

Leading the way to engineering excellence.



Years of Growth

We realize our clients' visions by capitalizing

effectively on our multidisciplinary approach,

innovative engineering solutions, and long-

standing experience.

2016-2018

In Equpt, we took on various mega projects of national importance. The notable list includes AlMasa Capital. New Opera House, Ministries Complex, New Central Bank, Residential Zone (R5), along with National Bank of Egypt, Bangue Misr, and CIB which are all located in the New Administrative Capital. Moreover, ECG has been engaged in New Alamein City, New Mansoura City, and Sheikh Zayed City Extension.

We have also been commanding attention overseas as we actively engaged in one large-scale project after another. To name a few, there is the Qatar Rail Real Estate Services and the Senegal-based SEEN Hotel & Residences.

2010-2015

at Cairo International Airport, St. Regis Hotel, Mall of Arabia, and Porto October, in Morocco we landed Porto Agadir, in Qatar, the Qatar Naval Base and Doha Island Resort, and in France, we won Valcastel. All while honoring our commitments non-profit organization dedicated to promoting sustainability in building design, construction and operation.

2006-2009

1996-2005

technology business hub.

1992-1995

1983-1991

ECG went from strength to strength as it changed its legal status from a partnership to a joint stock company. Soon after, our branch in Abu Dhabi, UAE opened its doors. To empower our engineers and architects, we also launched the CADD System and our Oracle-based database.

1978-1982

Parsons. Those included the water supply for Kafr El Sheikh governorate, the US\$500 million USAID funded Rod El Farag Water Treatment Plant, and the US\$5 billon Alexandria Wastewater Upgrade Program.

1970-1977

Our first consultancy contract, the US\$2.5 million Oena-Safaga Potable Water Pipeline marked the beginning of a new wave of infrastructural development works undertaken by us across the country. Under the US\$1 billion Greater Cairo Waterworks Master Plan and the US\$150 million Port Said Water and Wastewater Master Plan in Egypt.

1969

The year it all began. In 1969, Mahmoud Sami Abdelkawi and Ashraf Hassan Allouba founded ECG Engineering Consultants Group as a business partnership.

We presented to Egypt and the North African region the first LEED platinum certified building. Today, Crédit Agricole Equpt's Head Office Complex is one of only a handful of buildings with LEED Platinum status in the entire African

Those were an incredible five years for ECG with expansions across Africa, Asia and Europe. We opened branches in Saudi Arabia, Al Ain (UAE), Kuwait, France, Kurdistan Iraq, Tanzania, Libya, Uganda and Assiut (Egypt).

The regional real estate boom was upon us and of course, we were more than ready to be part of it. In Dubai, we developed Burj Al Alam and OOYANA, while in Doha, we provided architectural, infrastructural and urban design, as well as landscape and construction services for Wa'ab City, a significant multidisciplinary project for us. However, it is Egypt that awarded us the lion's share with megaprojects such as Madinaty, Garden Heights, Cairo Festival City and Marassi.

ECG became a force to reckon with, transforming the engineering landscape one year at a time. After establishing our Union Association to acquire company stock, we opened our branches in Dubai, Qatar and Sudan. Amongst our most significant accomplishments was the US\$1 billion ElKuraimat New Combined Cycle power plant, and winning the statesponsored worldwide competition to develop Smart Village, Egypt's state-of-the-art communications and information

Terminal 1. Our wide range of capabilities was put to the test once more when we secured the contract for the Attaga

What We Do Driving Excellence

than 50 years, our network of branches across the region provides the industry with a high level of access to ECG's integrated services. Meanwhile, our exceptional brand of engineers uphold the ECG name by benchmarking our performance against industry best practices and exceeding these standards in our projects.

System certified by Bureau VERITAS.

Studies and Master Planning

At ECG, we understand that master planning guides growth and projects. This is why we really give it our all.

We have a solid track record in a diverse range of specializations. These inappraisals and valuation, social impact assessments and environment and heritage conservation amongst many more.

Engineering and Architecture Design

innovate and adapt wherever we are in the world. It is also how we always manage including Front-End Engineering & Design (FEED), conceptual and preliminary

Construction Management and Supervision

and supervision services will guide your project from A to Z so you can achieve inspection and supervision, review your designs and shop drawings, analyze your change orders, develop your project staffing plans, provide need-based training plan your construction schedule, assist with value engineering and earned-value management, and preside over matters of dispute and resolution.

