



Integrated Electrical Services for Industrial Projects

Engineering | Production | Procurement | Installation | Commissioning | Operation



فرزان فن اندیش فردا
FARZANFANANDISH

Provider of electrical services for industrial project in fields of
Power, Electronics, Control and Instruments

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1 Introduction

About US

“Behandishi & Fanararie Farda” company (BAFCO) has provided engineering and procurement services for different industrial projects since 2002, and in 2016 the company decided to concentrate its knowledge-based activities on electrical section of industrial projects, and continued its activity in a separate company “**Farzan Fanandish Farda**”.

At the beginning, “Farzan Fanandish Farda” Company was based in Amir Kabir University Development Center, to be able to keep continuous relations with universities and take advantage of university professors and graduates’ knowledge. The aim was to maintain effective link between technology and industry, and using university professors and graduates’ knowledge and expertise for technical support of Farzan services and products.

Company field of activity is providing complete and **integrated electrical services for industrial projects** and encompasses all engineering services, design and manufacturing products, installation and commissioning of equipment and operation of industrial plants.

“Farzan Fanandish Farda” company has up to now had the opportunity to contribute in many industrial and mineral and Iron Ore Concentrate Plant projects, in particular has had a very active and significant presence in first section of Mega project “Pipeline for transfer of Persian Gulf water for industries located in south-east of Iran”.

Currently, Farzan Company is engaged in large scale projects in other industries including Steel, refinery and petrochemical plants.



Mission Statement

“Farzan Fanandish Farda” company is a developing, instructive and value-based organization and presents integrated services and products in electrical field (power, electronics, control and instrumentation) at national and international level.

We, as a knowledge-based company, provide our customers’ growing needs with integrated solutions and up to date products at international standards by continuous innovation and improvement. With our dedicated services and technological products, we guarantee excellent quality of services and satisfaction for our customers. We emphasize on balance in interests of all engaged parties, and based on our core values, ensure customers’ satisfaction by our strict organizational values and considering fair profit.

By establishing a dynamic environment and entrepreneurship platform, Farzan Company has proved to consider its human capital resources as major basis for development and as its most important strategic asset and partner. Farzan Company is always keen on respecting personnel rights and interests, the flourishing of their talents and strengthening of mutual trust between the company and employees. Taking advantage of the effective service compensation system, Farzan Company strives to respect and satisfy the employees.

“Farzan Fanandish Farda” Company has built a network of suppliers, and considers them as partners in its success and achievements. Farzan Company assists them to develop and considers honesty and fair cooperation with them.

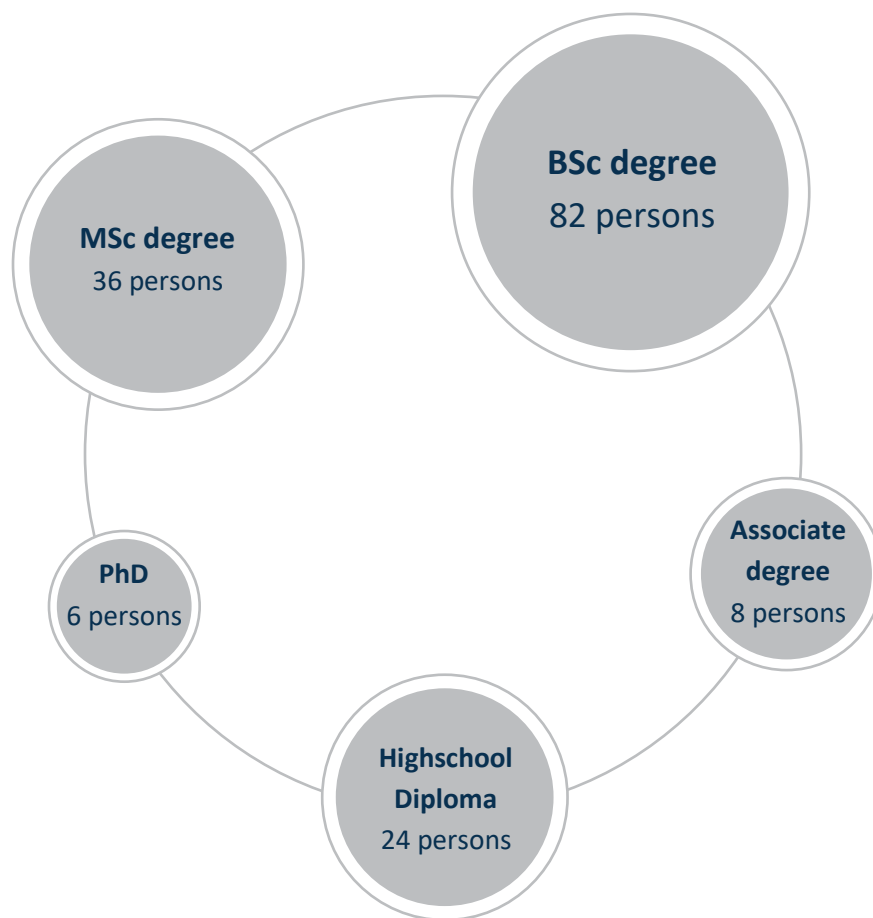
“Farzan Fanandish Farda” Company is an arena of hope for prosperity, committed to environment protection and a strong and reliable partner and collaborator for customers.



