

POSITION Expert Steel Bridges NAME OF STAFF Ehab Boghdadi Matar

DATE OF BIRTH 1966 **NATIONALITY** Egyptian

LANGUAGES Arabic, English (Excellent), French, German (Fair)

EDUCATION:

- Post Doctor member in TU Graz, Austria for nine months since Sept. 2004 till June 2005
- PhD. March 2000- Faculty of Engineering- Zagazig Univ. Structural Design Eng., Egypt
- M.Sc. -March 1994- Faculty of Engineering- Zagazig Univ. Structural Design Eng., Egypt
- B.Sc (very Good with class honor) May 1988- Faculty of Engineering- Zagazig University- Civil Engineering; Egypt

PROFESSIONAL MEMBERSHIP:

- Member, Egyptian Syndicate of Engineers, since 1988.
- Member of Egyptian Syndicate of Engineers for promoting experienced Engineers to Consultancy degree in the field of steel structures and bridges
- Member, The International Association of bridge and structural engineering IABSE Switzerland, since 2005 till 2011 and from 2014 to 2022
- Aff. Member in the American Society of Civil Engineers, United States since 2012&2013
- Member, The Egyptian Society of composite structures, since 2004.
- Member of the Egyptian Society of Engineers, Cairo, Egypt since 2012

KEY QUALIFICATION:

- Consultant for design of Reinforced concrete and Steel structures since Feb. 2004
- 2019 Member in steel code committee to update the steel code LRFD-ASD
- Member of Bridge Authority committee for upgrading steel bridge specification for design, fabrication and rehabilitation of steel bridges in 2014
- As a senior Structural Design engineer, a large number of distinguished projects in the field of R.C and Steel industrial and residential buildings have been designed in the period from 1992 till 2005
- As a Technical quality manager, preparation of design criteria in accordance with projects aspects and reviewing all structural design and workshop drawings and preparation bill of quantities of projects in the period from 2006 till 2008
- As a Head of structural division, in charge of design management, supervising groups of structural engineers, to be sure that all design is in accordance with project & International standards and client's requirements since 2008.
- Preparation of structural tender documents and preparation of B.O.Qs.
- Full coordination with different project aspects i.e. arch., electrical, mechanical, HVAC,...etc. during all stages of the project.
- Preparation of assessment and evaluation reports for structural conditions of aged structures
- Development of a large number of verified computer aided design sheets for the design of different structural R.C. or steel structural elements according to different international codes of practices.
- Attendance of all meetings with clients and authorities and preparation of minutes of meetings
- Monitoring and reporting of financial department concerning the company invoices.
- Ensure that all structural design packages will be delivered to the client in accordance with the project schedule.
- Cooperation with site project managers and preparation of site visits if necessary for coordination between design and execution team works to solve all site problems.
- Reviewing and approving all technical submittals and transmittals submitted by the contractors.



EXPERIENCE RECORD:

Project Date: 2014

Project:- El Kebash roadway bridge, LuxorClient:- Roadway and Bridge Authority, Egypt

Duties / Responsibility: Member of committee for revision of El Kebash roadway bridge, Luxor

Project Date: 2022 - 2023

Project:- Foam factory in Bader City, Egypt

Client:- Mega Chemical Egypt

Duties / Responsibility: Preparation of tender documents and dwgs of foam storage warehouse .comparison of offers, choosing contractor, reviewing shop dwgs and supervision of construction works

Contractor: Alpha Industries & construction

From Dec. 2023 to Date: ACE-Arab Consulting Engineers; Moharam – Bakhoum (Consulting firm) - Egypt Position: Expert Steel Bridges / Head of Steel structures Group

ACE is one of the oldest, largest and most experienced multi-disciplinary engineering consultancy companies currently operating worldwide. We offer services in multi-disciplinary tasks in the fields of planning, design, project management and construction supervision - the entire range of construction-related activities.