Project Management

Whether you are a local or international client, whether you require traditional construction services or untraditional ones, and whether your services have you covered. We will listen carefully to your objectives to define our goals and devise our methods. Then we will handpick the











Our Sectors Diversity

Buildings Banks Education Government Healthcare High-rise towers Hotels Office and commercial buildings Residential

Industrial, Oil & Gas Cement Fertilizers Gas separation Manufacturing

Utilities Desalination District cooling Irrigation Wastewater pumping stations Wastewater networks Water pumping stations Water networks Water and wastewater treatment

Power Power generation Substations Transmission and distribution

Transport Aviation Metro

Urban Development Mixed-use developments Urban planning







ProjectFour Seasons HotelLocationJeddah, Saudi Arabia



On a plot area of 18,812 m², the Four Seasons Hotel's iconic building is located within Al-Shate'e area in Jeddah; an upscale district housing single-family villas, multi-story apartment buildings, as well as upmarket commercial developments.

The 137-meter-high building resembles twin gateways on top of a podium. The building's height, multifaceted elevations, and angled massing bear testament to the design's uniqueness and elegance.

With a built-up area of 200,000 m², the mixed-use building encompasses a basement, ground floor, nine-story podium, and 23 upper floors.

ECG's scope covers master planning, all design stages, construction management, and project supervision.

Project Damac Ocean Heights **Location** Dubai, UAE

Located in one of the most exclusive waterfront spots in Dubai, Ocean Heights towers 310 meters aboveground, with a total of 87 floors.

The monumental building showcases 680 condominiums, a gymnasium, sauna, steam room, game room, children's playing area, swimming pools, restaurants, a health club, and view decks.

ECG is the lead consultant and architect of record for this project. Its scope also covers façade engineering and construction supervision.



Project Al Jaber Lusail Towers **Location** Qatar

Al Jaber Lusail Towers occupies a prime location in the coastal city of Lusail. Both towers have a three-level basement that holds 670 parking spaces and ancillary rooms, as well as a three-level podium consisting of entrances, commercial center, and a health club. The 19-story hotel tower is comprised of studios, apartments, guest rooms, royal suites, and service rooms. The hotel also accommodates a swimming pool and a restaurant on the roof with spectacular views of the Arabian Gulf. The 18-story office tower houses top-notch business facilities and service rooms in impeccably laid out open spaces.

ECG's scope of work covers design permits, conceptual design, schematic design, and detailed design for the project.





Project EFG Headquarters **Location** Smart Village, Egypt

EFG Headquarters consists of two basements, a ground floor, and three typical floors on a 4,000-m² building footprint and a total built-up area of 28,000 m². With emphasis on sustainability, the premises was built using eco-friendly materials.

The building layout is divided into two halves bordering a four-floor-high naturally lit atrium and a main entrance.

Communication bridges connecting office spaces pass through the atrium. The open space office layout was designed to allow maximum light into the work area.

The ground floor provides all services required by the staff, including three different food outlets with indoor/outdoor eating spaces, a data center (145 m²) and a well-equipped gym.

ECG's scope of work covers concept design assistance, design development, detailed design, LEED coordination, tender documents, tender action, construction management, and construction supervision.

Project Lekhwiya Sports Stadium **Location** Doha, Qatar

ECG was awarded design and construction supervision consultancy services for the Lekhwiya Sports Stadium in Qatar along with Perkins Eastman.

The work is divided into two phases. The first phase focuses on the soccer stadium with a built-up area of 6,863 m², a capacity of 10,000 seats, and a concourse area of 720 m², as well as four soccer training fields and related facilities. The second phase involves building a fitness center, mosque, changing rooms, and a sewage treatment plant.



Project Al Massa Capital **Location** New Capital, Egypt



The project stretches over an area of approximately 100 feddans (with a total built-up area of 226,713 m²) in the Administrative Capital. The aim of the development is to construct a high-end, luxurious compound.

The project comprises a five-star hotel building (80,9 three specialty restaurants; and a main kitchen.

The project includes a conference center encompassing a conferences and events building (80,000 m²); three ballrooms (900, 600, and 300 persons respectively); 24 lounges with six meeting rooms; and a theater (accommodating 2,000 persons). In addition, there are lounges, offices, and a multipurpose hall.

There project also includes a hotel apartments tower (7,750 m²); 15 villas; clubhouse with a main restaurant and a golf course; mall (45,000 m²); and lagoon with dancing fountains; as well as swimming pools and a wave pool.

The project's utilities include a mosque (900 m²); sports area; gym and spa; multistory car park (around 400 cars); gates; utility buildings; chillers and electrical substations; and landscape and hard/softscape.

ECG scope of work covers the concept design, schematic design, and detailed design.



The project comprises a five-star hotel building (80,910 m²), which includes 400 rooms and suites; staff housing (accommodating 200 persons);



The Emiri Naval Forces Base is located approximately 15 km and stretches across an area of five million square meters.

The self-sustained naval base is home to around 200 buildings with a total built-up area of over 560,000 m². It is developed as a complete, integrated, and state-of-the-art military facility encompassing all functions necessary for naval military operations, including facilities for administration, technical development and support, comprehensive logistic facilities, material support accommodation, and recreational services.

