

Ahmed Hamed El-Sayed SALAMA

195, Sakr Kourish Buildings, New Maadi, Cairo, EGYPT.



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Date of Birth: 10, Feb, 1976.



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<https://www.researchgate.net/profile/Ahmed-Salama-14/research>



<https://scholar.google.com/citations?user=77kzc2sAAAAJ&hl=en>



<https://www.scopus.com/authid/detail.uri?authorId=57279412000>



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https://www.youtube.com/channel/UCogDq_VrOGUwrSFpFoLTWBw



EDUCATION

B.Sc. Al-Azhar University, Faculty of Engineering, Civil Eng. Department, Nasr City, Cairo, EGYPT.	1998
Toefl Local "667/700"	2000
Group Training Course on Seismology and Earthquake Engineering International Institute of Seismology and Earthquake Engineering Building Research Institute, Tsukuba, Japan.	2003
Post Graduate Diploma in English	2003
Diploma: "Study on FRP Reinforcing RC Beams with Opening" International Institute of Seismology and Earthquake Engineering Building Research Institute, Tsukuba, Japan.	
M.Sc. in English	2005
Thesis: "Effect of Opening in Reinforced Concrete Beams"	
Al-Azhar University, Faculty of Engineering, Civil Eng. Dept Nasr City, Cairo, EGYPT.	
Ph.D. in English	2014
Thesis: "Nano Modification of Cement"	
Al-Azhar University, Faculty of Engineering, Civil Eng. Dept Nasr City, Cairo, EGYPT.	

LANGUAGES

- Arabic – native language,
- English – speak fluently and read/write with high proficiency.

TEACHING EXPERIENCE

**Al-Azhar University, Faculty of Engineering, Civil Eng. Dept,
Nasr City, Cairo, EGYPT.**

Demonstrator.

"Design of Reinforced Concrete Structures"

"Properties and Strength of Materials"

"Reinforced Concrete Structures Projects"

"Properties and Strength of Materials Projects"

1998 - 2005

Lecturer Assistant (Azhar University).

"Design of Reinforced Concrete Structures"

"Properties and Strength of Materials"

"Reinforced Concrete Structures Projects"

"Properties and Strength of Materials Projects"

2005 – 2014

Lecturer (Azhar University).

"Design of Reinforced Concrete Structures"

"Properties and Strength of Materials"

"Reinforced Concrete Structures Projects"

"Properties and Strength of Materials Projects"

2014 – 2016

TEACHING EXPERIENCE

**Yarmouk University, Hijjawi for Engineering Technology, Civil Eng. Dept,
Irbid, JORDAN.**

Assistant Professor.

Civil Engineering Courses

- "Statics"**
- "Engineering Mechanics"**
- "Theory of Structures I"**
- "Geotechnical Engineering"**
- "Geotechnical Engineering Laboratories"**
- "Theory of Structures II"**
- "Design of Reinforced Concrete Structures I"**
- "Modern Building Materials"**
- "Design of Reinforced Concrete Structures II"**
- "Prestressed Concrete Design"**
- "Reinforced Concrete Structures Projects"**
- "Modern Building Materials Projects"**
- "Design and installation of electrical building systems"**

Architectural Engineering Courses

- "Structural Mechanics"**
- "Introduction to Structural Design"**

Industrial & Electrical Power Engineering Courses

- "Engineering Mechanics"**

2016 – 2023

TEACHING EXPERIENCE

**Ajloun National University, Civil Engineering Department,
Irbid Ajloun Road, JORDAN.**

Assistant Professor.

Civil Engineering Courses

- "An Introduction to Engineering"**
- "Strength of Materials"**
- "Reinforced Concrete (1)"**
- "Steel Structure (1)"**
- "Reinforced Concrete (2)"**

2023 – Till Now

TEACHNICAL SKILLS

Microsoft 365:

Word, Excel, PowerPoint, Microsoft Defender, OneDrive, Outlook, Teams, Calendar, Zoom.