Project Date: 2023 till now

Project: Khour Mayo Bridge – High Speed Train

Position: Head of Steel structures Group

Duties / Responsibility: Consultant of the owner for review design and analysis of 3 spans steel composite box girder bridge spanning 60m supporting double tracks high speed train over ballasted floor at a height of about 40m over ground.

Project Date: 2023 - 2024

Project: Maspero towers

Position: Head of Steel structures Group

Duties / Responsibility: Consultant of the owner for design and analysis of 3 steel structures floors of sky

bridge linking 3 distinct towers over a height of about 100m

Project Date: 2024 till now

Project: Factory of Cabling and looming, Borg Al Arab, Alexandria, Egypt

Position: Head of Steel structures Group

Duties / Responsibility: Consultant of the owner for design and analysis of a steel structures ware house of an area over 12,000m2 with a travelling crane capacity 3tons and internal columns spaced @12m

<u>From August 2005 to Nov. 2023: BECT – Bureau Egyptien de Conseils Techniques (Consulting firm) - Egypt Position: Technical Quality Manager/ Head of structural department</u>

BECT is a well known consulting firm in Egypt established since 1989 having 120 employees, specialized in integrated studies and consulting services including Architecture, Urban design, Structural, & electromechanical works.



Project Date: 2023

Project: Project: Alexandria West (AW-WWTP) wastwater treatment Plant

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Technical assistance to Ingerop for calibrating EuroCode to Egyptian code for the

design of digestor in addition to fence, some administrative buildings

Project Date: 2023

Project: Sunny Egypt for Electronics (Unionaire) 4th Industrial zone , 6th Octobor City

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Preparation of an assessment report for the steel factory and R.C. building that

have been liable to fire to assess the structural conditions of different structural elements

Project Date: 2023

Project: Upper Egypt for textile and Spinning industry

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Preparation of tender documents, structural dwgs, BOQ, technical specs. ,....etc.

for steel spinning factory, R.C. tunnels and AC, administrative buildings,....etc

Project Date: 2021 - 2023

Project: Misr for textile and weaving industry

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervising construction activities including review of alternative design by Zamil, reviewing shop dwgs for Steel structures buildings covering 102,000 square meter. Contractual cost:- 1.1

billion EGP

Project Date: 2020

Project: El Zhour Club- Naser City

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility:. Design, preparation of tender documents and reviewing shop dwgs for Steel

structures of large cafeteria building

Project Date: 2019

Project: Control buildings in Abu Quir power station, Abu Quir, Alexandria, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Strengthening structural elements for inserting extra electrical equipment.

Project Date: 2019

Project: Project: Control buildings in Kuriemat power station, Kuriemat, Beniswief, Egypt.

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Strengthening structural elements for inserting extra electrical equipment.

Project Date: 2017 - 2019

Project: Kozzika Rolling Stock Light Repair Workshop Storing Yard Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Owner consultant to supervise design and execution of the workshop. Contractor:

PetroJet and Colas Rail (France)



Project Date: 2017 - 2018

Project: Cleopatra Mall, 6th Oct., Cairo, Egypt.

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Reviewing design of space steel shell structures covering nearly mall roof. Design

is carried out by Taylo Europe, Italy. Roof is covered by PTFE cushion

Project Date: 2018 - 2019

Project: I-City International School, 6th October, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of design of theater and sports hall in school in addition to issuance of

tender documents, BOQ and reviewing workshop dwgs.

Project Date: 2016-2018

Project: Utopia Pharmaceuticals plant, 10th of Ramadan, Industrial city, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural design and detailed dwgs Store Steel structure of a span of 54m and utility building in addition to preparation of tender documents and BOQ and reviewing and approval of workshop dwgs submitted by subcontractor. In addition, a space steel structure of elliptical shape with a diameter of nearly 18m made of space truss is reviewed and approved for fabrication and erection

Project Date: 2015-2016

Project: 4 Electrical substations 132/33KV& 132/33/13.8KV Electrical Substations, Bisha, Jizan- KSA