ECG's scope of work covers conceptual design, preliminary design, detailed design, tender documents, tender action, and site technical office support.







ProjectCitystars KattameyaLocationKattameya, Egypt

Citystars Kattameya stretches across 245,000 m². This mixed-use development is packed with top-of-the-line shops, restaurants, a food court, gourmet market, D-Box movie theaters, entertainment park, snow city, and an aquarium. It also incorporates a state-of-the-art office district, an international hotel, and three luxury apartment buildings with more than 200 exclusive apartments.

ECG's scope of services covers master planning, conceptual design, schematic design, design development, detailed design, and tender documents.

Project Sofitel Cataract Hotel Restoration Location Aswan, Egypt

4→1

The five-star luxury Sofitel Cataract Hotel consists of two main buildings; an old one and a new one, in addition to a number of service buildings set amidst a large, beautifully landscaped area with a total capacity of 123 rooms and eight elegantly appointed suites.

The old hotel, inaugurated in 1899, features a main site entrance, two aboveground floors, service areas, saloons, cafeterias, a bar, and a restaurant. As for the new one--developed in the 1960s--it consists of eight typical above ground floors, as well as a mezzanine level and a service floor.

ECG's scope of work covers all design stages, tender documents and tender action for the project.

Project St. Regis Location Cairo, Egypt

die

ECG is proud to have been the Architect of Record for the world famous St. Regis Hotel as it made its debut in Africa.

A BR. BR. BR. BR. II AM 100 100

This exclusive 180,000 m² hospitality and hotel-serviced residential complex encompasses two towers with sweeping views of the River Nile. Towering 38 stories high, the St. Regis consists of 226 furnished rooms, 60 suites, 98 serviced apartments, 16 luxury serviced apartments, 102 luxury hotel-serviced apartments, and a penthouse.

Besides supervising construction, ECG also provided the architectural design.









Project Sweidieh Oil Field **Location** Sweidieh, Syria

In our quest to boost the liquid/oil production rate from Sweidieh Oilfield, ECG undertook the FEED and detailed engineering of 150 oil wells' gathering stations, a three-phase gas/oil/water separation plant, transmission pipelines, and a number of massive water injection pumping stations.

From inception to the contract award stage, ECG successfully delivered state-of-the-art process, piping, corrosion, erosion, hydraulic, electrical, instrumentation control, telecommunications, civil, as well as architectural engineering consultancy services. We also covered conceptual design, detailed design, tender documents, tender action, and project management.



ProjectAl-Nouran Sugar FactoryLocationAl-Salhiya Al-Jadida, Al-Sharqia, Egypt

Al Nouran Sugar Factory stands as the first sugar production facility in Al-Sharqia Governorate with a construction cost of EGP 3.1 billion.

Set over a land area of approximately 1,774,500 m², the factory's main activities include the production of sugar from sugar beet and the refinement of raw sugar into white sugar. Refinement byproducts such as molasses and fodder are to be sold in international markets.

The factory is expected to have a beet processing capacity of 241,000 tons per year, a white sugar refinement capacity of 1,768 tons per year, as well as annual production rates of molasses and fodder estimated at 105,000 tons and 106,000 tons, respectively.

ECG's scope of services covers project management and construction management.



Project Heglig Crude Oil Factory Improvement **Location** Heglig, Sudan

Processed oil from Heglig Central Processing Facility (CPF) is exported to Sudan Port as per the Greater Nile Petroleum Operating Company's (GNPOC) export oil specifications. Lately, the export oil BS&W has been observed to exceed the specifications more frequently. As a result, ECG was called in to help upgrade the CPF facilities and to enhance its efficiency.

ECG's scope of work includes design of a fixed roof off-spec storage oil Tank (10,000 BBL capacity) with all necessary attachments and accessories, sizing selection of off-spec oil spiking pumps, design of interconnecting piping from and to the off-spec oil tank /off-spec spiking pump, including piping layout, stress analysis, pipe supports and isometrics, instrumentation and control of the system, design of a fire protection system for the off-spec storage oil tank, as well as electrical designs for power, lighting, earthing, and lightning and cathodic protection.

Project Alexandria Chemicals Terminal (ALX-CT) **Location** Alexandria, Egypt

In 2007, Alexandria Chemicals Terminal, a newly founded company specialized in importing, exporting, and handling industrial chemicals, awarded ECG the engineering services contract entailing the design, detailed engineering, construction supervision and management, and commissioning of the Alexandria Chemicals Terminal (ALX-CT) project.

Key project components include 13 chemical storage tanks, a chemical receiving station, state-of-the-art truck loading station, nitrogen generators, cutting-edge control unit adopting a programmable logic controller system, an administration building, along with all other service utilities.

Today, we are proud to say that the Alexandria Chemicals Terminal is the first terminal of its kind in North Africa and the third across the Middle East.

