

*M. Zaki has 28 years of experience in power plant projects' technical and project management issues. He worked in operation, maintenance, construction supervision, start-up, design review, detailed engineering, engineering management and project management of power plants and water treatment projects. He participated in different project prospects as an owner, a contractor, an engineer and a consultant.*

**NATIONALITY:** Egyptian

**QUALIFICATION:** B.Sc., Electrical Engineering, Ain Shams University, Cairo 1982.  
Licensed Consultant Electrical Engineer in Egypt since 2002

**YEAR OF BIRTH:** 1959

**TRAINING & PROFESSIONAL STUDIES:**

**MBA** Distance Student in Colorado State Univ. Since Oct. 07

Six-Sigma (Champion) by Bechtel Power – 2004

Professional Program Courses in Project Management, American University in Cairo:

- \* Project specifications, bids, and contracts
- \* Feasibility studies and financing
- \* Project planning and control techniques using PRIMAVERA

Courses in Electrical, Mechanical and Control systems of Power Plant Components by:

- |                |                       |
|----------------|-----------------------|
| * Westinghouse | * Ansaldo             |
| * Daelim       | * Fuji Electric       |
| * Teledyne     | * Bechtel Power Corp. |

**LANGUAGE CAPABILITIES:**

Arabic (mother tongue)

English (fluent) - "TOFEL" June 85 Score 537

**COMPUTER CAPABILITIES:**

Using MSWord, MS-Projects, MS-Excel, MS-Access, MS-Power Point & MicroStation

Knowledge about AutoCAD and Primavera

**EXPERIENCE:**

28 years of experience started in power plants and water treatment plants' electrical and mechanical equipment operation, maintenance, start-up, and moved to detailed engineering and engineering management.

- Preparation of specifications and contracts.
- Generating detailed design.
- Reviewing contractors technical design submittals against contract requirements, codes and requirements for the interfaces with others.
- Coordinating different contractors' scopes of work within the same project.
- Coordinating different engineering disciplines work in different project phases.

## OVERSEAS EXPERIENCE:

06/84 - 08/84 Erection of 250 t/h grain discharger, "DK" factory in USA  
09/89 - 11/89 Damietta Combined Cycle Power Plant Design, Bechtel Power Corp. USA  
06/94 - 06/95 Sidi Krir and Ayoun Moussa Power Plants Design, Bechtel Power Co. USA  
05/01 - 06/01 Cairo North Power Plant Project Engineering Kick-off, Bechtel Power Co. USA

## CHRONOLOGICAL EXPERIENCE RECORD:

**Dates:** March 2008 to Present (July 2010)  
**Employer:** EGYPTROL ([www.egyptrol.com](http://www.egyptrol.com))  
**Job title:** Founder and Director

**Dates:** March 2006 to March 2008  
**Employer:** ACESCo "Arab Consulting & Engineering Services Co."  
A Libyan engineering company owned by GECOL (of Libya) and EEHC (of Egypt)  
Secoded from PGESCo  
**Job title:** Deputy General Manager  
**Projects:** In tendering phase:  
Tripoli West 4X350MW  
Alkhalij 4X350 MW  
Sarir 3X150 MW Gas Turbines  
Sabha 5x125 MW Gas Turbines  
Tobrouk 1000 m3/day Desalinated water + 700 MW Go-Generation  
In Construction phase:  
Western Mountain 4x150 MW GTs  
Benghazi North 2X450MW CC  
Zawia 2X450 MW CC  
Desalination plants (Zawia, Derna & Susa) total 160,000 M3 / Day  
OHTL 1000 km  
400 kV Substations 7 substations

## Job Description/Level of Responsibility:

- Leading the Engineering team activities through leading the Engineering Group Supervisors (Civil, Architect, Electrical, Mechanical, Physical Design and Control systems) during the preparation of the power plant Contract Packages and Purchase Orders. Packages covered supply, erection, testing, safety issues, and start-up requirements for Turbines, Steam Generators, Civil Works, Mechanical Works, Electrical Works, Emissions Monitoring, Pumps, HVAC, Emergency Diesel Generators, overhead Cranes.....etc.
- Managing company engineering team in executing design review tasks of contractors' technical submittals.
- Resolve running projects engineering, construction, budget, and time schedule issues; prepare reports with recommendations to clients, respond to contractors' correspondences to client and conduct coordination meetings between clients and contractors, etc....
- Initiate and follow up company projects invoicing and payments collection.
- Control projects budgets.
- Preparation of company proposals for future work.
- Define and resolve company resources and manpower requirements.