Adobe:

Adobe Acrobat Reader.

AUTODESK:

AutoCAD 2D, AutoCAD 3D.

CSi:

SAP2000, ETABS, SAFE.

Bentley:

STAAD.

PARTICIPATIONS & WORKSHOPS

Structural Engineers World Congress "SEWC", October 9-12, Yokohama, JAPAN.	2002
The Second International Workshop on Structural Composites for Infrastructure Applications, December 17-18, Cairo, EGYPT.	2003
The Eighth International Engineering conference of Al-Azhar University "AEIC", December 24-27, Cairo, EGYPT.	2004
National Cairo Science and Engineering Fair (Jury), December 22-24, Cairo, EGYPT.	2015
8th International Conference on Advances in Civil, Structural and Mechanical Engineering – CSM, Birmingham City, UK.	2019
ACI Concrete Conference on Materials & Design, November 17-18, Amman, JORDAN.	2019
The 3rd International Webinar Conference on Civil, Materials, Environmental Engineering, and Nanotechnology, ICCME 2021, 4th-5th April, Kuala Lumpur, MALAYSIA.	2021
The 1st Erasmus + International Staff Week, Faculty of Economics, University of Gdansk, 12th-16th June, Sopot-Gdansk, POLAND.	2023

ABSTRACTS

Diploma:

In the modern buildings, openings in beams are necessary for ducts and pipe services. Many researchers have done numerous experimental and analytical studies for RC beams with openings which reinforced by steel bars to achieve the perfect solution of these beams. Now days, a new material is needed to be instead of steel bars to fix the steel problems (corrosion, durability.....). But, before using CFRP (as steel replacing material), the CFRP behavior must be checked and compared with the steel. The objective of this study is to compare between CFRP and steel reinforcement bars behavior in beams with circular opening.

M.Sc:

In modern building construction, ducts and pipes are accommodated in the space above the false ceiling. Passing ducts and pipes through openings in the floor beams eliminates a significant amount of a dead space and results in a more compact and economical services. Provision of openings through a simple beam, however, changes its simple mode of behavior to a more complex one. Therefore, the design of simple beams needs a special treatment, which currently falls beyond the scope of the major building codes. The objective of this thesis is to study the behavior of reinforced concrete beams that contain transverse rectangular openings through it under flexure and shear.

Ph.D:

Cement is one of the most durable construction material used today because of its ability to resist weathering, chemical attack, abrasion, and other forms of deterioration.

Nano-particle is a new technique in developing materials which gained popularity and being applied in many fields. The use of nano-particles can improve the function and properties of many types of materials. Application of nano-materials with Portland cement and concrete can lead to improvements in civil infrastructure.

The objective of this thesis is to improve the properties of cement paste and mortar by using nano-materials as a partial replacement of ordinary Portland cement.

RESEARCH INTERESTS AND PATENTS

Using Waste Materials As Additives Or Replacements.

Using Commercial Furfural As A Green Corrosion Inhibitor For Structural

Reinforced Concrete Elements Mixed and Cured With Seawater Or Grey Water

Study the relation between percentage of added furfural and amount of sea water or grey water in concrete mixing and curing on the corrosion of reinforcing steel as well as on concrete strengths in reinforced concrete structures to recycle the waste, save Jordan's fresh water, and extend the life of steel reinforced structures.

Current Researches

Bullet-Proof Concrete

A composite concrete mix design use to absorb the AK-47 bullets impact with an estimated projectile's speed of 715 m/s and energy of 2019 J without penetration, ricocheting, or returning even for a very narrow firing angle.

Cement mix with liquid Zibar replacement insted of water

Investigate the potential effect of replacing the mixing water with liquid Zibar (black or reddish black liquid with strong offensive smell, produced during the process of olive oil production and can be described as a stable emulsion constituted by vegetation waters (water contained in olive fruit) to get rid of the toxic Zibar material and save Jordan's fresh water.