ECG's scope of work covers conceptual design, detailed design, environment assessment study, Construction management and supervision.





Project Aswan Fertilizer Plant **Location** Aswan, Egypt

The Aswan Fertilizer Plant, located in Edfu, produces high-nutrient single superphosphate and triple superphosphate fertilizers with a total capacity of 1,600 MT/day.

Being part of this project from inception to completion, we undertook every measure to guarantee that this 350,000 m² facility is in compliance with international and local standards. while securing the project's timely completion.

ECG's scope of work covers FEED, conceptual design, detailed design, project management, construction management, and construction supervision.



Project South Annajma Early Production Facility **Location** South Annajma, Sudan

The operation base camp consists of fully furnished accommodation rooms, administration offices, mosque and ablution area, laundry building, restaurant building complete with kitchen and dining, recreational building, outdoor futsal pitch, clinic, utility water supply system, electrical substation, emergency generator, concrete walkways, satellite TV system, computer system with a Local Area Network system (LAN), safety and information sign boards, fire alarm and fire protection systems, internal gravel and concrete roads, car parking area, fuel station, warehouse, perimeter fence, including main and emergency gates, observation towers, and a guard room.

All this was designed and constructed taking into account all factors of safety, functionality, and sustainability. One of our main priorities was to provide a satisfactory comfort level while complying with relevant international codes and practices, as well as the Sudan government's regulations.

ECG provided design reports, detailed design, and procurement services.

Project South Annajma Export Pipeline System **Location** South Annajma, Sudan

The project's objective is to transport 60,000 barrels of petrol per day (BOPD) from the oil-rich Annajma to the Central Processing Facility (CPF) in Fula, Sudan. To meet this target, a 43 km–12" underground pipeline was constructed to transfer 10,000 BOPD, gradually upgradable to 60,000 BOPD.

The task includes a head pumping station in Annajma, two metering skids, one on each end of the pipeline, pigging facilities at both ends of the pipeline, emergency power generation, all related facilities for safe operation and control of the pipeline, a service road of approximately 4.8 km, including a seasonal river crossing, as well as a tie-in with Petro-Energy CPF at Fula.

PetroNeeds Services International entrusted ECG with providing the design, detailed design, and procurement documentation.







Project Attaqa Gas Turbine Power Plant Location Suez, Egypt

Elsewedy Power System Projects (PSP), a subsidiary of Elsewedy Electric, was awarded an Engineering, Procurement, and Construction (EPC) contract for Attaga Gas Turbine Power Plant.

The simple cycle power plant in Attaga has 4 × SGT- 2000E Siemens Gas Turbines with a total rated capacity of approximately 650 MW.

The project also covers the installation of equipment and units such as transformers; GIS; gas-receiving system and networks; administrative and control buildings; as well as workshops and site utilities.

ECG's scope included the design review and Construction supervision.

Project Abu Qir Thermal Power Plant Location Alexandria, Egypt

With a construction cost of 875 million euros, the objective of this state-funded project was to make available sufficient and reliable power to various consumer segments, including households, agricultural lands, industries, and businesses.

Situated on the Mediterranean coast, 20 km east of Alexandria and to the east of the existing Abu Qir Power Plant, the new plant comprises two 650 MW indoor condensing steam turbine generating units, two outdoor, dual-fuel fired (natural gas and mazut), and pressurized furnace steam generators. This is in addition to the necessary auxiliary equipment, including onsite storage, a natural gas reducing and handling facility, a desalination plant for plant make-up water, off-shore structures for plant cooling water intake and discharge, water and wastewater treatment, and GIS 500 kV indoor switchyard buildings.

ECG's scope of work includes the detailed designs of the underground utility networks, asphalt-paved roads, landscaping, as well as the electrical detailed designs of all site buildings.

Project Al-Mahmoudeya Power Plant **Location** Al-Beheira, Egypt

Elsewedy Power System Projects (PSP), a subsidiary of Elsewedy Electric, was awarded an Engineering, Procurement, and Construction (EPC) contract for Attaga Gas Turbine Power Plant.

The simple cycle power plant in Attaga has 2 × AE94.2 Ansaldo Gas Turbines with a total rated capacity of 330 MW.

The project also covers the installation of equipment and units such as transformers; GIS; gas-receiving system and networks; administrative and control buildings; as well as workshops and site utilities

ECG's scope included the design review and Construction supervision

Project Substations **Location** Dubai, United Arab Emirates

ECG has successfully designed, supervised, and managed the construction of most of Dubai's substations. Thanks to our renowned quality of service, reputation, and deliverables, we have become one of the top substation consultants in this metropolitan urban center. **Project** ElKuraimat Combined Cycle Power Plant **Location** ElKuraimat, Egypt

ElKuraimat 750 MW Combined Cycle Power Plant is located within the boundaries of the existing 2,600 MW Thermal Power Plant site. When fully operated, it will provide 750 MW generation capacity to Egypt's Unified Power System.

