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ARABTECH

ARAB TECHNICAL CO . LTD

ENGINEERING, CONSTRUCTION, FIELD SERVICES, O&M

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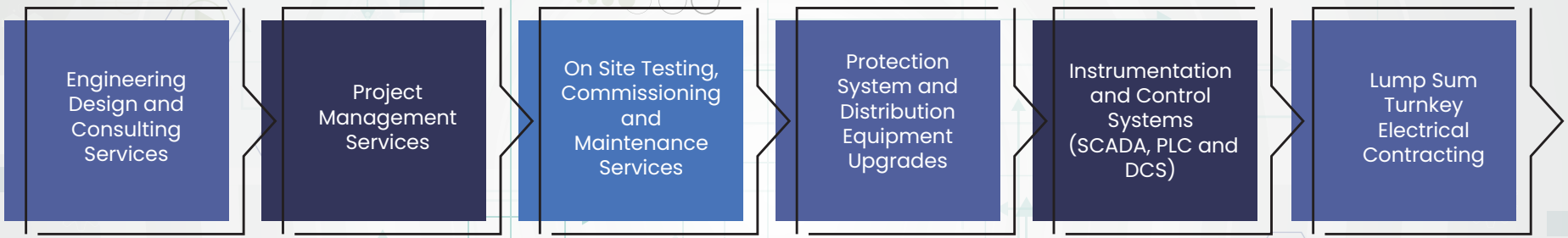
Introduction

ArabTech Trading and Contracting Company was incorporated in 2004 with the purpose of providing support systems and services for the Saudi Electric Company in the Western Province of the Kingdom of Saudi Arabia. Since its creation, ARABTECH has evolved into a multi-disciplined organization comprised of multiple divisions and affiliates. This evolution was inspired by the growing needs of customers in the region. As a part of this inspired evolution, ARABTECH had established multiple divisions to provide engineering, project management and technical field services, **our services include:**



Our philosophy is to differentiate ourselves by offering creative solutions that not only meet the immediate needs of our customers, but are sustainable for the future as well. We believe that customer satisfaction can only be achieved through a firm commitment to providing solutions that are cost effective, accurate and relevant to identified needs.

Our ability to offer efficient, creative and quality engineered solutions lies in the technical strength of our team and the advanced technology of the products we use. Over the years, we have partnered with technology suppliers that offer intelligent products thereby allowing us to custom engineer and support our solutions with versatility, quality and reliability.

Regardless of the nature or scope of our customer's requirements, we are committed to ensuring that our solutions and services form a critical part of our customer's overall success.

Our Vision

ur Vision To become a preferred provider of engineered solutions and technical services in the field of high, medium and low voltage power generation, distribution and control.

Our Mission

Our Mission To provide innovative, reliable and effective solutions to our customers through the principles of value-added engineering, teamwork, quality of service and commitment to excellence. By adhering to these principles, we continue to build a company whose customers and depend on, and whose employees are proud to be a part of


Our Values

Our values We are committed to ensuring every step of our process encompasses the following values:

Respect

For our employees, partners and customers by understanding their needs and earning their trust

Teamwork

Between our employees, partners and customers through Open communication and sharing of expertise and know-how.

Integrity

In our approach through focus, fulfillment of commitments and actively searching for the best outcome for our employees, partners and customers.

Honesty

In our relationships with employees, partners and suppliers to ensure the solutions we provide meet customer expectations

Innovation

In harnessing and applying the latest technologies to provide customized, value added services for our customers

Sustainability

By ensuring our services aid in the growth and success of our customers which will in turn lead to our own growth and success

Our Process

Understanding our customers' requirements

Value Engineering

Resource Management

Technical Support

Continuous Improvement

We realize that when chosen to provide a service, our customers have entrusted us with ensuring their success. It is due to this realization that we employ a process focused on delivering the right solution. Our process is comprised of the following activities:

Understanding our customers' requirements

Every solution starts with an evaluation of the customer's existing system, material requirement and the desired end result after solution implementation. By studying the parameters we are able to advise our customers on potential problems or improvement areas very early on in the project. This creates an alignment between us and our customers as to the form, fit and function of the required solution. This also fosters a relationship of trust and transparency that is critical to the success of any project or service.

Value Engineering

Efficient and effective solutions are characterized by their simplicity and relevance. It is our goal to provide added value to our customers by ensuring our solution are simple to operate, simple to maintain, applicable to the desired end result and scalable for future growth. We strive to add value through a detailed engineering process that results in an operations-oriented final design. By keeping the operational aspect of our solution at the forefront, we ensure simplicity and relevance of the final solution and hence is added value.

Resource Management

Providing creative and cost effective solutions are of no value without ensuring they are delivered on time. This requires continuous identification and scheduling of resources, whether man or material, to ensure target milestones are achieved. At every stage and level, we are focused on making sure resources are available to properly support, execute and ultimately bring to r ealization the solution our customers have entrusted us with.

Technical Support

We believe our success and growth is directly linked with the satisfaction of our customers and that customer satisfaction does not end upon project completion. Supporting our customers is paramount to achieving our vision of being a preferred provider of engineered solutions and technical services. Our technical support comes in many forms, from consulting advice on future requirements to on site trouble shooting and operator training. In all cases, we are focused on providing our customers with the support needed to ensure their success.