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural design and detailed dwgs for 4 substation buildings,

power transformers, Aux. transformers,....etc. in the plants

Project Date: 2015 - 2016

Project: Upgrading Kafue and Muzuma existing substations, Zambia **Position**: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Design of R.C. structural elements in 330KV, 132KV GIS and control buildings and

GIB equipment foundations

Project Date: 2015

Project: South Helwan Power Plant, Helwan, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Design of 500KV GIS building, Design of control building and outdoor equipment

foundation

Project Date: 2013 - 2014

Project: 6 Electrical substations 132/33/13.8& 110/13.8KV Electrical Substations, Jeddah, Makkah,

Madinaha, Baha, Najran KSA

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural (conceptual) design and workshop dwgs for 3 substation

buildings, power transformers, Aux. transformers,....etc. in the plants.

Project Date: 2012 - 2013

Project: Algiers Refinery Rehabilitation and Adaptation Project, Algiers

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural (conceptual) design and workshop dwgs for 19 substation

buildings in the plant including design of blast buildings, power transformers,...etc..



Project Date: 2012 - 2013

Project: 3 110/13.8KV Electrical Substations, Makkah, Madinaha, KSA **Position**: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural (conceptual) design and workshop dwgs for 3 substation

buildings, power transformers, Aux. transformers,....etc. in the plants.

Project Date: 2012

Project: Rehabilitation of Steel factory subjected to Fire, Quisna- Qalubiya, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Assessment and rehabilitation of a steel factory subjected to fire

Project Date: 2011

Project: Jizan water treatment plant, Jizan, Saudi Arabia

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Supervision of Structural (conceptual) design and workshop dwgs for buildings in the plant

Project Date: 2011

Project: Rehabilitation and Extension of Lycee Francis Du Caire, Maadi- Cairo

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual) design for extension

and re-habilitation, assistance with contract procedure and tender analysis and site supervision

Project Date: 2010

Project: Cleopatra Mall, 6th of Octobor City, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual) design, assistance

with contract procedure and tender analysis and site supervision

Project Date: 2009

Project: Archirodon Corporate Administration Office (over 4000 m2), New Cairo, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual), assistance with

contract procedure and tender analysis and site supervision

Project Date: 2009

Project: Rehabilitation and Extension of the Historical Mounira Palace, Mounira, Cairo, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: Preparation of a diagnostic report for the palace condition and preparation of tender

documents and Structural (conceptual dwgs), assistance with contract procedure and tender analysis

Project Date: 2009

Project: Administration building of the Royal Norwegian Embassy, Zamalek, Cairo, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: preparation of tender documents and Structural (conceptual), assistance with

contract procedure and tender analysis and site supervision

Project Date: 2009

Project: Kuriemat Power Station Project, Kuriemat, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _Design of connections and preparation workshop and execution dwgs for the pipe

racks of the power station (450 tons)



Project Date: 2009

Project: Terga Power Station Porject, Terga, Algeria

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual and workshop dwgs)

Project Date: 2009

Project: Al Jela Electrical Substation, Tripoli, Lybia

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: preparation of tender documents and Structural (conceptual and workshop dwgs)

Project Date: 2008

Project: Misurata Electrical Substation, Misurata, Lybia

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual and workshop dwgs)

Project Date: 2008

Project: Schneider Company New Factory, Badr City, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: __preparation of tender documents and Structural (conceptual and workshop

dwgs), assistance with contract procedures and tender analysis, site supervision

Project Date: 2008

Project: Office building of the French Economic Mission, Zamalik, Cairo, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: __preparation of tender documents and Structural (conceptual and workshop

dwgs), assistance with contract procedures and tender analysis, site supervision

Project Date: 2007

Project: Lactalis Factory and administration building, El Obour City, Egypt **Position**: Technical Quality Manager/ Head of structural department

Duties / Responsibility: preparation of tender documents and Structural (conceptual and workshop

dwgs), assistance with contract procedures and tender analysis

Project Date: 2007

Project: EMCC Cement Factory Fujierah, United Arab Emirates **Position**: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual and workshop dwgs)