Employees' Educational Degrees

Our main capital and strategic partner are our human resources.

Consequently, we are proud of cooperation with committed graduates having academic degrees in our management and technical teams.



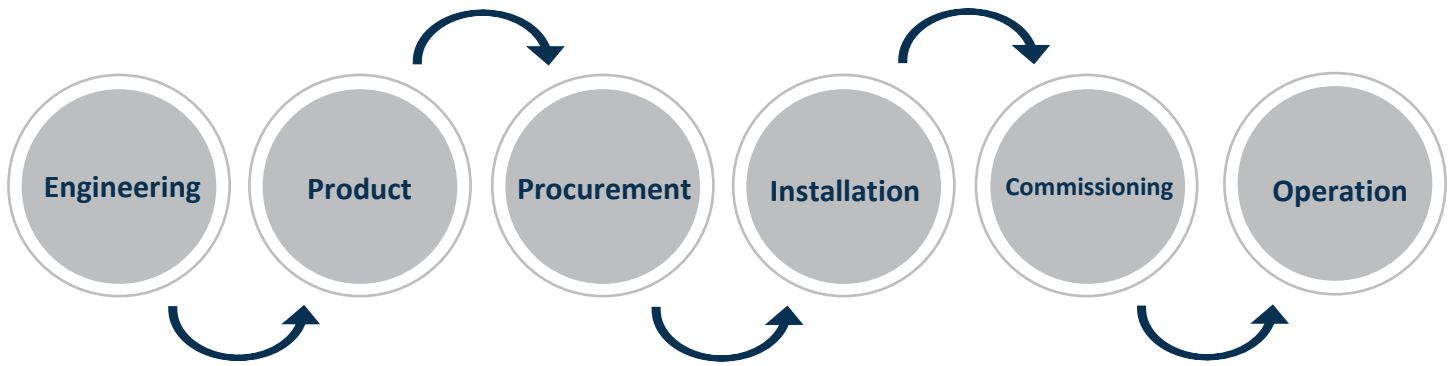
Farzan consultants

Consultants for Engineering, Projects, Human resources, Legal and insurance affairs: **12 persons**

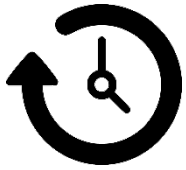


2 Products & Services

We provide high quality complete and integrated electrical services for industrial projects in fields of Power, Electronics, Control and instruments.



Our comparative advantages in providing services and products



Time Management

Timely delivery of equipment has always been one of main concerns of Clients in industrial projects. To fix this issue and for time management and expedition of manufacturing process and timely delivery of products, we always purchase and store main items which are used in manufacturing products in excess and in advance, and by this provision the manufacturing time and delivery time of equipment is significantly reduced.



Cost Management

Access to first hand foreign sources for supply of main equipment and parts and thereby disintermediation, and also purchasing in high quantities results in reduction of manufacturing cost of our products, and enables us to consider lower profit margin and hence offer our equipment and services with economic and competitive prices.