Continuous Improvement

Aside from the focus and energy we invest in providing and supporting our customers with quality, value-added and creative solutions, we continually assess operational performance throughout the implementation lifecycle. We understand that every solutions has its own unique requirements and hurdles. We are committed to finding better and more improved ways of delivering our services and solutions to our customers by using lessons learned and implementing best practices.

Our Services

Projects and Project Management Services

Engineering Design and Consulting Services

Technical Field Services

Projects and Project Management Services

In today's competitive market, projects success is dependent on a company's ability to properly manage project execution while controlling its costs. This requires the proper integration of engineering, procurement and construction activities as well as conflict resolution and issue identification prior to becoming problems.Our project management services are geared towards providing customers with a dynamic project management solution – from coordination of engineering, procurement and execution activities, to creation of base and detailed project scheduling and cost control functions. Specially developed project tracking tools are used to provide visibility on major project areas. These tools, in conjunction with the use of industry standard project management scheduling software, provide all parties involved in the project with pertinent information to ensure issues are resolved and targets are met.

The end result is a project management service focused on establishing priorities, coordinating activities and aligning project stake-holders to ensure projects are completed safely, on time and within budget.

Our projects services are extended to cover the following fields:

- Supplying, installation of electrical equipment's such as transformers, MV and LV switchgear, control panels, relay panels, RMUs, package substations ... etc
- MV and LV switchgears upgrade and extension.
- MV Cable Laying, Splicing and Termination up to 34.5 KV.

Engineering Design and Consulting Services

Our engineering design and consulting services range from providing detailed engineering support to electrical equipment manufacturers to conduct power system studies for customers in the oil and gas, industrial and utility markets. More specifically, **these services include:**

- Base and Detailed design service for LV and MV distribution equipments.
- Base and Detailed design services for power Generation equipment Control and Systems Engineering for MV and LV Generation and Distribution Networks.
- Protection coordination and Power System Analysis Studies (Load Flow Studies and Short Circuit Studies).

Our ability to provide these services is based on the multi-faceted level of expertise our staff of electrical engineering posses and the select engineering tools used. We provide power system studies in ETAP or SKM, depending on the customer's requirement, and utilize AutoCAD® for all design works. Engineering and Consulting requires in depth knowledge of the systems being designed. Such in-depth knowledge can only be obtained through firsthand experience. The wide range of experience that our staff posses, from both client and contractor perspectives, allow us to confidently offer the service with a level of detail and understanding only firsthand knowledge can provide.

Technical Field Services

Our technical field services range from performing site acceptance testing of HV, MV and LV distribution equipment and protection panels to performing on-site trouble shooting, operation / maintenance testing and equipment upgrade services. More specifically, **these services include:**

- Testing and Commission-ing of HV, MV and LV distribution equipment
- Testing and Commissioning of Protective Relays and Systems.
- Testing and Commissioning of DCS / SCADA Control Systems.
- Testing and Commissioning of UPS / Battery Charger Systems
- Protection System and Distribution Equipment Upgrades

As a part of our commitment to ensuring our services meet customer expectations, e ensure all of our technical field service activities are in accordance with local and industrial standards. ARABTECH team is providing testing and commissioning services according to different International Testing Associations and Standards such as (NETA, IEC, IEEE, ANSI ... etc) and as such follows all Standards requirements when conduction site acceptance and maintenance testing in addition to customer specific acceptance and maintenance testing requirements.

