

Holds a B. Sc. in Civil Engineering (Structural Sector) and has over 12 years hands-on experience in analysis and design of Steel and concrete structures, steel detailing and site supervision.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 21/04/1984  
Gender : Male  
Marital Status : Married  
Residence : Maadi, Cairo

## EDUCATION

: B. Sc. in Civil Engineering (Structural Sector), Ain Shams University, 2006

## LANGUAGES

Arabic : Native Language  
English : Very Good

## COMPUTER SKILLS

: Windows, MS Office, Internet  
: AutoCAD  
: Tekla structure  
: Sap2000  
: Etabs  
: Safe  
: MathCAD Prime  
: Ram Connection-standalone  
: Limcon  
: Idea Statica-connection  
: Revit Structure  
: Staad Pro

## TRAINING COURSES AND CERTIFICATIONS

: The Fundamentals of Engineering (FE), NCEES - advancing professional licensure for engineers and surveyors, United States, in collaboration with AUC's Engineering and Science Services (2012).

- : General education courses for Engineers, The American University in Cairo (AUC) (2017):
  - Sustainable Development Community.
  - Conflict Resolution and Negotiation skills.
  - Effective communication for engineers and technical report writing.
- : Preparing for Principles and Practice of Engineering (PE) Exam (2018).

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Feb. 2016 till now
- Employer** : R.H.I Reliance Heavy Industries, EGYPT
- Job title** : Deputy Design Manager
- Job Description** :
  - Aqaba Grain Terminal - phase 2 - Grain terminal expansion, Jordan (from Aug. 2017 till now):
    - Project description: Phase 2 of the Aqaba Grain Terminal to increase the capacity of grain storage with additional 100,000 tons of Grains by adding 28 concrete silos, new intake chain conveyors and outtake conveyors and Head house expansion.
    - Main Buildings and structural system:
      - ❖ Grain Silos: This unit consists of 28 concrete silos with total storage capacity of 100,000 tons. This capacity contained in 28 equally sized silos with diameter 13m and height 42m. The hoppers are separated from the silo walls via expansion joints. The silos are built to minimize damage caused by dust explosions by the use of explosion relief panels in the silo roof.
      - ❖ Headhouse expansion: high rise building has new extension with dimensions of (12m\*7.5m) and Max. Elevation of (71 meters) consists of 6 main concrete platforms and 4 main steel platforms.
      - ❖ Long haul Conveyor Bridge: the long haul belt conveyor with length up to 550 meters and height up to 40 meters, the Conveyors transport system is selected as steel truss system and the new extension designed to fully support the loads of the new conveyor gallery and the loads due to the required modifications of the steel structure of the existing conveyor gallery.
    - Main activities and responsibilities:
      - ❖ Assist the Structural Engineering Manager in the management of staff and resolution of highly technical design and construction problem.
      - ❖ Manage and lead the structural design team making sure that all design drawings are according to codes and project specifications.
      - ❖ Making the Structural analysis and design for the 28 grain silos taking into account EN-1991-4:2006 (Euro code 1 - Action on structures – part 4: Silos and tanks) considering all possible types of loading combinations at filling and discharge including seismic analysis, also calculating the required explosion venting areas, and the design includes: Raft foundation for the 28 silo with dimension 115mX66m, concrete Silos main body and hopper, composite silo roof and explosion relieving panels.

- ❖ Studying the existing structures (Head house /conveyor) and the required modifications/strengthen for connecting the new extensions in the most safe and economical way.
- ❖ Supervise concrete and steel analysis and design drawings assigned to junior engineers.
- Egyptian Cement Phase 1-6000 TPD clinker cement (EC), Egypt.
- Helwan Cement Coal Grinding, Egypt (from Apr. 2016 till Apr. 2017):
  - Project description: BTIEC have a new coal grinding plant project with HELWAN Cement Company, the project is in HELWAN Plant, South of CAIRO city, and The new alternative fuel project consists of new coal storage, intake and grinding plant plus the transport.
  - Main Buildings and structural system:
    - ❖ Raw Coal Storage: This unit consists of two welded steel silos with 12m diameter and total height of 35m, supported by10 braced columns for each silo and Silos roof consists of two levels of Steel structure for conveyor.
    - ❖ Belt Conveyor bridges, transfer stations and Mill Feeding buildings: These units consists of four main conveyors with length up to 100 meters and height up to 25 meters, the Conveyors transport system is selected as steel moment frame and steel truss system, Two transfer stations The building has Dimensions of (6\*6 Meters) and Max. Elevation of (23.3 meters) and consists of 7platforms.
    - ❖ Filter building this building has Dimensions of (15\*9.1 Meters) And Max. Elevation of (32 meters) consists of 3 steel platforms Supporting the bag filter, 2 ducts and a stack, the bag filter is supported on Level (+22.20) using 16 Supports. The building consists of 2 concrete levels supporting steel filter structure.
  - Main activities and responsibilities:
    - ❖ Mange and lead the structural design team making sure that all design drawings are according to codes and project specifications.
    - ❖ Making the Structural analysis and design for the raw coal Storage silos considering all possible types of loading combinations at filling and discharge including seismic analysis, also calculating the required explosion venting areas, and the design includes the lower supporting steel structure, two welded Silos main body and hopper and the Silo roof with two accessible platforms and mono rail.
    - ❖ Reviewing all the Structural Steel- & Metalwork, Shop Detailing.
    - ❖ Response and resolves issues around site inquiry.