Quality Management

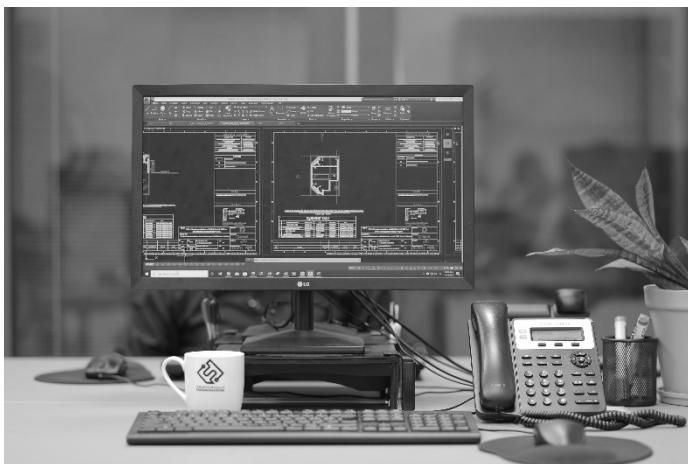
Based on Farzan Company mission for delivering products and services at international standards levels, our activities are distinguished significantly by considering three following factors:

- Utilizing electrical industry up-to-date knowledge by employing universities elite graduates in our technical and management teams
- Purchase and using original high-quality equipment in manufacturing our products, achieved via our reliable German partner GIPKO company and provision to present authenticity certificate for equipment
- Providing complete and integrated all project services from producing of engineering documents in the first step to commissioning and operation as the last step of projects, and thereby eliminating obstacles, interferences and inconsistency in different phases of supply

Engineering Services

- **Engineering design for electrical section of projects**

At the beginning of each project and in the first step, Farzan Company Engineering department produces all project electrical documents based on international standards and Client's requirements and procedures, so that all technical documents for all equipment including electrical panels, control and Instruments, lighting, earthing, cabling and all other electrical equipment and material from Basic Design to Detail Design are produced.



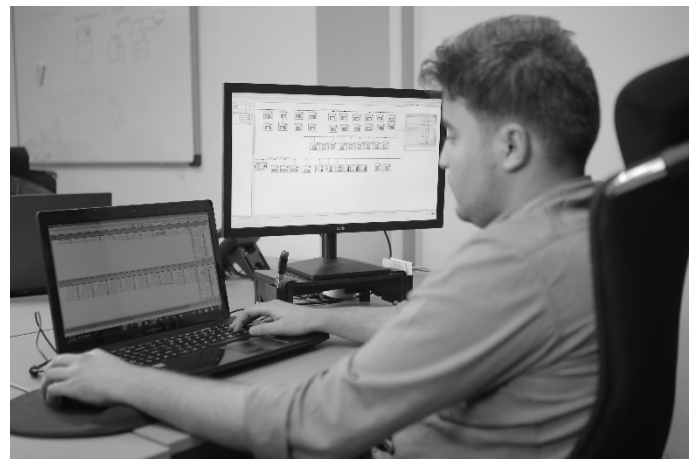
- **Design, programming and execution of control systems**

One of other important activities of Farzan Company engineering department is design, programming and execution of control system, which is considered as one of our main competitive and creditable activities.

This significant service is product of technical knowledge of our control engineering department specialists, and it conforms to international programming standards and based on reputable control systems such as Siemens and ABB.

One of Farzan Company achievements in this field of activity is design, programming and execution of control systems for some of country's industrial plants using special technologies, namely:

- Sangan Iron Ore Concentrate Plant
- Jalal Abad Iron Ore Concentrate Plant
- Gol-Gohar Sirjan Iron Ore Concentrate Plant
- Persian Gulf Water Transmission line section- First Section
- Sangan Pelletizing Plant
- Seh-Chahoon Pelletizing Plant
- Khatoon Abad Copper Processing Plant
- Mobin Petrochemical Complex



Design and Manufacturing of Equipment & Products

Located in Amir Kabir Technical University Science & Technology Park, Farzan factory designs and manufactures different types of Drive panels, Control panels and Lighting panels.

“Farzan Fanadish Farda” factory was established and commissioned in one workshop in Shariar district near Tehran. Later and following growth of company activities and need to increase production capacity, two more workshops were built and the production area was increased by 250%.

Currently, Farzan factory is located in an area of about 2200 m², and a team of 50 engineers and technicians are working in the factory for manufacturing electrical panels and equipment.