Our Clients


OLAYAN


الشركة السعودية للكهرباء
Saudi Electricity Company


SAMSUNG


ABB


WESCOSA
وسكوسا


صدارة
Sadara


نقل الكهرباء
National Grid


سابك
sabic


المشارق
AL MASHARIQ


Lucy


AUVA

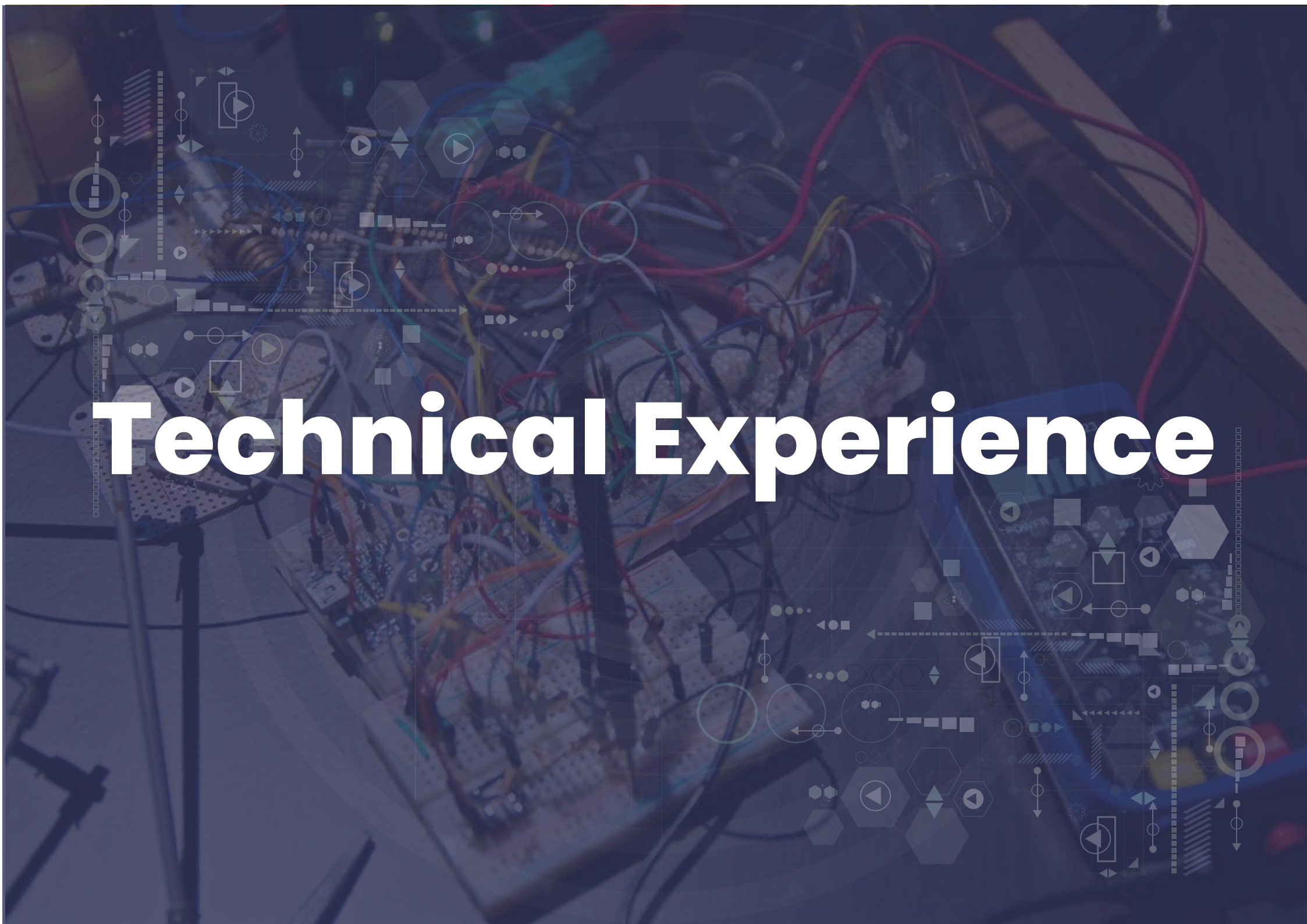

TECHSEN


KINGDOM OF SAUDI ARABIA


HADEEM CONTRACTING
هديم للمقاولات

Test Equipment List

- **Relay Test Unit:** SVERKER760 (Manufacturer – MEGGER)
- **Relay Test Unit:** FREJA (Manufacturer – MEGGER)
- **Breaker Analyzer:** EGIL (Manufacturer – MEGGER)
- **Micro ohmmeter:** MOM200A (Manufacturer – MEGGER)
- **Current Transformer Analyzer:** CT Analyzer (Manufacturer – Omicron)
- **Primary Test Unit:** CPC100 (Manufacturer – Omicron)
- **Transformer Ohmmeter:** MTO210 (Manufacturer – MEGGER)
- **Transformer Turns Ratio Meter:** TTR310-47 (Manufacturer – MEGGER)
- **Frequency Response Analyzer:** FRAX 150 (Manufacturer – MEGGER)
- **SF6 Analyzer:** 973 (Manufacturer – MBW)
- **Battery Load Unit:** TXL870 (Manufacturer – MEGGER)
- **Battery Load Unit Torkel:** 860 (Manufacturer – MEGGER)
- **AC HV Test Set:** 6CP100/50-10 (Manufacturer – Phenix)
- **DC Dielectric Test Set:** 475-20 (Manufacturer – Phenix)
- **10KV Insulation Tester:** MIT1025 (Manufacturer – MEGGER)
- **5KV Insulation Tester:** MIT520 (Manufacturer – MEGGER)
- **Power Quality and Energy Analyzer:** Fluke 437 Series II (Manufacturer – FLUKE)
- **Earth Tester:** DET4TCR2 (Manufacturer – MEGGER)


Technical Experience

Testing and Commissioning of Electrical Substations

1. Testing of switchgear and GIS components (CTs, VTs, CBs, bus bars, ...etc.) form different manufacturers (ABB, Schneider, Siemens, Hyundai, Mitsubishi, ... etc.) as per IEC and IEEE standard

2. Testing of power transformers up to 380KV form different manufacturers (ABB, WESCOSA, HYUNDAI, ALSTOM, ... etc.) as per SEC National Grid, SABIC and ARAMCO standard

3. Testing and commissioning of metering and protection systems including metering testing, protection relays testing, functional check, trip test, ... etc. form different manufacturers (ABB, Schneider, Siemens, Alstom, GE, ... etc.) as per SEC National Grid, SABIC and ARAMCO standard.