**Dates** : From Sep. 2013 till Feb. 2016

**Employer** : R.H.I Reliance Heavy Industries, EGYPT

**Job title** : Senior Structural Design Engineer

**Job Description** :
 

- El-Seweedy Cement Company (ESCC) - phase 2, Egypt.
- Amreyah Cimpor Cement Company (ACCC) - alternative fuel, Egypt (from Oct. 2014 till May 2015) (Steel Design and Detailing):
  - Project description: Amreyah Cimpor Cement Company "ACCC" located in North of Egypt, Borg el Arab Gharbaneyat near the city of Alexandria, ACCC decided to modify its installation to feed

alternative fuels (RDF, Biomass, tire chips) to kiln 3 pre-calciner at a capacity of 12 tph – 24 hours per day.

- Buildings and structural system:
  - ❖ VecoBelt Conveyor with 150 meter length and 45 meters height, the Conveyors transport system is selected as 7 steel truss towers supporting two main girders connected with secondary beams and horizontal bracing.
  - ❖ Three secondary platforms constructed inside the existing Preheater Tower, supporting the VecoBelt Conveyor and serving the screw conveyors till the feed points.
  - ❖ Dosing building: A small braced steel Structure building 4x12.20x7 (height) m supporting the chain conveyors and belt feeders.
  - ❖ Steel Shed covering the concrete storage building of an area 11x28.50m.
- Main activities and responsibilities:

Responsible of the structural steelwork engineering and design for all building and structures, which will be necessary for construction and erection of new steel work and modification of existing steel work, as the design includes the following items:

  - ❖ The structural engineering design which consists of:
    - Structural analysis of the load bearing members.
    - General structural steel arrangement drawing with indication of the structural analysis item.
    - Load and anchoring drawing.
    - Connection details for non-standard - special - connections.
  - ❖ Reviewing Structural Steel- & Metalwork, Shop Detailing:
    - Workshop drawings with bills of quantities.
    - Lists of material, bolts, nuts and washers.
    - Installation drawings for steel structures.
- Armed Forces cement plant, Arish North Sinai - Phase II, Egypt.
- Wadi El-Nile cement company (WNCC) - Coal Mill plant, Egypt.
- Suez Cement Company - Coal Mill plant, Egypt (from Sep. 2013 till Jun. 2014) (Concrete and Steel Design):
  - Project description: A New Coal Grinding Plant Project Suez - Egypt, The factory located close to Alshkqna Owned by Italcementi Group With 2 lines already operating and a vast area at Suez (approximately between N68 to N300 and between E274 to E700) is assigned to construct a new coal-grinding plant.
  - Buildings and structural system:
    - ❖ Raw Coal Silo: two symmetrical concrete Silos for Coal storage with 12 meter diameter and 35 m height with an internal steel cone 18 meter height and a composite roof slab supporting conveyors and steel structure platforms for mechanical equipment services and maintenance.
    - ❖ Coal grinding: Multi-story building, the superstructure system is selected as Rc. structure and Secondary steel structures.
    - ❖ Pulverized fuel dosing system: Multi-story building, the superstructure system is selected as Rc. structure and a Secondary steel structures.
    - ❖ Raw Coal transporting: Conveyors with length 60 meters and

height up to 13 meters, the Conveyors transport system is selected as steel truss system.

