

# Prof. Mahmoud El-Mihilmy

## Structure Engineer & Architect

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### Education

- B. Sc. Architecture, 1983  
Cairo University, Egypt.
- M. Sc. Architecture, 1991  
Cairo University, Egypt.
- Ph.D. Civil Engineering, Structural, 1998.
- Auburn University, Auburn, AL, USA.
- Professional Program in Contractual and Legal Matters in Construction Industry (AUC, Egypt, 2007).

### Overview

More than 30 years of experience in designing, and constructing high-rise buildings, office buildings and administration buildings. A team leader, highly adaptable to various environments. An analytical thinker recognized for problem solving and strong interpersonal skills. **A double major in Architecture and Civil Engineering provides the ability to attack technological problems with a multi-disciplined approach.**

The design philosophy is based on a consequential methodology approach, which blends technology and aesthetic expressions together.

The completed work has pushed frontiers of structural and construction technology forward. The resulting aesthetic impact of buildings in recent years has showed the greater richness of form and expression by maximising advanced technology. The design aim is to achieve the most, practically and aesthetically, with the least possible cost. High rise commercial and residential buildings completed over decades ago have proven that design excellence achieves both beauty and flexibility at no added cost. This was achieved by:

- Integrating technology and Architecture together in designing high-rise buildings, industrial and office buildings
- Supervision of construction projects and maintenance of existing structures ranging from public buildings to factories.
- Ability to work in strict observation of both local and international building codes.

**Work**            **STUCTURE: June 2002-Present**

**History**        Designing several large scale real-estate projects such as Rayhana- 6<sup>th</sup> of October City and Ashrafya Compound in Zaid City. Also was involved in designing Sunny Pharmaceutical factory, Sea-Harvest Workshop & office building, Oil & Gas Solutions office building, Concordia Compound, 5 Villas in Al-Obour City, Zaid City. Designing Waste-Water Treatment Plant in Alexandria. Designing Vandom Beach Resort at Mara Alam. Upgrading and repair of El-Azher weaving factory in Qalubia. Designing and supervising Reference Material and Radiation Buildings in the National Laboratories Institute.

**Professor, Cairo University, August 99-Present.**

Organized and taught design courses for both undergraduate and post graduate students. Was also involved in experimental field investigation of bridges such as The Ring Road bridges, 15<sup>th</sup> of May bridge, 6<sup>th</sup> of October bridge and 26<sup>th</sup> of July highway.

Inspected and organized evaluation reports for schools in different parts of Egypt for the General Administration for Educational Buildings, among which were Ahmed Abed Aziz Primary School in Haram, Cairo, El Wahabiah Secondary School, Balteem, Kafr El Sheikh, Sarah Taky Allah Primary School, Abbassiah, Cairo, and Omar Ibn El-Khatab School, Souhag.

**Senior Project Engineer, Martin & Peltyn, Reno, NV, USA Dec 97-July 99.**

Designed a variety of structures including large scale hotels such as MGM Grand, Las Vegas, Nevada, Jethro's Hotel & Casino, Reno, Nevada in addition to low rise buildings such as Nevada Mental Hospital, Battle Mountain Civic Center and Elko Dispatch Center. Prepared several structural assessment studies and restoration plans for the Washoe County Court House, Reno, Caesars Hotel, Tahoe, Administrative Works Facility, Jackpot, Nevada. Was responsible for several plan checks comparing the original to the as built drawings for the following buildings:

Sage Ridge School, Great Basin College Solarium, and Sam Boyd Stadium Renovation. Evaluated and reported record findings for the renovation projects of the following sites:

Las Vegas Detention Center Remodel, Paris Hotel, Texas Casino Parking Garage Expansion Las Vegas, Nevada

**Instructor, Faculty of Engineering, Cairo, June 1990- May 1994.**

Organized and taught Reinforced and Prestressed Concrete design courses, administrated daily lectures and exams. Also, was involved in an experimental field investigation of reinforced concrete and prestressed concrete bridges. Participated in design, construction, and examination for a wide variety of repair and rehabilitation projects. Investigated a number of sites affected by the October earthquake of 1992 including schools, public facilities and residential and provided repair schemes for the damaged elements. Inspected and organized evaluation reports for schools in different parts of Egypt for the General Administration for Educational Buildings.

**Senior Engineer, NASR & Associates Inc., June 1990- June 1994.**

Designed a variety of structure types such as commercial buildings, hotels and industrial buildings. Designed ABB electrical station. Participated in the construction management of new and existing buildings. Performed peer review of structural designs, structural failure investigations and seismic performance evaluations. Design of Conrad Hotel in Cairo which consists of 27 stories and shopping mall.

Supervised the construction of the new annex of The German Archeological Institute, Cairo, Egypt and the addition of the new German exhibition hall in Nasr City, Cairo.

**Design Engineer, Consultant Office for Planning & Architecture (COPA),**

**June 1985- April 1990.** Designed and built a wide variety of buildings including schools, factories, high-rise buildings. Designed several residential compounds in 15<sup>th</sup> of May City. Performing the master plan of community No. 32 in 15<sup>th</sup> of May City. Planning the master plan of greater Cairo such as New Cairo and El-Tagmoh El-Khames. Design the Central Bank of Egypt building in Gomhoriya street and the administration building for El-Azher University.

## **Achievements**

- Winner of the Ahmed-Moharam Prize 2005.
- Member of the Egyptian Code for Concrete Structures for Design Aids. Modified portions of the current concrete building code for the purpose of minimizing cost and optimizing performance.
- Nominated among the top 10 graduate students in Auburn University.
- Selected as the president of the ESA Student Chapter at Auburn University.

**Books** : The co-author of “Design of Reinforced Concrete Structures” Volume One  
“Design of Reinforced Concrete Structures” Volume Two

**Membership** American Society of Civil Engineers (ASCE).  
**in** American Concrete Institute (ACI).  
**Professional** Prestressed Concrete Institute (PCI).  
**Associations** Post-Tensioning Concrete Institute.  
Egyptian Engineering Syndicate  
Egyptian Society of Engineers

## **Projects with the RSCCE**

- Radiation building in the National Institute of Standards
- Wholesale market building in 6th of October city
- Safety building in the National Institute of Standards
- Mass and Acoustics building in the National Institute of Standards.
- Main building in the National Institute of Standards