Meanwhile, engineering activities required for manufacturing is performed in factory administration building with an area of 1000 m².



We endeavor to manufacture high quality competitive products with high quality and competitive price and as per Clients' required time schedule.

Drive Panels

- VFD-400V
- VFD-690V



Control Panels

- Remote I/O-Panel
- ACC Panel
- PLC Panel
- PC Panel
- Server Panel
- Network Panel
- Local Control Box
- Junction Box



Lighting Panels

- Lighting Panel
- Power Socket

Other Panel types

- MCC Panel-Fix
- HPGR Control Panel
- Diesel Control Panel
- WHIMS Rectifier Panel
- Distribution Panel





Research & Development

Along with production, our Research & Development (R&D) division which takes advantage of highly experienced specialists in electronics and power sector has proudly been successful in transforming idea to product in the field of “Power Electronics convertors for industrial applications” and design high quality and competitive products, namely:

On-Grid Solar Inverter

Power: 5KW

Output voltage: 220V, 50 Hz

Input voltage: 160V-350V

Quantity of separate MPPT: 2 no's



On-Grid Solar Inverter

Power: 25KW

Output voltage: 400V AC 3 Phase

Input voltage: 180V-1000V DC

Max Output current: 34 A AC

Nominal Output frequency: 50 Hz

Quantity of separate MPPT: 4 no's



Procurement of Electrical and I&C Equipment

Other Electrical and I&C equipment of industrial projects which are not manufactured in Farzan company and are not in range of our products, are procured by our Supply division after holding tenders and determination of qualified supplier considering high quality and price:

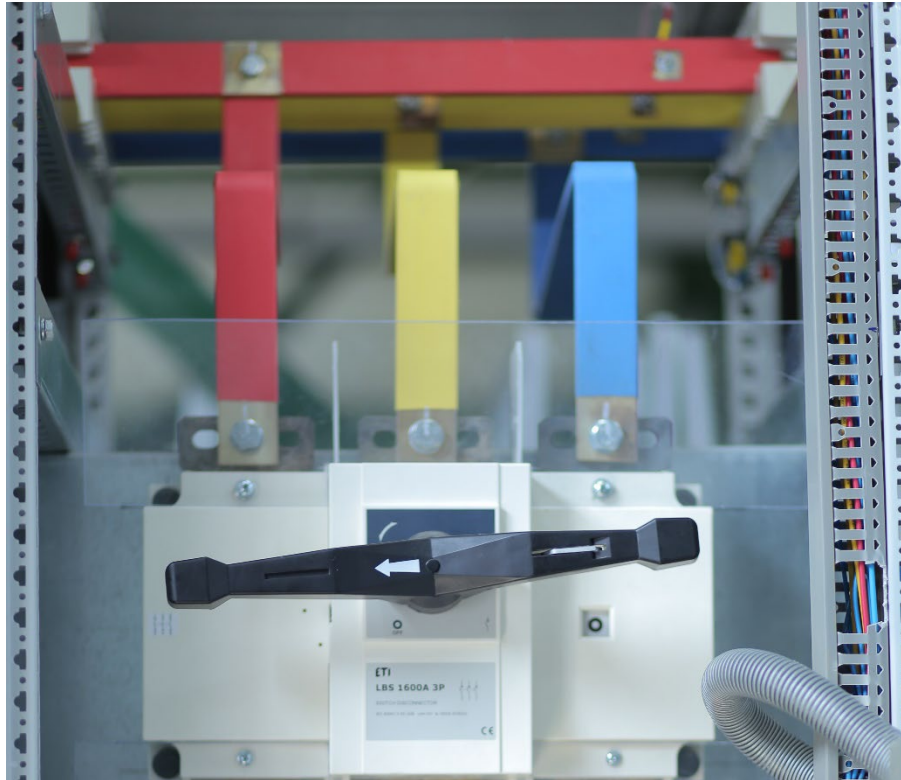
- MV Panel
- MV PFC Panel
- MCC Panel
- MV VFD
- Instrument
- CCTV
- Telecommunication
- Transformer
- Electromotors
- Fire Alarm & Fire Detection

Access to first hand sources and main European suppliers such as ABB and Siemens are one of our capabilities which is achieved through cooperation with our reliable German partner, GIPCO company.