Project Date: 2007

Project: Heliopolis Club Mosque, Sherouk, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual)

Project Date: 2007

Project: Skikda Refinery Skikda, Algeria

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: preparation of tender documents and Structural (conceptual and workshop dwgs)

Project Date: 2007

Project: HVDC, Dammam, Saudi Arabia

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: _preparation of tender documents and Structural (conceptual and workshop dwgs)



Project Date: 2006

Project: 6 Transmission electrical substations Washash & Coteba Cities, Ethiopia

Position: Technical Quality Manager/ Head of structural department **Duties / Responsibility:** _Structural (conceptual and workshop dwgs)

Project Date: 2004

Project: Damietta Swing Roadway Bridge, Damietta, Egypt

Position: Technical Quality Manager/ Head of structural department

Duties / Responsibility: preparation of tender documents and Structural revision of conceptual and

workshop dwgs

From August 2002 to Sept. 2004: EDEC - Engineering Design Center (Consulting firm) - Egypt

EDEC is a well known consulting firm in Egypt specialized in consulting services including Architecture, Structural works.

Project Date: 2002-2004

Projects: Large Number of a unique master pieces residential villas, new Cairo, Al Oubor, Al Sherouk cities

Duties / Responsibility: _preparation of conceptual Structural dwgs

Project Date: 2003

Projects: Glean Gas Factory. Al Oubor, city

Duties / Responsibility: _preparation of tender documents and conceptual Structural dwgs

Project Date: 2003

Projects: Al Gawhara building (over 1000m2 composed of 12 floor + basement), Ismalia, Egypt

Duties / Responsibility: conceptual Structural dwgs

From 1992 to 2002: Dar el Khebra Prof. Dr. Milad Hanna (Consulting firm) - Egypt

Dar El Khebra is a well known consulting firm in Egypt established since the fifty's of the last century by Prof. Dr. Milad Hanna and specialized in consulting services including Architecture, Structural works.

Projects: Samy Faltas Factory 10th of Ramadan City

Duties / Responsibility: Design the foundation of a large grinding equipment subjected to high dynamic loads (weighing more than 100 tons)

Projects: El Safa Mill (500 ton/day), Bader city, Egypt

Duties / Responsibility: Design of wheat and flower silos and their foundations and the design of several

floors in the mill building, the storage building and the management building as well as steel shed

Projects: Rehabilitation of Kahla agency & design of EL-Kharoub, El-Rabaa and El Mosalas agency

El Gamalia, Cairo, Egypt

Duties / Responsibility: conceptual Structural dwgs

Evaluating the structural safety after the 1992 earthquake for several buildings in Cairo City



ACCADEMIC EXPERIENCE:

- Teaching of under graduate courses for the design of steel structures and bridges
- Teaching of post graduate courses for the advanced design of steel structures and bridges
- 2002- up to date eaching the design of steel structures in Higher Technical Institute in 10th of Ramadan
- Assisting the supervision of M.Sc. and Ph.D thesis in the field of Structural Engineering
- Member in the faculty Quality Unit- Coordinator for the Resources
- Transfer Steel Bridge design course (for 4th Year Civil undergraduate students) into E-learning course approved by the National E-learning Center in the Egyptian Supreme Council of Universities
- Transfer Steel structure design course (for 3rd Year Civil undergraduate students) into E-learning course approved by the National E-learning Center in the Egyptian Supreme Council of Universities (currently under preparation)
- Coordinator of research project funded by Zagazig University, titled "Evaluation of fatigue life for an aged strategic bridge in Sharkia Governorate"
- Coordinator of research project funded by Zagazig University, titled "Towards new vision for the interaction with Economic crisis in the field of structural engineering"

ACCADEMIC CAREER:

