E-Consult is an Egyptian Engineering firm established in 2008. It has a deep record of successfully completed projects through Egypt, Middle East and Gulf with several Building services, Infrastructural and Industrial application projects. We are a highly specialized consultancy and engineering firm with a focus on providing sophisticated electromechanical services.

E-Consult consultancy office grew to be over 25 people strong. Our unique brand of engineers has the capacity to deliver almost the full range of professional engineering services. Those encompass project identification, pre-feasibility/feasibility studies, properties and site appraisals, site selection, design and detailed engineering, construction management and supervision, procurement, inspection, quality control, and personnel training.

E-Consult Headquarters are located at Nasr City, Cairo, Egypt in four floors premises, with a floor area of more than 800 sq. meter accommodating the state-of-the-art office facilities supporting the firm’s, management, design, and drafting activities.

E-Consult is dedicated to Total Quality. Its quality assurance and audit department reports directly to the Company President. This secures the highest desirable standards throughout all ECG assignments during various projects' phases. We are targeting obtaining Quality Assurance System ISO 9001:2008.
E-CONSULT believes in establishing long lasting client relationships by taking ownership of the client's goals, creating cost effective engineering, and being responsive to client requirements. We are taking the challenge to provide quality, energy efficient and feasible engineering product. We keep our eyes on the finish line, within project limits set forth and standard codes adherent.

We are committed to the success of projects we participate in, and deliver this commitment via a creative core of experienced engineering staff supported by a continual inflow of the best team and technology tools.

**E-CONSULT’s Mission:**

E-Consult's aspire for leading a global position in providing a superior engineering services meeting the highly complex demands in facilities and effective operations.

**E-CONSULT’s Vision:**

E-Consult's vision to be a unique provider of the services we offer with support and technical expertise to ensure that the individual needs of each client are met efficiently ensuring the best possible solutions on every project.

**E-CONSULT’s Values:**

- Quality services is the rule
- Client comes first
- We are each other’s greatest resources
- Sustainably work with enthusiasm
- Promote the level of service
- Embolden the creative solutions
- Belief in rules depend on high moral values
- Striking the delicate balance for environment
- Respect the natural constraints of our planet
- Abidance the one word
- Ingrain the cooperation and social responsibility

www.econsult-eg.com
E-CONSULT’s Services:

MEP services represent a significant cost factor on any project. So it is essential to provide a fully integrated design solution that is delivered on time, within budget and embraces the suitable technologies.

Our team delivers engineering design and specialist services across all applications including education, healthcare, sports and leisure, hospitality, residential, commercial and office buildings, retail and industrial buildings, retail and terminals. Our range of services includes:

- HVAC Engineering
- Fire Fighting
- Plumbing Engineering
- Electrical and low current Engineering
- Instrument and control systems engineering

A. Areas of proficiency:

Mechanical Engineering
- Energy Modeling.
- Instrumentation and Controls, and Building Automatic Systems.
- LPG Systems.

Fire Fighting
- Clean Agent Suppression.
- Pre-action Systems.
- Automatic sprinkler system.
- Water mist Systems.
- Diesel and Electric Fire Pumps.
- Early Detection and Suppression Systems.
- Automatic and Manual
- Standpipe Systems
Services

**Plumbing Engineering**
- Building Plumbing, Drain, Waste, and Vent Systems.
- Medical and Waste Anesthetic Gas and Vacuum Systems.
- Water Conservation and Recovery, Rainwater Harvesting.

**Electrical Engineering**
- Substations and power distribution systems.
- Low voltage distribution systems.
- UPS and battery system.
- Lighting and Lightning controls.
- Grounding and Lightning protection systems.
- Short-circuit, load flow studies, and protection coordination study.
- Security and IT Systems.
- Building Automation systems.

B. **Design software:**
- ETAP-7.1, a Power System Analysis software that provides short circuit levels calculation, load flow study, cable sizing and voltage drop calculation, and protection device coordination.
- DIALux for lighting distribution and calculation.
- HVAC Computational Fluid Dynamics, CFD analysis is used to calculate the temperature, velocity and other air properties through a 3D domain.
- Pipe flow expert, Calculate pressure loss & flow rate in pipe systems. Models open/closed loops, components & pump curves. Includes Fluids & Pipes Database.
- Fire & Smoke Computational Fluid Dynamics, this powerful design tool can be used to create fire simulations that accurately predict smoke movement, temperature, and toxin concentrations during a fire. Our team is able to model fire development and smoke movement within the building, analyzing the internal thermal dynamics as well as the effects of the external environment, such as gusting wind and designing smoke management systems accordingly.
C. **Detailed deliverable list:**

E-Consult scope can vary to include part of the following documents and drawings based on project and client requirement:

- Equipment general arrangement
- Cable sizing and cable lists
- Cable routing & trays
- Voltage drop calculation
- Power system short circuit calculations
- Load flow
- Grounding
- Lighting calculation
- Control panel wiring
- Single & three line diagram
- Installation typical design
- Termination schedule
- Fire alarm system design
- CCTV system design
- PA and sound system design
- Telephone and data network
- I/O List and Instrument lists
- Logic Diagrams controls
- Functional block diagrams for closed loop controls
- Instrument data sheets, hook-up details & material takeoff
- Vendors interfaces and marshalling
- Level setting diagrams
- Piping system detailed design (sizing, fitting detailing, pressure drop and wall thickness)
- Piping & instrumentation diagrams (P&IDs)
- Equipment & system sizing calculation
- Equipment specifications & vendors interfaces
- HVAC & fire fighting systems
- Plumbing system
- System piping pressure drop and Hydraulic calculation
- Electrical, low current and mechanical systems specifications
- Preparation of tender RFP documents (technical & pricing sections)
E-CONSULT Clients:

Our constantly growing client base includes, amongst others:

Architects:
- A&P Architects and Planners
- Ahmed Farid Hamza - AFH Architect
- Creation Home Design And Planning
- Perfect Design Group
- Scope Architect Consultant
- Wessam Architects

Owners:
- MULTIPHARMA
- Roots Steel System
- AUG-Allied United Group

Contractors:
- Tam Environmental Services
- ACC-Arabian Construction Company
- KHARAFI NATIONAL

Supports:
- ES – Engineering Solution
- SEG – Smart Engineering Group
- Engineering Company For Complementary Work
**Projects**

### Commercial Projects:

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Work Type</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nabhanya Municipality – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2008</td>
</tr>
<tr>
<td>Motabaqa Dammam Laboratory – KSA</td>
<td>KSA</td>
<td>Full MEP Design</td>
<td>2010</td>
</tr>
<tr>
<td>Basameh office Building – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2008</td>
</tr>
<tr>
<td>Sport Federation Building – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2010</td>
</tr>
<tr>
<td>Mousa (1) Tower – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2009</td>
</tr>
<tr>
<td>Halla Mall - Egypt</td>
<td>Egypt</td>
<td>Full MEP Design</td>
<td>2011</td>
</tr>
<tr>
<td>Al Rajhee Tower – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2009</td>
</tr>
<tr>
<td>KAU Mesdia Center – KSA</td>
<td>KSA</td>
<td>Full MEP Design</td>
<td>2012</td>
</tr>
<tr>
<td>Salwa Administrative Complex – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2009</td>
</tr>
<tr>
<td>El Masrya Market Mall – Egypt</td>
<td>Egypt</td>
<td>Full MEP Design</td>
<td>2012</td>
</tr>
<tr>
<td>Mousa (2) Tower - KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2009</td>
</tr>
</tbody>
</table>

### Hospitality Projects:

<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>Work Type</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hotel 5058 – KSA</td>
<td>KSA</td>
<td>Electrical &amp; HVAC Design</td>
<td>2007</td>
</tr>
<tr>
<td>Four Seasons Hotels and Resorts – Egypt</td>
<td>Egypt</td>
<td>Full MEP Revision</td>
<td>2012</td>
</tr>
<tr>
<td>Al Othman Towers – KSA</td>
<td>KSA</td>
<td>Full MEP Design</td>
<td>2008</td>
</tr>
</tbody>
</table>
Projects

**Educational Projects:**

- Scientific Center – KSA
  Electrical & HVAC Design
  2009

- Modern American School – Egypt
  Electrical & HVAC Design
  2009

- KAU Aquarium – KSA
  Full MEP Design
  2011

- Islamic University – KSA
  Electrical & HVAC Design
  2011

**Health Care Projects:**

- Benha Conjunctivitis Hospital – Egypt
  Electrical & HVAC Design
  2008

- Al-Tabib Medical Center – Egypt
  Full MEP Design
  2012

**Civic Projects:**

- Training Center – KSA
  Electrical & HVAC Design
  2008

- Goof Youth Center - KSA
  Electrical & HVAC Design
  2009

- Zolfa Youth Center - KSA
  Electrical & HVAC Design
  2009

EConsult

www.econsult-eg.com
## Projects

### Hospitality Projects:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Location</th>
<th>Service</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dammam Labor Camp – KSA</td>
<td>KSA</td>
<td>Plumping &amp; Fire Fighting Design</td>
<td>2010</td>
</tr>
<tr>
<td>The Kattara Project – Qatar</td>
<td>Qatar</td>
<td>Plumping &amp; Fire Fighting Design</td>
<td>2012</td>
</tr>
<tr>
<td>El Nafl Residential Complex – KSA</td>
<td>KSA</td>
<td>Electrical, Plumping &amp; Fire Fighting Design</td>
<td>2011</td>
</tr>
</tbody>
</table>

### Religious Projects:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Location</th>
<th>Service</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Shohadaa Islamic Center – Egypt</td>
<td>Egypt</td>
<td>Full MEP Design</td>
<td>2012</td>
</tr>
</tbody>
</table>