4. Testing and commissioning of AC/DC systems including battery chargers, batteries, AC/DC distribution panels.

5. Testing of grounding and lightning protection systems.

6. Testing and commissioning of SAS and SCADA system.

S.N.	CLIENT	PROJECT	LOCATION
1	SEC NG - KADI	T&C of Al SULAIHI 33/13.8 KV S/S, Protection Panels, Relays, Transformers, CTs, VTs, CBs, SAS, Final Commissioning and Final Trip Test, Energization	ABHA
2	SEC – ABB Electrical Industries.	Testing and Commissioning mobile substation, Relays, GIS, CTs, VTs, CBs, SAS, Transformers, Final Commissioning and Final Trip Test, Energization	JUBAIL
3	Aramco – ABB Electrical Industries.	Replacement and refurbishment of 230 KV outdoor C.B at UTHMANIAH Gas Plant	AL HASA
4	SEC – MOTABAQAH	Testing of Automatic Voltage Regulator, Auto recloser, Current Sectionlizer and capacitor banks. Training of SEC employees on the same equipment.	RIYADH AREA
5	SEC - ABB Services Co. Ltd.	Testing and Commissioning of Line and Transformer Protection Panels	ALWADJH TABOUK
6	SEC - ABB HVPD Co. Ltd	Testing and Commissioning of Control wiring for LCC panels of 380 KV S/S as per IFC drawings	AL TAIF
7	SABIC - ABB Services Co. Ltd.	Testing and Commissioning of MV SWGR and Relays at SABIC - Ibn Zahr	JUBAIL
8	ARAMCO - ALMASHARIQ Trading & Contracting Co.	Testing and Commissioning of MV, LV SWGR and MCCs with ARAMCO.	SHAYBAH
9	SEC - AlMASHARIQ Trading & Contracting Co.	Testing and Commissioning of EWAA S/S 110/13.8 KV S/S, Protection Panels, Relays, Transformers, CTs, VTs, CBs, Final Commissioning and Final Trip Test	MAKKAH
10	SEC - ALMASHARIQ Trading & Contracting Co.	Testing and Commissioning mobile substation, Relays, GIS, CTs, VTs, CBs, SAS, Transformers, Final Commissioning and Final Trip Test, Energization	NAJRAN

S.N.	CLIENT	PROJECT	LOCATION
11	SEC - AlMASHARIQ Trading & Contracting Co.	Testing and Commissioning of Nabiah 115/13.8 KV S/S, Protection Panels, Relays, Transformers, GIS, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test.	DAMMAM
12	SEC - AlMASHARIQ Trading & Contracting Co.	Testing and Commissioning of RC 115/13.8 KV S/S, Protection Panels, Relays, Transformers, GIS, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test.	JUBAIL
13	SEC - AlMASHARIQ Trading & Contracting Co	BB protection implementation for existing 33 KV at 8902/8903 S/S including trip and control circuit modification	HAIL
14	SEC - Arabian Qudra Co.	MV 33KV SWGR extension in SEC S/S. Testing and Commissioning of the new erected panels and End-to-End test.	RIYADH
15	SEC - Innovative Systems Co. Ltd.	Testing and Commissioning of Line and Transformer Protection Panels	AL BAHA
16	SEC - Nour Energy Co.	Testing and Commissioning of Wadi El DAWASER 33/13.8 KV S/S, Protection Panels, relays, Transformers, GIS, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test.	WADI ALDWASER
17	SEC - AUVA Co.	Testing and Commissioning of BB extension in Al RASS S/S	QASSIM
18	SEC - AUVA Co.	Control wiring termination and scheme check in PP-9 power plant protection panels upgrade	RIYAD
19	SEC - AUVA Co.	Testing and Commissioning of Line and Transformer Protection Panels	JEDDAH
20	SEC - ABB Services Co. Ltd	Pre-commissioning of Al FAKHRIYAH 115/13.8 KV S/S	DAMMAM

21	ARAMCO - Samsung Saudi Arabia Ltd.	Station Transformer testing. Step and Touch Voltage measurements	SHAYBAH
22	SEC - Saudi Jood Co.	Testing and Commissioning of Line and Transformer Protection Panels	ALMADINAH
23	MA'ADEN - TECHSEN Co.	Testing and Commissioning of MV, LV SWGRs, MCCs, and Motors with MA'ADEN	RAS EL KHAIR
24	SABIC - TECHSEN Co.	Testing and Commissioning of MV, LV SWGRs, MCCs, and Motors with SADARA	JUBAIL
25	SADARA - TECHSEN Co.	Testing and Commissioning of MV, LV SWGRs, MCCs, and Motors with SADARA	JUBAIL
26	Al WATANIAH Co.	Routine Testing and Maintenance of Protection Relays including final setting implementation and trip test.	QASSIM
27	SADARA - SINOPEC ENGINEERING GROUP SAUDI CO. LTD.	Testing and Commissioning of 778 and 779, 13.8 KV S/S, Relays, Transformers, NGR, MV SWGR, MCC, EMCC, LP, UPS, Cables, CTs, VTs, CBs, Final setting	JUBAIL (SADARA)
28	YANSAB - ABB Services Co. Ltd.	YANSAB Co. Turn Around Maintenance 115 KV SWGR & 34.5 SWGR Testing and Commissioning	YANBU
29	ABB Services Co. Ltd.	Fiber Glass Factory 34.5 KV Vacuum SWGR Testing and Commissioning	YANBU
30	SABIC - ABB Services Co. Ltd.	Ar Razi S/S Testing and Commissioning	JUBAIL
31	SEC - ABB Services Co. Ltd.	Testing and Commissioning of Al-KHUDARIA & Al UMMAL S/S	DAMMAM