- 1988-1994: Demonstrator in the Faculty of Engineering, Zagazig University.
- 1994-2000: Lecturer Assistant in the Faculty of Engineering, Zagazig University
- 2000-2007: Lecturer in Structural Engineering Department, Faculty of Engineering, Zagazig University.
- 2007- 2013: Assistant professor, Structural Engineering Department, Faculty of Engineering,
 Zagazig University
- 2013- up to date: Professor of steel strutures and bridges, Structural Engineering Department,
 Faculty of Engineering, Zagazig University
- 2004-2005: Post Doctor Fellow ship in TU Graz, Austria
- 2002- up to date: Part time lecturer, Higher technological Institute, 10th of Ramadan City
- 2016: Module leader for structural Steel Design courses in British University, Egypt.
- 2009 -2012: Academic advisor for the new program for structural and construction engineering,
 Zagazig University
- Associate editor for "The Egyptian International of Engineering Sciences and Technology" ISSN 1687-1006 since Feb. 2015



ACADEMIC FIELDS

- Buckling of steel structures and plates
- Composite structures and bridges
- Fatigue assessment and evaluation of aged bridges
- Inspection and repair of aged structures

PUBLICATIONS

- M.Sc. Thesis titled "Use of Fiber Reinforced Concrete in Water retaining Structures" under the supervision of Prof. Dr. Shawky Y. Tawfik, and Prof. Dr. Mahmoud Hashem, 1994
- Ph.D Thesis titled "Behavior of Prestressed Steel Girder Bridges"; under the supervision of Prof. Dr. Ishac Ibrahim and Prof. Dr. Ossama el Hussieny, 2000.
- "Use of Fiber Reinforced Concrete in Water Retaining Structures", Shawky Yousef Tawfik, Mahmoud Hashem and Ehab B. Matar, Sixth Arab International Conference on Structural Engineering, Damascus, Syria, 21-24 Oct.1995.
- "Strengthening of Steel Bridges By Prestressing with Cover Plates (Experimental Study)", Ishac I. Ishac, Ossama El Husieny and Ehab B. Matar, Eighth Arab International Conference on Structural Engineering, Cairo, Egypt, 21-23 Oct.2000.
- "Stress Distribution in R.C. Bridge Diaphragms with and without Openings Using Finite Element", Georgi F. Georgi and Ehab B. Matar, Fourth Alexandria International Conference on Structural and Geotechnical Engineering, 2-4 April 2001.
- "Flexural Behavior of Partial Composite Beams (Experimental Study)", Mohamed Abou-Hashem El-Dib and Ehab B. Matar, Ninth International Colloquium on Structural and Geotechnical Engineering, 10-12 April 2001.
- "Behavior of High Strength Concrete Composite Columns (Experimental Study)", Wadid W. Ibrahim and Ehab B. Matar, Fifth Alexandria International Conference on Structural and Geotechnical Engineering, 20-22 December 2003.
- "Behavior of Stainless Steel Sections Subjected to Non-Homogenous Temperatures", Ossama M. El Hussieny, Mohamed Abu Hashem, Ehab B. Matar and Osama Fekry, the Fourth International Workshop: Structures in Fire, Aveiro, Portogal, 10-12 May, 2006.
- "Fatigue Tests for a Riveted Steel Railway Bridge in Salzburg", Richard Greiner and Ehab B. Matar, Structural Engineering International, Journal of the International Association for Bridge and Structural Engineering, IABSE, Zurich, Switzerland, 3/2006.
- "Evaluation of Fatigue Category of Riveted Steel Bridge Connections", Ehab B. Matar, Structural Engineering International, Journal of the International Association for Bridge and Structural Engineering, IABSE, Zurich, Switzerland, 1/2007.
- "Effect of Slab Openings on the Behavior of Composite Beams", Ehab B. Matar, Sixth Alexandria International Conference on Structural and Geotechnical Engineering, 15-17 April 2007.
- "A Comparative Finite Element Buckling Analysis of Intersected versus Leaning Steel Arch Bridges",
 Ehab B. Matar, Sixth Alexandria International Conference on Structural and Geotechnical
 Engineering, 15-17 April 2007
- "Behavior of axially loaded steel columns with slender steel sections"; Ehab B. Matar, American Society of Civil Engineers, 6th International Engineering and Construction, Conference (IECC'6), Cairo, Egypt, June 28-30, 2010
- Field test and numerical modeling of a riveted steel bridge for fatigue evaluation"; O.M. El-Hussieny, E.B. Matar, A.E.A. El-Sisi and, H.E.M. Sallam, AmericanSociety of Civil Engineers, 6th Int. Engineering and Construction, Conference (IECC'6), Cairo, Egypt, June 28-30, 2010



