

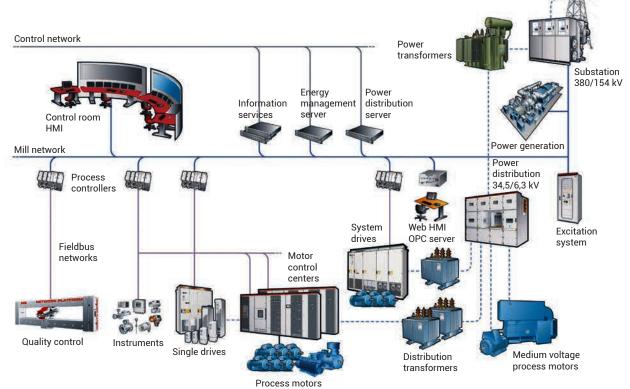
Electric Automation Instrumentation





Facing the future together with confidence...

YEO was established to provide innovative solutions in the industrial automation sector in the early 2000's in Istanbul. By increasing knowledge and experience of our young and dynamic team YEO ranked among the best important electrical and automation companies within Turkey. Being ABB's Value Provider and ensuring the sustainability and productivity growth, YEO has realized various projects in industrial plants within country and abroad with its good engineering background and high-tech equipment. YEO with expertise in Electrical & Automation & Instrumentation offers turnkey solutions in many sectors, particularly in Energy, Oil & Gas, Mining & Cement, Water and Transportation.





Automation

Automation System Solutions

- PLC (Programmable Logic Controller)
- DCS (Distributed Control System)
- RTU (Remote Terminal Unit)
- HMI (Human Machine Interface)
- SCADA (Supervisory Control and Data Acquisition)

Highly reliable automation system design

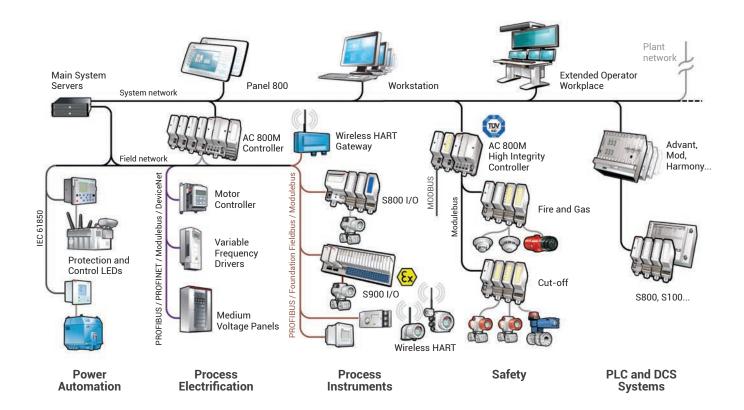
- Single
- Redundant
- HotSwap
- High Integrity (SIL2, SIL3)

The motor control system solutions

- VFD (Variable Frequency Drive)
- · SS (Soft Starter)
- SD (Star Delta)
- DOL (Direct Online)

Communication solutions

- IEC61850
- RF (Radio Frequency)
- GSM (Global System for Mobile Communications)
- Wi-Fi (Wireless Fidelity)
- FO (Fiber Optic)
- Radiolink
- Profibus
- Ethernet
- Profinet
- Modbus
- HART





Electric

Project designing

- High Voltage (YG 400 kV) System Design
- Medium Voltage (OG 36 kV) System Design
- Medium Voltage (OG 36 kV) Detail Project Designing
- MDP /MCC Designing and Single Line Project
- Reactive Power Compensation Design
- · Field Cabling Plan
- Grounding Plan
- Lightning Protection Project
- Outdoor Lighting Plan
- Electrical Room Designing and Projecting
- Lightening Plans
- Switch Plug Plans
- Power Plans
- · Uninterruptible Power Supply UPS Plans
- Cable Rack Plans
- Equipment Layout Plan
- Data and Phone Plans
- Fire Detection System
- Professional Audio Systems
- Emergency Alarm System
- Emergency Lighting System
- CCTV Camera System
- · Access Control System