32	KJO - ABB Services Co. Ltd	ABSF TP 2 Switchgear Cubicles Connection and Shutdown Related Offshore Campaign	AL KHAFJI
33	SEC - ABB Services Co. Ltd.	Testing and Commissioning of ABQIQ S/S	ABQIQ
34	SEC - ABB Services Co. Ltd.	Testing and Commissioning of Al-Kharj S/S	AL-KHARJ
35	SEC - ABB Services Co. Ltd	Testing and Commissioning of Al BAHRA 110/13.8Kv S/S	JEDDAH
36	Petro Rabigh ABB Services Co. Ltd.	Petro Rabigh Turn Around Maintenance Testing and Commissioning of MV SWGR	RABIGH
37	SEC - Arabian Qudra Co.	Testing and Commissioning of S/S 7091 Protection Panels, Relays, Transformers, GIS, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test.	RIYADH
38	MA'ADEN Arabian Stream for Electrical Contracting (ASEC)	MV SWGR Testing and Commissioning	JUBAIL
39	BANEYA International Contracting Est.	Testing and Commissioning of Tabuk University Project S/S, MV SWGR, CTs, VTs, CBs, Final Commissioning	TABUK
40	SEC - ABB Services Co. Ltd.	Capacitor Bank Installation and testing	AL-KHARJ
41	SEC - ABB Services Co. Ltd.	Testing and Commissioning of FARAS Power Plant Protection Relays testing and Protection Modification	DAMMAM
42	SABIC - ABB Services Co. Ltd.	Testing and Commissioning of IBN Khaldoun S/S MV SWGR, CTs, VTs, CBs, Protection Relays and Final Commissioning	DAMMAM

43	MAADEN -ABB Services Co. Ltd.	MAADEN UMM WUAL PHOSPATE PROJECT shutdown MV SWGR, CTs, VTs, CBs, Protection Relays and Final Commissioning	TURAIF
44	ABB Services Co. Ltd.	Meridian MV SWGR Maintenance & Testing CTs, VTs, CBs, Protection Relays and Final Commissioning	AL KHOBAR
45	SAFCO - ABB Services Co. Ltd.	MV SWGR Maintenance & Testing CTs, VTs, CBs, Protection Relays and Final Commissioning	JUBAIL
46	ARAMCO - ABB Services Co. Ltd.	OTHMANIA Gas Plant MV SWGR Maintenance & Testing CTs, VTs, CBs, Protection Relays and Final Commissioning	AL AHSA
47	SEC - ABB Services Co. Ltd.	. Overhauling & Retrofitting of 8027/8072/8061/8033/8060/ 8070 Substations and CBs Control Modifications	RIYADH
48	SEC - ABB Services Co. Ltd.	Testing and Commissioning of Pilot Wire Line Differential Relays	YANBU
49	SABIC - ABB Services Co. Ltd.	Protection Relays Upgrade (Replacing all existing 34.5kv and 6.6kv relays)	JUBAIL
50	SEC - ABB Services Co. Ltd.	Reinforcement of S/S 8072 including GIS & Transformers	RIYADH
51	SEC - ABB Services Co. Ltd.	Testing and Commissioning of UTP Platform Offshore MV SWGR, CTs, VTs, CBs, Protection Relays and Final Commissioning	AL KHAFJI
52	SEC - ABB Services Co. Ltd. (ELEMAC)	MAADEN UMM WUAL PHOSPATE PROJECT shutdown MV SWGR, CTs, VTs, CBs, Protection Relays and Final Commissioning	TURAIF
53	SEC - Hyundai Heavy Industries Co. Ltd.	Power Transformers Testing and Commissioning with INFRARED inspection at PP11 Power Plant	RIYADH

54	ARAMCO - Hyundai Heavy Industries Co. Ltd.	Power Transformer Testing at TIHAMA Gas Plant	AL AHSA
55	SEC - Innovative Systems Co. Ltd.	Testing and Commissioning of Al Baha S/S 110/13.8 KV S/S, Protection Panels, Relays, Transformers, GIS, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test	AL BAHA
56	SEC - Middle East Engineering & Development Co. Ltd. (MEEDCO)	Testing and Commissioning of AMR Metering System at ALFARDOUS 380KV S/S	DAMMAM
57	Projects & Supplies Co. (AUVA)	Testing and Commissioning of High impedance Busbar differential protection for 7826 S/S Al-RASS	JEDDAH
58	Projects & Supplies Co. (AUVA)	Testing and Commissioning of Line differential protection 8515 S/S & Remote End S/S 9011	RIYADH
59	ARAMCO - Samsung Saudi Arabia Ltd.	Testing and Commissioning of SHAIBAH (GOSP) Gas Oil Separation Plant S/S PKG 1,2,3 and 4 Including MV Protection Panels, Relays, Transformers, MV SWGR, CTs, VTs, CBs, Final Commissioning and Final Trip Test.	SHAIBAH
60	Saudi Plastic Packaging Systems SPPS (TAKWEEN)	RMU Replacement & Cable Termination and RMU and Cable testing and energization	JEDDAH
61	SEC - Trading and Development Partnership (TDPCO)	Line Protection Upgrade Off S/S 8201 132 KV	RIYADH

Testing of Transmission Lines and HV MV and LV cables

A Transmission line:

Measurement of transmission line parameters.