Installation and Commissioning of electrical and I&C equipment of industrial projects

Our experienced installation and executive teams install and commission all electrical and I&C equipment including those manufactured by Farzan, equipment supplied by Farzan, or items procured by Clients.



Operation of industrial projects

Relying on our operational experiences in country's industrial production lines, we perform operation of industrial plants.

We take pride in operation of following industrial plants up to now:

- Operation of first section of Persian Gulf Water Transmission
- Operation of Foolad Paya Kavir Yazd Iron Ore Concentrate Plant Diesel Power Plant
- Operation of Sangan Iron Ore Concentrate Plant Transmission line section



3 Featured Projects

Water Transmission Pipe Line



Project Title: Persian Gulf Water Transmission Pipe Line to Country Southeastern Industries. Phase I

General Information

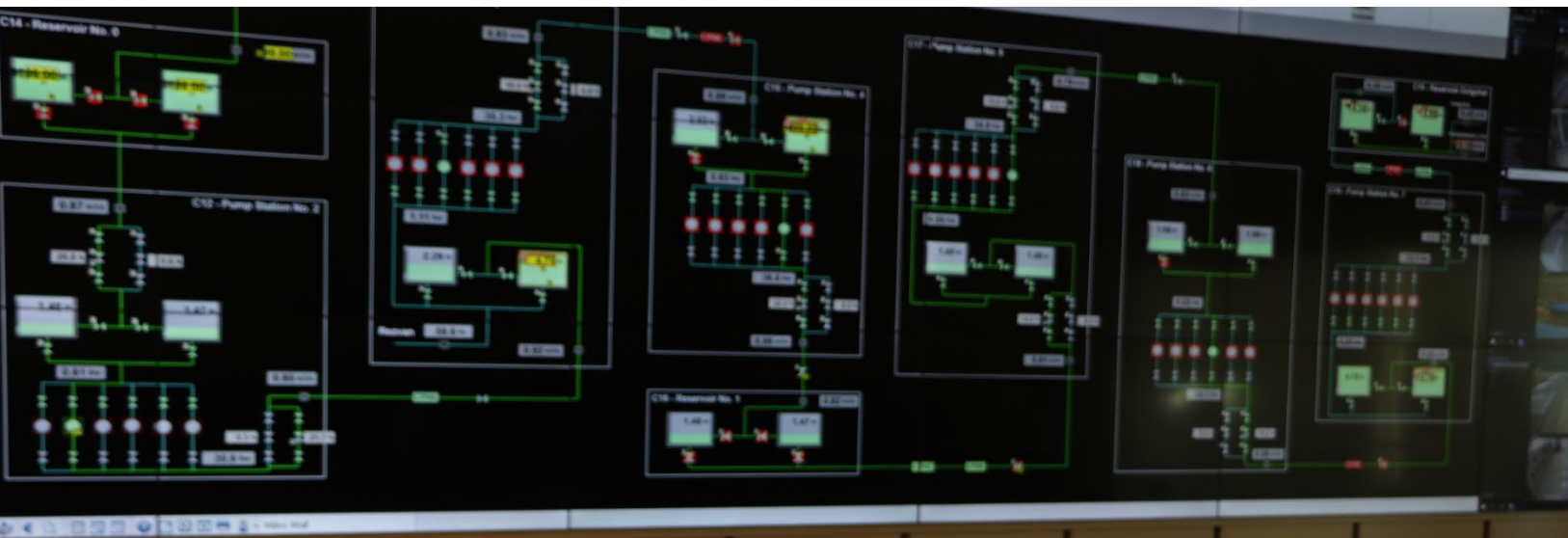
Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: $110 \text{ Mm}^3/\text{A}$

Place: Bandar Abbas to Sirjan

Scope of Work

- Production, Installation & Commissioning
- Control System Programming
- Operation



Iron Ore Concentrate



Project Title: FST Co Hematite Iron Ore Processing Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 600,000 TPA

Place: Jalal Abad Mine, Kerman, Iran

Scope of Work

- Production, Procurement & Commissioning
- Control System Programming



Project Title: Golgohar Iron Ore Concentrate Plant. Line 4

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 2 MTPA

Place: Sirjan, Kerman, Iran

Scope of Work

- Production, Procurement & Installation
- Control System Programming



Project Title: Golgohar Iron Ore Concentrate Line's (5,6,7) Expansion & Quality Implantation