Non-Explosive demolition grout

Get rid of unwanted concrete without blasting, jackhammer, hydraulic breaker or other heavy equipment by only three steps: drill mix and pour.

New Researches

Non salting or putrefaction walls mortar

A cement mortar that can protect walls from salting and putrefaction.

Self-Curing Concrete

Water self-cure concrete mix without external curing.

Patent with YU

Cement mix with liquid Zibar replacement insted of water

Investigate the potential effect of replacing the mixing water with liquid Zibar (black or reddish black liquid with strong offensive smell, produced during the process of olive oil production and can be described as a stable emulsion constituted by vegetation waters (water contained in olive fruit) to get rid of the toxic Zibar material and save Jordan's fresh water.

Using Commercial Furfural As A Green Corrosion Inhibitor For Structural

Reinforced Concrete Elements Mixed and Cured With Seawater Or Grey Water

Study the relation between percentage of added furfural and amount of sea water or grey water in concrete mixing and curing on the corrosion of reinforcing steel as well as on concrete strengths in reinforced concrete structures to recycle the waste, save Jordan's fresh water, and extend the life of steel reinforced structures.

New Patents

Bullet-Proof Concrete

A composite concrete mix design use to absorb the AK-47 bullets impact with an estimated projectile's speed of 715 m/s and energy of 2019 J without penetration, ricocheting, or returning even for a very narrow firing angle.

Non-Explosive demolition grout

Get rid of unwanted concrete without blasting, jackhammer, hydraulic breaker or other heavy equipment by only three steps: drill mix and pour.

Walls against salting and putrefaction

A cement mortar that can protect walls from salting and putrefaction.

Self-Curing Concrete

Water self-cure concrete mix without external curing.

PUBLICATIONS

A.H.E.Salama. "STUDY ON FRP REINFORCING RC BEAMS WITH OPENING". International institute of seismology and earthquake engineering (ISSN 0074-6606), Vol. 39, 2003; 169-176.

S.A.El-Kholy, M.Y.Hassaan, M.T.Nooman, M.M.Sadawy and A.H.E.Salama. "EFFECT OF NANO-TiO₂ INCLUSION ON SOME PROPERTIES OF CEMENT PASTE AND MORTAR". Engineering research journal (ISSN 1110-5615), Vol. 139, 2013; C95-C105.

S.A.El-Kholy, M.Y.Hassaan, M.T.Nooman and A.H.E.Salama. "EFFECT OF NANO-SiO₂ INCLUSION ON SOME PROPERTIES OF CEMENT PASTE AND MORTAR". Civil engineering research magazine, Vol. 36, No. 3, 2014; 92-102.

Ahmed H. E. Salama, Mohammed A. A. El Awady, Hanafy M. K. Hanafy, Ahmed asran and Mohammed A. Soliman. "Using RHA to Improve Concrete Mix for Thin Elements". Civil engineering research magazine, Vol. 38, No. 3, 2016; 328-335.

Mohammed A. Soliman, Ahmed H. E. Salama, Mohammed A. A. El Awady, Hanafy M. K. Hanafy and Ahmed Asran. "Effect of RHA and Grading Coarse Aggregate on The Concrete Properties". Civil engineering research magazine, Vol. 38, No. 4, 2016; 248-253.

Ahmed H. E. Salama, Mohammed A. A. El Awady, Hanafy M. K. Hanafy, Ahmed Asran and Mohammed A. Soliman. "EFFECT OF RHA AND GRADING COARSE AGGREGATE ON THE CONCRETE STRENGTH". Civil engineering research magazine, Vol. 39, No. 1, 2017; 38-44.

Alaa-aldien Alsaied Farid, Ahmed Hamed El-Sayed SALAMA and Rania Said Sayd Mourad. "GREEN NANO ARCHITECTURE: A NEW PROSPECTS AND FUTURE VISIONS". Journal of Al-Azhar University Engineering Sector, Vol. 14, No. 51, April, 2019; 751-763.