### Industrial Projects:

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Location</th>
<th>Service</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUG Pharmaceutical Group – Egypt</td>
<td>Egypt</td>
<td>Electrical, Plumbing &amp; Fire Fighting (with Site Supervision)</td>
<td>2008</td>
</tr>
<tr>
<td>Pre-Engineered Steel Factory – Egypt</td>
<td>Egypt</td>
<td>Full MEP (with Site Supervision)</td>
<td>2012</td>
</tr>
<tr>
<td>Multipharma Warehouse – Egypt</td>
<td>Egypt</td>
<td>Electrical, Plumbing &amp; Fire Fighting (with Site Supervision)</td>
<td>2011</td>
</tr>
</tbody>
</table>
## Projects

### Power Plant Projects:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location</th>
<th>Role</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dammietta Power Plant (500 MW) – Egypt</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2011</td>
</tr>
<tr>
<td>Benha Power Plant – Egypt</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2011</td>
</tr>
<tr>
<td>El Shabab Power Plant (1000 MW) – Egypt</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2011</td>
</tr>
<tr>
<td>Juba Power Plant – South Sudan</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2011</td>
</tr>
<tr>
<td>VECG El Haram – KSA</td>
<td></td>
<td>Mechanical systems shop drawings</td>
<td>2011</td>
</tr>
</tbody>
</table>

### Water & Waste Water Projects:

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Location</th>
<th>Role</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Matrouh Reverse Osmosis Plant – Egypt</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2011</td>
</tr>
<tr>
<td>Taba Reverse Osmosis Plant – Egypt</td>
<td></td>
<td>Engineering Technical Support</td>
<td>2012</td>
</tr>
</tbody>
</table>
E-CONSULT Key Persons

Mohamed Refaat

Mr. Mohamed Refaat, a principal and the Director at E-Consult, B. Sc. in Electrical Power Engineering with over 20 years experience in Electrical systems design, installation and start-up. Mohamed started and leads the Engineering unit from 2008 to 2012 at EGYPTROL which is the nucleus of E-Consult and participated in establishing the Holding company EGYPTROL since 1999. His design expertise is for distribution network, industrial plants, power plants and commercial buildings. He is a strong leader and accomplished project manager.

Hamdy Abotaleb, PhD

Mr. Hamdy Abotaleb, an engineering manager at E-Consult, PhD degree and Master of Science and B. Sc. in Mechanical Power Engineering with over 11 years experience in Mechanical systems design. He has a long experience in teaching undergraduate students in Ain Shams University from graduation till now. Hamdy started at the Engineering unit from 2011 to 2012 at EGYPTROL which is the nucleus of E-Consult and had previous wide experience in many consultancy firms such as Allied Consultants and Crown Home. His design expertise is for design and site supervision of HVAC, plumbing, fire fighting and piping networks.

Mohamed Said

Mr. Mohamed Said, an electrical senior engineer at E-Consult, B. Sc. in Electrical Power Engineering with over 11 years experience in Electrical systems design and site supervision. Mohamed started at the Engineering unit from 2011 to 2012 at EGYPTROL which is the nucleus of E-Consult. His design expertise is for distribution network, industrial plants, power plants and commercial buildings. He is the electrical department head.

www.econsult-eg.com
Mr. Radwan Metwally, a mechanical senior engineer at E-Consult, B. Sc. in Mechanical Power Engineering with over 6 years experience in Mechanical systems design. He has a long experience in teaching undergraduate students in Banha University from graduation till now. Radwan started at the Engineering unit from 2011 to 2012 at EGYPTROL which is the nucleus of E-Consult. His design expertise is for design and site supervision of HVAC, pluming, fire fighting and piping networks. He is a mechanical senior engineer in the company.

Mr. Hamza Shahat, an electrical senior engineer at E-Consult, B. Sc. in Electrical Communications Engineering with over 7 years experience in Electrical systems design and site supervision. Hamza started at the Engineering unit from 2008 to 2012 at EGYPTROL which is the nucleus of E-Consult. His design expertise is for low current systems for industrial plants, power plants and commercial buildings. He is an electrical senior engineer for light current.
The trained and experienced staff of **E-Consult** works together in timely manner to design of their clients advanced and cost effective engineering systems available.

**E-Consult** welcomes the opportunity to discuss your engineering requirements.

**Address:**

21 Honin Ibn Ishak St. Nasr City, Cairo, Egypt.

**Contacts:**

**Contact Data:**

<table>
<thead>
<tr>
<th>Tel.</th>
<th>+20 2 635 5036</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>+20 2 405 1213</td>
</tr>
<tr>
<td>Fax.</td>
<td>+20 2 263 5054</td>
</tr>
</tbody>
</table>

**E-mail:** info@econsult-eg.com

**Website:** [www.econsult-eg.com](http://www.econsult-eg.com)