Documentation

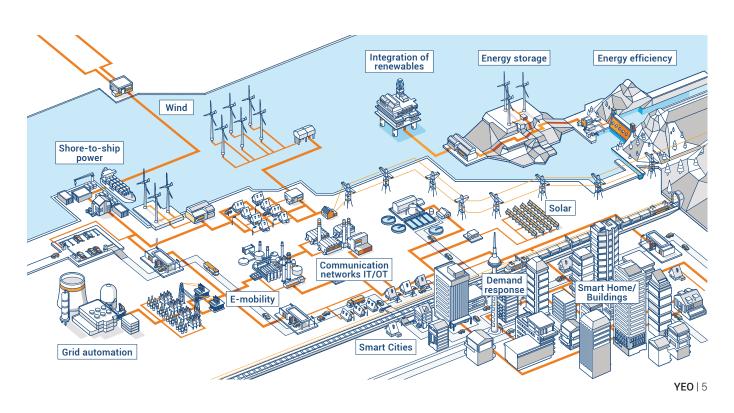
- Project List
- Electrical Design Report
- Electricity Exploration Summary
- · Electrical Technical Specifications

Calculation

- Transformer Calculation
- Compensation Calculation
- · Generator Calculation
- Short-Circuit Calculation
- · Cable Cross-Section Calculation
- Grounding Calculation
- Lightning Protection Calculation
- Lighting Calculation
- Plug-Lighting Installation Tables
- MCC-Power Analysis
- MV/LV/Control Cable Tables

Contracting

- · Power Transmission Line
- MV Switchgear
- Transformer
- · Main Distribution Panels
- Compensation
- Lighting
- Grounding
- · Low Voltage Current
- Automation (DCS, PLC, RTU)
- SCADA
- Communication (RF, GSM, Wireless)
- Measurement and Analytical Measurements
- · Installation and Commissioning Works
- Training and Documentation





Instrumentation

- Flowmeters (coriolis, electromagnetic, thermal mass, vortex, swirl)
- Pressure Transmitters (absolute, differential, gauge, multivariable)
- Level Transmitters (guided wave radar, ultrasonic, laser, RF capacitance, magnetostrictive)
- Temperature Transmitters (field-mounted, head-mounted, high temperature)
- Analytical Measurements (conductivity, dissolved oxygen, turbidity, pH / ORP)
- Positioners (conventional, digital I / P converters)
- Process Control Instruments (field-mount, panel-mount)
- Process Recorders (circular chart recorder, paperless recorder)
- Indicators (wall/panel mounted universal process indicator)
- Weight Measurement (load cells)



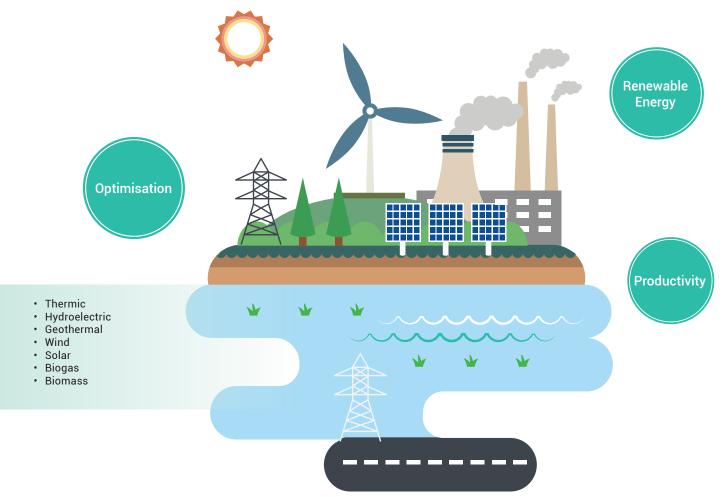


Energy

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- · Power systems design and analysis
 - Short circuit analysis
 - Load flow analysis, load shedding
 - Relay coordination, selectivity analysis
 - Power systems design
 - Power quality systems
- Energy SCADA System Solutions
- e-BOP; Thermic, Hydroelectric, Geothermal, Wind, Solar, Biogas, Biomass
- Industrial process (DCS solutions)
- IEC 61850 applications
- SCADA with PRP, HSR redundunt systems
- Power quality measurement systems
- TEİAŞ communication systems
- Synchronization of generator