ECG participated in the detailed and civil design of ElKuraimat New Combined Cycle Power Plant's phases II and III.

Phase II involves two-250 MW gas turbine generators, two heat recovery steam generators, and one-250 MW steam turbine generator and condenser. This is in addition to the auxiliary facilities, which included a tank farm, water and wastewater treatment plants, a water intake/discharge, lift stations, a foam house, transformers, and a fuel oil unloading station.

Project El Shabab Gas Turbine Power Plant **Location** Ismailia, Egypt

Kharafi National (KN) invited ECG to provide all the design stages in support of their Engineering, Procurement and Construction (EPC) contract of Al-Shabab Gas Turbine Generating Plant (GTGP).

Al-Shabab Gas Turbine Generating Plant is a new power plant with eight new gas turbines and a total rated capacity of 1,000 MW through 8×125 MW gas turbines.

ECG's scope of services includes auxiliary systems, tank farm designs, infrastructure networks, and ancillary buildings.

Tansport

Project Borg Al-Arab International Airport Location Alexandria, Egypt

The extension to Borg Al-Arab International Airport is set to encompass a state-of-the-art terminal building and top-notch associated facilities and taxiways. Construction is underway on a 20,840-m² terminal building, passenger terminal apron (459 m × 142 m), and a cargo terminal apron (71 m × 142 m), as well as all other required facilities and utilities.

ECG's scope of work includes construction supervision and detailed design.

Project Cairo International Airport Terminal Building 2 Location Cairo, Egypt

ECG undertook a project to double the capacity of Terminal Building 2 at Cairo International Airport to 7.5 million passengers per year. Financially backed by the World Bank, the terminal building complies with all international engineering standards and regulations.

As the lead consultant, ECG's scope of services includes master planning, design, construction management, and supervision.

Project Qatar Education City People-Mover System Location Doha, Qatar

The People-Mover System (PMS) is for Qatar Foundation's Education City campus west of Doha. As a precursor to the country's USD 35-billion investment in rail infrastructure over the next 10 years, PMS forms part of the 2022 FIFA World Cup Infrastructure Program.

The energy-saving PMS uses battery-powered trams and consists of a fleet of 19 trams operating on an 11-km long route, with a capacity of 3,300 passengers/hour in each direction.

The project comprises 18 tram stops with single-sided and/or double-sided kiosks as waiting areas, Siemens underground technical rooms, eight substations, a 500-m tunnel, 17 buildings with a total built-up area of 10,540 m², and electrical service buildings, including an MV switchgear.

ECG's scope covers design review and submission to authorities for building permits.

ProjectMalabo International Airport ExtensionLocationEquatorial Guinea , Malabo

Malabo International Airport extension project aims at solving the problem of congestion.

With a built-up area of 3,400 m², the extension includes two arrival halls consisting of a ground floor and a first floor. The ground floor includes a passport control area, a reclaim hall, two customs counters, and related services.

The first floor overlooks the ground floor and features two VIP lounges and related services. It is connected to the existing building through a new boarding bridge, which swiftly leads passengers to the arrival hall.

ECG's scope covers conceptual design, preliminary design, detailed design, and construction documents.

ProjectCairo International Airport Terminal Building 3LocationCairo, Egypt

Cairo International Airport's new Terminal Building 3 and its associated facilities are constructed to cope with future potential expansions according to the traffic forecasts up until the year 2020.

This USD 450-million landmark terminal required more than 180,000 man-hours of design and 430,000 man-hours for construction supervision. It was developed in compliance with the latest international design solutions for airport development and executed to host an annual capacity of 12 million passengers.

ECG's scope of work covers schematic design, detailed design, tender documents, tender action, and construction supervision.

Project Bardawil International Airport **Location** Sinai, Egypt

The project involves the development of the original plans drafted for the terminal building of Bardawil International Airport. The terminal building comprises a basement, mezzanine, and ground floor with a total built-up area of 8,000 m².

Overall works in the airport cover the construction of 27 buildings and facilities of various built-up areas, along with associated infrastructure and landscaping works.

ECG's scope of work includes design review, schematic design, detailed design and construction supervision.

Utilities

Project Fayoum Drinking Water and Sanitation Location Fayoum, Egypt

Stemming from ECG's dedication to the betterment of local communities, we furnished specialized services as part of the development of water treatment plants, pumping stations, force mains, as well as water distribution and wastewater collection systems in Fayoum.

Today, we are proud to say that 425,000 households in the governorate are connected to drinking water and 207,500 households are connected to sewerage; i.e., a 40% and 200%-increase, respectively. Our scope of work ranges from surveys to project management.

Project Al-Galala Resort District Cooling Plant Location Al-Galala Resort, Al-Ain Al-Sokhna

ECG collaborated on this project with Misr Engineering Development Company (MEDCOM) and EMC Energy Services.