- "Early Growth behavior of short crack emanating form riveted/bolted steel connections"; Hossam Sallam,
 Ehab Matar, Alaa El SiSi, Ossama El Hussieny; Eurosteel 2011, Aug. 31-Sept. 2, Budapest, Hungary.
- "Effect of clamping force and friction coefficient on stress intensity factor of cracked lapped joints"; H.E. Salam, A.E.A. El Sisi, E.B.Matar, O.M. El Hussieny; Journal of Engineering failure analysis, 18(2011); pp 1550-1558.
- "Structural performance of unseated composite multi-girder bridges"; Ehab B. Matar; IABSE conference,
 Sharm el Sheikh; Global thinking in structural Engineering: Recent achievements; May, 7-9,2012
- "Behavior analysis of stiffened slender plate girders"; Ishac I. Ishac; Ossama El Hussieny; Ehab B.
 Matar; Shady Mandour; IABSE conference, Sharm el Sheikh; Global thinking in structural Engineering: Recent achievements; May, 7-9,2012
- "overloading of simply supported unseated composite bridges"; Ehab B. Matar; The Journal of American Science vol. 8, issue 9, 2012
- " An experimental study for the behavior of slender steel beams" Ehab B. Matar; Life Science Journal, 10(2)2013
- "Experimental and Theoretical Analysis Of Stiffened Plate Girders"; Ossama M. El Hussieny, Ishac
 I. Ishac, Ehab B. Matar, Shady Mandour; Eurosteel 2014, Sept. 10-12, Naples, Italy
- "Behavior of slender built up Steel I-column" O.M. ELhussieny, E.B.Matar, S.A.A. Mustafa and A.G.Alaaser, The Egyptian International Journal of Engineering Sciences and Technology (2014)
- "Experimental and FE analysis of stiffened steel I-column with slender sections"; Suzan A.A.
 Mustafa, Ossama M. El Hussieny, Ehab B. Matar, Ahmed G. Alaaser, Ain Shams Engineering Journal 9(2018) pp1635-1645
- "Field-teting and numerical simulation of vantage steel bridge"; Alaa El-Din A.Sisi, Osama M. El-Husseiny, Ehab B. Matar, Hossam El Din Sallam, Hani A. Salim, Journal Of Civil Structural Health Monitoring, March 2020
- "Assessment of Rotational Stiffness for Metallic Hinged Base Plates under Axial Loads and Moments"; Mahmoud T. Nawar 1, Ehab B. Matar 1, Hassan M. Maaly 1, Ahmed G. Alaaser 1 and Ayman El-Zohairy, Building 2021, 11, 368
- "Theoretical rotational stiffness of the flexible base connection based on parametric study via the whale optimization algorithm"; Mahmoud T. Nawar, Ehab B. Matar, Hassan M. Maaly, Ahmed G. Alaaser and Osman Hamdy, Structural Engineering and Mechanics, Vol. 88, No. 1 (2023)
- "Experimental and FE analysis of the behavior of steel column base connections under tension and bending moment", Mahmoud T. Nawar a,b, Ehab Matar b, Ayman El-Zohairy c,*, Ahmed Alaaser b, Hassan Maaly, Structures 62 (2024) 106164
- Co-Author for a book titled "Design of Steel Bridges"
- Co-Author for a book titled "Steel Structures"

COMPUTER SKILLS

The following programs have been dealt with (in different degrees) during our work through revision of calculation notes

- Microsoft office.
- AutoCad.
- Sap-2000
- Tekla
- Robot
- Staad Pro.
- Ansys