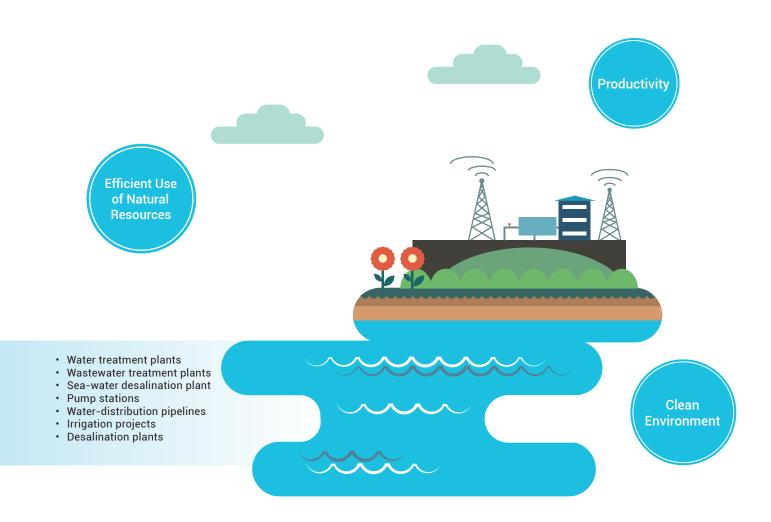
- · Distance monitoring projects
- RITM applications
- IT solutions
- Substation applications; secondary projects, electric panel manufacturing, relays, SCADA and communication systems
- Control system communication architectural design
- · Panel solutions
- · Field installation works
- Testing and commissioning
- · PUS certified project
- ETKB temporary admission process
- Preparation of technical specification
- Electrical single line design





Water

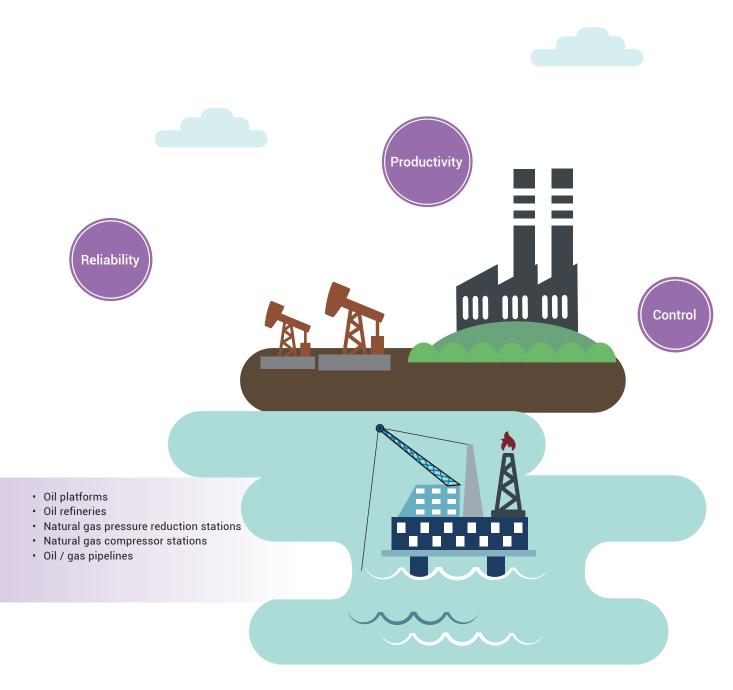
- Monitoring and control of all process data from SCADA center
- Communication solutions (RF, GSM, Wi-Fi, FO etc.) of infrastructures (pumping stations, reservoirs, wells, branch etc.) with SCADA center
- Water Leakage Management solutions allows the facility to monitor and manage losses throughout the water networks and therefore to reduce nonrevenue water
- Energy saving applications with frequency inverters for pumps
- Sequential operation and coequal ageing of the pumps
- · Specific solutions for low harmonic level
- Flow, pressure, level, temperature, dissolved oxygen, pH, turbidity, etc. measurement and analytical measurements
- Experience and knowledge in ultrafiltration and reverse osmosis applications