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: Totally for 2.1 MTPA

Place: Sirjan, Kerman, Iran

Scope of Work

- Production, Procurement, Installation & Commissioning
- Control System Programming



Project Title: PAYA FOOLAD Co Iron Concentrate Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 800,000 TPA

Place: Saqand, Yazd, Iran

Scope of Work

- Production, Procurement, Installation & Commissioning
- Control System Programming



Project Title: SMCO Iron Ore Concentrate Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 2.5 MTPA

Place: Sangan, Khorasan Razavi, Iran

Scope of Work

- Production, Procurement, Installation & Commissioning
- Control System Programming



Pelletizing



Project Title: SMCO Iron Ore Concentrate

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 2.5 MTPA

Place: Sangen, Khorasan Razavi, Iran

Scope of Work

- Production & Commissioning
- Control System Programming



Project Title: Sechahun Iron Ore Pelletizing Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 5 MTPA

Place: Bafgh, Yazd, Iran

Scope of Work

- Installation & Commissioning
- Control System Programming



Direct Reduction Iron



Project Title: Bardsir Gohar Zamin

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 2*1.72 MTPY

Place: Bardsir, Kerman, Iran

Scope of Work

- Production, Procurement & Construction of Electrical Equipments & Instrument.
- Erection Piping
- Commissioning Based on OPERCOM Method
- Control System Programming



Steel Making



Project Title: Steel Making and ESP Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 3 MTPA

Place: Sirjan, Kerman, Iran

Scope of Work

Design & Engineering for Electrical section of WTP, ASU, SMP, ESP & STATCOM Areas

Design & Programming of control systems of WTP & Material Handling Areas

Manufacturing of VFD 400V, VFD 690V, Lighting & Control System Electrical Panels, LCB, JB & Power Socket of WTP, ASU, SMP, ESP, Lime & STATCOM Areas

Procurement of MV & MCC Panels, Instruments, LV Systems (like Earthing, Lightning, Telecommunication,...), Transformers, Cables & Bulk Materials of WTP, ASU, SMP, ESP, Lime & STATCOM Areas

Installation of All Types of Instruments, Electrical & Control Panels & Equipments of WTP, ASU, SMP, ESP, Lime & STATCOM Areas

Pre-Commissioning & Commissioning of All Areas Based on OPERCOM Method

Executing Management of WTP, Lime, SMP, ESP & STATCOM Areas



Power Plant



Project Title: Diesel generator power plant - Faraz Firoozkooh Cement Co.

General Information

Employer: Espandar Cement Investment Co.

Place: Firoozkooh, Tehran, Iran

Scope of Work

- Production & Procurement of Electrrical Equipments.
- Control System Programming
- Supervision / Installation & Commissioning of Electrrical Equipments.
- Synchronization



Project Title: Diesel generator power plant - Neyzar Qom Cement Co.

General Information

Employer: Espandar Cement Investment Co.

Place: Qom, Iran

Scope of Work

- Production & Procurement of Electrtrical Equipments.
- Control System Programming
- Supervision / Installation & Commissioning of Electrtrical Equipments.
- Synchronization



Project Title: Diesel generator power plant - Arta Ardabil Cement

General Information

Employer: Espandar Cement Investment Co.

Place: Ardabil, Iran

Scope of Work

- Production & Procurement of Electrical Equipments.
- Control System Programming
- Supervision / Installation & Commissioning of Electrical Equipments.
- Synchronization



Copper Processing Industries



Project Title: Khatoon Abad Copper Refinery Plant

General Information

Employer: Fakoor Sanat Tehran Engineering Co.

Capacity: 200,000 TPA

Place: Khatoon Abad, Kerman, Iran

Scope of Work

- Commissioning
- Control System Programming



Petrochemical



Project Title: Mobin Petrochemical Complex

General Information

Employer: Mashin Sazi Vizheh Co.