Al-Galala Resort District Cooling Plant operates using chilled water and has a total cooling capacity of 16,866 kW (4,800 TR). The plant has four centrifugal, water-cooled, parallel counterflow chillers, as well as HFC-134a refrigerants. The chillers utilize the vapor-compression cycle. Each chiller has a capacity of $2 \times 5,622$ kW ($2 \times 1,600$ TR) at a constant speed, and a capacity of $2 \times 2,811$ kW (2×800 TR) at a variable speed.

ECG's scope of work covers shop drawings.

Project Gabal Al-Galalah Seawater Desalination Plant **Location** Gabal Al-Galalah, Egypt

Gabal Al-Galalah Seawater Desalination Plant is set to be the largest Seawater Reverse Osmosis (SWRO) desalination plant in Egypt with a capacity of 150,000 m³/day.

The project is undertaken by means of an Engineering, Procurement, and Construction (EPC) contract awarded to a joint venture between Metito and Orascom Construction Industries.

ECG's scope of work includes pre-tender services and detailed design.

Project Fujairah Collection System **Location** Fujairah, United Arab Emirates

This time we brought our expertise to the city of Fujairah and its environs where we developed a wastewater collection and treatment system.

ECG reviewed concept designs and prepared detailed designs and shop drawings for 120 km of sewer pipes, 16 pumping stations, 11 km of wastewater transmission mains, a wastewater treatment plant, intake structures, and 4.6 km of effluent transmission mains.

ECG has been awarded a series of contracts for over 25 years with the Alexandria Wastewater Upgrade Program.

This USD5 billion project was completed using USAID funding and undertaken in a joint venture with two global US consultants: CH2M HILL and Metcalf & Eddy.

ECG's scope of work entails master planning, design, detailed engineering, construction management and supervision, operations and maintenance manuals preparation, startup and commissioning operations, and training.

Project Kahramaa Headworks Consultancy Services **Location** Qatar

The Kahrmaa Headworks consultancy services were provided through three separate packages. The first package involved the use of micro-tunneling to transmit potable water from a new desalination plant to various water stations in and around Doha through an 80 km transmission pipeline with a diameter of 1,600 mm.

The second package included the construction of two new concrete reservoirs with capacities ranging from 6-9 MIG (Million Imperial Gallons), while the third package involved the construction of six new concrete reservoirs with a capacity of 6 MIG each. Packages components included pipelines with diameters ranging from 300 to 1,200 mm and lengths ranging from 20 to 70 km; a pump station; related civil works; connections to existing pipes; fiber optic cable networks (SCADA); and flow control systems.

ECG's scope of work covers design review, Construction management and supervision.

Project Abu Oweikal Water Treatment Plant **Location** Nasr City, Cairo, Egypt

Abu Oweikal Water Treatment Plant is designed to have a daily overall capacity of 500,000 m³. Treated water is pumped from the station to the water networks serving Nasr City and its vicinity via two water conveyance pipelines (1,400 mm in diameter each).

Abu Oweikel Water Treatment Plant relies on a rapid sand filtration system in its operation and consists a raw water intake, coagulators, flocculates, clarifiers, and sand filters, in addition to service buildings and raw and treated water lift stations.

ECG's scope of work covers basis of design report, conceptual design, and detailed design for the treatment plant.

Urban Development

Project New Mansoura City **Location** Al-Daqahlia, Egypt

New Mansoura City is located on the Mediterranean Coast, approximately 20 km from New Damietta City, and stretches over a total area of 5,100 acres.

It is designed to include 165,000 residential units made of semi-attached and stand-alone villas, townhouses, and apartment buildings. These house a total of 650,000 residents.

New Mansoura City's infrastructure networks include roads and transportation networks, as well as potable water, firefighting, irrigation, sewage, and stormwater networks.

ECG's scope of services covers strategic planning, land use planning, and master planning, as well as detailed design services.

ProjectSheikh Zayed City ExtensionLocationSheikh Zayed, Egypt

Sheikh Zayed City Extension project covers an area of 8,500 acres. The Ministry of Housing and Utilities has entrusted ECG with producing the master plan and infrastructure design for the development.

ECG is responsible for providing strategic planning and development strategy to ensure that the land and its territorial elements are put to optimal use. It also works on the full integration of the extension with the overall strategic plan of Sheikh Zayed and 6th of October City.

Project Al-Sadat City & New Beni Suef City Technology Parks **Location** Egypt

ECG has participated in the implementation of two technology parks in Egypt.

The first, Al-Sadat City Technology Park, stretches over 50 feddans and is directly linked to the Cairo-Alexandria Desert Road. The second, New Beni Suef City Technology Park, occupies the same land area with direct access to the Cairo-Minya Desert Road and Al-Nasr Road. Both parks are fitted with a call center, citizens' service building, office building, training building, and a mosque.