- Main activities and responsibilities:
  - ❖ Structural analysis for the raw coal silo taking into account EN-1991-4:2006 (Euro code 1 - Action on structures – part 4: Silos and tanks) and the design includes the following items:
    - Concrete raft foundation and slab on grad.
    - Concrete wall with supporting ring beams.
    - Internal Steel cone including stiffening items.
    - A Composite slab supported on a steel paneled beam system.
    - Secondary steel plat forms, monorail and stairs.
  - ❖ Calculation notes for the works with the justification of the loads on civil structure and all parts or members of all works.
  - ❖ General arrangement drawings showing Location of the buildings, building layout, structural system and designed members for all above items.
  - ❖ Structural analysis and design drawings for Coal grinding building steel structure platforms.
  - ❖ Supervision concrete and steel analysis and design drawings assigned to junior engineers for Pulverized fuel dozing building and Raw Coal transporting conveyors.

- Dates** : From Aug. 2011 till Sep. 2013
- Employer** : R.H.I Reliance Heavy Industries, EGYPT
- Job title** : Structural Design Engineer
- Job Description** : • Egyptian Cement Co., Egypt (from Jun. 2013 till Sep. 2013) (Steel Designer and Detailer):
- Project description: Converting one of the cement mills in Egyptian Cement Co. to coal mill on design and build bases by making Modifications in existing cement mill building and adding some new structures and covered storage area as required converting the cement mill to coal mill.
  - Buildings and structural system:  
Steel Platforms modifications and new structures as indicated in the submitted mechanical drawings and the following are the building list:
    - ❖ A Steel braced Structure for supporting two Screw conveyors.
    - ❖ Five steel sheds.
    - ❖ Modifications in existing cement mill Steel superstructure at 8 different levels.
  - Main activities and responsibilities:  
Steel Designer responsible for carrying out all structural analysis, design and detailing, as the work includes:
    - ❖ Structural analysis of buildings.
    - ❖ Calculation notes for the works with the justification of the loads on civil structure and all parts or members of all works.
    - ❖ Steel structure loads and definition of anchors for design of civil structures.
    - ❖ General arrangement drawings showing Location of the buildings, building layout, structural system and designed members.

- ❖ Assembly drawings & shop drawings.
- ❖ Bill of quantities with marks, sub marks, quantity, dimensions, weight etc.
- Sinai Cement (alternative fuel), Egypt.
- Holcim Barroso Cement Plant, Brazil (from Jun. 2012 till May 2013) (Steel Designer and Detailer):
  - Project description: The project consists of a new Brownfield 4500 t/d clinker line and cement Plant, with partial replacement of existing cement grinding capacity, from quarry up to and including dispatch. The plant concept for the Phoenix project foresees.
  - Buildings and structural system:
    - ❖ Coal grinding and conveying: Multi-story building to house coal mill and pulverized coal transport equipment, the superstructure system is selected as Rc structure and a braced steel structure.
    - ❖ Raw Mill Feed Bin Building: Multi-story building 10x30.5x40.65 m to accommodate the raw mill feed bins and feeders; the superstructure system is selected as Rc structure up to bin support level and a braced steel structure above bin support level.
  - Main activities and responsibilities:
    - ❖ Steel Designer responsible for carrying out all study and design of steel structure building, portals, floors, supports, columns, beams, trusses, bracing, flooring, cladding & roofing for Raw mill feed bins building and Coal grinding and conveying building taking into account the Brazilian Codes (for local load definition and calculation only) and Eurocodes (for load combination, structure analysis and design, ...etc., as the work includes:
      - ❖ Choosing the structural system according to its mechanical functional and geometric configurations.
      - ❖ Calculation notes for the works with the justification of the loads on civil structure and all parts or members of all works.
      - ❖ Pre-dimensioning of the works through dimensioned sketches attached with the calculation note.
      - ❖ Steel structure loads and definition of anchors for design of civil structures.
      - ❖ General arrangement drawings showing Location of the buildings, building layout, structural system and designed members.
      - ❖ Supervise and reviewing Assembly drawings & shop drawings.
      - ❖ Supervise and reviewing Bill of quantities filled in IEnet with marks, sub marks, quantity, dimensions, weight etc.
- Qatrana Cement Plant - El-Karak, Jordan (from Aug. 2011 till May 2012) (Steel Designer):
  - Project description: (QCC) plant is located in Qatrana, El-karak Jordon 90 Km south Amman. The dry process plant has a production of 5000 ton per day started commissioning in September 2010.
  - Buildings and structural system:
    - ❖ Nine main Conveyors with length up to 200 meters and height up to 30 meters, the Conveyors transport system is selected as