Oil and Gas

- Automation of gas detection and fire fighting systems for oil platforms
- Monitoring, reporting and calibration from the SCADA center of the gas chromatograph
- Supply and commissioning of process instruments suitable to work in flammable and explosive environment

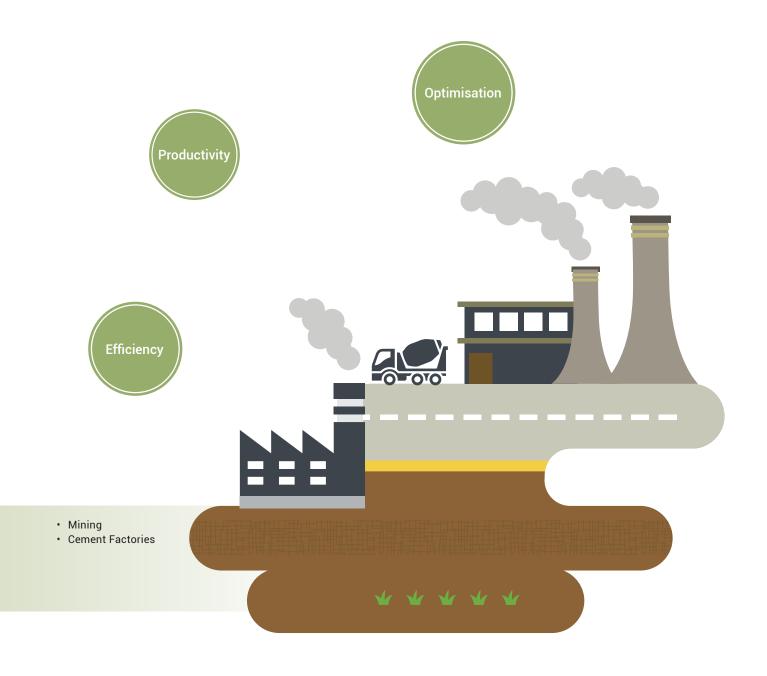




Mining & Cement



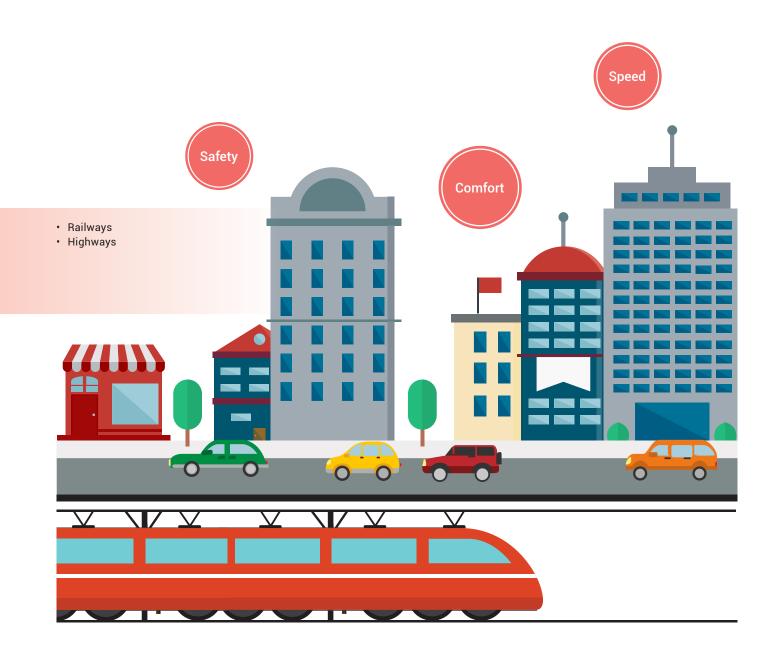
- Ball mill
- Vertical mill
- Crushing and screening plant
- Limestone crasher
- Raw mill
- Coal mill
- Cement kiln
- · Clinker cooling system
- Electrofilter
- · Packaging unit





Transportation

- Energy SCADA system
- Environment Control System
- Lighting system
- Ventilation systems
- CCTV system
- Passenger information system
- Passenger entry system
- Fire detection system