Place: Asaluyeh, Bushehr, Iran

Scope of Work

- Control System Programming





4 Certificates

Letter of Consent

operation of first section of Persian Gulf Water Transmission



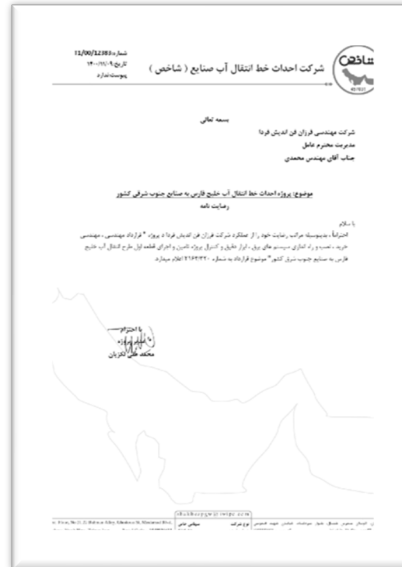
Letter of Consent

Manufacturing of 13 set of control and interconnection panel for Cathodic Protection of first section of Persian Gulf Water Transmission project



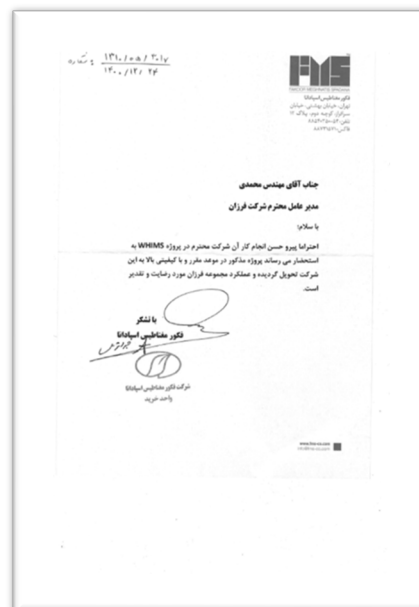
Letter of Consent

Farzan Company performance in the contract for engineering, procurement engineering, installation and commissioning of Instruments & Control system for first section of Persian Gulf Water Transmission project



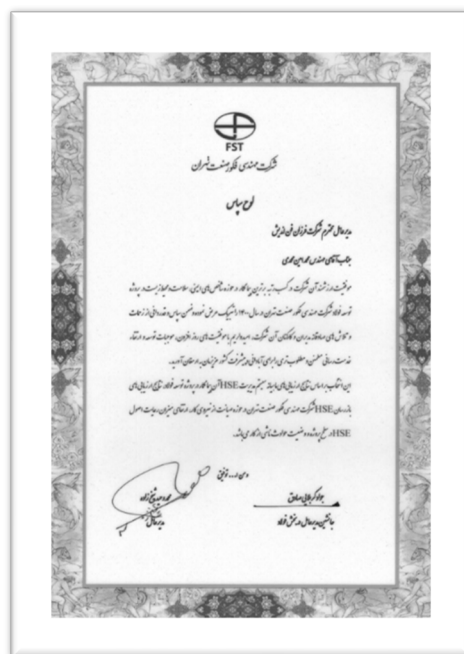
Letter of Consent

Manufacturing of WHIMS Control Panel



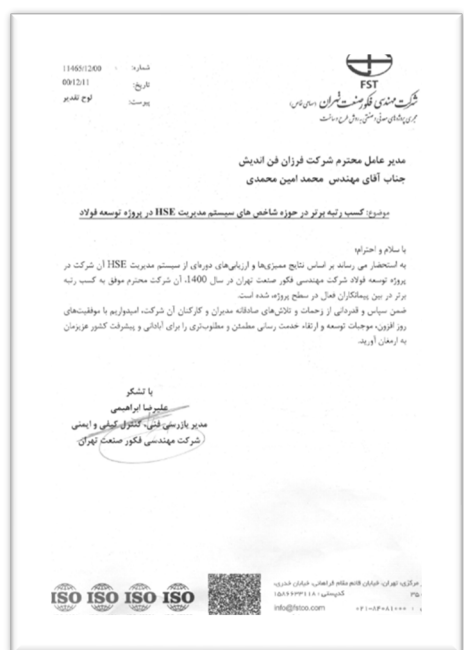
Appreciation Bred

Acquiring the highest-ranking contractor in the fields of safety, health and environment indicators in the steel making expansion project



Certificate of Appreciation

Obtaining the top rank in the field of HSE management system in the steel making expansion project





5 Customers





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