B HV, MV and LV cables:

- Hi-Pot and insulation resistance test up to 380KV cables.
- Online/offline partial discharge.
- Cable Tan Delta
- Cable fault location.
- Sheath fault location

S.N.	CLIENT	PROJECT	LOCATION
1	ARAMCO – APTC	MV Cable sheath test for 94 Cores in EPC-6 (IR, Integrity, Sheath fault location)	JAZAN INDUSTRIAL CITY
2	ARAMCO – CCC	MV Cable sheath test for 23 Cores in EPC-13 (IR, Integrity, Sheath fault location)	JAZAN INDUSTRIAL CITY
3	ARAMCO – CCC	MV Cable phase fault location test for 3 Cores in EPC-13	JAZAN INDUSTRIAL CITY
4	ARAMCO – Al KHODARI AND SONS	MV Cable sheath test for 27 Cores in EPC-6 (IR, Integrity, Sheath fault location)	JAZAN INDUSTRIAL CITY
5	ARAMCO – El-YAMAMA	Sheath testing and pin pointing of sheath faults at Jizan Refinery Plant.	ABHA
6	HADEEM Contracting Co.	Cable Termination and cable testing for 40 points in Girls College	RIYADH HURAIMELAA

S.N.	CLIENT	PROJECT	LOCATION
7	Numerical Relay Company	34.5 KV Cable Testing HIPOT and Insulation Resistance (78 1C cables)	RIYADH
8	Al KHORAYEF Water & Power Technologies company	MV Cable Termination & Testing HIPOT and Insulation Resistance	AL-KHARJ
9	Dammam University	Cable Termination and Cable Testing HIPOT and Insulation Resistance	AL KHOBAR
10	SEC - SAUDI EDRAK	Testing of MV Cables 33KV Tan Delta and Partial Discharge for Metro Feeders from 9052 S/S and 9054 S/S (12 Cables 1x240 mm2	RIYADH
11	SEC – IBN OMAIRA	Testing of MV Cables 33KV Tan Delta and Partial Discharge for Metro Feeders from 9053 S/S (36 Cables 1x240 mm2	RIYADH
12	SEC – Al OJAIMI	Testing of MV Cables 33KV Tan Delta and Partial Discharge for Metro Feeders from 9053 S/S (18 Cables 1x240 mm2	RIYADH

Testing of electrical systems of buildings and different facilities

1. Testing of package/unit sub-stations, RMUs, mini-pillars and distribution transformers form different manufacturers (ABB, WESCOSA, Lucy, Schneider … etc.) as per SEC, KJO and ARAMCO standard.

2. Testing of MDBs, SMDBs, DBs and MCCs components (ACBs, MCCBs, MCBs, bus bars, VSD, soft starters, contactors, … etc.) form different manufacturers (ABB, Schneider, Siemens, GE, Al-Fanar, etc.) as per SEC, KJO, SABIC, MARAFIQ and ARAMCO standard.

3. Testing of generators and ATS/MTS panels.

4. Testing of uninterruptible power supply (UPS).

5. Testing of grounding and lightning protection systems.

6. Witnessing of testing and commissioning of fire alarm systems.

7. Point to point check and signals verification of Building management system (BMS).

8. Testing of smart home systems such as lighting control system.

S.N.	CLIENT	PROJECT	LOCATION
1	GACA - ABB Electrical Industries	Testing of LV MCC and LV SWGR at Jeddah Air Port.	Jeddah
2	Dammam University - King Fahad University of Hospital (KFUH).	Supplying, Installation and Cable Laying of MV 500kVA and 1500kVA Package Substation in Hospital Residential Compound with BMS signals verification.	Al Khobar
3	Dammam University - King Fahad University of Hospital (KFUH).	Replacement of Existing Faulty MV Cable including Supplying and Cable laying between SEC S/S and existing Package S/S in Hospital Residential Compound	Al Khobar
4	Dammam University - King Fahad University of Hospital (KFUH).	Replacement of Existing Halogen and sodium street and garden lighting with LED lighting Fixture including supplying of lighting poles, cables and installation of lighting poles and laying cables	Al Khobar
5	FOSAM Co. Ltd. (FOSROC)	Design, Supplying, Installation & Testing of CNC Machines Control System	JEDDAH
6	ABB Services Co. Ltd.	GABAL Omar Development Project EM07800 transformers, RMUs, package substations	MAKKAH

Engineering, design and consulting services including

- Scheme design
- ETAP Studies
- Load Flow Analysis.
- Short Circuit Analysis with Device Duty.
- Protective Devices Coordination study.
- Arc Flash Analysis and ArcFlash Mitigation
- Motor Acceleration (Static/Dynamic).
- Cable sizing ampacity
- Ground Grid System.
- Transformer sizing
- Transmission lines Sag and Tension.
- AC & DC PV Array

S.N.	CLIENT	PROJECT	LOCATION
1	ARAMCO – Nesma	Load Flow, Short Circuit and Relay Coordination study for Ajyal Project.	Dhahran
2	SABIC - Future Technologies Ltd. Co	Field Measurements at phase III, SIPCHEM Company for Short Circuit and Load Flow Studies	JUBAIL
3	KRT - National Tri-Generation CHP Co	King Road Tower Power System Analysis and Load Flow Study	JEDDAH
4	ARAMCO - Power House General Cont. Est.	Testing and Troubleshooting of existing lightening and grounding System protection to Solve I/O Modules frequent burning for ABHA booster pump station # 1 and proposing the proper solution	ABHA
5	MA'ADEN - Sinopec Engineering (Group) Co. Ltd	ETAP Modeling for 34.5 KV network feeding GYPSUM Area. Power system studies and relay settings calculation for the total network starting from the 34.5 KV MV network down to GYPSUM	TURAIF