Industrial Production Facilities



Sectors

- · Integrated Wood
- Iron & Steel
- Pulp & Paper
- Chemicals
- Food and Beverage
- White Goods
- Pharmaceuticals





Some of our references

SOCAR Off Shore Platform 122 Fire & Gas Protection and Control Project Azerbaijan

SOCAR Off Shore Platform 14 Fire & Gas Protection and Control Project Azerbaijan

SOCAR Off Shore Platform 7 Fire & Gas Protection and Control Project Azerbaijan

SOCAR Natural Gas Chromatograph Monitoring Project

TPAO Gülbaraj Pumping Station Automation and Instrumentation Project Batman

TPAO Kurkan Production Station Automation and Instrumentation Project Diyarbakır

BOTAŞ Tüpraş Natural Gas MS-A Automation Systems Project İzmit

BOTAŞ Lezita Natural Gas RMS-A Automation Systems Project İzmir

BOTAŞ Fire Fighting Systems Automation Project

GAMA Erbil Natural Gas Combined Cycle Power Plant Desalination Plant Automation Project Iraq

ENKA Erbil Natural Gas Combined Cycle Power Plant Desalination Plant Automation Project Iraq

AKSA Göynük Thermic Power Plant Desalination Plant Automation Project Bolu

AGE Energy Denizli Natural Gas Combined Cycle Power Plant Desalination Plant Automation Project Denizli

RWE Turcas Denizli Natural Gas Combined Cycle Power Plant WWTP Automation Project Denizli

OMV Samsun Natural Gas Combined Cycle Power Plant Desalination Plant Automation Project Samsun

IZDEMİR İzdemir Thermic Power Plant Desalination Plant Automation Project İzmir

Kinesis Enerji 154kV Bereketli RES Substation - Energy SCADA, TEIAŞ Communications Tokat

Are Elektrik Üretim Kurtkaya RES 154kV Substation - Energy SCADA, TEIAŞ Communications Kayseri

Çimsa 154kV Substation - Energy SCADA, TEIAŞ Communications Afvon

TEİAŞ 154 kV Basin Ardanuç ITM 149 Substation- RT Configuration Artvin

Erdem Holding 34.5kv Ödemis RES Substation - Energy SCADA, RTU Configuration and RİTM Application İzmir

Adalı Holding 154kV Kıyıköy RES Substation - Energy SCADA, RTU Configuration and RİTM Application Tekirdağı

Bades Elektrik 154kV Taha DGKÇS Substation- Energy SCADA, RTU Configuration Mardin

Erdem Holding 154kV Bagarası RES Substation - Energy SCADA, RTU Configuration and RİTM Application İzmir

Limak Enerji 154kV Yunus Emre HES Substation - RTU Configuration and TEIAŞ Communications Siirt

Limak Enerji 154kV Kirazlık HES Substation RTU Configuration and TEIAŞ Communications Eskişehir

Eren Holding MEDCEM Cement Factory 154kV Substation Mersin

BP Basra Generator Synchronization and Energy SCADA Iraq

EÜAŞ Afşin Elbistan A Power Plant Steam Blower Automation Systems Project Kahramanmaraş

EÜAŞ Afşin Elbistan A Power Plant Ash Removal System Autiomation Project Kahramanmaraş

EÜAŞ Tunçbilek Power Plant Ash Storage System Automation Project Kütahya

Eti Maden Multi Purpose Boric Acid Plant Electrical and Automation Project Kütahya

Eti Maden Bigadiç Optical Separator Plant Automation System Project Balıkesir

AIMC Gedabek Gold Mine Automation System Azerbaijan

OYKA Kağıt Coal Grinding Plant Automation Project Zonguldak

 $\begin{tabular}{ll} \textbf{Ersel} \ Crushing \ and \ Screening \ Plant \ Automation \ System \ Norveç \end{tabular}$

Esan Mining Ball Mill Automation Project Muğla

Meta Nikel Mining Ball Mill Automation Project Manisa

Akçansa Frequency Inverter and PLC Panels Project Çanakkale

İÇDAŞ Iron and Steel Factory Coal Preparation Unit Automation System Project Çanakkale