ECG has been given the responsibility for master planning, conceptual design, schematic design, detailed design, tender documents, shop drawings, and construction supervision.

Project Al-Murooj Beach Communities Location : Rabigh Close to Jeddah, KSA

Overlooking Saudi Arabia's Red Sea, Al-Murooj Beach Communities is strategically located in the heart of King Abdullah Economic City (KAEC).

ECG's scope of services covers master planning, detailed design, design review, value engineering, tender documents, cost engineering, construction management, and construction supervision.

The project comprises a fully-serviced community clubhouse with a built-up area of 500 m², providing residents with several leisure facilities, including a gym overlooking the swimming pool, a football field, tennis courts, lounging and billiards area; as well as a state-of-the-art, 350-m long pier that stretches across the sea with recessed pools built along the pathway interconnecting the components of Al-Murooj communities.

Project Katara Park Location Doha, Qatar

With a total built-up area of 577,000 m², Katara Park is set to be the largest national park of its kind in Doha.

The park is divided into North and South zones and adapts the "Hills & Valleys" theme. The two zones include a relaxation area with bungalows, hotels and spas, tropical forest, adventures area with historical-themed activities, and a gathering area for events and functions, as well as a commercial zone with a number of green houses.

ECG's scope covers master-planning and pre-concept design.

Project Cleopatra Business Industrial City Location Gulf of Suez, Egypt

Cleopatra Business Industrial City is very well-connected to regional roads. It is located within the Second Economic Sector, northwest of the Gulf of Suez and bound from the east by Al-Ain Al-Sokhna Port, from the south by Cairo-Sokhna Road, and from the North by a road connecting Ismailia-Hurghada Road with Hadabat Al-Galala Road.

With a total land area of 2,190 acres, the project is divided into an economic, administrative, and industrial integrated urban and mixed-use complex.

Within this complex is an extensive list of services and amenities, including showrooms, an administrative zone, offices, residential area, labor accommodation, commercial mall, sports club, cafés, restaurants, parking areas, a mosque, services, and utilities.

ECG's scope of services includes marketing study and master planning.

Founders' Experience

Mahmoud Sami Abdelkawi Founder & Senior Advisor

Mahmoud Sami Abdelkawi, born in Cairo, Egypt, received a bachelor's degree in mechanical engineering from Cairo University in 1948. Following a three-year period as a teaching assistant at Cairo University's Faculty of Engineering, he formed a business partnership/contracting company that later evolved into one of the leading construction and transportation firms in Egypt. In 1962, under the existing socialist regime, the firm was nationalized. Later, Mr. Adbelkawi joined The Arab Contractors (Osman Ahmed Osman & Co.).

In 1969, Mr. Abdelkawi established ECG Engineering Consultants Group S.A. in collaboration with his partner Ashraf Allouba, where they contributed to a range of large-scale projects shaping our lives today in the field of construction of dams, power plants, and utilities, alongside transportation, infrastructure, and oil and gas facilities—across Egypt and abroad. Such landmark projects included the Alexandria Wastewater Program, Attaqa Thermal Power Plant in Suez, Cairo International Airport Terminal Building 3, alongside the Hydro-Agricultural Development Project (Great Man-Made River) in Libya and a number of other megaprojects.

In recognition of his achievements, Mr. Abdelkawi was awarded the "Order of the Republic of Egypt" in 1966. In 2005—by way of a presidential decree—he was appointed Chairman of the Egyptian Society of Engineers for two terms up to 2009. Mr. Abdelkawi is currently active with a number of prestigious associations, including the Egyptian Syndicate of Engineers, Egyptian Society of Engineers, Egyptian Society of Mechanical Engineers, Egyptian Geographical Society, L'Institute d'Egypte, and American Society of Mechanical Engineers.

Ashraf H. Allouba Founder & Senior Advisor

Ashraf Hassan Allouba, born in Cairo, Egypt, graduated from Cairo University in 1955 with a bachelor's degree in architecture. Upon graduation, he worked as an architect and later joined the supervision team responsible for the construction of the Nile Hilton hotel. Afterwards, he joined The Arab Contractors.

Back in 1969, Mr. Allouba and his life-long companion Mr. Sami Abdelkawi established ECG through which they implemented a variety of engineering projects: urban and town planning; educational, healthcare, and sports facilities; industrial, administrative, and commercial buildings; hotels, resorts, and recreational facilities; mosques; and power plants; as well as many other public and private sector projects in Egypt, the Middle East and North Africa region, and in Europe. He was also the main author of the "Study of National Policy of Urban Development" funded by the U.S. Agency for International Development (USAID) and the Egyptian Ministry of Housing, Utilities, and Urban Communities.

