospital( AKUH )
- ✓ AGP Pharma
- ✓ Aisha Steel Mills
- ✓ Al-Karam
- ✓ Allied Engineering
- ✓ Aman Foundation
- ✓ Artistic Milliners
- Atlas Battery
- ✓ Attock Cement
- ✓ Bahria Complex
- ✓ Casual Sports Wear
- ✓ Coca Cola
- ✓ Cybernet
- ✓ English Biscuits (EBM)
- ✓ EOBI House
- ✓ Fakhri Trade Center
- ✓ Fluid Technologies (FTI)
- ✓ General Electric (GE)
- ✓ Getz Pharma
- ✓ GlaxoSmithKiline (GSK)
- ✓ Gul Ahmed
- ✓ Hilal Foods
- ✓ Hino Pak

- ✓ IBM
- ✓ ICI Pakistan
- ✓ Imtiaz Super Market
- ✓ Indus Motors (IMC)
- ✓ Islamabad Stock Exchange
- ✓ Karachi Shipyard
- ✓ K-Electric
- ✓ Lucky One Mall
- ✓ Martin Dow
- ✓ Meezan Bank
- ✓ National Foods
- ✓ Nestle Pakistan
- ✓ Pakistan Petroleum (PPL)
- ✔ PepsiCo.
- ✓ Pfizer Pakistan
- ✔ Procter & Gamble (P&G)
- ✓ PTCL
- ✓ Rajby Textiles
- ✓ Siemens Pakistan
- ✓ Soorty Enterprises
- ✓ Tetra Pak
- ✓ UAE Consulate



Alliance integration partner with

Schneider
Electric









Authorized System Integrator



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