SFC Entegre Oil Boiler Low Harmonic Frequency Inverter Project Kastamonu

Kastamonu Entegre Parquet Sanding Line Dust Collection Unit Automation Systems İzmit

Modern Karton Wastewater Treatment Plant Automation System Project Tekirdağ

Modern Karton Biomass Boiler Automation and Instrumentation Project Tekirdağ

Afyon Energy Biogas Plant Electrical Works Ayfon

İstanbul Ulaşım Topkapi Storage Area Tram Line Scissors Automation System İstanbul

İstanbul Ulaşım Zetinburnu Bağcılar Tram Line Scissors Automation System İstanbul

Arçelik Wash Machine Production Line Automation Project İstanbul

Arçelik LG Air Conditioner Factory Energy Efficiency Project Kocaeli

Laurus Drug Production Line Automation Project Tekirdağ

Sandoz Drug Reactor Automation Project İstanbul

Kent Syrup Preparation System İstanbul

Kent Gıda Energy Efficiency Project İstanbul

Konyaşeker Sugar Production Line Automation Project Konya

Mercedes Finis Painting Line Automation Project Istanbul

Altınmarka Raw Materials Automatic Transfer System Automation Project İstanbul

Altınmarka Pasteurization System Automation Project İstanbul

Eren Energy Çatalağzı Thermic Power Plant Sea Water Supply Automation Project Zonguldak

DHMİ Adana Airport Energy SCADA Project Adana

AZMECO Azerbaijan Methanol Factory Energy SCADA Project Azerbaijan

POLIMEKS Kıyanlı Seawater Treatment Plant Pump Stations Automation Project Turkmenistan

Çevtaş Ashgabat Ruhabat Textile Factory Waste Water Treatment Plant Automation Project Turkmenistan

Azersu Hovsan Waste Water Treatment Plant Automation Project Azerbaijan

Azersu Sumqayıt Waste Water Treatment Plant Automation Project Azerbaijan

Azersu Shamkir Waste Water Treatment Plant Automation Project Azerbaijan

IPA Amasya Wastewater Treatment Plant Automation System Project Amasya

DSİ Korkuteli Irrigation Project Automation and Instrumentation Project Antalya

DSI Hamzadere Irrigation Project Pump Stations Automation Project Edirne

DSİ Yeşilli Kabala Potable Water Distribution Line Electrical Automation and Instrumentation Project Mardin

DSİ Akpazar Pump Station Electrical Automation and Instrumentation Project Tunceli

DSİ Uzunköprü Kırkkavak Pump Stations Automation Project Edirne

DSİ Ergani Potable Water Distribution Line Electrical Automation and Instrumentation Project Diyarbakır

DSİ Şanlıurfa Potable Water Distribution Line Electrical Automation and Instrumentation Project Sanlıurfa

DSİ Evreşe Potable Water Distribution Line Electrical Automation and Instrumentation Project Edirne

DSİ Mercan Pump Station Electrical Automation and Instrumentation Project Edirne

DSİ Çankırı Potable Water Facility Project Çankırı

DSİ Karabük Water Treatment Plant Electrical and Automation System Project Karabük

DSİ Aydın Main Transmission Line and Pump Station Automation System Aydın

İLBANK Çermik Water Treatment Plant Electrical Automation Project Diyarbakır

ILBANK Okurcalar Potable Water Distribution Network Automation System Project Antalya

İSKİ Tuzla Biological Wastewater Treatment Plant Automation Project İstanbul

İSKİ Darlık Pump Station Automation Project İstanbul

ASAT Kumköy Wastewater Treatment Plant Electrical Automation and Instrumentation Project Antalya

Çorlu Municipality Potable Water SCADA System Project Tekirdağ

Konya Municipality Potable Water SCADA System Project Konya

İÇDAŞ Seawater Treatment Plant Automation Project Çanakkale

Çolakoğlu Seawater Treatment Plant Automation Project İzmit

TÜRKŞEKER Anaerobic Wastewater Treatment Plant Electrical and Automation Project Muş

TÜRKŞEKER Anaerobic Wastewater Treatment Plant Electrical and Automation Project Konya

TÜRKŞEKER Anaerobic Wastewater Treatment Plant Electrical and Automation Project Ankara













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