Arabtech Team Qualifications:

1. 14 years of experience in the industrial/residential electrical power system analysis.
2. Attending ETAP workshops (Basic and advanced).
3. Miscellaneous power system analysis projects done in different countries.
4. Clients served as below:

- Saudi ARAMCO (KSA)
- Al Tasnee (KSA)
- Samref (KSA)
- Schneider Electric Egypt
- ISCOSA (KSA)
- Al Muhaidib (KSA)
- Moinil (Egypt)
- GE (Egypt)
- Nesma (KSA)
- SABIC (KSA)
- Sipchem (KSA)
- ABB (KSA)
- Siemens (KSA)
- Drake & Skull (KSA)
- P&G (Different Countries)
- Italcementi group (Egypt)
- Mena Cables (Egypt)
- SINPOIC (KSA)

Academic and On-Site Training

A. On-Site Training:

- Training on operation and maintenance of LV SWGR. (SIEMENS Make) – Client: SIEMENS.
- Training on how to operate cable tan delta testing equipment. (HVI Make – Model: VLF65E+TD65E) – Client: Marafiq - Yanbu
- Training on inspection and maintenance of UPS, Battery Chargers, Batteries and Diesel Generators.Client: STC (Saudi Telecom Company).
- Training on operation and inspection of rotating disc energy meters.Client: Energy Distributer Co.
- Training on how to operate secondary injection test equipment. (Megger Make – Model: FREJA300) – Client: Al OJAIMI.
- Training on how to operation power quality analyzer test equipment. (Fluke Make – Model Fluke 437/435) – Client: MOTABAQAH.
- Training on operation and maintenance of MV SWGR (33KV & 13.8KV – SIEMENS Make –Model: 8DA & NXPLUS). Client: SEC – National Grid
- Training on operation and maintenance of Package Substation. (WESCOSA Make) – Client: KJO.
- Training on operation and inspection of protection relays (SIEMENS Make – Model: 7SJ645, 7SJ802, 7SJ64d1).Client: SEC-National Grid.
- Training on operation, inspection and maintenance of power transformers (30MVA – 13.8KV/380V ONAN/OFAF - KONCAR Make) – Client: SEC-National Grid.
- Training on inspection, testing and maintenance of industrial and vehicle batteries – Li-ion & Lead Acid – Client: MOTABAQAH.
- Training on electrical and industrial field measurements. Client: SOLB STEEL-Jizan.
- Training on Environmental Testing Devices (CO2, Light Density- High Noise – Water Chlorination).
- Training for Certified Electromechanical Technician on (Reading of Electrical Drawings, Operation and Maintenance of MV & LV SWGR, Inspection and Maintenance of Transformers, Operation and Troubleshooting of Automation Systems.Client: ABB Factory – Riyadh.

B. Academic Training:

he following training courses have been conducted with multiple client such as (SEC - ARAMCO SABIC – STC – KJO – MARAFIQ – PETRO RABIGH - ABB - SIEMENS ... etc.)

Electrical

1. Energy and Tariffs Meters.
2. Low Voltage Mini-Pillars.
3. High Voltage Bus Bar Protection and Breaker Failure.
4. UPS, Chargers and Batteries.
5. Power System Harmonics and Power Quality.
6. Electrical Load Forecasting, Characteristics and System Upgrade.
7. Generator Operation, Maintenance and Troubleshooting.
8. Major Generator Testing and Inspection.
9. Generator Maintenance and Troubleshooting.
10. Power System Analysis.
11. Testing, Maintenance and Operation of Electrical Substations.
12. Electrical Generation; Steam Turbine, Gas Turbine, Co-Generation, & Combined Cycle.
13. Static Var Compensation.
14. Capacitor Bank Protection.
15. Advanced Electrical and Mechanical Safety.
16. Electrical Maintenance, Testing, Inspect.
17. Power System Security, Assessment and Control.
18. Power Systems Reactive Power Compensation Techniques.
19. High Voltage and Extra High Voltage Switchgear.
20. Protection and Control for Power System

21. Voltage, Frequency, Active & Reactive Power Control.
22. Advance GIS Switching.
23. Energy Meters Types Installation, Maintenance, Calibration & Troubleshooting.
24. Automatic Voltage Regulator (AVR) Operation & Maintenance.
25. Preventive & Predictive Maintenance of Overhead Lines.
26. Electrical Power system Grounding.
27. Circuit Breaker Schematic Diagrams & Troubleshooting.
28. Electrical Distribution Networks.
29. Problems & Solutions on Electrical Power System Elements.

30. Transformer Operation & Maintenance.
31. Transmission Substation Operation 132/38 KV.
32. Power System Analysis & Network Expansion.
33. Power System Restoration & Black Start.
34. Digital Protective Relays Techniques.
35. Motor Overhaul and Rewinding.
36. Power Transformer Pre-commissioning Testing.
37. CT &PT LV/ MV Installation and Maintenance for Distribution.
(110 / 380 kV) CT &PT Installation and Maintenance.
38. Standby Generators.
39. High Voltage Authorized Person.
40. Batteries for Power System.
44. Electrical Power Supply Maintenance.
45. Power Systems High Voltage Substations.
46. Power System Stability & Dynamic in Power System.
47. Testing, Maintenance & Operation of Electrical Substations.
48. Electrical Drawings & Control Systems.
49. 13.8 Power Generators.
50. Electrical Power system Grounding
51. Medium Voltage Switchgear.
52. Synchronous Generators Fundamentals.
53. Industrial Gas Analyzer.
54. Medium Voltage Equipment Pre-commissioning.
55. Fiber Optics Applications.
56. Distribution Network Design and Planning.
57. Micro Processor Application and Fundamentals.
58. Reading of Electrical (Siemens) Drawing.
59. Power system protection.
60. Network Operation Special Course.
61. Protection Coordination.
62. Maintenance of Insulating Oil.