**Dates:** May 2002 to Feb. 2006  
**Employer:** PGESCO "Power Generation Engineering and Services Co."  
An Egyptian engineering company partially owned by BECHTEL POWER of USA  
**Job title:** Deputy Project Engineering Manager  
**Project:** Nubaria Combined Cycle Power Plant Project (2X750 MW)

**Job Description/Level of Responsibility:**

Leading the Engineering team activities through the Engineering Group Supervisors (Civil, Architect, Electrical, Mechanical, Physical Design and Control systems) during the preparation of the power plant Contract Packages and Purchase Orders. Packages covered supply, erection, testing, safety issues, and start-up requirements for Turbines, Heat Recovery Steam Generators, Civil Works, Mechanical Works, Electrical Works, Emissions Monitoring, Pumps, HVAC, Emergency Diesel Generators, overhead Cranes.....etc.

Leading the Engineering team in executing conceptual and detailed design (for PGESCO scope of design) and technical submittals design review for contractors' technical submittals (for contractors' scope of design). Coordinating engineering activities with Construction team, Procurement team, different Contractors/suppliers and Owner representatives.

**Dates:** Feb. 2001 to May 2002  
**Employer:** PGESCO - An Egyptian Engineering firm partially owned by Bechtel Power (USA)  
**Job title:** Power Plants Electro-Mechanical Control Systems Specialist  
**Project:** Different Projects

**Job Description/Level of Responsibility:** Participated in the development of a number of power plant projects. Worked in Bechtel's offices in Frederick, MD, USA for 2 months during the Engineering Kick-off phase of Cairo North (I) Power Plant project (750MW).

**Dates:** Feb. 1999 to May 2001  
**Employer:** PGESCO – An Egyptian Engineering firm partially owned by Bechtel Power (USA)  
**Job title:** Project Engineer  
**Project:** Sidi Krir 1&2 (2X320 MW gas/oil fired steam cycle power plant)

**Job Description/Level of Responsibility:** Coordinating all the project Engineering activities including Civil, Mechanical, Electrical and Instrumentation issues with construction team, start-up team, all contractors, suppliers and the Client (EEA), during the construction completion and start-up phase of the project. At this stage the operating logics and procedures were the major coordination issues.

**Dates:** June 1994 to Feb. 1999  
**Employer:** PGESCO – An Egyptian Engineering firm partially owned by Bechtel Power (USA)  
**Job title:** Control Systems Engineering Group Supervisor  
**Project:** Sidi Krir 1&2 and Ayoun Moussa 1&2  
(each 2X320 MW gas/oil fired steam cycle power plant)

**Job Description/Level of Responsibility:** Control System Engineering Group Supervisor coordinating a group of 5 to 8 engineers activities with other disciplines, Contractors and the Client in:

- Finalizing contracts of Turbines, Gas/Oil fired Steam Generators, Civil Works, Mechanical Works, Emissions Monitoring, Electrical Works, High, Medium and Low Voltage equipment, HVAC, Emergency Diesel Generators, overhead Cranes.....etc considering the
- Contractors' design review. Design review was performed against contracts technical specification, contracts general and special conditions, Codes and Standards, Good Engineering Practices, environmental requirements and interface requirements
- Detailing the plant instrumentation and electrical design (Logic Diagrams, I/O list, Instrument Index, Data sheets, Level Setting Diagrams, Cable Block Diagrams, Electrical Schematics)

June 94 - May 95: Working in Bechtel's office in Gaithersburg, MD, USA, participating with Bechtel's engineers in developing the project's specification and conceptual design.

**Dates:** Oct. 1990 to May 1994  
**Employer:** Permutit Egypt - Water & Waste Water Treatment Contracting Company  
**Job Title:** Project Engineer plus part time Electrical / I&C Design Engineer  
**Project:** Factory 200 Sewage Treatment Plant /Swiss Village Sewage Treatment Plant / Suhag City Chlorination Plant, and others.