Alaa-aldien Alsaied Farid, Ahmed Hamed El-Sayed SALAMA and Rania Said Sayd Mourad. "INTEGRATING OF NANO ARCHITECTURE AND SUSTAINABILITY TOWARDS A BETTER BUILT ENVIRONMENT". Journal of Al-Azhar University Engineering Sector, Vol. 14, No. 51, April, 2019; 801-816.

Ahmed Hamed El-Sayed SALAMA. "Effect of Eggshell Powder Solution on Some Properties of Cement Mortar". 8th International Conference on Advances in Civil, Structural and Mechanical Engineering – CSM (ISBN: 978-1-63248-170-2, DOI: 10.15224/978-1-63248-170-2-06), April, 2019; 27-30.

Walid. Fouad Edris, Safwat. Abdelkader, A. H. E. Salama, Abd Al-Kader A. Al Sayed. "Concrete Behaviour with Volcanic Tuff Inclusion". Civil Engineering and Architecture, Vol. 9, No. 5, July, 2021; 1434-1441.

Ahmed Hamed El-Sayed Salama, Walid Fouad Edris. "Performance of Carbon Fiber Filament Reinforcing Cement Mortar". Civil Engineering Journal, Vol. 7, No. 10, October, 2021; 1693-1701.

Abdallah M.J., Al Tamimi W. R., SALAMA A. H. E., Alameer, S. M. "Performance, Measurements, and Potential Radiological Risks of Natural Radioactivity in Cements Used in Jordan". Jordan Journal of Civil Engineering, Vol. 16, No. 1, January, 2022; 94-107.

Ali Shehadeh, Odey Alshboul, Omer Tatari, Mohammad A. Alzubaidi, Ahmed Hamed El-Sayed Salama. "Selection of heavy machinery for earthwork activities: A multi-objective optimization approach using a genetic algorithm". Alexandria Engineering Journal, 2022.

Ahmed H. E. Salama. "Effect of Grinded Oil Shale Inclusion on Some Properties of Concrete Mixtures". AIP Conference Proceedings, (DOI: 10.1063/5.0074988), january, 2022; 030013 (1-6).

WORKING EXPERIENCE

FIELD ENGINEER:

- EL-SAYEDA AICHA PRIMARY SCHOOL _ EL-SAYEDA AICHA STREET_ (1994)
- EL-SALAM CITY FILTRATION WATER STATION _ EL-SALAM CITY_ (1996)
- MARDINI FACTORY _ 10th OF RAMADAN CITY _ (1997)
- BEM BEM (CADBORY) FACTORY _ 10th OF RAMADAN CITY _ (1997)
- MANY VILLAS _ 6th OF OCTOBER CITY _ (1997 - 1999)

DESIGN ENGINEER:

- MANY VILLAS _ 6th OF OCTOBER CITY
- MANY TANKS AND SWIMMING POOLS
- MARDINI FACTORY _ 10th OF RAMADAN CITY
- BEM BEM (CADBORY) FACTORY _ 10th OF RAMADAN CITY
- MANY VILLAS _ FIFTH SETTLEMENT
- MANY FARMERS GATES AND FENCES

CONSULTANT ENGINEER:

- COMPLETING THE CONSTRUCTION OF MARDINI FACTORY _ (1998)
 - CONSTRUCTION OF FRAMES AND HANGERS AT MILITARY AREAS _ ASUIT CITY _ (1999)
 - CONSTRUCTION OF BUILDINGS AT A MILITARY ISLAND _ (2000)
 - CONSTRUCTION OF MASHIAKHAT EL-AZHAR _ SALAH SALEM ROAD _ (2000 - 2005)
 - CONSTRUCTION OF MANY VILLAS AT THE FIRST AND FIFTH SETTLEMENTS (2000 - 2006)
 - CONSTRUCTION OF MANY TANKS AND SWIMMING POOLS (2000 - 2006)
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