63. Craft Appreciation for Engineers.
64. Generator and Motor Protection.
65. Protection Coordination.
66. Safe Working Procedure.

Mechanical...

Gas Turbine operation, maintenance and troubleshooting.

1. Bearing and lubrication operation, maintenance and troubleshooting.
2. Heat exchanger operation, maintenance and troubleshooting.
3. Boiler operation and maintenance.
4. Pump operation and maintenance.
5. Pneumatic system Operation, Maintenance &troubleshooting.
6. Hydraulic system operation, maintenance &troubleshooting.
7. Mechanical Sealing.
8. Rotating Equipment operation and maintenance.
9. Valves selection, operation &Maintenance.
10. Cutting Tools.
11. Gear Boxes operation, Maintenance & Troubleshooting.
12. Compressors and Steam Turbine.
13. Advance Bearing Failure Analysis.
14. Pump & Mechanical Seal operation and maintenance.
15. Pipe Lines Integrity.
16. Pipes Fitting.

Academic and On-Site Training

a. On-Site Training

1. Training on operation and maintenance of LV SWGR.(SIEMENS Make) – Client: SIEMENS.
2. Training on how to operate cable tan delta testing equipment.
(HVI Make – Model: VLF65E+TD65E) – Client: Marafiq - Yanbu.
3. Training on inspection and maintenance of UPS, Battery Chargers,
Batteries and Diesel Generators.
Client: STC (Saudi Telecom Company).
4. Training on operation and inspection of rotating disc energy meters.
Client: Energy Distributer Co.
5. Training on how to operate secondary injection test equipment.
(Megger Make – Model: FREJA300) – Client: Al Ojaimi.
6. Training on how to operation power quality analyzer test equipment.
(Fluke Make – Model Fluke 437/435) – Client: MOTABAQAH.
7. Training on operation and maintenance of MV SWGR (33KV &
13.8KV – SIEMENS Make – Model: 8DA & NXPlus).
Client: SEC – National Grid.

8. Training on operation and maintenance of Package Substation. (WESCOSA Make) – Client: KJO.
9. Training on operation and inspection of protection relays (SIEMENS Make – Model: 7SJ645, 7SJ802, 7SJ64d1). Client: SEC-National Grid.
10. Training on operation, inspection and maintenance of power transformers (30MVA – 13.8KV/380V – ONAN/OFAF - KONCAR Make) – Client: SEC-National Grid.
11. Training on inspection, testing and maintenance of industrial and vehicle batteries – Li-ion & Lead Acid – Client: MOTABAQAH.
12. Training on electrical and industrial field measurements. Client: SOLB STEEL-Jizan.
13. Training for Certified Electromechanical Technician on (Reading of Electrical Drawings, Operation and Maintenance of MV & LV SWGR, Inspection and Maintenance of Transformers, Operation and Troubleshooting of Automation Systems. Client: ABB Factory – Riyadh.
14. Training on Environmental Testing Devices (CO2, Light Density- High Noise – Water Chlorination).

b. Academic Training:

The following training courses have been conducted with multiple client such as (SEC - ARAMCO – SABIC – STC – KJO – MARAFIQ –Petro Rabigh - ABB - SIEMENS-etc).

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3. High Voltage Bus Bar Protection and Breaker Failure.
4. UPS, Chargers and Batteries.
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35. Motor Overhaul and Rewinding.
36. Power Transformer Pre-commissioning Testing.
37. CT &PT LV/ MV Installation and Maintenance for Distribution.
38. (110 / 380 kV) CT &PT Installation and Maintenance.
39. Standby Generators.
40. High Voltage Authorized Person.
41. Batteries for Power System.
42. Testing, Commissioning and Startup for Electrical System.

43. Electrical Measurement Instruments.
44. Basic Concept of Protection System.
45. Electrical Power Supply Maintenance.
46. Power Systems High Voltage Substations.
47. Power System Stability & Dynamic in Power System.
48. Testing, Maintenance & Operation of Electrical Substations.
49. Electrical Drawings & Control Systems.
50. 13.8 Power Generators.
51. Electrical Power system Grounding
52. Medium Voltage Switchgear.
53. Synchronous Generators Fundamentals.
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64. Craft Appreciation for Engineers.
65. Generator and Motor Protection.
66. Protection Coordination.
67. Safe Working Procedure.

Mechanical...

1. Gas Turbine operation, maintenance and troubleshooting.
2. Bearing and lubrication operation, maintenance and troubleshooting.
3. Heat exchanger operation, maintenance and troubleshooting.
4. Boiler operation and maintenance.
5. Pump operation and maintenance.
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8. Mechanical Sealing.
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13. Compressors and Steam Turbine.
14. Advance Bearing Failure Analysis.
15. Pump & Mechanical Seal operation and maintenance.
16. Pipe Lines Integrity.
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Contact Us

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