As a pioneer in modern-day engineering practice—both in the Arab World and internationally—Mr. Allouba received several awards of excellence in recognition of his remarkable achievements. Awarding bodies included the Egyptian Syndicate of Engineers, Cairo University, Egyptian Society of Consulting Engineers, National Society of Professional Engineers, and the Egyptian Businessmen's Association.

Human Resources Dedication

As an international consulting firm, the types of projects undertaken by ECG are challenging and diverse. Over the last 50 years, our firm has earned a reputation for technical excellence and reliability. ECG receives a high level of respect from clients, and its workforce takes pride in continuing to earn this respect.

Everyone grows at ECG. That is because we strongly believe in sharing knowledge across all boundaries and levels. Our professional engineers are familiar with state-of-theart projects and developments. They also gain first-hand knowledge of some of the world's most complex projects. We build careers and personalities, not just projects.

At ECG, our staff members enjoy a wide range of advantages. These include competitive salaries, benefit packages, ongoing education and training, and opportunities to work on diverse projects in a variety of international environments. ECG employees also receive financial support to pursue educational opportunities and professional growth.

Ť.

Nasr City Building 2, Block 10, ElSefarat District Nasr City, Cairo 11765, Egypt P.O. Box 1167, Cairo 11511, Egypt

Tel: +20 (2) 2352 4740 Fax: +20 (2) 2352 5748 Email: ecg@ecgsa.com

Smart Village B17, km28 Cairo-Alexandria Desert Road, Smart Village , Cairo, Egypt

Tel: +20 (2) 2352 4740 Fax: +20 (2) 2352 5748 Email: ecg@ecgsa.com

Alexandria 16 Ibrahim Nosseir St., Loran Alexandria, Egypt P.O. Box 21411

Tel: +20 (3) 584 71 31 Fax: +20 (3) 584 88 54 Email: ecg-alex@ecgsa.com

Assiut

3 Galal El Din El Desouky St.- currently Momtaz St. - from Ahmed Ali Allouba St., Assiut, Egypt

Tel: +20 (88) 2290607 Email: ecg-assiut@ecgsa.com

France 30, Rue du Camping 15270 Lanobre, France

Tel: +33 (4) 71 687932 E-mail: ecg-france@ecgsa.com

Kingdom of Saudi Arabia

999 King Fahd Road, AlJumaiah Building, 7th floor, North Tower, Riyadh, KSA P.O. Box: 230402 - Riyadh 11321, KSA

Tel: +966 (11) 450 2030 Fax: +966 (11) 470 9161 E-mail: ecg-ksa@ecgsa.com

Kurdistan - Iraq Italian Village No. 402, Erbil, Kurdistan, Erbil, Iraq

Tel: +964 (0) 750 872 5927 E-mail: ecg-kurdistan@ecgsa.com

Kuwait

Kuwait-Shark, Ahmed Aljaber Street, Alarabeya Tower, 7th floor, Kuwait

Tel: +965 22267 281 Fax: +965 22267 280 E-mail: ecg-kuwait@ecgsa.com **Libya** Villa Zaglam, km 4.5 Gergarish Road, Andalos District, Tripoli, Libya

Tel: +218 (21) 477 1326 Fax: +218 (21) 477 1326 E-mail: ecg-libya@ecgsa.com

Qata

12th floor, Al Owinah Tower, Opposite to Movenpick Hotel, Old Salata, Doha, Qatar P.O. Box 24071, Doha, Qatar

Tel: +974 (4) 407 1444 Fax: +974 (4) 436 7771 E-mail: ecg-qatar@ecgsa.com |

Tanzania

Regus Seaport, 7th Floor, Amani Place, Ohio Street, Office park, Dar Es Salaam, Tanzania

Tel: +255 22219 68 00 Fax: +255 22219 68 01 E-mail: ecg-tanzania@ecgsa.com

Uganda

Floor 2, Suite 9, Kanjokya House, Plot 90, Kanjokya Road, Kamwokya, Kampala, Uganda

Tel: +256 (4) 1422 1467 E-mail: ecg-uganda@ecgsa.com

United Arab Emirates

Abu Dhabi Unit No. 2201 B2 Tamouh Tower, Building 12, Marina Square, Reem Island

Tel: +971 (2) 672 8007 Fax: +971 (2) 672 8012 E-mail: ecg-abudhabi@ecgsa.com

Dubai

Prime Tower, 14-A (13th floor), Units A1407-A1412, Business Bay, Dubai

Tel: +971 (4) 343 4229 Fax: +971 (4) 343 6229 E-mail: ecgdubai@ecgdxb.ae

Al Ain

102-M2 First Gulf Bank Building 111, Ali Ibn AbiTaleb St., City Centre, Al Ain, UAE

Tel: +971 (3) 737 7015 Fax: +971 (3) 737 7016 E-mail: ecg-alain@ecgsa.com

www.ecgsa.com