**Job Description/Level of Responsibility:** Planning and coordinating all engineering, procurement and construction activities within the company and with clients, suppliers and contractors to execute and hand-over sewage treatment plant projects to clients, for a number of projects. Meanwhile, I was responsible for the design of the electrical and control systems of all the company projects.

**Dates:** Sept. 1989 to Sept. 1990  
**Employer:** Overseas Bechtel, Inc./Electrical Power Systems Eng. Company (EPS) Consortium – Owner's Engineer  
**Job Title:** Power Plant Electro-Mechanical Instrumentation and Control Engineer  
**Project:** Damietta Combined Cycle Power Plant (1,200 MW), Egypt

**Job Description/Level of Responsibility:** Responsible for the steam cycle power plant electrical and instrumentation Contractors' design reviews and participating in the Mechanical systems operating logics design review.

**Dates:** Sept. 1989 to Dec. 1989  
**Employer:** Overseas Bechtel Inc./EPS - The Owner's Engineer  
**Job Title:** Power Plant Electro-Mechanical Instrumentation and Control Engineer  
**Project:** Damietta Combined Cycle Power Station Plant

**Job Description/Level of Responsibility:** Participated in Electrical/Instrumentation contract negotiations and finalization in Bechtel's office Gaithersburg, MD, USA. Bechtel was the Owner's engineer of the project.

**Dates:** Feb. 89 to Sept. 89  
**Employer:** Gilbert Commonwealth International Inc. - EPC Contractor  
**Job Title:** Construction Manager Technical Assistant  
**Project:** 500 kV substations rehabilitation project

**Job Description/Level of Responsibility:** Responsible for coordinating engineering issues with client and consultant, obtaining client approvals and release of drawings to subcontractor for construction.

**Dates:** Dec. 1988 to Feb. 1989  
**Employer:** Sadelmi Cogepi – Construction Contractor  
**Job Title:** Power Plant Electro-Mechanical Instrumentation and Control Engineer  
**Project:** Talkha Combined Cycle Power Plant (2 x 50 MW Steam Turbines phase)

**Job Description/Level of Responsibility:** Participated in field instruments and control valves calibration and startup.

**Dates:** May 1988 to Dec. 1988  
**Employer:** Daelim Industrial Co. Ltd. – Electrical Works Construction Contractor  
**Job Title:** Power Plant Electro-Mechanical Instrumentation and Control Engineer  
**Project:** Shoubrah El-Kheima Power Plant Unit 4 (315 MW), Egypt

**Job Description/Level of Responsibility:** Responsible for the plant Programmable Logic Controller (PLC) maintenance and startup activities. The PLC was controlling logic operation of all plant equipment, other than the Boilers and Turbines, i.e. pumps, valves, compressors, heaters, screens, alarms, etc.

**Dates:** July 1986 to Dec. 1987  
**Employer:** Electrowatt Engineering Services, Ltd. - Owners' Consultant for Attaka (600 MW)  
**Job Title:** Power Plant Electro-Mechanical Instrumentation and Control Engineer  
**Project:** Suez (Attaka) Power Plant Unit 3 (300 MW)

**Job Description/Level of Responsibility:** Performed site supervision of Electro-mechanical systems installations and participated in site design review of I&C documentation and equipment operation logic diagrams.

**Dates:** August 1982 to June 1986  
**Employers:** 1. Egyptian Electricity Authority  
2. "DK" (American Grain Dischargers Manufacturer), Egypt (Part time)  
3. Consulting Engineering Center (Part time)  
**Job Title:** 1. Assistant Shift Engineer; Site Supervisor; Instrumentation and Control Maintenance Engineer  
2. Maintenance Engineer (Part time)  
3. Design Engineer (Part time)  
**Project:** 1. Cairo West Power Plant (4 x 80 MW); Shoubrah El-Kheima Power Plant (3 x 315 MW)  
2. Grain Discharging Unit Control Systems  
3. Various

**Job Description/Level of Responsibility:**

Assistant shift engineer / Site supervision of construction and startup / I&C maintenance engineer, specialized in Programmable Logic Controllers / Maintenance engineer for grain discharging units' control systems/ Electrical design works for residential and industrial projects.