- steel moment frame and steel truss system.
  - ❖ Nine main steel silos with a designed capacity up to 1500 ton.
- Main activities and responsibilities:
  - Steel Designer as a third party responsible for inspecting and evaluating the plant Conveyors transport system and steel silos:
    - ❖ A Review methodology was applied by making an independent set of check analysis and calculations according to material and plate thickness provided in the drawings using Sap2000 latest version, taking into account EN-1991-4:2006 (Euro code 1 - Action on structures – part 4: Silos and tanks), ASCE, UBC97 & AISC Specifications.
    - ❖ Mention design and erection observations that affected the structure, in addition to state the corrective remedial actions to be taken by all parties.
    - ❖ Reviewing method of statement submitted by the designer before any rectification activities.
- Dangote Cement Plant, Ethiopia.

**Dates** : From Oct. 2009 till Aug. 2011

**Employer** : R.H.I Reliance Heavy Industries, EGYPT

**Project** : Nahda Cement Plant – Qena, Egypt  
 Located at QENA governorate is one of the major industrial development projects for Upper Egypt (5500 TPD).

**Job title** : Site QA Engineer

**Job Description** : Site QA Engineer responsible for Site Inspections, Making sure the site works comply with construction drawings, contractual standards and codes according to the project quality control plan, as the work includes:

- Performing all construction inspections and coordination for various ongoing field tasks.
- Supervise special construction techniques including Slip-form, post-tension activities.
- Check, inspect and verify the survey references, dimensions and geometrical orientation of structures.
- Revision of Structural Shop Drawings and implementing immediately any required Site modifications that may occur during construction.
- Responsible of supervising the main industrial structures as kilns, crushers, pre-heater, silos ...etc.
- Follow up Concrete production and Laboratory testing.
- Weekly registering for site status and reporting.

**Dates** : From Apr. 2008 till Oct. 2009

**Employer** : Major Project Department, Execution Sector 16, EGYPT

**Project** : Armed Forces cement plant, Arish North Sinai (Phase I), Egypt  
 Located at Arish North Sinai Egypt, 2 Lines x 1.6 million TPD cement production plant, administration area which includes nearly about 39 building including but not limited to: Administration building, utilities building, 6 workers hostels, 2 villas, 2 engineer hostels, mosque.

**Job title** : Site QA Engineer

**Job Description** : Site Civil Inspector, responsible for Inspecting site works making sure the site works comply with construction drawings, contractual standards and codes according to the project quality control plan as the work includes:

- Revise & check of structural shop drawing for production line & Admin. Area.
- Supervise all site work including:
  - Concrete structural elements.
  - Surveying & geometrical checks.
  - Verifying industrial inserts "Bolts, Plates".
- Follow up & Supervise slip form activities as shift engineer.
- Follow up & Supervise post tensioning silos work.
- Soil investigation site works follow up.
- Supervise laboratory testing and for imported concrete materials, concrete periodically testing, and Soil compaction to achieve the required quality level according to the planned.

**Dates** : From Apr. 2007 till Apr. 2008

**Employer** : Institute of Military Engineers

**Project** : Military Service

**Job title** : Reserve Officer

**Job Description** : Military fraction leaders - Armed Forces Engineering.

**Dates** : From Jul. 2006 till Apr. 2007

**Employer** : TEBR Consulting, Egypt (Dr. Ahmed Sherif Essawy, Professor, Ain Shams)

**Job title** : Concrete Design Engineer

**Job Description** : Design using Adapt Floor (post-tensioning module), sap2000 and many computer structure module using Egyptian and British Standard codes, as I participated in many projects including:

- LAKE Towers, U.A.E (three high rise buildings with 4 basement+ground+45 floors): Design posttensioned slabs.
- SAHARA Center, U.A.E (high rise building with 28 floors): Design of post-tensioned slabs.
- EL EASSERY Tower, U.A.E (21 floor post-tensioned slab): Design of post-tensioned slabs.
- Cairo Finance Center, Egypt: Check on slabs design.
- New Cairo, Egypt: Check the design of many buildings and villas.

**Field of experience** :

- Proficient in design and analysis modeling using the current design and analysis finite - element programs and I am capable to learn and master other programs.
- Have a good knowledge with Silos design using Euro and ACI codes.
- Have a good knowledge of varies national codes (American and Euro code).
- Have a good knowledge of Machine foundation.
- Have a good knowledge of Seismic analysis.
- Make my own design sheets using MathCAD program.